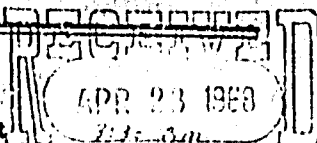


No. 1576-3

Water Division No. 3 BIG SIOUX RIVER District

(Blanks to be filled in by the Engineer for the W. D. C.)



STATE WATER RESOURCES COMM.
PIERRE, SOUTH DAKOTA

APPLICATION FOR PERMIT

To appropriate Water within the State of South Dakota

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

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

I. If a corporation

- (a) Name of same _____
(b) Date and place of incorporation _____
(c) Amount of capital stock _____
(d) Amount of 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 POINSETT - BROOKINGS COUNTY
As required to fill lake to outlet level - approximately 23,604
3. Amount of water claimed area feet per year cubic feet per second
4. Source of water supply Drainage by run-off from watershed via Lake Albert; and,
diversion of the Big Sioux River into Lake Poinsett via Dry Lake
5. Location of point of diversion Sec. 14, T113 N. R 32 W. 52 E
_____ on _____ bank _____ 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
inundated portion of Sec. 14, 15, 16, 20, 21, 22, 23, 26, 27, 28, 29, 30, 31, 32, 33, 34; T113 N; R52W.
and Sec. 3, 4, 5, 6, T112 N. R52 W.

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

(a) Nature of use Public recreational purposes

Name any of the above uses claimed

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

Amount claimed for engine cooling _____

(c) Location of plant _____

(d) Method of developing power _____

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

v/r.

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 Poinsett is a meandered lake. Maximum depth is approximately 15 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 filled52,944.....acre feet. Surface area at highwater mark.....7,868.....acres.

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

(c)* Head gate: Width.....feet; height.....feet;
Material

(d) Canal: Total lengthmiles.

LOCATION BELOW HEADGATE	DEPTH	BOTTOM WIDTH	WIDTH AT WATER-LEVEL	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 workyears.

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

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

STATE OF SOUTH DAKOTA

County of } ss.

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

Signed

Subscribed and sworn to before me this day of 1968

Notary Public (or other qualified officer.)

*Each diversion must have a headgate or measuring device.

H. E. Bowers, Notary Public
My Commission Expires

Remarks by State Water Resources Commission:

"VESTED RIGHT" CLAIMED

STATE OF SOUTH DAKOTA

County of

HUGHES

ss.

Pierre, South Dakota, MAY 8, 1968

This is to certify that the foregoing application was received by the Commission at 3:30 o'clock

P.m. upon the 23RD day of APRIL, 1968

State Water Resources Commission

By:

for Chief Engineer, Executive Officer

Number of permit 1576.3

Date of first receipt of application APRIL 23, 1968

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 MAY 8, 1968, Recorded in Book 10, Page 156

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~~ _____

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 23,604 ACRE FEET ANNUALLY cubic feet per second; neither shall it exceed the capacity of the above described system of diversion works, nor the least amount of water that experience may hereafter indicate as necessary for the production of crops in the exercise of the best husbandry, and further, said appropriation must be limited to not more than one-eighth (1/8) of one cubic foot of water per second of time for each acre of land to which water is actually ^{WAS}

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 8TH day of MAY, 1968

State Water Resources Commission

By:

Chief Engineer, Executive Officer

Certificate of Construction Issued MAY 8, 1968

Water License issued MAY 8, 1968

Permit No. 1576-3

Water Division No. 3 **BIG SIOUX**
~~REVERA~~ 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 of Vested Right of Permit No. 1576-3, issued upon Application
No. 1576-3, bearing date of priority of 1889, authorizing the diversion of
23,604 acre feet annually of the waters of Dry Creek and Big Sioux River
County of Hamlin & Brookings, State of South Dakota, at a point in the
SE 1/4, Section 14, T113, R52
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 recognized as satisfactory
condition for diverting and conveying to the place of intended use 23,604 acre feet annually
XXXXXX of water; and that the lands proposed to be irrigated by the use of said water are described as follows,
to-wit: to be used in place for public recreation purposes.

Witness my hand this 6th day of May A. D. 1966

State Water Resources Commission

By

Chief Engineer, Executive Officer

STATE OF SOUTH DAKOTA

WATER LICENSE No...1576-3...

WHEREAS, On the 23rd day of April A. D. 1968
the Department of Game, Fish and Parks
of Pierre County of Hughes and State of
South Dakota Vested Right
duly made application (No. 1576-3) to us for a permit to use 23,604 acre feet
annually
of the waters of dry drawn and the Big Sioux River
Hamlin and Brookings
County of , State of South Dakota, for public recreation
purposes; and

WHEREAS, On the 8th day of May A. D. 1968
Vested Right recognizing
Permit No. 1576-3 was issued to said applicant for the diversion of said water, and providing for the
completion of the works of diversion therein described ~~under the~~
and for the application to beneficial use of said
water on ~~the~~
and,

WHEREAS, On the 23rd day of April A. D. 1968
the holder of said permit duly made proof of the completion of adequate works for the diversion of 23,604 acre
feet annually
of said waters, as evidenced by our Certificate No. 1576-3
dated May 8, 1968 confirming the completion of works of sufficient capacity for
23,604 acre feet annually
diverting and conveying to the place of intended use / of water, with date of
priority of 1869 and,

WHEREAS, On the 23rd day of April A. D. 1968
proof was duly made of the application to beneficial use of 23,604 acre feet annually
to be stored and used in place for public recreation purposes

* Big Sioux River diversion is covered under Water Right 119-3A

1
NOW, THEREFORE, By the virtue of the authority vested in us by the laws of the State of South Dakota,
We hereby grant and confirm to the Department of Game, Fish and Parks
of Pierre the holder and owner Vested Right of said permit No. 1576-3
a water right, dating from 1889 to the use of 23,604 acre feet
annually
~~XXXXXX~~ of the waters of dry draws and the Big Sioux River
In the County of Hamlin & Brookings and State of South Dakota, or so much thereof as may be
necessray for the purposes hereh below mentioned, to be diverted at a point in the SE 1/4
Section 14, T113N, R53W
and conducted to and upon stored in place
~~XXXXXX~~

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 reguladons have for their object the economical use of such
water.

WITNESS, My hand and seal of our office at Pierre, South Dakota,
this 14th day of May A. D. Nineteen
Hundred and Sixty-eight

State Water Resources Commission

By

J. W. H. JAMES
Chief Engineer, Executive Officer



INTER-DEPARTMENT CORRESPONDENCE

State of South Dakota



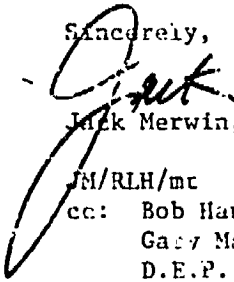
From: Dept. of Jack Merwin, Secretary To Dept. of Wallace Davis
Acting Game & Fish Director
Subject Lake Poinsett Water Management Date March 3, 1978

Wally;

I have reviewed the staffs recommendations regarding the operation of the Dry Lake - Lake Poinsett Diversion, the Boswell Dam and the Outlet Dam for 1978. I agree with their recommendations and direct you to have them carried out as presented in Hanten's memo of February 27, 1978. (Copy attached).

Please provide me with additional recommendations and justifications for II. Maintenance of operations when appropriate.

Sincerely,


Jack Merwin, Secretary

JM/RLH/mc

cc: Bob Hanten, Jack Opitz, Stan Lundquist,
Gary Marrone, Doug Hansen,
D.E.P. and N.R.D.

RECEIVED

MAR 6 1978

DEPT. OF NATURAL
RESOURCE DEVELOPMENT



INTER-DEPARTMENT CORRESPONDENCE

State of South Dakota



Robert L. Hanten

Jack Herwin, Secretary

From Dept. of Fisheries Staff Specialist To Dept. of Game, Fish & Parks

Subject: 1978 Lake Poinsett Water Management Date: February 27, 1978

Jack:

Listed below is the 1978 recommendations for the operations of the Dry Lake-Lake Poinsett Diversion, the Rosewell Dam and the Outlet Dam. On February 21, 1978 in Huron, SD, Regional Supervisor Jack Opitz, C.O. Stan Lundquist, Fish Specialist Gary Marrone, Pollution Biologist Doug Hansen, Program Specialist Don Hausle and I met to discuss these recommendations and agreed that the following appears to be the most feasible plan:

Flood flows are likely to occur on the Big Sioux River and in the vicinity of Lake Poinsett this spring due to the accumulation of snow in the watershed. Because of this likelihood and the probability of doing any type of manipulation may be difficult or impossible after the runoff has begun, it is recommended:

I. Initial operation Procedure

- a. Open the Diversion gates to the fully open position before breakup of the river.
- b. Leave the Rosewell Gates in the fully open position.
- c. Leave the stop log out of the outlet structure until perceptible flows from Lake Poinsett occur, then place logs in place to design elevation.
- d. Take water samples from the Big Sioux River on a daily basis during initiation of flow through the first week of flood flows, then return to normal weekly sampling schedule thru the remainder of the diversion period.
- e. Take water samples from Lakes Poinsett, Dry and Albert (if possible) on a regular weekly schedule preferably on Monday and ship all samples to the Water Research Institute in Brookings for analysis. Follow the same procedures in taking and handling samples as used in previous years.

II. Maintenance of Operation

- a. After the flood flow period if Lake Poinsett is not up to full level, make a determination based on water chemistry analysis and lake levels whether to continue diversion from Big Sioux River and Dry Lake water is desirable for the best interest of Lake Poinsett.
- b. Look at the potentials of inflows from the Lake Albert drainage which may be better quality for the purpose of refilling Lake Poinsett.
- c. Make recommendation to Secretary for operational adjustment.

III. Future Operations

- a. After Lake Poinsett fills to ordinary water levels, the procedure will return to the operations as listed in the Lake Poinsett Management plan.

Sincerely,

Robert L. Hanten

(cc: Director GSF, Opitz, Lundquist, Marrone, Hansen, Hausl)

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 ParksLake Poinsett - Brookings and Hamlin Counties

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. Drainage by run-off from watershed via Lake Albert; and diversion of the
Big Sioux River into Lake Poinsett via Dry Lake

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 - 15 feet - 7,868 acres

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

Ans. Fish and wildlife propagation, conservation and recreation

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

Ans. Used in place in lake or reservoir

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

Ans. As required to fill lake to outlet level - approximately 23,604 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) _____

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 _____, County of _____

State of South Dakota, on this 23rd day of April A. D. 1968

} Witnesses. H. E. Bauer

H. E. Bauer, Notary Public
My Co. _____

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.

R. A. Hodgins

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 _____	



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.

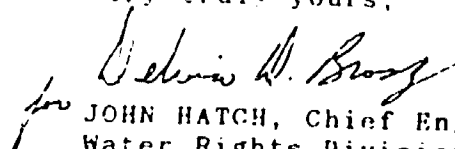


September 21, 1988
Richard Beringson, Secretary
Page 2

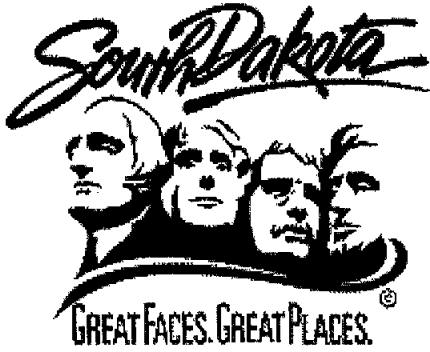
We will be working with your staff on these validations. We have already discussed setting outlet elevations before validating claims for lakes. Although the work necessary to complete the validation process will take several years to complete, the results should be of benefit to the public and to your 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
665 773-3352

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



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
PMB 2020
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
www.denr.sd.gov

January 31, 2018

119-3A 1576-3 28-3 826-3
857-3 859-3 880-3 890-3

SD GAME FISH & PARKS
ATTN: JOHN LOTT
523 E CAPITOL
PIERRE SD 57501

Subject: Bypass Qualifications on Big Sioux River Water Rights

Dear MR LOTT,

I am writing to inform you of an effort the SD Dept. of Environment and Natural Resources Water Rights Program is undertaking to review and update a number of water right permits authorized to pump water from the Big Sioux River. Since your water right does not have a bypass qualification, we **are not** proposing to amend your permit by adding a bypass qualification. However, I do want to make you aware of what we are proposing for several other junior priority Big Sioux River permits.

When a number of these Big Sioux River permits were issued, they contained a qualification requiring a minimum flow bypass before the user is able to pump water from the river. The bypass qualification was placed on these permits to protect the use of water by downstream senior priority water right holders and domestic water users, which includes livestock watering. The review found, with the passage of time, a number of senior water right permits have been cancelled due to abandonment or forfeiture. Consequently, it may be possible to lower the flow bypass limitation on the remaining permits. In other words, the amount of flow in the river can be lower and pumping will still be allowed. The review also found an inconsistency between permits on where the bypass flow is to be measured. The intent of this effort is to standardize and make consistent the bypass requirements for the remaining water users.

In order to amend a qualification on an existing water right permit, formal action by the SD Water Management Board is needed. In the next few weeks, you can expect to receive official notification scheduling a hearing before the Water Management Board. Again this does not pertain to amending your permit, only junior permit holders. If you wish to participate in the hearing you can, but you are not required to. There will be instructions with the notification on how to participate in the hearing if you so choose.

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

Sincerely,

 Jeanne Goodman, Chief Engineer
Water Rights Program



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

denr.sd.gov

February 12, 2018

119-3A, 1576-3, 28-3, 826-3
857-3, 859-3, 880-3, 890-3

SD Game, Fish & Parks
Attn: John Lott
523 E Capitol
Pierre SD 57501

Subject: Bypass Qualifications on Big Sioux River Water Rights

Dear Mr. Lott:

The SD Department of Environment and Natural Resources (DENR) has evaluated the minimum flow bypass condition on water rights that pump from the Big Sioux River. The Chief Engineer is recommending amending the bypass qualification on 21 Big Sioux River water rights. The intent is to bring uniformity to the bypass requirement placed on water rights in past years. The water right you own or operate does not have a bypass qualification and will not be amended by the proposed action.

Even though your water right is not being amended, DENR wants to keep you informed of the proposed action since it involves the Big Sioux River. Enclosed is a notice to be published on or before February 15, 2018, in one newspaper from each of the seven counties that the Big Sioux River flows through. Also, the staff report including affected water rights and the proposed changes is available at <http://denr.sd.gov/public> or contact Mark Rath at 605 773-3352 or mark.rath@state.sd.us.

A hearing before the Water Management Board is scheduled at 11:30 AM, Wednesday, March 7, 2018 in the Matthew Training Center, Joe Foss Building, 523 E Capitol Avenue, Pierre SD. The enclosed notice provides information on the hearing and ability to file a petition in either support or opposition to the proposed amendment. The filing of a petition must be postmarked by February 26, 2018. Additionally filing a petition affords you the opportunity to participate in the March 7th hearing before the Board if you choose.

Again, this does not pertain to amending your water right, only junior water right holders with existing bypass requirements. If you have questions, please call. DENR is willing to work to answer any questions.

Sincerely,

Eric Gronlund
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

enclosure

Appendix B

ORDINARY HIGH WATER MARK - LAKE POINSETT
Report to Water Resources Commission - March 8, 1973

Based upon request by the Department of Game, Fish and Parks for establishment of ordinary high water mark at Lake Poinsett pursuant to Rules and Regulations No. XII, the Water Resources Commission approved investigation and study by the staff during the Commission's September 1972 meeting.

An analysis of recorded data and on-site inspections indicated that the water surface elevation of 1651.5 was ordinary high water mark at Lake Poinsett. The Commission approved the staff report for public hearing purposes during its November, 1972 meeting.

Public hearing was held on February 15, 1973, at Hayti, South Dakota. Discussions were recorded and a summary transcribed from the taped record. A copy of the public hearing summary was sent to each Commissioner on March 2, 1973.

The public hearing disclosed facets of the long standing controversy that exists concerning water surface elevations at Lake Poinsett. The following attitudes were expressed:

1. Landowners around Lake Poinsett and those interested in the recreational attributes of the lake concurred in establishment of elevation 1651.5 as ordinary high water:
 - o mark;
2. Farmers located around the upstream Lakes Albert and John expressed belief that elevation 1651.5 in Lake Poinsett resulted in lake levels in the upstream lakes that were too high and would continue the adverse effects of the high water elevations of the past few years which
 - a. washed out large trees,
 - b. over-topped natural rock shorelines with accompanying erosion,
 - c. inundated farm lands,
 - d. restricted surface and ground water flows through the string of lakes (Mary, John, Albert and Poinsett) which, with small bridges, commercial fishing operations and vegetative growth, kept upstream lake levels too high,

DATE MICROFILMED

CAMERA OPERATOR

- e. farm buildings were jeopardized,
- f. under various investigations concerning water surface elevations at Lake Poinsett, these conditions at the upstream lakes have been disregarded.

Following the public hearing, the Commission staff made further evaluations of (1) water surface elevations of upstream lakes compared to Poinsett, (2) lake level fluctuations at Poinsett, and (3) anticipated effects of the proposed outlet structure for Poinsett. On-site checks of problem areas, identified during the public hearing, were made on February 28, 1973, by Butler, Driscoll and Grimes, accompanied by Jerry Siegel, East Dakota Conservancy Sub-District.

UPSTREAM LAKES

Lakes Albert, John and Mary water surfaces are known to follow levels in Lake Poinsett at an elevation about one-half foot higher. Comparable plottings (copy attached) of the lake levels in Poinsett, Albert, John, Mary and Norden from reliable data (Sept. 1965 to Sept. 1972) confirms this general relationship. Also revealed, are the relatively minor variations among Lakes Albert, John and Mary (generally within 0.1 foot, but very occasionally reaching 0.3 foot). During seasonal larger runoff times Lakes Albert, John and Mary reach heights 1.2 feet higher than Lake Poinsett. During low levels in Poinsett, levels in Lakes Albert, John and Mary approach 1.0 foot higher than Poinsett. At elevations near 1651.5 in Lake Poinsett, levels in Albert, John and Mary are consistently near 0.5 foot higher than Poinsett. Also, the plottings of water levels in Lake Norden, compared to Poinsett, Albert, John and Mary, show the greater surface fluctuations in the downstream four lakes due to the retardation of flows caused by high water in the Big Sioux River.

Information concerning lake levels in Albert, John and Mary prior to 1965 is very meager. During the 1930's much, if not all, of Lake Albert was dry. Survey in 1922 (Report of the Drainage and Flood Control Investigations in the James and Big Sioux River Valleys by W. S. Reeves, Chief Drainage Engineer, South Dakota Drainage Commission) reports water surface in Lake Poinsett at elevation 1651.0 (elevation datum questionable) with Lake Albert 1.5 feet higher. Old maps, including those made in 1922, show lake shores and connected sloughs substantially as they now are.

With this historic data available, on-site inspections were made at sites identified during the public hearing and other

locations. At the time of inspection, Lake Poinsett was at elevation 1651.5. At Albert, John and Mary elevations were 1652.0. Lakes were ice covered. No washed out large trees were found. Observation from lake shore revealed the tree covered island in Lake Albert seemingly intact. Observation of the rock shorelines and trees, particularly along the easterly shore of Lake Albert, showed attacks on large tree roots and minor rock shoreline erosion caused by wave action when water levels in Lake Albert were near elevation 1653.0 (1969, 1970, 1972) or above. It was evident that trees were hard-put to survive. Washed out roots were evident as was root projections into firm ground over many years. Bank erosion among the rocks was minor and the shape of the banks showed that this activity extended over many years. No inundation of "farm lands" (crop land or pasture) was observed nor was it evident that at higher elevations did this occur. Reference to farm land during the public hearing must have referred to land privately owned around the lakes. If so, it is slough land not capable of commercial farming, except perhaps during extended drought periods. Use of one pasture on the south shore of Lake John may be limited when lake waters approach 1653.0. This is a condition of long standing as evidenced by a drainage ditch from this area into Lake John. Ice induced buildup at the mouth of the channel into Lake Poinsett from Lake Albert restricts water flow temporarily during snow melt runoff. Likewise, commercial fishing barriers across this channel tend to maintain an additional 0.5 foot of water in Lake Albert if they are in place during high water periods. Bridge lengths and clearances seem barely adequate to pass water during high runoff periods but do not seem to have other than very short period effects and then not of significant magnitude. Farm buildings in a few cases are quite close to the lakes and are on low ground. At the high lake water levels experienced during 1969, 1970 and 1972, this was, no doubt, worrisome to owners. No evidence of actual damage was observed. These on-site inspections supported the evidence of historical data analysis of Lake Poinsett lake levels in relation to the upstream lakes, both those made prior to and subsequent to the public hearing. It seems likely that those who testified were expressing fears based upon expectancy that still higher lake levels would occur if the proposed structure was built across the outlet channel of Lake Poinsett.

LAKE POINSETT WATER SURFACE ELEVATIONS

During the public hearing, doubt was expressed concerning the extraordinary low and high lake levels excluded from the calculation of ordinary high water mark for Lake Poinsett. Subsequently, the Commission staff re-examined these matters. While various arithmetical combinations may be made based upon various suggestions and assumptions little variation in average lake levels result except under obviously unrealistic and unreasonable conditions.

EFFECTS OF PROPOSED OUTLET STRUCTURE - LAKE POINSETT

Those who questioned the ordinary high water mark for Lake Poinsett at elevation 1651.5, did not differentiate clearly this elevation and their anticipated results of the crest of the proposed outlet structure being considered at elevation 1651.0.

A technical memorandum, exploring the lake stages in relationship to the proposed structure crest at 1651.0 compared to an assumed crest at 1650.5, is attached. It should be remembered that a lower crest elevation permits greater volumes of "back flow" from the Big Sioux River into Lake Poinsett during extraordinary high river water elevations than does a higher crest. Also, that discharge from Lake Poinsett into the Big Sioux River during these large runoff years occurs after the Big Sioux River levels recede below the structure crest elevation. The attached memorandum shows some betterment in overall effects with a crest at 1650.5 than at 1651.0 under conditions considered. With relative "back flows" considered these two crest elevations (1651.0 and 1650.5) are the limits by which existing conditions may be bettered at Lake Poinsett.

CONCLUSIONS

The extent of adverse effects at the upstream Lakes Albert, John and Mary as reported by land owners during the public hearing were not substantiated upon inspection. It seems evident that their testimony expressed fears concerning effects of continued extraordinary high lake levels (elevations near 1653.0 and above), such as experienced during 1969, 1970 and 1972, and which occurred when Lake Poinsett was at elevation 1652 and above.

There is no indications that elevation of 1651.5 in Lake Poinsett will produce these extraordinary high water conditions in the upstream lakes to a greater degree than now occurs.

The crest elevation for the proposed outlet structure for Lake Poinsett at elevation 1651.0 is considered to be technically adequate to reduce higher elevations in Lake Poinsett to 1651.5 over a reasonable period of time. However, analysis shows that some overall betterment may be achieved with a crest elevation at 1650.5. It should be noted that discharge over these crests (1) are under free flowing conditions (water surface on the downstream side lower than the crest), (2) occur after Big Sioux River elevations recede to below crest elevation, and (3) are dependent on channel cleaning to accomplish passage of over crest flows. It is believed that the public interests will be better served with a crest at 1650.5, thus providing a slightly better factor-of-safety against extraordinary high water surfaces in these lakes.

Water Resources Commission
and
South Dakota Conservancy District
March 7-8, 1973

AGENDA

Place: Conference Room - Dept. Game, Fish & Parks

March 7

1:00 PM Water Resources Commission

Lake Poinsett Report

Legislation

National Water Commission Testimony

Joint Meeting with Conservation Commission-10:30 AM March 8

2:00 PM Water Right Hearings
(see attached list)

3:30 PM Cancellation Considerations

March 8

9:00 AM Unfinished Water Resources Commission Business

South Dakota Conservancy District

Consideration of Conservancy Sub-Districts 1974 Budgets

Progress on Planning Reports

DATE MICROFILMED

CAMERA OPERATOR

the Water Projects Formulation and Finance Committee, the state water plan and similar functions are transferred to the Natural Resources Departmental Board and those particular boards are abolished. In an advisory capacity, where the functions of the projects formulation committee are to be undertaken by the departmental board, one member of each Conservancy Sub-District Board is to be appointed by their respective Sub-District Boards, to sit in with the departmental board where projects formulation work is concerned.

Mr. Grimes reported that the Governor, because of other commitments, was not able to attend the public hearings on the review draft of the proposed report of the National Water Commission held in Washington, D.C., February 8-9, 1973. Mr. Grimes had represented the Governor at the hearings and had presented the Governor's statement for the State of South Dakota. Copies of the statement were furnished the Commissioners for their perusal.

Lake Poinsett Report

A public hearing on the Lake Poinsett ordinary high water mark determination was called by the Water Resources Commission and held in Hayti, South Dakota February 15, 1973. A summary of the transcript of the hearing was sent to the Commissioners on March 2, 1973. (Appendix A-original minutes)

A report dated March 8, 1973 containing conclusions and recommendations by the staff and entitled "Ordinary High Water Mark-Lake Poinsett" was read by Mr. Grimes. (Appendix B-original minutes with attachment of graphs and Memorandum by Vern W. Butler)

The following recommendations were contained in the report:

It is recommended that the Commission establish ordinary high water mark for Lake Poinsett at elevation 1651.5 (1929 sea level datum).

It is recommended that the Department of Game, Fish and Parks consider elevation 1650.5 as the crest elevation for its proposed outlet structure for Lake Poinsett in order to better protect the ordinary high water mark established.

Mr. Jerry Siegel, manager of the East Dakota Conservancy Sub-District was present during the discussion that followed the reading of the report.

In answer to Chairman Lommen's question as to whether the Department of Game, Fish and Parks would agree to the second recommendation, Mr. Grimes said that this has not been discussed with them and the proposal will have to be considered and determined by that Department.

Mr. Siegel believed the recommendation to the Department of Game, Fish and Parks of a crest elevation of 1650.5 should also include the recommendation that a certain amount of clean-out be made in the channel. In other words, Mr. Siegel said, in order to maintain the ordinary high water mark at 1651.5 you have to have the combination of the structure and the clean-out of the channel.

Mr. Grimes agreed that although the official proposal by the Department of Game, Fish and Parks included the undertaking by them of a limited excavation to the channel below, it would do no harm to stress that the structure without the channel clean-out would not do the job and to make reference to the fact that the channel should be cleaned and kept clean.

Mr. Vern Butler's Memorandum attached to the staff report, Subject: "Notes on Effects of outlet spillway for Lake Poinsett on Ordinary High Water Mark Elevation" was read by Mr. Grimes and the attached graphs were studied.

Mr. Siegel displayed a map picturing the other lakes' proximity (Albert, John and Mary) to Lake Poinsett. He also read a letter dated October 24, 1972 signed by Winston Douglas, Chief Engineer of the Department of Game, Fish and Parks, addressed to J. T. Banner Associates, the engineering firm designing the proposed project on Lake Poinsett. Mr. Siegel again stated that he believed the channel clean-out must be stressed.

After further discussion, Mr. Evans moved, seconded by Mr. Garrett the Water Resources Commission establish 1651.5 as the ordinary high water mark for Lake Poinsett. Motion carried unanimously.

Mr. Garrett moved, seconded by Mr. Evans, that recommendation be made to the Department of Game, Fish and Parks to consider lowering the elevations of the proposed outlet structure to elevation 1650.5 and that the channel be cleaned out and kept clean to sufficient degree to pass the discharges over the weir at

all times that waters are in a free flowing condition. Motion carried unanimously.

2:00 PM WATER RIGHT APPLICATION HEARINGS

1139-2 Eugene & Vern Armstrong, Midland, S.D.

Application is for 13.80 (Approximately 960 acre feet storage) from Cottonwood Creek and tributaries to irrigate 967 acres. Proof of publication received.

Mr. Gene Armstrong was present in behalf of this application.

Mr. Driscoll reported that from the map it appears there are dams on land owned by others downstream on Cottonwood Creek.

Mr. Armstrong said there are no dams below that he knew of on the main creek, but that there are some on the side creek.

Mr. Driscoll advised that the staff recommends that a low flow qualification be made a part of the permit if approved.

Mr. Armstrong said their intent is to put a 10" tube under the dam to by-pass water for their own control.

Mr. Armstrong agreed with Mr. Grimes in that during a drought period he would not have a water supply.

Mr. Garrett moved, seconded by Mr. Evans, Water Application 1139-2 be approved with the statement, "Low flows as needed for downstream domestic use including livestock watering, must be by-passed. Approval of this Permit authorizes 960 acre feet of storage annually. Motion carried unanimously.

1116-2, Frank McDermott, Batesland Route, Gordon, Nebr. (Shannon County, S.D.

Application is for 2.22 cfs of water from ground water to irrigate 160 acres. Proof of publication received. This application has clearance from the State Conservation Commission.

Mr. Driscoll reported this is a new area with no irrigation wells within 10 to 15 miles of the proposed project. Because of the nearness of a domestic well one-half mile away, the domestic well interference clause is recommended if the permit is approved.

Mr. Evans moved, seconded by Mr. Garrett, Application 1116-2 be approved with the statement, "The irrigation well approved under this Permit is located near domestic wells which may obtain water from the same aquifer. The irrigation well owner, under



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 Poinsett in Hamlin County

VWR No. 1576-3

The OHWM was set by the Water Management Board on March 8, 1973.

OHWM elevation 1651.5 fmsl NGVD29

The outlet elevation was set by the Water Management Board on March 8, 1973.

OHWM elevation 1650.5 fmsl NGVD29

The Water Management Board approved FC-5 in March of 1987 for the operation flood control gates on the inlet/outlet channel to the Big Sioux River which also functions as the outlet structure for Lake Poinsett.