Form 8—Application for Permit to Appropriate Water—Original

No. 14673

Water Division No. 3 MINNESOTA RIVER District
(Blanks to be Filed by the Engineer for the W. R. C.)

VESTED RIGHT

DEC 11 1967
STATE WATER RESOURCES COMMISSION

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 name

(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 LAKE ALICE - Deuel County

3. Amount of water claimed As required to fill lake to outlet level - approximately 3900 acre feet per year cubic feet per second

4. Source of water supply dry draw

5. Location of point of diversion Two points located in the watershed in the NE¼NE¼, Sec. 1 T 116, R 49, & SW¼SE¼ Sec. 1, T 116 on R 49 bank Deuel County.

6. Annual period or periods during which water is to be used continuously

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 portion of Sec. 1, 6, 7, 8, T 116, R 48

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

(a) Nature of use public recreational purpose
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. Lake Alice is a meandered lake. Maximum depth is approximately 11 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 .....5720.0.....acre feet. Surface area at highwater mark.....1300.....acres.

DEPTH AT OUTLET-FEET	SURFACE AREA AT EACH.....FEET DEPTH AT OUTLET—ACRES	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.

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 .....Hughes..... } ss.

I, ..., 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 R O Hodgins

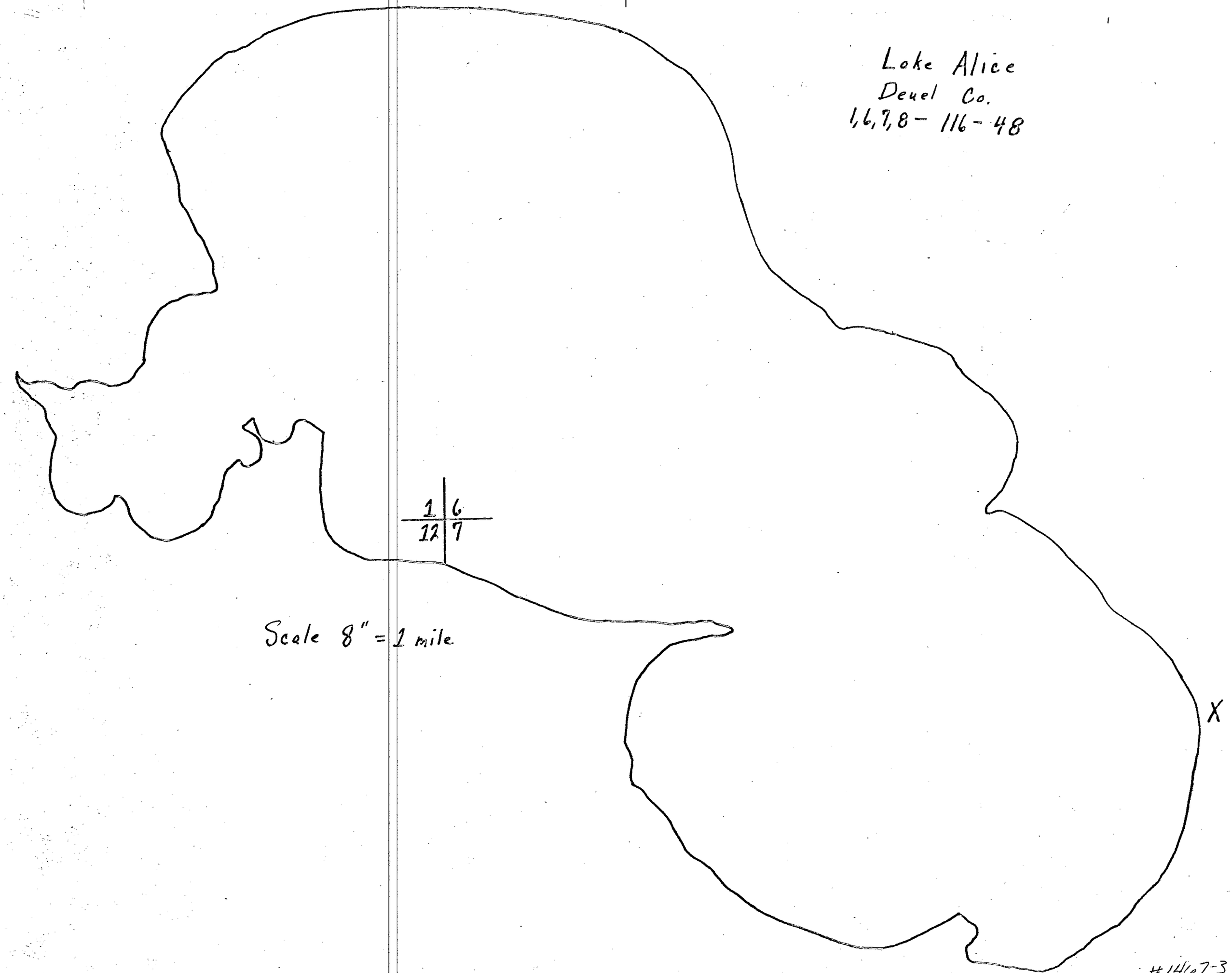
Subscribed and sworn to before me this .....8th..... day of December..... 1967

H E Bowers
Notary Public (or other qualified officer.)

*Each diversion must have a headgate or measuring device.

H. E. Bowers, Notary Public

Lake Alice
Deuel Co.
1,6,7,8 - 116 - 48



Scale 8" = 1 mile

#1467-3

John Popowski
Feb. 2, 1959

Remarks by State Water Resources Commission:

"VESTED RIGHT" CLAIMED

STATE OF SOUTH DAKOTA
County of HUGHES } ss.

Pierre, South Dakota, FEBRUARY 7, 1968

This is to certify that the foregoing application was received by the Commission at 9:30 o'clock a. m. upon the 11TH day of DECEMBER, 1967

State Water Resources Commission

By: [signature]
for Chief Engineer, Executive Officer

Number of permit 1467-3

Date of first receipt of application DECEMBER 11, 1967

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 JANUARY 10, 1968 Recorded in Book 10 Page 73

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~~ ----------, ~~19~~

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 3900 AC 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 purposes of irrigation in the opinion of the best hydrologists 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~~ WAS actually USED FOR PUBLIC RECREATION 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 7TH day of FEBRUARY, 1968

State Water Resources Commission

By: [signature]
Chief Engineer, Executive Officer

Certificate of Construction issued FEBRUARY 7, 1968

Water License issued FEBRUARY 7, 1968

Form No. 20.

Permit No. 1467-3

Water Division No. 3 Minnesota 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, the holder Vested Right of/Permit No. 1467-3, issued upon Application No. 1467-3, bearing date of priority of 1889, authorizing the diversion of 3900 acre feet annually ~~cubic feet per second~~ of the waters of dry draws

County of Deuel, State of South Dakota, at points in the NE¼ NE¼ and SW¼ SE¼, Section 1, Township 116N, Range 49W

, for public recreation

purposes, has 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 ~~found in~~ recognized as satisfactory ~~conditions~~ for diverting and conveying to the place of intended use 3900 acre feet annually ~~cubic feet per second~~ of water; and that the ~~lands proposed to be irrigated by the~~ use of said water are described as follows, to-wit: ~~irrigation~~ to be used in place for public recreation

Witness my hand this 7th day of February A. D. 19 68

State Water Resources Commission

By:

J. J. GRIMES
Chief Engineer, Executive Officer

Form No. 26.

STATE OF SOUTH DAKOTA

WATER LICENSE No. 1467-3

WHEREAS, On the 11th day of December A. D. 19 67 the Department of Game, Fish and Parks

of Pierre County of Hughes and State of South Dakota duly made application (No. 1467-3) to us for a Vested Right permit to use 3900 acre feet annually ~~cubic feet per second~~ of the waters of dry draws

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

WHEREAS, On the 7th day of February A. D. 19 68 Vested Right Permit No. 1467-3 was issued to said applicant for the diversion of said water, recognizing as ~~and providing~~ for the completion of the works of diversion therein described ~~on or before the~~ ~~day of~~ ~~A. D. 19~~ and ~~for~~ the application to beneficial use of said water ~~on or before the~~ ~~day of~~ ~~A. D. 19~~ and,

WHEREAS, On the 11th day of December A. D. 19 67 the holder of said permit duly made proof of the completion of adequate works for the diversion of 3900 acre feet annually ~~cubic feet per second~~ of said waters, as evidenced by our Certificate No. 1467-3 dated February 7, 1968 confirming the completion of works of sufficient capacity for diverting and conveying to the place of intended use 3900 acre feet annually ~~cubic feet per second~~ of water, with date of priority of 1889 ~~and~~ and,

WHEREAS, On the 11th day of December A. D. 19 67 proof was duly made of the application to beneficial use of 3900 acre feet annually ~~cubic feet per second~~ of said water; to be used in place for public recreation purposes

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 Vested Right

of Pierre the holder and owner of said permit No. 1467-3

a water right, dating from 1889 to the use of 2900 acre feet annually

~~xxxxxxxxxxxxxxxx~~ of the waters of dry draws

in the County of Deuel and State of South Dakota, or so much thereof as may be

necessray for the purposes hereinbelow mentioned, to be diverted at a point in the NE¼ NE¼ and SW¼ SE¼,

Section 1, Township 116N, Range 49W

and ~~conducted and upon~~ stored in place

for the purpose of public recreation, subject to any limitations listed in the Permit

to Appropriate Water, and

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 7th day of February A. D. Nineteen

Hundred and Sixty-Eight.

State Water Resources Commission

By:

J.W.GRIMES
Chief Engineer, Executive Officer

FORM NO. 24.

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. Dry draw - two points in the watershed located in the NE¼NE¼ and SW¼SE¼ of Sec. 1, T. 116, R 49

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 11 feet - 1300 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 irriated 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 3900 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) R A Hodgins

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 8th day of December A. D. 1967

Witnesses.

H. E. Bowers, Notary Public
My Commission Expires
May 25, 1970

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.

1467-3

SOUTH DAKOTA
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.

CELEBRATE THE CENTURY
1889-1989

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,

Delwin D. Bragg

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

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

Lake Alice - Deuel County
Outlet Elevation Report
March 14, 1994

INTRODUCTION

On February 23, 1994, the Division of Water Rights received a petition from the Deuel County Lakes and Streams Association, John M. Corothers, President, which requested the Water Management Board to establish the outlet elevation for Lake Alice, in Deuel County, not to exceed twelve inches below the ordinary high water mark (OHWM) of 1691.8 feet above mean sea level (fmsl). The Ordinary High Water Mark (OHWM) and Ordinary Low Water Mark (OLWM) for Lake Alice were established at elevation 1691.8 and 1687.2 fmsl, respectively, by the Water Management Board on May 6, 1992. The Board did not establish an outlet elevation at the May 6, 1992 hearing.

Lake Alice is located in the E 1/2, E 1/2 SW 1/4 Section 1, T116N, R49W; SW 1/4 SW 1/4 Section 5, Section 6, N 1/2, N 1/2 SE 1/4 Section 7, W 1/2 NW 1/4, NW 1/4 SW 1/4 Section 8; all in T116N, R48W. The natural outlet is located in the SE 1/4 SW 1/4 Section 36, T117N, R49W. Lake Alice is approximately 2 miles north and 3 miles east of Altamont, Deuel County, South Dakota.

This report is based on the results of the field investigations and subsequent report for the OHWM and OLWM for Lake Alice, Deuel County.

WATER RIGHTS

Vested Water Right Claim No. 1467-3 held by the South Dakota Game Fish and Parks is the only existing claim on file for water in Lake Alice (Division Files, 1994). However, domestic uses (i.e. livestock watering, dams, dugouts, etc.) are present within the Lake Alice drainage basin.

Vested Right Claim No. 1467-3 claims an 1889 priority date, and approximately 3,900 acre feet of water per year to fill Lake Alice to the outlet level for public recreational purposes. the location of the points of diversion are as follows: NE 1/4 NE 1/4 and the SW 1/4 SE 1/4 Section 1, T116N, R49W.

A correction to Vested Right Claim No. 1467-3 will need to made, stating that the amount of water claimed shall be "sufficient to fill Lake Alice annually to the established outlet elevation."

EXISTING OUTLET

The existing outlet for Lake Alice, at elevation 1689.4 fmsl, is located in the SE 1/4 SW 1/4 SE 1/4 SW 1/4 Section 36, T117N, R49W. A field investigation conducted in the summer and fall of 1991 to determine an OHWM and OLWM for Lake Alice, revealed that the outlet

had not functioned in recent years. Due to the amount of precipitation and resulting runoff in 1993 and so far in 1994, the natural outlet has operated.

The existing outlet channel is several hundred feet long characterized by a length of road ditch to a culvert invert of 1689.09. The culvert invert downstream is 1688.39 and discharges into a wetland area prior to the outlet into Conner's Slough. Brush, trees, reeds and grasses grew in the area from the lake shore to the road ditch during the time of the OHWM and OLWM investigation, since then, construction has cleared this area of debris and vegetation. The road ditch was also cleared and graded filling the wetland area on the south side of the road.

A subsequent field investigation of the outlet channel was conducted in the spring of 1992. This investigation was done after the construction in the area between the lake and road (see figure A). It was found that water from Lake Alice would meander along a low, fairly flat channel to the culvert invert in the road ditch. The water would then follow the same course as described above.

In order for water from Lake Alice to reach the outlet, an elevation of 1692.6 at the north end of the lake must be reached (see figure A). Ice action at the north end of the lake has pushed a ridge of materials up the shore making it possible for the lake elevation to be higher than the existing outlet elevation.

MAN-MADE INFLUENCES

Natural factors are given precedence in determining the OHWM. Man made influences, either those that have been constructed to lower the mark or those constructed to raise the mark, shall be disregarded unless the influences have been lawfully constructed or have existed and been accepted for a period of time determined by the Water Management Board to be the equivalent of natural conditions (SDCL 43-17-23).

The full impact of the construction at the outlet approach channel is hard to estimate. No surveys of this area were conducted prior to construction. It may be assumed that by removing vegetation and debris, water flows more freely to the culverts. However it is not known at what elevation, prior to the construction, the lake level had to reach before flow could make its way to the channel.

In addition to natural conditions and the recent human activity, other man made influences have effected the landscape at the north end of Lake Alice. Riparian landowners reported that at one time the north end of the lake was a wetland. A road grade was built in 1966 with a culvert, bisecting the slough between the lake and outlet. It was also reported that sand was mined in the 1940's and 1950's at the north shore of Lake Alice.

ORDINARY HIGH WATER MARKS INFLUENCED BY OUTLET ELEVATIONS

The outlet elevation and the OHWM are usually related in a lake that overflows at frequent intervals. On a majority of the previous OHWM investigations the Water Management Board has set the OHWM about 0.5 feet above the outlet (WRD OHWM Studies, 1994). The additional 0.5 feet accounts for wave action which affects the shoreline as water flows through the outlet.

On 17 of the 34 lakes in South Dakota with an established OHWM, the outlet is 0.5 feet below the OHWM. Four lakes have outlets less than 0.5 feet below the OHWM and eight lakes have outlets between 0.5 and 1.0 feet below the OHWM. Two notable exceptions to this are Waubay Lakes (Day Co.) and Red Lake (Brule Co.) where the outlet elevations are considerably above the OHWM (WRD OHWM Studies, 1994). See Table No. 1.

OUTLET PARAMETERS

The present topographic characteristics at the north shore of Lake Alice allow water levels to reach above the OHWM before spilling. This situation is causing shoreline erosion and property damage. These conditions are what prompted the request for the outlet elevation determination.

In order to maintain the OHWM elevation around Lake Alice at 1691.8 fmsl, during those times when the lake is full and spilling, an outlet elevation of 1691.3 fmsl should be established. This elevation would seem reasonable after comparing outlet elevations on other lakes with OHWM's.

A logical location for the new outlet would be at the north shore of the lake. Placing an overflow at elevation 1691.3 fmsl near the lake shore and using the present course to Conner's Slough utilizes a naturalized drainage. The channel between the lake and road should be protected from erosion and well maintained.

CONCLUSIONS

The OHWM for Lake Alice, 1691.8 fmsl, was established by the Water Management Board at the May 6, 1992 meeting.

The present outlet elevation of 1689.4 fmsl does not reflect the necessary water level required to establish an OHWM at 1691.8. The water level at Lake Alice would have had to been maintained at approximately 1691.3 fmsl for a sufficient amount of time to establish the OHWM at 1691.8 fmsl.

Man made influences have affected the elevation at which water levels at Lake Alice must rise in order to make its way to the present outlet.

The outlet elevation for Lake Alice should be set at 1691.3 fmsl.

Lynn Beck

Lynn Beck
Natural Resources Engineer III
DENR, Water Rights Division

Approved by:

Gale N Selken

Gale N. Selken, P.E.
Natural Resources Engineer IV
DENR, Water Rights Division

REFERENCES:

Beck, L., 1992, Lake Alice - Deuel County Ordinary High Water Mark, Ordinary Low Water Mark, and Outlet Elevation Investigation, DENR, Water Rights Division, Joe Foss Bldg., Pierre, SD 57501.

Division Files, 1994, Department of Environment and Natural Resources, Water Rights Division, Joe Foss Bldg., Pierre, SD 57501.

Water Rights Division, 1994, Ordinary High Water Mark Studies, Joe Foss Bldg., Pierre, SD 57501.

RECOMMENDATION OF THE CHIEF ENGINEER

Based upon the evidence presented in this report, the Chief Engineer is recommending the following concerning the establishment of the Outlet Elevation for Lake Alice, Deuel County:

1) That the outlet elevation for Lake Alice, Deuel County be established at 1691.3 fmsl.

John Hatch

John Hatch, P.E. Chief Engineer
DENR, Water Rights Division

Table No. 1

LAKES WITH OHWM'S AND OUTLET ELEVATIONS SET				
COUNTY	**LAKE**	**OHWM**	**OUTLET ELEV.**	**DIFF. IN OHWM AND OUTLET ELEV.**
Aurora	Fish Lake	1425.60	1425.10	0.5
Aurora	Platte Lake	1550.10	1550.10	0.0
Brookings	Campbell Lake	1575.70	1575.20	0.5
Brookings	Oak Lake	1802.31	1801.80	0.51
Brookings	Oakwood Lake	1626.90	1626.40	0.5
Brule	Red Lake	1556.00	1575.00	-19.0
Clark	Mud Lake	1767.70	1767.20	0.5
Clark	Willow Lake	1767.70	1767.20	0.5
Codington	Kempeska	1718.30	1717.80	0.5
Codington	Pelican Lake	1710.20	1709.70	0.5
Codington	Punished Woman's Lake	1845.70	1844.20	0.5
Day	Pickerel Lake	1845.60	1844.90	0.7
Day	Waubay Lake	1788.00	1797.10	-9.1
Deuel	Clear Lake	1774.00	1773.50	0.5
Deuel	Fish Lake	1751.40	1750.80	0.6
Deuel	Lake Cochrane	1684.30	1683.60	0.7
Deuel	Lake Oliver	1684.30	1683.60	0.7
Hamlin	Lake Poinsett	1651.50	1650.50	1.0
Hutchinson	Sinver Lake	1435.70	1435.30	0.4
Lake	Brant Lake	1598.30	1597.80	0.5
Lake	Herman	1669.00	1668.40	0.6
Lake	Madison	1603.70	1603.20	0.5
Marshall	Buffalo Lake	1835.20	1834.80	0.4
Marshall	Clear Lake	1823.70	1823.00	0.7
Marshall	Nine Mile Lake	1825.50	1824.90	0.6
Marshall	Roy Lake	1795.70	1795.20	0.5
Minnehaha	Wall Lake	1559.50	1559.00	0.5

Table No. 1 Cont'd

LAKES WITH OHWM'S AND OUTLET ELEVATIONS SET				
COUNTY	**LAKE**	**OHWM**	**OUTLET ELEV.**	**DIFF. IN OHWM AND OUTLET ELEV.**
Sully	Cottonwood Lake	1804.00	1804.00	0.0
Turner	Swan Lake	1252.90	1252.40	0.5
Union	McCook Lake	1090.70	1090.30	0.5
Walworth	Swan Lake	1853.80	1853.30	0.5

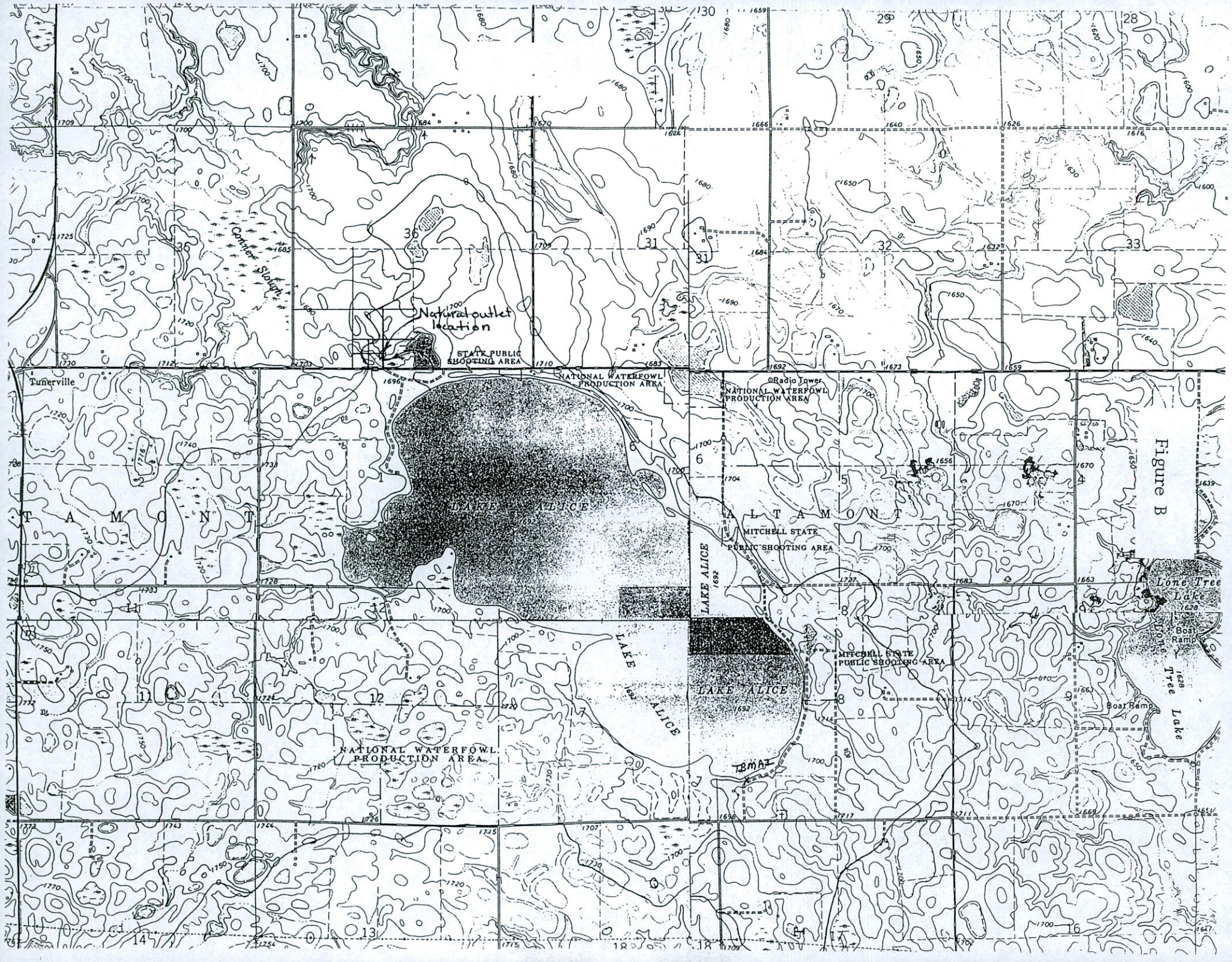

Natural outlet location
STATE PUBLIC SHOOTING AREA
NATIONAL WATERFOWL PRODUCTION AREA
Radio Tower
NATIONAL WATERFOWL PRODUCTION AREA
Tunerville
T A M O N T
LAKE ALICE
A L T A M O N T
MITCHELL STATE PUBLIC SHOOTING AREA
LAKE ALICE
LAKE ALICE
MITCHELL STATE PUBLIC SHOOTING AREA
LAKE ALICE
Lone Tree Lake
Boat Ramp
Boat Ramp
Lone Tree Lake
NATIONAL WATERFOWL PRODUCTION AREA
TBMA7
Figure B

Figure A

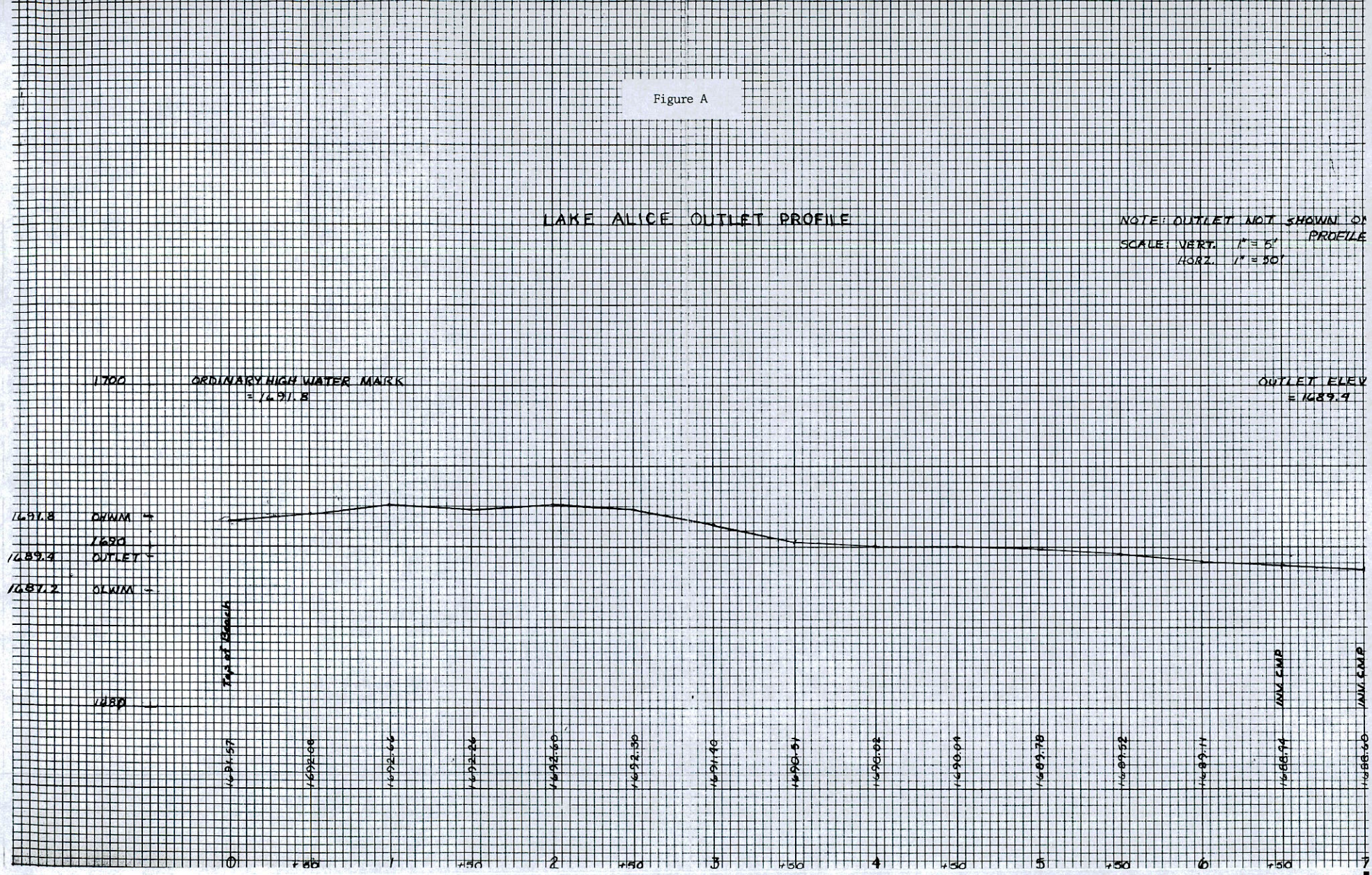
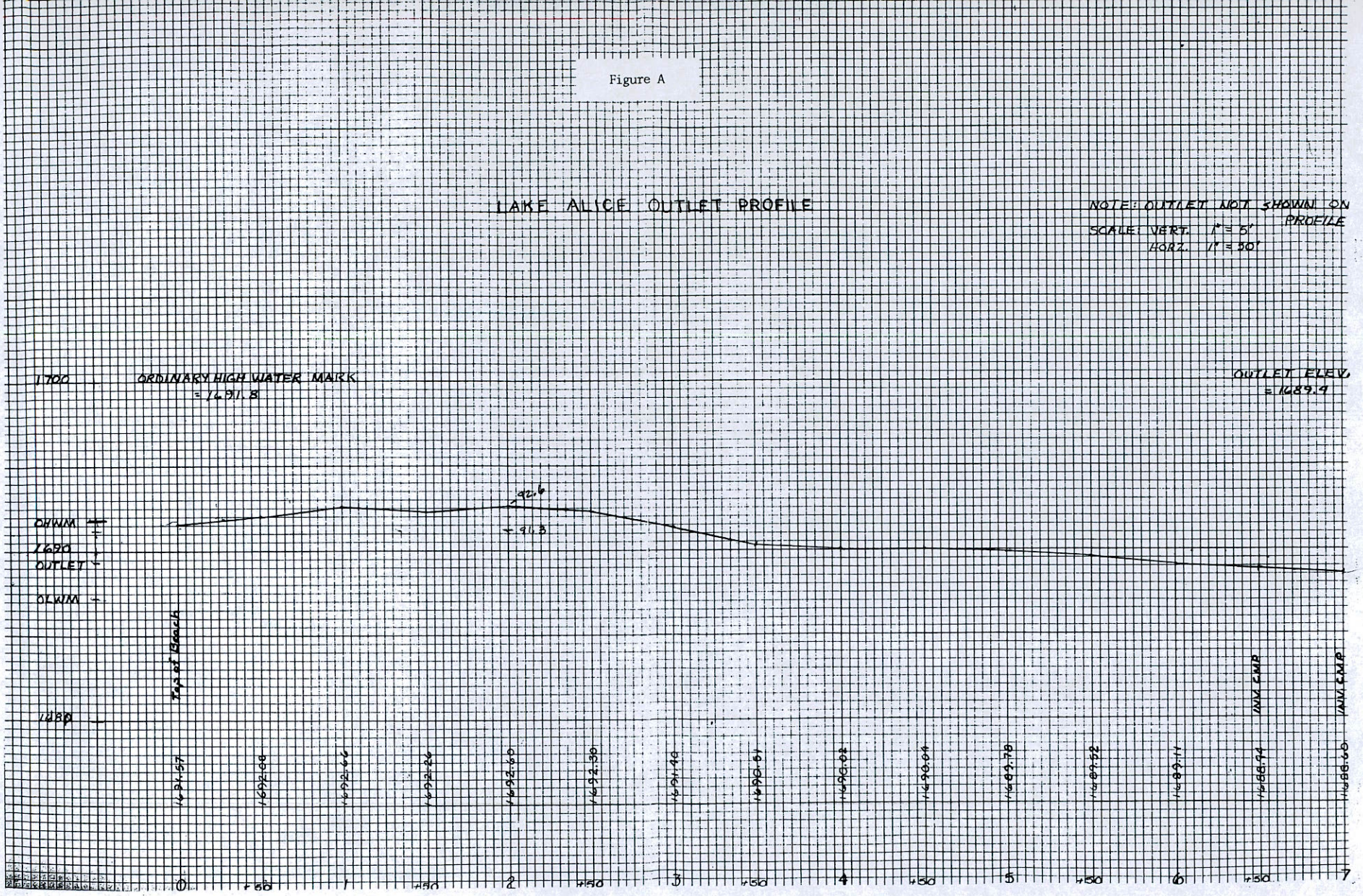

LAKE ALICE OUTLET PROFILE
NOTE: OUTLET NOT SHOWN ON PROFILE
SCALE: VERT. 1" = 5'
HORZ. 1" = 50'
1700
ORDINARY HIGH WATER MARK = 1691.8
OUTLET ELEV = 1689.4
1691.8 OHWM
1690
1689.4 OUTLET
1687.2 OLWM
1680
TOP OF TRACK
1691.57
1692.88
1692.66
1692.26
1692.60
1692.30
1691.98
1691.51
1690.92
1690.04
1689.78
1689.52
1689.14
1688.94
1688.60
INV. CMP
INV. CMP
0
+50
1
+50
2
+50
3
+50
4
+50
5
+50
6
+50
7

Figure A


LAKE ALICE OUTLET PROFILE
NOTE: OUTLET NOT SHOWN ON PROFILE
SCALE: VERT. 1" = 5'
HORZ. 1" = 50'
1700
ORDINARY HIGH WATER MARK = 1691.8
OUTLET ELEV. = 1689.4
OHWM
1690
OUTLET
OLWM
1680
92.6
91.3
Top of Beach
1691.57
1692.88
1692.66
1692.26
1692.60
1694.30
1691.48
1690.61
1690.02
1690.64
1689.78
1689.52
1689.11
1688.94
1688.65
INV. CMP
INV. CMP
0
+50
1
+50
2
+50
3
+50
4
+50
5
+50
6
+50
7

STATE OF SOUTH DAKOTA

BEFORE THE WATER MANAGEMENT BOARD

IN THE MATTER OF THE DETERMINATION OF THE OUTLET ELEVATION FOR LAKE ALICE	)))	FINDINGS OF FACT, CONCLUSIONS OF LAW AND FINAL DECISION

FINDINGS OF FACT

I

This is an application to set the outlet elevation for Lake Alice.

II

This Board previously, by a decision dated July 23, 1992, set the Ordinary High Water Mark (OHWM) for Lake Alice at 1691.8 feet mean sea level. This decision of the Board is final.

III

The Board's 1992 decision authoritatively found that "the most distinct, obvious and permanent marks at Lake Alice are a result of erosion and ice action. A majority of these indicators exist at elevation of 1691.8 feet mean sea level. . . ."

IV

The Board finds that the water level at Lake Alice would have had to have been maintained at approximately 1691.3 feet mean sea level for an extended period of time to establish the OHWM at 1691.8 feet mean sea level. Because the water level would have had to have been maintained at that level, and not higher or lower, it is logical to set the outlet elevation at that level. Further, setting the outlet elevation at 1691.3 feet

mean sea level will maintain the OHWM at 1691.8, assuming any outlet is properly located and constructed.

V

There is, at present, an outlet at 1689.4 feet mean sea level. In order for water in the north end of Lake Alice to reach the 1689.4 feet mean sea level outlet, however, an elevation of 1692.6 feet mean sea level must be reached. This is because ice action at the north end of the lake has created a ridge. Because of this peculiar situation, the existing outlet at 1689.4 feet mean sea level is irrelevant to the setting of the appropriate outlet level and also was irrelevant to the setting of the OHWM.

VI

It is further inappropriate in this case to set the outlet elevation where the existing structure exists, i.e., at 1689.4 feet mean sea level because the evidence does not indicate the origin of that outlet. In addition, if the outlet elevation had historically operated effectively at 1689.4 feet mean sea level, the OHWM would presumably have been different than that authoritatively found by the Board.

VII

The very significant precipitation of the past few years has created a situation in which there is substantially more water in Lake Alice and in the area of Lake Alice than in the previous years. Because these conditions are atypical, they

did not control the setting of the OHWM nor can they control the setting of the outlet elevation.

VIII

The staff of the Water Rights Division had previously recommended an outlet elevation at the 1689.4 feet mean sea level. This Board is, of course, not bound by any recommendation of the Water Rights Division and, in any event, the Division has now changed its recommendation to 1691.3 feet mean sea level.

IX

Game, Fish and Parks, the owner of the only recorded water right on the lake, Vested Right Claim No. 1467-3, has indicated its opinion that the setting of the outlet at 1691.3 feet mean sea level would sufficiently protect its vested water right.

CONCLUSIONS OF LAW

I

The Board has jurisdiction of this matter.

II

The ordinary outlet elevation at Lake Alice was not set at the time of the setting of the OHWM and Ordinary Low Water Mark because no party was able to demonstrate at that time that the setting of the outlet elevation was relevant to the setting of the OHWM.

III

The Board finds that, in this case, the most appropriate means to determine the OHWM is to compute the outlet

elevation which must have been maintained to establish the OHWM which it has already set and which will maintain that OHWM in the future. Because the OHWM is 1691.8 feet mean sea level and because an outlet elevation of approximately six inches below that level would have maintained the OHWM at the level previously set, and will maintain that level in the future (if properly located and constructed), it is appropriate in this case to set the outlet elevation at 1691.3 feet mean sea level.

IV

The setting of the outlet elevation of 1691.3 feet mean sea level adequately protects Vested Right Claim No. 1467-3.

V

The effect of setting an outlet elevation is, among other things, to establish the level at which an outlet might be constructed and to establish the parameters for operation of SDCL 46-5-1.1.

FINAL DECISION

The outlet elevation for Lake Alice is set at 1691.3 feet mean sea level.

Dated this 9th day of September, 1994.

BY THE BOARD:

Duane Kelly

d-wmb5.jpg

1467-3

DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

March 27, 2020

Deuel County Commission
Steve Rhody, Chairman
PO Box 616
Clear Lake, SD 57226

Dear Chairman Rhody,

This letter is in reference to the outlet of Lake Alice. I understand for the past year there has been a problem with high water and an outlet incapable of adequately handling the outflow.

In 1992, the South Dakota Water Management Board (WMB) set the Ordinary High Water Mark (OHWM) elevation for Lake Alice at 1691.8 feet mean sea level (fmsl). In 1994, the WMB set the official outlet elevation for Lake Alice at 1691.3 fmsl, attached is a copy of the Findings of Fact, Conclusions of Law, and Final Decision from that hearing. These elevations are referenced to NGVD29 datum.

If Deuel County intends to construct or modify an existing outlet for Lake Alice, the sill or bottom invert of the outlet needs to be set at elevation 1691.3 fmsl. Also, I am recommending you contact the South Dakota Department of Game, Fish and Parks the holder of Vested Water Right No. 1467-3 and coordinate any work you intend to do with them.

If the Commission wishes to pursue altering the outlet elevation for Lake Alice, this would require taking this request for a formal hearing before the WMB.

If you have any questions, please contact Mark Rath of the Water Rights Program at phone (605) 773-3352.

Sincerely,

Eric Gronlund

Eric Gronlund, Chief Engineer
Water Rights Program

Attachment

c Kelly Hepler, Secretary of the SD Dept of Game Fish and Parks
Ann Mines Bailey, Assistant Attorney General
John Knight, Deuel County State's Attorney

STATE OF SOUTH DAKOTA

BEFORE THE WATER MANAGEMENT BOARD

IN THE MATTER OF THE DETERMINATION OF THE OUTLET ELEVATION FOR LAKE ALICE	)))	FINDINGS OF FACT, CONCLUSIONS OF LAW AND FINAL DECISION

FINDINGS OF FACT

I

This is an application to set the outlet elevation for Lake Alice.

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III

The Board's 1992 decision authoritatively found that "the most distinct, obvious and permanent marks at Lake Alice are a result of erosion and ice action. A majority of these indicators exist at elevation of 1691.8 feet mean sea level. . . ."

IV

The Board finds that the water level at Lake Alice would have had to have been maintained at approximately 1691.3 feet mean sea level for an extended period of time to establish the OHWM at 1691.8 feet mean sea level. Because the water level would have had to have been maintained at that level, and not higher or lower, it is logical to set the outlet elevation at that level. Further, setting the outlet elevation at 1691.3 feet

mean sea level will maintain the OHWM at 1691.8, assuming any outlet is properly located and constructed.

V

There is, at present, an outlet at 1689.4 feet mean sea level. In order for water in the north end of Lake Alice to reach the 1689.4 feet mean sea level outlet, however, an elevation of 1692.6 feet mean sea level must be reached. This is because ice action at the north end of the lake has created a ridge. Because of this peculiar situation, the existing outlet at 1689.4 feet mean sea level is irrelevant to the setting of the appropriate outlet level and also was irrelevant to the setting of the OHWM.

VI

It is further inappropriate in this case to set the outlet elevation where the existing structure exists, i.e., at 1689.4 feet mean sea level because the evidence does not indicate the origin of that outlet. In addition, if the outlet elevation had historically operated effectively at 1689.4 feet mean sea level, the OHWM would presumably have been different than that authoritatively found by the Board.

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The very significant precipitation of the past few years has created a situation in which there is substantially more water in Lake Alice and in the area of Lake Alice than in the previous years. Because these conditions are atypical, they

did not control the setting of the OHWM nor can they control the setting of the outlet elevation.

VIII

The staff of the Water Rights Division had previously recommended an outlet elevation at the 1689.4 feet mean sea level. This Board is, of course, not bound by any recommendation of the Water Rights Division and, in any event, the Division has now changed its recommendation to 1691.3 feet mean sea level.

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Game, Fish and Parks, the owner of the only recorded water right on the lake, Vested Right Claim No. 1467-3, has indicated its opinion that the setting of the outlet at 1691.3 feet mean sea level would sufficiently protect its vested water right.

CONCLUSIONS OF LAW

I

The Board has jurisdiction of this matter.

II

The ordinary outlet elevation at Lake Alice was not set at the time of the setting of the OHWM and Ordinary Low Water Mark because no party was able to demonstrate at that time that the setting of the outlet elevation was relevant to the setting of the OHWM.

III

The Board finds that, in this case, the most appropriate means to determine the OHWM is to compute the outlet

elevation which must have been maintained to establish the OHWM which it has already set and which will maintain that OHWM in the future. Because the OHWM is 1691.8 feet mean sea level and because an outlet elevation of approximately six inches below that level would have maintained the OHWM at the level previously set, and will maintain that level in the future (if properly located and constructed), it is appropriate in this case to set the outlet elevation at 1691.3 feet mean sea level.

IV

The setting of the outlet elevation of 1691.3 feet mean sea level adequately protects Vested Right Claim No. 1467-3.

V

The effect of setting an outlet elevation is, among other things, to establish the level at which an outlet might be constructed and to establish the parameters for operation of SDCL 46-5-1.1.

FINAL DECISION

The outlet elevation for Lake Alice is set at 1691.3 feet mean sea level.

Dated this 9th day of September, 1994.

BY THE BOARD:

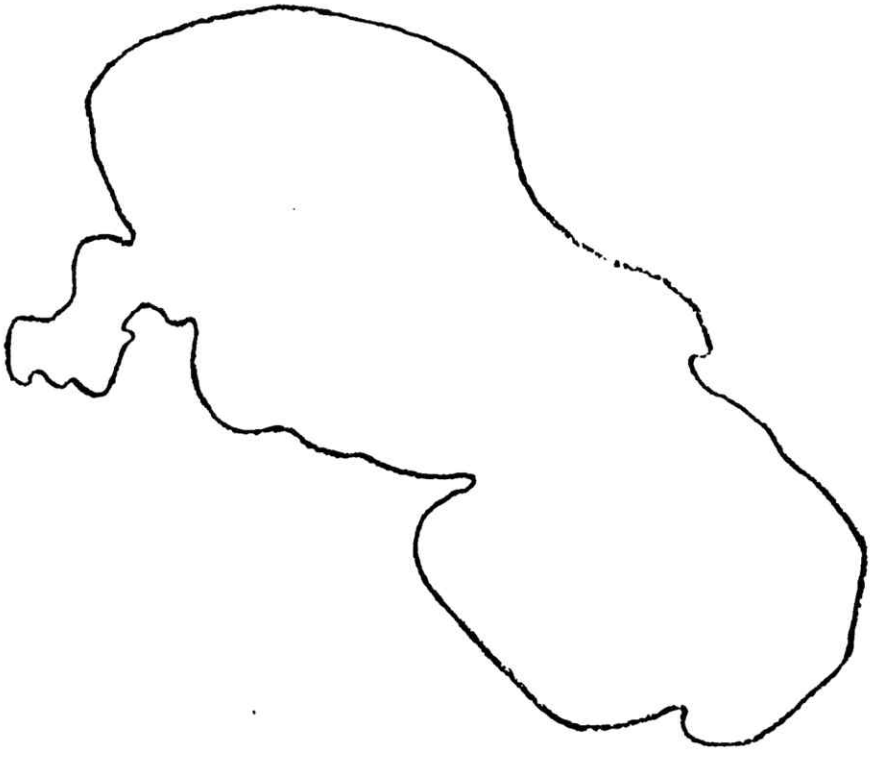
Duayne Kelly

d-wmb5.jpg

1467-3

LAKE ALICE - DEUEL COUNTY

ORDINARY HIGH WATER MARK, ORDINARY LOW WATER MARK, AND OUTLET ELEVATION INVESTIGATION



Division of Water Rights

January 6, 1992

Department of Environment and Natural Resources
Joe Foss Building
523 East Capitol
Pierre, South Dakota 57501-3181

ABSTRACT

Mr. James Dailey, RR 2, Box 67, Clear Lake, SD 57226 and Mr. Nels Moe, RR2, Box 46, Altamont, SD 57211 have jointly requested that the South Dakota Department of Environment and Natural Resources, Water Rights Division conduct an investigation of Lake Alice, Deuel County for the purpose of recommending elevations for the Ordinary High Water Mark (OHWM),Ordinary Low Water Mark (OLWM) and outlet.

In response to the joint request by Mr. Dailey and Mr. Moe and pursuant to SDCL 43-17-1, 43-17-21, 43-17-24 and 43-17-28, an investigation was conducted by the South Dakota Department of Environment and Natural Resources, Water Rights Division acting on behalf of the Water Management Board.

This report contains the results of the field investigation performed during the fall of 1990 and the spring, summer and fall of 1991.

During the field investigation of Lake Alice, the following easily recognizable characteristics were used in recommending elevations for the OHWM, OLWM and outlet: erosion, changes in the character of the soil, boulder lines, and terrestrial vegetation.

Based on the findings in this report, the recommended elevations for the Lake Alice, Deuel County OHWM, OLWM and outlet are 1691.8, 1687.2 and 1689.4 feet above mean sea level respectively.

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INTRODUCTION

On March 26, 1990, the Division of Water Rights received a written request for an OHWM determination of Lake Alice from Mr. James Dailey and Mr. Nels Moe (riparian landowners next to Lake Alice). Based upon their request, an investigation was conducted to recommend elevations for the Ordinary High Water Mark (OHWM), Ordinary Low Water Mark and Outlet for Lake Alice, Deuel County.

OHWM and OLWM are defined by SDCL 43-17-20(2) and (3), which states:

> (2) "Ordinary high water mark," the term as defined in decisions rendered by the courts of this state.
> (3) "Ordinary low water mark," the term as defined in decisions rendered by the courts of this state.

An OHWM is established by the processes of nature. The Water Management Board's setting thereof is merely a formal recognition of the mark established by nature.

An OLWM is also established by the processes of nature though the term "Ordinary Low Water Mark" has not been defined by decisions rendered by the courts of this state. Criteria for determining the OLWM has been established by the Water Management Board's approval of the Red Lake, Brule County Ordinary High Water Mark, Ordinary Low Water Mark, and Outlet Elevation Investigation Report.

Consultants were contracted with to provide evidence in establishing the OHWM and OLWM at Red Lake. These reports include Department of Soils Science Research Report No. 46 July 1990, Agricultural Experiment Station North Dakota State University, "Ordinary High Water Mark and Ordinary Low Water Mark Investigation of Red Lake, Brule County, South Dakota, Using Soil and Soil Geomorphic Criteria" by J. L. Richardson which states:

> The OLWM is given here as the usual low water level of the lake. For the OLWM the investigator will use grey coloration and the appearance of ferrous iron in the underlying soils or sediments or the resulting formation of mottles that represent groundwater wetness verses the wetness in fluctuating groundwater zone. Criteria outlining the edge of hydric soils and the margin of wetlands using vegetation is being developed. The investigator is familiar with these criteria and their use in defining borders of normally saturated soils. The basic papers for these criteria are Daniels et al. (1961), and Richardson and Hole (1979). In particular the distribution of mottling in the field will be used, as well as the presence of deep marsh vegetation and other hydric soil criteria regards the hydrology and genesis of the soils (Richardson and Bigler, 1984; Fulton et al., 1986; Hubbard

et al., 1988; Arndt and Richardson 1986, 1988, 1989, Steinwand and Richardson, (1989).

Another report was prepared by Lawrence L. Helwig, Forestry Consultant, "Red Lake (Brule County) Using Trees as Indicators of Past High and Low Water Levels." The method used is as follows:

> To assist the South Dakota Water Management Board in determining the Ordinary High and Low Water Marks (OHWM, OLWM) for Red Lake, Brule County through the use of major terrestrial vegetation (trees). Specifically the following method was used in recommending as OHWM and OLWM for Red Lake:
>
> 1) Sampling the Red Lake boundary, inlet and outlet tree populations, was done with increment borings, which determined the years when water levels were conducive to the establishment of certain tree species.
>
> 2) Tree pattern establishment was photographed to show the influence of:
>
> a) High water upon the establishment of certain tree species.
> b) Low water upon the establishment of certain tree species.
>
> 3) Data was analyzed and conclusions were drawn in relation to recommending an OHWM and OLWM for Red Lake based upon:
>
> a) Data taken during the investigation.
> b) Scientific data known for the sampled tree species.
> c) Professional field observations.

The above reports are site specific for Red Lake, however their acceptance by the Water Management Board provides criteria involving the processes of nature for establishing the OLWM.

State law (SDCL 43-17-2) provides that all navigable rivers and lakes are public highways within 50 feet landward from the water's nearest edge, provided that the outer boundary of such public highway may not expand beyond the OHWM and may not contract within the Ordinary Low Water Mark (OLWM). Thus, the public has the right to use a strip of land up to 50 feet wide below the OHWM beginning at the water's edge or the OLWM for public purposes.

Further, while the public may use the 50 foot strip of land for only "public" purposes, the private adjoining landowner may use the land for any purpose not inconsistent with the rights of the public. Such purposes ordinarily would include but not limited to the right to graze and water livestock, to hay, or to build a boat dock.

South Dakota Codified Law (SDCL) 43-17-23 states that in determining the OHWM, natural factors take precedence. Man-made influences, either those that have been constructed to lower the mark or those constructed to raise the mark, shall be disregarded unless the influences have been lawfully constructed or have existed and been accepted for a period of time determined by the Water Management Board to be the equivalent of natural conditions.

When requested to do so, the Water Management Board is required by SDCL 43-17-21 and 43-17-28 to establish the OHWM for public lakes. SDCL 43-17-1 provides that the ownership of land below the OHWM, and of land below the water of a navigable lake or stream, is regulated by the laws of the United States or by such laws of the state as the Legislature may enact.

A lake is "navigable" if its waters constitute "public waters" (Flisrand v. Madson 35 S.D.457, 152 N.W. 796, (1915)). A lake is also "navigable" when, if maintained at the high-water mark, it is suitable for rowing, fishing, fowling and bathing (Anderson V. Ray (1916) 37 S.D.17, 156 N.W. 591).

"Ordinary" according to SDCL 43-17-20(2) is defined in decisions rendered by the courts of this state. In the case of Flisrand v. Madson, 35 S.D.457, 152 N.W. 796, (1915) the Court wrote:

> Neither high or low water mark means the highest or lowest point reached by the waters of a lake during periods of extreme and continued freshets, or periods of extreme and continued drought, but does mean the high and low points of variation of such waters under ordinary conditions, unaffected by either extreme.

In the case of Anderson v. Ray, 37 S.D.17, 156 N.W. 591 (1916) the South Dakota Supreme Court wrote:

> In the case of freshwater rivers and lakes - in which there is no ebb and flow of the tide, but which are subject to irregular and occasional changes of height, without fixed quantity of time, except that they are periodical, recurring with the wet or dry seasons of the year - high water mark, as a line between the riparian owner and the public, is to be determined by examining the bed and banks, and ascertaining where the presence and action of the water are so common and usual, and so long-continued in all ordinary years, as to mark upon the soil of the bed a character distinct from that of the banks, in respect to vegetation, as well as respects the nature of the soil itself.

In the Waubay Lake decision, issued on January 17, 1986, the South Dakota Supreme Court stated the determination of these water marks is to be done on a case by case basis. The Court

stated that:

> ". . . under ordinary circumstances, the Ordinary High Water Mark will be set at a level where there is a distinct mark which evidences erosion, and changes in the character of the soil, and destruction of terrestrial vegetation, which have occurred under the ordinary and continuous conditions of the lake, disregarding periods of extreme and periodic freshets, and disregarding the highest water mark which does not evidence erosion and soil changes and destruction of vegetation occasioned under ordinary conditions. If a single distinct mark, occasioned under ordinary circumstances and evidencing all of the factors delineated above does not exist, i.e., there is conflicting evidence of the role of the Ordinary High Water Mark, it is the level where significant major, and substantial terrestrial vegetation ends, that the OHWM is to be set." (cites omitted)

MEANDER LINE

A meander line, as the name implies, is a line that meanders and is not at a constant topographic elevation. An OHWM and OLWM are at a constant topographic elevation. Hence, a meander line is not and cannot be associated with an OHWM or OLWM. A meander line survey is established by man for surveying and mapping purposes and is not a property line. OHWM's and OLWM's are established by nature and defined by man.

In the case of Flisrand vs. Madson, 1915, the South Dakota Supreme Court wrote: "The fact alone that the lake in question was meandered by the government survey does not directly control this matter, as a meander line is not considered a boundary line, but merely serves to define the sinuosities of the bank of the lake and a means of ascertaining the amount of land in the fractional tract subject to sale, which is to be paid for by the purchaser. St. Paul Ry. Co., Shurmeier 7 Wall 272, 19 L. Ed. 74, and note page 972."

The meander line was surveyed around Lake Alice in August, September and October of 1872 (see Appendix Nos. 1 and 2, U.S. Plats of 1872).

GENERAL INFORMATION

A lake bottom topographic map is available for Lake Alice and is included in this report as Appendix No. 3 (Department of Game, Fish and Parks, 1985). Area-Capacity Curves (graphical representation of area/storage/elevation) were developed using the lake bottom topographic map, a Houston Instrument's TRUE GRID 8036 planimeter, EASYDIJ 5.9 software, and using the average area end method for determining volumes. Appendix No. 4 shows the Area-Capacity curves developed for Lake Alice.

Lake Alice is located in Sections 5, 6, 7, 8, 17, and 18, T116N R48W; Sections 1 and 12, T116N R49WW; and Section 36, T117N R49W. Lake Alice is approximately 2 miles north and 3 miles east of Altamont, Deuel County.

All elevations in this report are referenced to a United States Department of Commerce, Environmental Science Services Administration, Coast and Geodetic Survey second-order benchmark with a 1929 sea-level datum described as follows:

> The benchmark is located about 2.1 miles west along the Chicago and North Western Railway from the station at Moritz, Deuel County, at bridge 767, in the top of the east end of the south stone head wall, and about 3 feet lower than the track. A Standard Monel-metal rivet, RV 20, at elevation 1693.556 feet above mean sea level. Located in the NW1/4 SW1/4 SW1/4 NW1/4 SW1/4 Section 21, T116N R48W, Deuel County.

Temporary benchmarks were established by the Division of Water Rights along the perimeter of Lake Alice. The locations and elevations of the temporary benchmarks are available from the Division upon request.

WATER RIGHTS

Vested Water Right Claim No. 1467-3 held by the South Dakota Game Fish & Parks is the only existing claim on file for water in Lake Alice (Division Files, 1991). However, domestic uses (i.e. livestock watering, dams, dugouts, etc.) are present within the Lake Alice drainage basin.

Vested Right Claim No. 1467-3 claims a 1889 priority date, and approximately 3,900 acre feet of water per year to fill Lake Alice to the outlet level for public recreational purposes. The location of the points of diversion are as follows: NE1/4 NE1/4 Section 1, T116N R49W; and the SW1/4 SE1/4 Section 1, T116N R49W.

Vested Right Claim No. 1467-3 covers the following lands: Sections 1, 6, 7, and 8, T116N R48W. It should be noted that Sections 5, 17, and 18, T116N R48W; and Sections 1 and 12, T116N R49W; and Section 36, T117N R49W were not included in Vested Right Claim No. 1467-3 even though water will flood portions of these Sections when Lake Alice spills out the outlet.

Vested Right Claim No. 1467-3 indicates a reservoir capacity (lake storage) when filled of 5,720 acre feet and a surface area at high water mark of 1300 acres. The 1300 acres indicated represents the State of South Dakota's acreage kept in trust for the public below the meander line survey conducted in 1872. The lake storage and surface area at high water mark were estimated by the SD GF&P on December 8, 1967. The estimate was only an

estimate and should not be construed as the actual lake storage or surface area at the OHWM.

Several corrections will need to be made to Vested Right Claim No. 1467-3 before the claim can be validated. Action to validate Vested Right Claim No. 1467-3 will be made at a separate hearing and will not be considered during the hearing to establish the OHWM, OLWM and outlet elevation for Lake Alice, Deuel County.

GEOLOGY

The South Dakota Department of Environment and Natural Resources, Division of Geological Survey has completed a geological study of Deuel County in cooperation with the United States Geological Survey (Beissel and Gilbertson, 1987). Consequently, test hole and domestic well information are available for Deuel County and specifically for the Lake Alice area.

Flint (1955) indicated that Lake Alice proper and its watershed is composed of Pleistocene glacial drift. The Lake Alice area is located on the Coteau des Prairies. The glacial drift is chiefly composed of till with stratified drift and in places along associated with end moraines. An end moraine (terminal moraine) is defined as a moraine formed across the course of a glacier at its farthest advance, at or near a relatively stationary edge, or at places marking the termination of important glacial advances.

Schroeder (1976) indicates that approximately two-thirds of Lake Alice proper is underlaid by surficial sand and gravel deposits (see Appendix 5). The sand and gravel deposits are saturated with groundwater (Schoeder, 1976; Neitzert, 1990). Consequently, high groundwater levels could act as a stabilizing agent for Lake Alice water levels during "drought" years when little to no surface water runoff enters Lake Alice. Conversely, high water levels in Lake Alice could discharge into the sand and gravels when groundwater levels are below the lake water level.

Beissel and Gilbertson (1987) indicate that Deuel and Hamlin Counties are covered with Pleistocene age deposits averaging 500 feet in thickness. The Pleistocene deposits are both glacial and nonglacial in origin consisting of till, outwash, lake sediments and loess. Holocene age alluvial and colluvial sediments are found on recent stream flood plains and hillsides respectively.

Beissel and Gilbertson (1987) also indicate that Lake Alice is situated in collapsed glacial outwash. The outwash is composed of sand and gravel of glaciofluvial origin and found on flat to smoothly sloping topography above past or present flood plains (see Appendix 6).

HISTORICAL WATER LEVELS

Available historical water level measurements of Lake Alice are shown in Appendix 7. The water level measurements were taken by the Division of Water Rights.

Historical water levels can also be inferred from the existence of boulder lines. Boulder lines at Lake Alice have formed as a result of ice and wave action modifying the lake bank. Although it is not possible to put a genesis date on the boulder lines, they are indicative of historic water levels occurring at or near the boulder line elevations. The base of Boulder lines are found at Lake Alice at the following elevations (fmsl): 1689.7, 1690.4 and 1690.9. The top of Boulder Lines are found at Lake Alice at the following elevations (fmsl): 1691.6 and 1692.3.

CLIMATOLOGICAL DATA

Climatological data for Lake Alice is included in this report as Appendix Nos. 12 and 13. The climatological data is discussed in detail under the heading of RUNOFF ESTIMATES in this report.

RUNOFF FACTORS

Beginning soil moisture conditions refer to the degree that a soil is saturated with water. During a "dry" year(s), the soil moisture becomes depleted due to plant use, evaporation, and natural drainage. A rainfall event during these depleted soil moisture conditions would not produce a relatively large runoff volume because the rain would soak into the ground.

On the other hand, during a "wet" year(s), the soil becomes saturated with water and isn't capable of absorbing the rainfall event. Hence, the identical rainfall event during "wet" years will produce a much larger runoff volume than during "dry" years. The more saturated the soil becomes, the larger the runoff volumes generated during a rainfall event.

A single rainfall event whose duration is spread over a number of days or weeks generates a relatively small runoff volume. Conversely, a single rainfall event whose duration is only a few minutes or hours will generate a relatively large runoff volume. Hence, the runoff volume generated by any given rainfall event is dependent upon how rapidly the rain falls.

The largest runoff volumes for any drainage basin (Lake Alice or any other lake) are generated when saturated soil moisture conditions are present going into the winter. The ground then freezes nearly solid and becomes impermeable due to winter temperatures below 32 degrees Fahrenheit. Snow accumulations

coupled with cold winter temperatures set the scene for a major runoff event the following spring.

A rapid temperature rise in the spring quickly melts the previous winters snow accumulation. The still frozen/saturated soil is not able to soak up any of the snow melt-water, hence, nearly all snow melt-water arrives at terminal locations such as depressions, dams and lakes or discharge to streams.

As previously shown, yearly runoff entering Lake Alice is dictated by a complicated set of circumstances that include general climatic factors, soil moisture conditions, and snow melt.

MAN MADE INFLUENCES

Natural factors are given precedence in determining the ordinary high water mark. Man-made influences, either those that have been constructed to lower the mark or those constructed to raise the mark, shall be disregarded unless the influences have been lawfully constructed or have existed and been accepted for a period of time determined by the water management board to be the equivalent of natural conditions (SDCL 43-17-23).

Riparian landowners reported that at one time the north end of Lake Alice was a wetland. A roadgrade was built in 1966 with a culvert, bisecting the slough between the lake and outlet. Riparian landowners also reported that sand was mined in the 1940's and 1950's at the north shoreline of the lake. There existed, during the investigation summer and fall 1991, a sandy beach and no apparent outlet channel at the shoreline. The above man made influences have apparently had an affect on the OHWM but have been in place such time as to constitute natural conditions.

Recent construction at the north end of Lake Alice has filled the wetland on the south side of the road and graded the area between the lake and road ditch. The outlet channel from shoreline to road ditch is nondistingushable, see photo nos. 9 thru 12. This construction was not complete at the time this report was written, the construction's full impact will not be known until it is finished. However, any fill above the elevation of the outlet would be in violation of the law without the required permits.

FIELD INVESTIGATION

BENCH MARK ESTABLISHMENT AND COLLECTION OF FIELD DATA

Temporary bench marks were established around Lake Alice. The locations and elevations of the temporary benchmarks are available from the Division upon request.

Field data for Lake Alice was collected on the following dates: November 1 and 2, 1990. The field information contained in this report is from natural outcrops along the perimeter of Lake Alice. The data collected were given identification numbers with soil information identified as "WRS" while all other data is designated as "WR".

ORDINARY HIGH AND LOW WATER MARK EVIDENCE

Distinct physical evidence used in identifying an OHWM and OLWM are: erosion (change in slope of the bank), changes in the character of the soil, boulder lines, growth and destruction of terrestrial vegetation (FLISRAND v. MADSON, 1915; ANDERSON v. RAY, 1916; S.D. WILDLIFE FEDERATION v. WATER MGT.BD., 1986; Red Lake, Brule County Ordinary High Water Mark and Ordinary Low Water Mark, and Outlet Elevation Investigation Report).

Erosion

Distinct erosional features (change in slope of the bank) around Lake Alice are summarized in Appendix No. 8.

Consistent erosional features at Lake Alice are found at the following elevations: 1689.5 to 1689.8 fmsl, 1689.7 to 1691.9 fmsl and 1691.9 to 1692.3 fmsl.

Changes in the character of the soil

The soils observations noted in this report are predominately limited to surficial soil characteristics. Specifically, the formation of beaches, and existence of wave washed cobble pavements/rubble were the primary focus of the Division's soils investigation.

Soil stratification occurs around a lake when wave action washes the lake shore and leaves the larger parent materials (pebbles, cobbles, boulders) relatively stationary while the fine grained materials (sands, silts, clays, peats) are transported the greatest distance into the lake. An idealized lake shore progression would start with backshore boulder sized materials and terminate with clay and peat materials deposited in the deepest portions of the lake. Historical lake levels can be inferred by locating areas showing remnant soil stratification.

Distinct surficial changes in the character of the soil found at Lake Alice are summarized in Appendix No. 9.

Changes in the character of the soil occurs at Lake Alice between the elevations of 1686.8 to 1687.2 fmsl and 1691.5 to 1692.0 fmsl.

Boulder Lines

In the spring, lake shorelines can be acted upon by ice sheets/wind action which form ice pushed ridges. The lake ice melts first near the shores because of the relatively rapid heating of the earthy material of the shore and the shallow bottom. An open lane of water is formed which is further widened by a rise in lake level from the water added by the melting snow of the surrounding slopes. If strong winds develop before the ice becomes rotten, the ice is blown about from side to side by the winds and pushed on the shores with almost irresistible force. The direction of shove is related to that of the winds and may vary along any shore even during a jam, if the winds shift considerably. The force of the push depends on the firmness and momentum of the ice, the latter being determined by the velocity and duration of the wind, the weight of the ice and to some extent the distance through which the ice is free to move. (Dionne, 1979)

Ice pushed ridges/boulder lines can be composed of foreshore and backshore materials. There are boulder lines present around Lake Alice. The boulder lines present may be slightly related to ice action but are predominately formed as a result of wave erosion acting upon the lake bank. The boulder lines are found at the base of steeply sloping hillsides as residuum.

Boulder lines present at Lake Alice are summarized in Appendix No. 10. Base elevations of boulder lines range from 1689.7 to 1690.9 fmsl .

Terrestrial Vegetation

The tree population observations in this report are limited to easily recognizable characteristics such as species, diameter, height and elevation.

The tree population around Lake Alice is predominately cottonwood with elm and willow being of secondary and tertiary occurrence. Growth of terrestrial vegetation around Lake Alice is summarized in Appendix No. 11.

Destruction of terrestrial vegetation (i.e. cottonwood trees) has occurred at Lake Alice. Water inundation has destroyed cottonwood trees and left tree debris on the lake shore up to the elevation of 1692.4 fmsl.

Cottonwood trees at Lake Alice have ranged in diameter from 0.3 feet to 2.8 feet and have grown between the elevations of 1690.8 and 1693.4 fmsl. The lowest terminal elevation for live trees at Lake Alice is at 1691.1 fmsl.

Consistent elevations for various tree classes (diameters, heights) at Lake Alice are difficult to determine from the field data collected. However, it does appear that there are two zones of tree growth present. The two zones are between the elevations of 1691.1 to 1692.0 fmsl and 1692.3 to 1693.4 fmsl. Various tree classes are present within the two zones.

It is often thought that trees are unable to survive extended periods of flooding. However, previous OHWM field investigations indicate otherwise. Cottonwood Lake, Sully County has a remnant tree population that has survived periodic flooding. An 8 year old willow tree survived basal trunk flooding from April 29, 1986 to April 18, 1988. Also, three cottonwood trees survived basal trunk flooding from June, 1986 to April 21, 1987.

OUTLET

The outlet for Lake Alice is located in the SE1/4 SW1/4 SE1/4 SW1/4 Section 36 T117N R49W. The outlet is at elevation 1689.4 fmsl . Field evidence was found that would indicate that the outlet has not functioned in recent years.

The outlet channel is several hundred feet long characterized by a length of road ditch to a culvert invert of 1689.09, the culvert invert downstream is 1688.39 into a wetland area prior to the outlet into Connor's Slough. Brush, trees, reeds, and grasses grew in the area from the lake shore to the road ditch during the time of investigation, since then new construction has cleared this area of debris and vegetation. The road ditch was also cleared and graded filling the wetland area on the south side of the road. The outlet channel between the shore and road ditch is nondistingushable as stated under Man Made Influences.

Previously stated man made influences may have had an effect on the OHWM, however, ice action would explain the higher OHWM elevation compared to the outlet elevation. Ice action at the north end of Lake Alice has pushed a ridge of materials up the shore making it possible for the lake elevation to be higher than the outlet elevation.

To prevent flooding of lakeshore structures and property, the "channel area" between the lake and the outlet will need to be maintained at or below the outlet elevation. A new Water Permit would be necessary, if the lake outlet was to be raised above the existing elevation.

Lake Alice is underlaid by collapsed glacial outwash composed of sand and gravel. This outwash is a glacial aquifer to which Lake Alice is hydraulically connected. The nonfunction of the outlet could be due in part to Lake Alice recharging the glacial aquifer before getting high enough to flow to the outlet.

CONCLUSIONS

1) The term "Ordinary" for any given lake, as defined by established OHWM's and OLWM's can be synonymous with average, normal, and yearly. "Ordinary" can also take into consideration periodic fluctuating water levels based upon prevailing climatic conditions and watershed characteristics.

2) A meander line is not at a constant elevation and is not considered in determining the OHWM or OLWM for any given lake.

3) There is a significant stabilizing aquifer connection between Lake Alice and a glacial aquifer.

4) Historical water levels indicate that Lake Alice has experienced 5.7 feet of fluctuation since September 24, 1984.

6) Man made influences caused by sand mining and road construction may have affected the Lake Alice OHWM.

7) Based upon the field data collected, potential OHWM elevations for Lake Alice are as follows: Changes in the Character of the Soil occur between 1691.5 and 1692.5 fmsl, top of Boulder Lines occur between 1691.6 and 1692.3 fmsl, base of Boulder Lines occur between 1689.7 and 1690.9 fmsl, Major Erosion Features (changes in slope) occur at 1691.6 and 1691.9 fmsl, Dead Trees are present up to 1691.9 fmsl, Live Trees (predominately Cottonwood) are generally growing at 1691.8 and 1692.8 fmsl.

8) The most distinct, obvious, and permanent marks found at Lake Alice are a result of erosion (beach formation/changes in slope), and ice action (i.e. boulder lines). Trees provide limited guidance in the selection of the OHWM because no given elevation is solely delineated by tree growth or mortality.

9) Based upon the field data summarized in conclusion numbers 7 and 8, potential OHWM elevations for Lake Alice are 1691.8 and 1692.0 fmsl. Major erosional features are present at the two elevations and both exhibit well established beaches. The most obvious change in slope occurs at 1691.9 fmsl which represents the transition from lake bed to lake bank. Boulder lines are present at or near both erosional features with the most pronounced boulder lines occurring at 1690.4 and 1690.9 fmsl. A great deal of lake evidence exists above 1692.0 fmsl, however, it is not associated with the formation of beaches. OHWM's are not associated with the highest limits of a lake bank but are associated with the upper limits of the lake bank. The majority of the

indicators show the the OHWM exists at the elevation of 1691.8 fmsl, it is recommended that the OHWM be established at 1691.8 fmsl.

10) The recommended OLWM for Lake Alice is delineated by the change in soil characteristics from lake bottom material to beach material predominately at 1687.2 fmsl. Therefore the recommended OLWM is at elevation 1687.2 fmsl.

11) The outlet elevation for Lake Alice is at 1689.4 fmsl. The outlet elevation is not relevant to establishment of the OHWM for Lake Alice, Deuel County.

Lynn Beck

Lynn Beck
Natural Resources Engineer III
DENR, Water Rights Division

Gale N Selken

Gale N. Selken, P.E.
Natural Resources Engineer IV
DENR, Water Rights Division

MAY AGENDA
WATER MANAGEMENT BOARD MEETING
May 6 & 7, 1992

Place: Conference Room, Floyd Matthew Training Center, Joe Foss Building, 523 E. Capitol Ave., Pierre SD - Scheduled Hearing Times are Estimates and May Be Delayed Due to Prior Agenda Items

May 6, 1992

8:30 am Call to Order
Approval of March 4 & 5, 1992 Board Minutes
Proposed Change of September Meeting Date From September 23 and 24 to September 30 and October 1, 1992 (Pierre)
Review of Board Legal Procedures -- John Guhin
Status and Review of Water Rights Litigation -- John Guhin
Division of Environmental Regulation Update -- Steve Pirner
Administer Oath to Department of Environment and Natural Resources Staff

9:00 am Discussion of House Bill No. 1313, Fences Across Certain Navigable Streams -- John Hatch

9:15 am Consider Rescinding Suspension of Permits/Rights in Violation of the Irrigation Questionnaire -- Genny McMath

Consider City of Rapid City's Motion for Discovery for Water Permit Application Nos. 2217-2 and 2218-2 -- Diane Best

9:30 am Consider Validation of Recognized Vested Water Right Claims -- Eric Gronlund

9:45 am Break

10:00 am Introduction of Water Rights Division staff, Board and Legislative Oversight Committee

Consider New Permit Applications, Vested Water Rights, Readvertisements and Deferrals -- Eric Gronlund

Consider Review of Future Use Permits -- Eric Gronlund

Cancellation Considerations -- Eric Gronlund

10:30 am Consider Water Permit Application No. 2200-2, City of Mission -- Jim Goodman

11:00 am Consider Ordinary High Water Mark, Ordinary Low Water Mark and Outlet Elevation for Lake Alice, Deuel County -- Lynn Beck

11:30 am Consider Vested Right Claim No. 2213-3, Ronald Vincent -- Tim Schaal

(continued)

Mr. Freeman MOVED, SECONDED by Mrs. Gunderson to DEFER consideration of Application No. 2200-2 until the September 30 & October 1, 1992, meeting to allow for briefs to be filed by all parties on the Board's jurisdiction to issue a water permit to a municipality from wells located on tribal trust lands. MOTION CARRIED.

Mr. Goodman stated that there was a representative from the City of Mission present for the meeting.

Chairman Brink administered the oath to Jack Herman.

Mr. Herman, mayor of the City of Mission, stated a majority of the water users are tribal members within the City of Mission and community of Antelope. The City also has an agreement with the tribe on a wastewater system in Mission. Mr. Herman stated they just want to be able to work with the tribe and get along with them. The City is caught in the middle between the tribe and the state on what to do to obtain water permits.

After hearing Mr. Herman speak, it was the general consensus of the Board that Application No. 2200-2 remain deferred until the September 30 & October 1, 1992, meeting.

Mr. Freeman stated that briefs from the proponent (Division staff) would be filed by September 1, 1992, and the opponent (Rosebud Sioux Tribe), and any interested parties, would submit their briefs by September 15, 1992. The Board members also requested they receive the briefs by September 15, 1992.

The Board appointed Mr. Freeman as hearing officer.

<u>Establishment of the OHWM, OLWM and Outlet Elevation for Lake Alice, Deuel County</u>

Chairman Brink administered the oath to Lynn Beck.

Mrs. Beck, an engineer for the Water Rights Division, presented a report with photographs attached, on establishing the Ordinary High Water Mark (OHWM), Ordinary Low Water Mark (OLWM) and outlet elevation for Lake Alice, Deuel County. The Chief Engineer's recommendation is as follows:

1. That the Ordinary High Water Mark for Lake Alice, Deuel County be established at an elevation of 1691.8 fmsl.

2. That the Ordinary Low Water Mark for Lake Alice, Deuel County be established at an elevation of 1687.2 fmsl.

3. That the outlet elevation for Lake Alice, Deuel County be established at 1689.4 fmsl.

Mrs. Best introduced the file into the record.

Meeting recessed at 11:50 am.
Meeting reconvened at 1:00 pm.

<u>In support of OHWM, OLWM and outlet elevation proposed by the Division staff</u>

Chairman Brink administered the oath to Tim Olson.

Mr. Olson, water permits coordinator for the Department of Game, Fish and Parks (GF&P), stated the Division of Wildlife concurred with the proposed OHWM and OLWM outlined in the report, but was concerned with the proposed outlet elevation of 1689.4 fmsl. If a permanent outlet structure was established at the proposed elevation, the documented OHWM would not be maintained and, if an outlet was established at the proposed elevation, the GF&P's vested claim to fill the lake to the outlet level for public recreation purposes would be impaired. Mr. Olson stated GF&P does have a vested right claim to the water to the outlet elevation of Lake Alice, which was filed in the late 1960's and has a priority date of 1889.

Mr. Olson asked that the Board not adopt the proposed outlet as recommended in the report. Mr. Olson requested the Board consider adopting an outlet elevation of 1691.3 fmsl, this would be one-half foot below the proposed OHWM. Mr. Olson stated most of the outlet elevations that have been designated on lakes in the state are one-half foot below the documented OHWM.

Mr. Olson stated for the record that the outlet in the report should be referred to as an outlet to the slough located on the north side of the road at the north of the lake. Mr. Olson stated for several decades, that outlet had not functioned as the outlet for Lake Alice.

Mr. Olson also stated under the Surface Water Quality Standards, Lake Alice is designated as a warm water marginal fishery. Lake Alice is a high priority, and probably the most important, fishery lake in Deuel County. Lake Alice is managed as a Walleye fishery.

Mrs. Best introduced into evidence a topographical map of the Lake Alice area (Exhibit A), which showed the drainage area, outlined in black, and the area of the outlet, circled in orange (on file). Mrs. Best also introduced into evidence "Lake Alice Outlet Profile" (Exhibit B), which is a profile of the center-line drainage from lake to culvert at Lake Alice (on file).

Chairman Brink administered the oath to C. F. Jackson.

Mr. Jackson presented an aerial map of Lake Alice, which showed Mr. Jackson's property circled in red (copy on file). Mr. Jackson stated in 1972, him and his wife purchased two lots on Lake Alice. The lots are 26 acres and 15 acres. At the time of purchase, on the smaller lot there was a two bedroom cabin. The cabin sat on a cement slab approximately 8 inches from the ground to the top of the slab. The east end of the cabin is now 88 feet from the water. In 1973 and 1986 there were periods of high water. During 1986, the water level

surrounded the foundation of the cabin, but did not go over the top of the foundation.

Mrs. Beck presented notes received from Jerry Siegel, an engineer with East Dakota Water Development District, on his survey of Lake Alice (Exhibit C) (copy on file). Mrs. Beck stated the cabin floor level was measured at 1692.56 fmsl. The ground outside the cabin was measured at 1691.86 fmsl.

Mr. Jackson stated he did not want to see the level of the lake get so low that it would go dry, but also did not want the level to get too high that it would destroy his property. Mr. Jackson stated he would like the lake to remain as it is.

In answer to Mrs. Best's question, Mr. Jackson stated he believed the outlet elevation should be set at what was recommended by the Division staff.

<u>In opposition of the OHWM, OLWM and outlet elevation proposed by the Division staff</u>

Chairman Brink administered the oath to James Dailey.

Mr. Dailey stated in 1946 sand mining was done for several years on the property that he now owns, leaving a crater between the lake and the slough on the north end of the lake. Mr. Daily purchased the property in 1986 and had part of the crater closed, and in 1991 the remainder of the crater was closed.

Mr. Dailey presented the Board with pictures of the area at the north end of Lake Alice where the crater and slough are located.

Mr. Dailey stated he was not concerned with the water level of the lake, but was concerned with the proposed outlet elevation.

Mrs. Beck stated for the record that the invert of the corrugated metal pipe (CMP) in the road ditch is 1688.94 fmsl and the invert of the CMP draining into the slough on the north side of the road is 1688.60 fmsl.

In answer to Mr. Rollag's question, Mr. Dailey stated he would accept the elevation of the culvert as the outlet elevation.

Chairman Brink administered the oath to John Corothers.

Mr. Corothers stated he is president of the Deuel County Lakes Association (DCLA), which was organized March 24, 1992. DCLA is a branch of the South Dakota Lakes and Streams Association. Mr. Corothers stated he was at the meeting to speak on behalf of three of the members who owned property on Lake Alice.

Mr. Corothers presented a map of Lake Alice to show that the slough was not part of the lake in 1894 (copy on file). The map shows the road going around the north side of the slough. In the 1920's, the

county constructed a road around the south side of the slough and built a small concrete bridge over what would be the outlet from the lake to the slough. Mr. Corothers stated in approximately 1946, sand and gravel was being mined at the north end of Lake Alice, west of the bridge. Mr. Corothers stated in the 1960's the county built the present road with the culvert across the slough.

In answer to a question from Mrs. Best, Mr. Corothers stated he would like to enter a petition on behalf of James Dailey to accept the proposed OHWM and OLWM and Game, Fish and Parks' proposed outlet of 1691.3 fmsl.

In answer to Mr. Rollag's question, Mr. Corothers stated he was opposed to the culvert as being the proposed outlet elevation. Mr. Corothers believed the fishery would be affected if too much water would be taken out of the lake.

Mr. Dailey introduced the photographs as evidence and gave a brief description of each one.

1, 2 & 3) Photographs of the old sand pit with a berm on the lake side and the back side.

4) Photograph of the area that was filled in between the lake and the road. The lake is located to the right side of the picture.

5) Photograph of nearly completed construction. If the lake would overflow, the water would run past the trees in the background, past the lone Cottonwood on the left, and then to the culvert.

6 & 7) Photographs taken in 1986 of the berm the water would have had to run over to get out. The berm was pushed back to the cavity that was left from the sand mining. The lake is located to the left side of the picture.

8) Photograph of Mr. Dailey filling in the rest of the pit in 1991.

9 & 10) Photographs of the shoreline at the present time.

11) (Photographs were not numbered correctly and there was no photograph No. 11).

12) Photograph of the shoreline prior to any cleanup being done.

13) Photograph of what the area looked liked in 1987 after Mr. Dailey did some work on it with his dozer. This is the area the water will run out if the lake would overflow.

14) Photograph of shoreline and the water level prior to cleanup being done.

15) Photograph of water level in 1991.

(Photographs on file).

In answer to Mrs. Best's questions, Mrs. Beck stated there could be an arbitrary outlet elevation set. The present outlet elevation is to the slough, which is the course the water would take if the lake would overflow. Mrs. Beck presented Exhibit D, which are the lakes that OHWM's and outlet elevations have been set by the Board in the past (copy on file). The written numbers on the right side of the page represent the outlet level as being lower then the OHWM. Most of the outlet levels are one-half foot below the OHWM.

Chairman Brink administered the oath to Gale Selken.

In answer to Mr. Brink's question, Mr. Selken stated that he had been involved with all but one of the OHWM reports listed on Exhibit D (Lake Poinsett). To his knowledge, only Blue Dog Lake's outlet elevation has been set without physical evidence of a historical outlet. Blue Dog Lake's outlet elevation was based on a weir built during road construction that was put in at an arbitrary elevation, which affected the OHWM. The rest of the lakes/dams listed were based on the physical evidence at the lakes.

In answer to Mrs. Best's question, Mr. Selken stated that the outlet elevation is not relevant to setting the OHWM on Lake Alice.

Mrs. Gunderson MOVED/SECONDED by Mr. Rollag that for Lake Alice - Deuel County the Ordinary High Water Mark be set at 1691.8 fmsl and the Ordinary Low Water Mark be set at 1687.2 fmsl, and no outlet elevation be set. MOTION CARRIED.

Chairman Brink directed that Findings of Fact, Conclusions of Law and a Final Decision be prepared.

Validation of Vested Water Right Claim No. 2213-2, Ronald Vincent

Vested Right Claim No. 2213-2 is to appropriate 240 cfs from the Little White River for operation of a hydroelectric dam. The dam impounds approximately 40 acre-feet of water. The water use has a claimed priority date of November 15, 1929, and is used for generating hydroelectric power at the Little White River Hydroelectric Dam. Staff recommendation is for VALIDATION of Claim No. 2213-2 for 240 cfs to be used for hydroelectric power generation with a priority date of November 15, 1929.

Water Right No. 253-2 was issued on April 18, 1930, with a priority date of November 15, 1929, to appropriate 400 cfs of the South Fork of the White River (now know as the Little White River) for electric power generation. Water Right No. 253-2 was limited to a 50 year period by Revised Policy Code 8262, which was repealed in 1955. Since the 50 year period for Water Right No. 253-2 has expired, and the 50 year statute was repealed, Vested Water Right Claim No. 2213-2 has

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

Lake Alice in Deuel County **VWR No. 1467-3**

The OHWM was set by the Water Management Board on May 6, 1992.

OHWM elevation 1691.8 fmsl NGVD29

The outlet elevation was set by the Water Management Board on September 9, 1994.

Outlet elevation 1691.3 fmsl NGVD29

The OLWM was set by the Water Management Board on May 6, 1992.

OLWM elevation 1687.2 fmsl NGVD29