

Considered: _____

WATER PERMIT NO. 2119-2

Ph # (605) 279-2125

HAP No. _____

Name of Applicant USDA, Forest Service

Post Office Address P.O. Box 425 Wall SD 57790

Amount of Water Claimed 82.7 ac-ft Total Acres _____

Source of Water Supply surface runoff

Water to be used for dam County Jackson

About 9 miles W of Kadoka

PROOF OF PUBLICATION: Received _____ Not Received _____

APPLICATION: Approved _____ Subject to _____

F.F. & C.L. Adopted _____ Not Approved _____ Deferred _____

PRIORITY _____ Date Received 3/27/90 Fee 150⁰⁰ Remarks Waterfowl

habitat improvement project

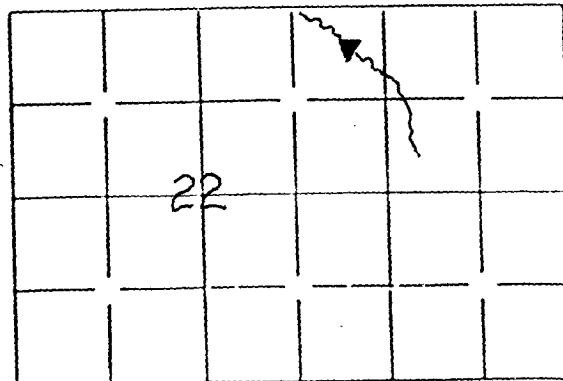
Corrected Application Received _____ Period of Annual Use _____

WATER QUALITY APPROVAL RECEIVED N/A APPROVED/CONDITIONAL (Circle one)

WI-1 Description same as Application YES _____ NO _____ REMARKS _____

Diversion Point SE 1/4 NE 1/4, Sect. 22, T2S, R20E

Land to be Irrigated NA



Well Log: Driller NA Licensed YES _____ NO _____

Depth of Well NA REMARKS _____

Type of Map Topo PREPARED BY Brent Larson Reviewed and the Number

assigned on 3/28/90 By Eric Humlund

No. 2119-2 Hydrologic Unit 10140102
 Map No. _____ Basin Bad River
 Newspaper Kadoka Press Box 309 57543

Application For Permit To Appropriate Water Within The State Of South Dakota

Check use of water: Industrial ☐ Commercial ☐ Municipal ☐ Other Common Distribution System ☐
 Rural Water System ☐ Suburban Housing ☐ Geothermal Heat ☐ Institutional ☐ Recreational ☒
 Domestic ☒ (above 18gpm) Other ☐

Type of Application: Check one or more of the following



New ☒ Vested Right ☐ Future Use ☐ Change Use ☐

☐ Amend Permit No. _____ with old priority date retained

Change diversion point(s) ☐ Add diversion point(s) ☒ Other ☐ _____

☐ Application to: Change diversion point(s) ☐ Add diversion point(s) ☐ on Permit No. _____

☐ Construction to use water reserved by Future Use Permit No. _____

1. Name of Applicant USDA, Forest Service Phone No. (605) 279-2125

Post Office Address P. O. Box 425, Wall State SD Zip Code 57790
(Street, RR or Box) (City)

2. Amount of water claimed (c.f.s.) 82.7 acre feet

3. Source of water supply runoff

4. Location of point of diversion SE $\frac{1}{4}$ NE $\frac{1}{4}$, Section 22, T2S., R.20E. on an unnamed tributary of Buffalo Creek.

_____ County Jackson

5. Counties where water will be used Jackson

6. Annual period during which water is to be used January 1 - December 31

7. Give a brief description of proposed project. When available include any preliminary engineering report or other reports or information that will help explain the project. (Attach sheet if more space is needed)

Waterfowl habitat improvement project. Purpose of the project is to provide wetland habitat for the production of waterfowl and other wildlife species associated with wetlands.

My Commission Expires 3/12/98

Attachments: Attach Form 2A if diversion from a well or dugout, or if storage of water is proposed. Attach map (see instruction)

STATE OF SOUTH DAKOTA)
 County of Jackson)^{ss}

I, USDA, Forest Service

this application, have examined the attached map and that the matters stated are true and that I intend, and am able to complete the necessary construction.

Signed Robert H. Storch

Subscribed and sworn to before me this 14 day of March 1990

Cathy E. Simpenderfer
 Notary Public

Supplemental Information

(type or print in ink)

1. Well Information - Proposed construction

- a) Drill Hole Diameter _____ Depth _____
- b) Casing Type _____ Diameter _____ Thickness _____
- c) Screen Type _____ Diameter _____ Thickness _____
- d) Gravel Pack Thickness _____ Length of Gravel Pack _____
- e) Depth to Top of Water Bearing Material _____
- f) Depth to Water (ground surface to water level) _____
- g) Distance to nearest existing domestic well:
On applicants property _____ On property owned by others _____

2. Dugout Information Estimates

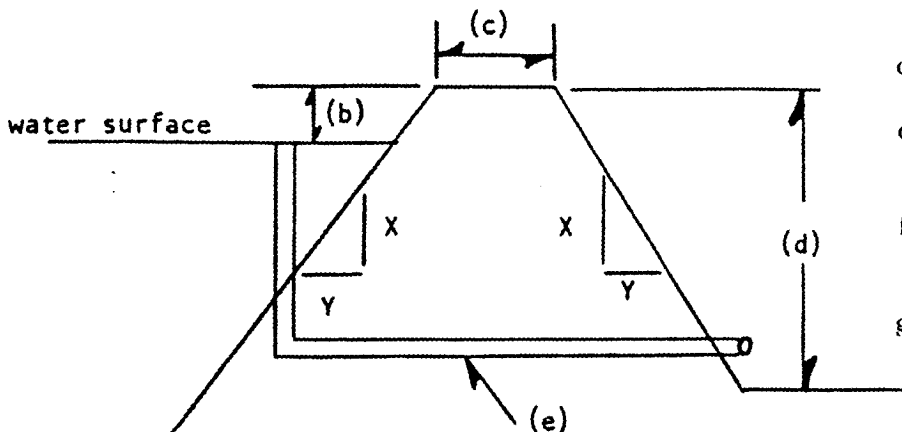
- a) Surface Dimensions _____ Depth _____
- b) Depth to water (ground surface to water level) _____

3. Water Storage Dams

If the proposed water use system contains one or more storage dams, please furnish the information requested below. The locations of each dam should be shown on the map submitted with the application.

- a) If a private engineering firm or government agency was involved in the design of this dam please give their name and address
Ducks Unlimited, 6115 East Main Avenue
Bismark, ND 58501

- 10 foot berm at spillway elevation
- b) Freeboard minumum 1 foot over 100
year event.
- c) Crest Width 12 feet
Crest Length 492 feet
- d) Height 10.5 feet
- e) Primary Outlet Capacity _____
If Pipe, diameter 30 inch CMP
- f) Secondary Spillway Capacity _____
Spillway width 100 feet
- g) X & Y Slope
Upstream 3' 1
Downstream 3' 1



- Surface Area of Impoundment 35.2
- Storage 82.7 acre feet
- Drainage area above dam 1.52 sq. mile

Signature of Applicant _____



**SOUTH DAKOTA
WATER PERMIT No. 2119-2**

Date of first receipt of application March 14, 1990.

Date of return to applicant for correction, amendments or changes March 23, 1990.

Date of receipt of corrected application March 27, 1990.

The Water Management Board approved Water Permit Application No. 2119-2 on May 24, 1990 for USDA, Forest Service, P.O. Box 425, Wall, SD 57790 authorizing the construction of the water use system and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Water Permit No. 2119-2 appropriates 82.7 acre feet of water to be impounded by construction of a dam. The damsite is to be located on a unnamed tributary to the Little Buffalo Creek in the E1/2 NE1/4 of Section 22 T2S-R20E. Water is to be stored annually to an approximate elevation of 2464.5 feet mean sea level.
2. The water appropriated shall be used for the purpose of establishment of wetland habitat and may not exceed the amount of water needed for beneficial use for waterfowl and wildlife production purposes.
3. The water is to be used during the following described annual period: January 1 - December 31.
4. The date from which applicant may claim right is March 14, 1990.
5. One-fifth of the construction is to be completed on or before November 24, 1992.
6. All construction is to be completed on or before May 24, 1995.
7. Water is to be put to beneficial use on or before May 24, 1999.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

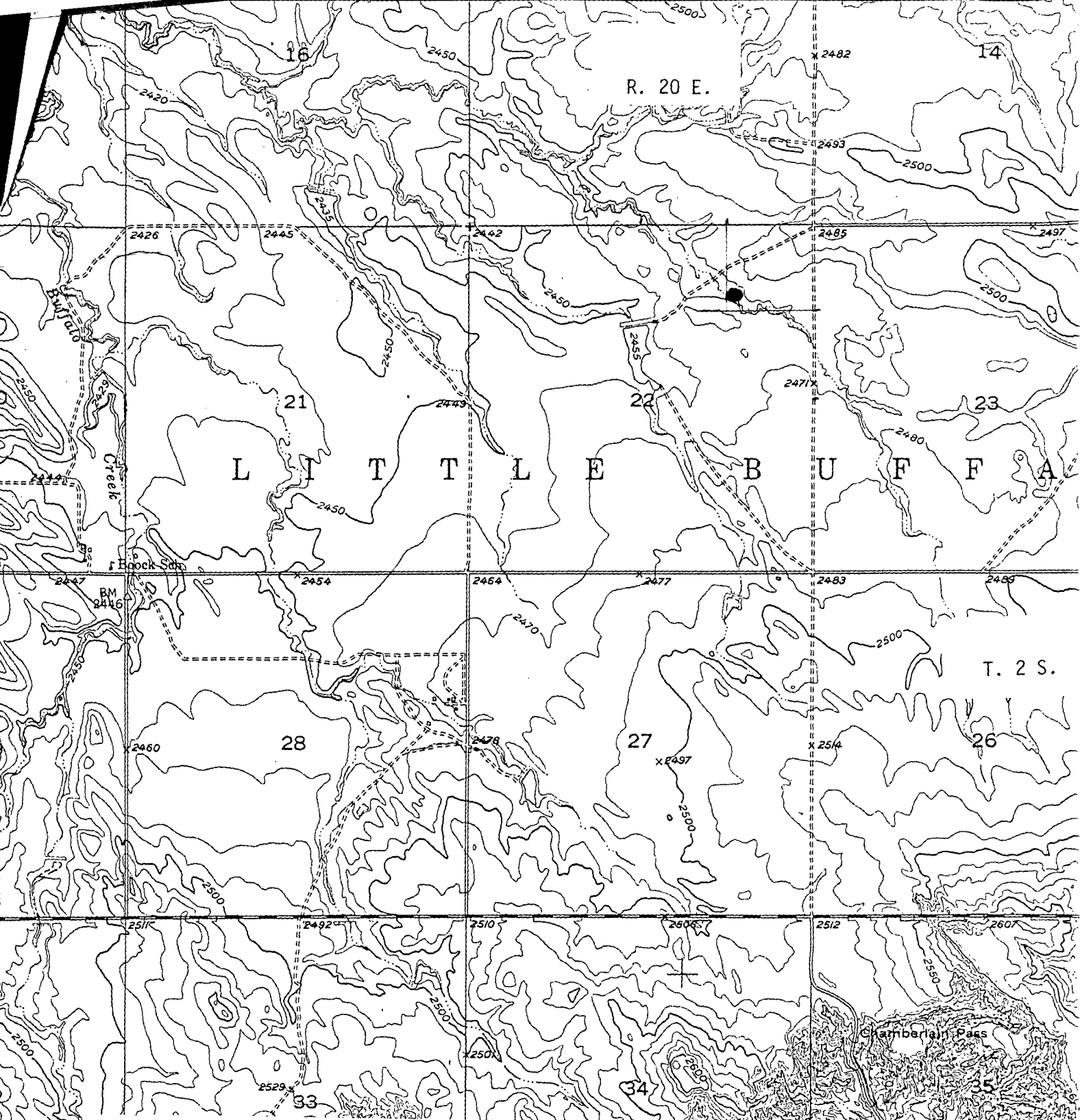
1. Approval of Permit No 2119-2 is subject to submission of Final plans and specifications for review and approval pursuant to Board Rules, Chapter 74:02:08, Safety of Dams.
2. That a low level outlet be provided when the dam is constructed to allow incoming flows to be by-passed.
3. That before any water is stored in the dam, flows as needed for downstream domestic use, including livestock watering, and prior water rights must be bypassed. Water held in storage need not be bypassed, only the inflows as needed for downstream use.
4. Approval of this Permit authorizes storage of up to 82.7 acre-feet of water annually.

WATER MANAGEMENT BOARD

By: 
Chief Engineer, Water Rights Division
Department of Water and Natural Resources

JUL 10 1990

(date)



General Location Map
Boocke 3 DU Project

Location of project proposal ●
BLarson 1/90 *Blarson*



2119-2

RECEIPT

Division of Water Rights

South Dakota Department of Water and Natural Resources

412139

Pierre, March 15, 19 90

RECEIVED OF USDA, Forest Service, Box 425, Wall, SD 57790

the following amount in fees for services rendered as provided for by law:

Fee for Application for Permit No. _____ to Appropriate Water, to construct works and to put water to beneficial use _____	150	00
Fee for Application for Permit No. _____ to Appropriate Water for Future Use _____		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. _____		
Fee for Filing Transfer Form _____		
Fee for Filing Extension Request _____		
Fee for Certified Copy of _____		
Fee for Print Copy of Map _____		
Fee for Certifying _____		
Fee for _____		
(Any Other Work Provided by Law)	Total	150 00

By *John Hatch*
Chief Engineer



United States
Department of
Agriculture

Forest
Service

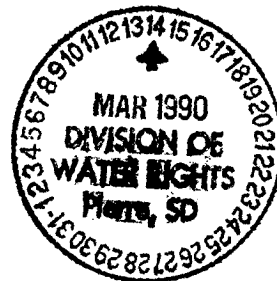
Nebraska
National
Forest

Wall Ranger District
Box 425
Wall, SD 57790
605 279-2125

Reply To: 2540

Date: March 14, 1990

South Dakota Water Rights Division
Attn: Ron Duvall
523 E. Capital
Pierre, SD 57501

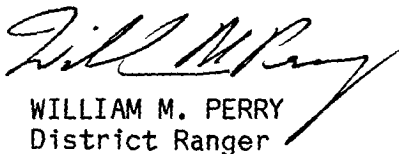


Dear Mr. Duvall:

Please find enclosed an application for permit to appropriate water along with the filing fee of \$150.00. I discussed this permit application with you last week and you indicated that I should forward the application to you even if I could not include a copy of the final plans and risk assessment. I have not yet received these documents from Ducks Unlimited, but I will forward them to you as soon as I receive them.

If you have any questions or concerns with the application please give Brent Larson of my staff a call at (605) 279-2125. For our records would you please send us a signed receipt indicating that you received the \$150.00 filing fee. Thank you for your time and I greatly appreciate your assistance in this matter.

Sincerely,


WILLIAM M. PERRY
District Ranger

Enclosures: (2)



March 23, 1990

USDA, Forest Service
P.O. Box 425
Wall, SD 57790

Dear Sir:

This letter is in response to your water permit application received on March 14, 1990. The following information still needs to be submitted in order to process your application.

- 1) The map you submitted must be signed by one of the following: SD Registered Land Surveyor, SD Registered Professional Engineer or by any other government employee who normally prepares maps as part of his assigned duties (SCS, ASCS, etc.). A copy of your map is attached.
- 2) As your letter stated, I will await a copy of the final plans and risk assessment.

I have also attached receipt of the \$150 application fee.

The water permit application can not be considered by the Water Management Board until the application is complete. Please submit the above mentioned items referencing your water permit application and your application will be processed.

If you have any questions, please contact me.

Sincerely,

Eric Gronlund
Natural Resources Engineer
(605) 773-3352

enc.



United States
Department of
Agriculture

Forest
Service

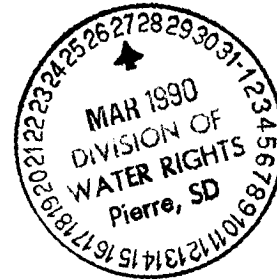
Nebraska
National
Forest

Wall Ranger District
Box 425
Wall, SD 57790
605 279-2125

Reply To: 2540

Date: March 26, 1990

Eric Gronlund
Natural Resources Engineer
South Dakota Water Rights Division
523 E. Capital
Pierre, SD 57501



Dear Mr. Gronlund:

As discussed with Brent Larson of my staff this morning, enclosed is the design report with risk assessment for a dam on the Buffalo Gap National Grasslands. The design report also contains the preliminary drawings of the proposed structure. These drawings will be finalized following the collection of additional soil testing in the area later this week. The map submitted with the application has also been signed by the preparer and also submitted as requested.

If you have any questions or concerns with the design report and drawings of the proposed structure please give Brent Larson of my staff a call at (605) 279-2125. Thank you for your time and I greatly appreciate your assistance in this matter.

Sincerely,

W. M. Perry
WILLIAM M. PERRY
District Ranger

Enclosures



Caring for the Land and Serving People

FS-6200-28(7-82)

DESIGN REPORT

BOOCKE #3 IMPOUNDMENT



LOCATION OF PROPOSED DAM

The proposed dam will be located on Forest Service land in the, NE $\frac{1}{4}$ Section 22 Township 2S, Range 20E. in Jackson County, SD on an unnamed tributary to the Little Buffalo Creek. The watershed contributing to the proposed dam is 970 acres.

RISK ASSESSMENT

There exists a dam on private land in the SE $\frac{1}{4}$ of Section 15 Township 2S, Range 20E. As determined from the Weta Quadrangle the dam is located approximately 6000 feet downstream of the proposed impoundment and produces a reservoir of approximately 9 acres. Neither the condition of the dam nor the type or capacity of structure(s) is known to the author. The proposed impoundment will control approximately 60% of the watershed entering the reservoir in Section 15.

There exists a dam on private land in the S $\frac{1}{2}$ of Section 16, Twp. 2S, Rge. 20E. As determined from the Weta Quadrangle the dam is approximately 11,000 feet downstream from the proposed Boocke #3 allotment and will produce a reservoir of approximately 8 acres. Neither the condition of the dam nor the type or capacity of structure(s) is known to the author. The proposed impoundment will control approximately 33% of the watershed entering the dam in Section 16.

In general terms the existing dams will be at less risk to failure due to high flows should Boocke #3 Impoundment be constructed and function as planned. Failure of the proposed Boocke #3 Dam could result in a higher risk of failure to the existing dams.

At 78,000 feet and 80,000 feet downstream of the proposed Boocke#3 Impoundment exist light duty roadway crossings of unknown capacities. These crossings are on the Little Buffalo Creek. The percentage of watershed controlled by Boocke #3 Dam is now less than 10% and the risk associated with Boocke #3 is diminished.

CLASSIFICATION OF PROPOSED DAM

As described in Section 74:02:08:05 CLASSIFICATION OF DAMS -- HAZARD POTENTIAL, no loss of life and minimal or no economic loss is expected on surrounding lands as a result of constructing the proposed dam. It is recommended the dam be classified as a small category 3 dam. The product of the intermediate storage capacity and the effective height is 1400.

DESIGN

Boocke #3 Dam is designed to meet or exceed South Dakota standards for a small category 3 dam. The primary spillway will pass flows produced by a 10 year 24 hour rainfall without utilizing the emergency spillway. The emergency spillway will pass flows produced by the 100 year 24 hour rain with a maximum velocity of 4.5 feet per second in the outlet channel. The Dam is of sufficient height to create a minimum freeboard of 1.0 feet over the water level produced by the 100 year 24 hour rain.

DISCHARGE CAPACITY

The SCS TR-20 Hydrology program was used to determine the discharge at various reservoir stages with respect to time. The program uses accepted procedures to develop inflow and outflow hydrographs. The data inputed into the TR-20 program was calculated from accepted formulas and procedures. The primary spillway capacity was calculated by comparing discharges developed by the weir flow formula, orifice flow formula, and formulas for calculating head loss through corrugated metal pipe. The emergency spillway capacity was calculated using Technical Release No. 39 Hydraulics of Broad-Crested Spillways developed by the Soil Conservation Service.

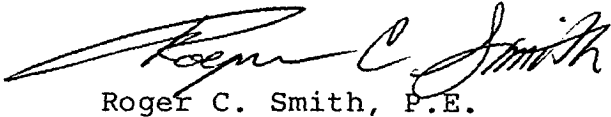
The following is a relationship between peak inflows, corresponding outflows and reservoir elevations:

EVENT	INFLOWS (CFS)	MAX. WATER SURFACE	OUTFLOWS (CFS)
		ELEVATION (MSL)	
10 Yr.	257.8	2466.08	56.5
50 Yr.	419.2	2466.57	118.8
100 Yr.	522.9	2466.81	170.8

PLANS, SPECIFICATIONS, AND SOILS REPORT

The preliminary set of plans and soil report are submitted with the Design Report. A set of standard construction specifications has been submitted to the Division of Water Rights for the purpose of permit review. This information will satisfy section 74:02:08:09 of the "SD Dam Safety Requirements."

Submitted by:

A handwritten signature in black ink, appearing to read "Roger C. Smith". The signature is fluid and cursive, with the first name "Roger" and last name "Smith" clearly distinguishable.

Roger C. Smith, P.E.

South Dakota Professional Engineer
Certificate Number 4325

NAME OF PERSON OR FILE: USDA FOREST SERVICE

ADDRESS: WALL, SD COUNTY JACKSON

DATE: APRIL 2, 1990 TELEPHONE (605) 279-2125

RE: CONSTRUCTION OF DAM - APP. No. 2119-2

COMMENTS:

SPOKE TO BRENT LARSON W/USDA ABOUT
THE BOOCKE #3 PROJECT IN APPLICATION
NO. 2119-3. THERE ARE EXISTING DAMS
DOWNSTREAM THAT WILL BE AFFECTED.

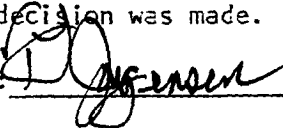
1) JEROME STOUT HAS WR #505-2 TO
IRRIGATE 137.9 ACRES @ 1.97 cfs

2) STOUT NOT OPPOSED TO PROJECT
AND WILL SIGN A WAIVER ACCORDING
TO MR. LARSON

3) ALSO, STOUT WOULD LIKE TO TRADE
THE GROUND IN WR 505-2 TO
USDA FOR LAND CLOSER TO HIS
PLACE AS PER MR. LARSON

WILL
THE PROJECT CONTROL SOME OF THE
DRAINAGE AREAS AFFECTING MR STOUT'S
LAND & DAMS IF THE APPLICATION IS
APPROVED.

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

NAME: 

RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 2119-2, USDA, Forest Service

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Division, Department of Water and Natural Resources concerning Water Permit Application No. 2119-2, USDA, Forest Service, PO Box 425, Wall SD.

The Chief Engineer is recommending APPROVAL of Application No. 2119-2 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) in the public interest with the following qualifications:

1. Approval of Permit No. 2119-2 is subject to submission of Final plans and specifications for review and approval pursuant to Board Rules, Chapter 74:02:08, Safety of Dams.
2. That a low level outlet be provided when the dam is constructed to allow incoming flows to be by-passed.
3. That before any water is stored in the dam, flows as needed for downstream domestic use, including livestock watering, and prior water rights must be bypassed. Water held in storage need not be bypassed, only the inflows as needed for downstream use.
4. Approval of this Permit authorizes storage of up to 82.7 acre-feet of water annually.

See the attached report for additional information.


JOHN HATCH, Chief Engineer
April 11, 1990

REPORT ON APPLICATION NO. 2119-2

USDA Forest Service

April 4, 1990

Application No. 2119-2 proposes to impound 82.7 acre-feet of water by constructing a dam. The dam site is to be located on an unnamed tributary to the Little Buffalo Creek in the E1/2 NE1/4, section 22, T2S, R20E, Jackson County, SD. Water is to be stored annually to an approximate elevation of 2464.5 feet mean sea level (msl) and is to be used to provide wetland habitat for production of waterfowl and other wildlife species.

DISCUSSION

The USDA Forest Service in cooperation with Ducks Unlimited (DU) proposes to construct a dam to impound surface runoff for a waterfowl habitat improvement project. The proposed dam has a storage capacity of 140 acre-feet at the emergency spillway elevation of 2466 feet msl. The proposed operating capacity is 82.7 acre-feet at the primary spillway elevation of 2464.5 feet msl. The drainage area for this structure encompasses approximately 970 acres.

The proposed structure must meet the Safety of Dams Requirements as outlined in ARSD 74:02:08 since it has a storage capacity in excess of 50 acre-feet. A preliminary risk assessment submitted with the application recommends a Category 3 (low hazard) classification for the dam since there are no dwellings immediately downstream and the potential for economic loss is minimal in the event of a dam failure. It is a small size dam (i.e., less than 1000 acre-feet of storage) and qualifies for the spillway exception as provided for in ARSD 74:02:08:07.01. This states that if the product of the effective storage height and the intermediate storage is less than 3000, the spillway is required to pass a 25 year event without overtopping the dam. In this case, the product is 1400 (10 feet x 140 acre-feet).

The above information is based upon the Design Report and a set of "preliminary plans" that were submitted with the application. The final plans will be submitted when the soils investigation is completed so that test hole borings and data may be added to the plans.

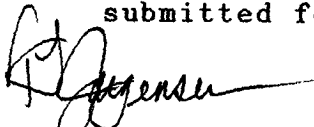
REVIEW OF AREA WATER RIGHTS

The proposed dam will affect two dams located downstream at distances of 6000 and 11,000 feet according to the topographic map of the area. The Design Report states that the proposed structure will control approximately 60% and 33% of the drainage basins of these dams respectively. The dams belong to Jerome

Stout and are covered in Water Right No. 505-2 for irrigation of 137.9 acres (diversion rate of 1.97 cfs) and for domestic purposes (stock watering). The location of the proposed dam would reduce the amount of runoff available and therefore reduce the amount of water available for use as authorized in Water Right No. 505-2.

CONCLUSIONS

1. Application No. 2119-2, if approved, proposes to impound 82.7 acre-feet at an elevation of 2464.5 feet msl.
2. The impoundment will be used to improve wildlife habitat.
3. Water Right No. 505-2 will be affected by the construction of the proposed dam. Therefore, low flows must be bypassed to satisfy the existing Water Right.
4. Final plans and specifications as required pursuant to the Safety of Dams regulations (ARSD 74:02:08) have not been submitted for approval.



Terry L. Jorgensen
Natural Resources Engineer
Division of Water Rights

Approved by:



Gale N. Selken, P.E.
Natural Resources Engineer IV

REFERENCES

Division of Water Rights, 1990, Water Right Files, DWNr,
Division of Water Rights, Joe Foss Building, Pierre, SD.



Department of Water & Natural Resources

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

April 12, 1990

NOTE: TO BE SURE OF PUBLICATION ON
THE CORRECT DATES, CONTACT
THE NEWSPAPER RIGHT AWAY.

Robert Storch
USDA, Forest Service
Box 425
Wall, SD 57790-0425

Dear Mr. Storch:

Water Permit Application No. 2119-2 has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice of hearing has been sent to the Publisher of the Kadoka Press printed at Kadoka SD. For your information, a copy of the notice is enclosed. Copies of the report and the Chief Engineer's recommendation are also enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

Be sure to contact the above newspaper to authorize publication of your Notice of Intent to Appropriate Water and to arrange for payment. Early contact with the paper can eliminate delays. The publisher has been instructed to publish your notice once each week for two consecutive weeks with the last publication to occur twenty days before the board meeting. We must receive Proof of Publication before the application can be considered by the Water Management Board.

Sincerely,

A handwritten signature in cursive script that reads "Eric Gronlund".

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures



Department of Water & Natural Resources

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

April 12, 1990

Kadoka Press
Box 309
Kadoka, SD 57543-0309

ATTN: Legal Publications:

Enclosed is a Notice of Hearing on Application No. 2119-2 to be published twice. Please publish the first notice on or before April 19, 1990 with the second publication 7 days later.

The APPLICANT MUST VERIFY TO YOU THAT THE NOTICE IS TO BE PUBLISHED, before you make the first publication. Please BILL the APPLICANT for the cost of publication. The APPLICANT is USDA, Forest Service, Box 425, Wall, SD 57790-0425.

A copy of BOTH publications must be SENT to the WATER RIGHTS DIVISION. IMMEDIATELY return the FIRST publication with the FIRST Transmittal form on the bottom of this page. The first copy is needed to check the publication for errors so any corrections can be made in the second publication. Publication errors can invalidate the public notice and cause the applicant costly delays.

Please be sure the SECOND publication is returned IMMEDIATELY with the enclosed Proof of Publication form. DO NOT WAIT until the end of the month or the billing cycle. The permit application cannot be considered by the Water Management Board until proof of publication has been received.

Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

-----CUT HERE-----

FIRST TRANSMITTAL NOTICE

TO: Eric Gronlund
Water Rights Division
Joe Foss Building
Pierre SD 57501-3181

No. _____

Date _____

We are in receipt of your letter of _____ enclosing Notice of Hearing to Appropriate Water by Application No. _____ which was first published in our issue of _____. ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.

Name Newspaper

Instruction to Newspaper - Publish first Notice on or before April 19, 1990 with 2nd publication 7 days later. The applicant is responsible for payment.

NOTICE OF HEARING on Application No. 2119-2 to Appropriate Water

Notice is given that USDA, Forest Service, Box 425, Wall, SD 57790-0425 has filed an application for a water permit to impound 82.7 acre-feet of water by constructing a dam. The damsite is to be located on an unnamed tributary to the Little Buffalo Creek in the E1/2 NE1/4 Section 22-T2S-R20E. Water is to be stored annually to an approximate elevation of 2464.5 feet mean sea level and is to be used to provide wetland habitat for production of waterfowl and other wildlife species.

Pursuant to SDCL 46-2A-2, the Chief Engineer of the Water Rights Division recommends APPROVAL of Application No. 2119-2 with qualifications because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water and 4) it is in the public interest. This application will be considered by the Water Management Board in the Pelican Room, Ramkota Inn, Hwy 212, Watertown, SD on May 23, 1990 at 10:00 am. The Chief Engineer's recommendation is not final or binding upon the Board. The Board is authorized to 1) approve, 2) approve with qualifications, 3) defer or 4) deny this application based on the facts presented at the public hearing.

Any interested person that intends to participate in the hearing before the Board by presenting evidence or cross-examining witnesses according to SDCL 1-26, must file a written petition with BOTH the applicant and Chief Engineer by May 11, 1990. The Chief Engineer's address is "Water Rights Division, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)". The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application and the signature and mailing address of the petitioner or legal counsel if legal counsel is obtained. The applicant need not file a petition. Contact the Water Rights Division to request information on this application or to assure access to the hearing by the handicapped.

This hearing is an adversary proceeding. Any person filing a petition and/or the applicant have the right to be represented by a lawyer. These and other due process rights will be forfeited if not exercised. Decisions of the Board may be appealed to the Circuit Court and State Supreme Court as provided by law. The time of the hearing will also be automatically delayed for at least twenty days upon written request to the Chief Engineer from the applicant or a petitioner. The request for a delay must be received by May 11, 1990.

This application is made pursuant to SDCL 46-1-1 thru 46-1-9, 46-1-12 thru 46-1-15; 46-2-3.1, 46-2-9, 46-2-11, 46-2-13, 46-2-17; 46-2A-1 thru 46-2A-10, 46-2A-12, 46-2A-14, 46-2A-15; 46-5-1 thru 46-5-11, 46-5-13 thru 46-5-15, 46-5-24, 46-5-25, 46-5-30.2, 46-5-30.4, 46-5-31; and Board Rules ARSD 74:02:01:01 thru 74:02:01:15.

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
 County Jackson) ss.

I, Ronda Eckert

certify that the attached printed Notice was taken
 from the Kadoka Press

A newspaper which during the whole time of publication of
 said notice herein after stated, has been and is printed and
 published in the _____

City of Kadoka

County of Jackson and State of South Dakota;
 that the said notice was published in said newspaper on the
 following two dates:

April 19th 1990

April 26th 1990

Ronda Eckert
 (Signature)

Legal Advertising Manager
 (Title)

April 26 1990
 (Date Signed)

Cost of Printing: \$ 36.21



NOTICE OF HEARING

on Application No. 2119-2
 to Appropriate Water

Notice is given that USDA, Forest Service, Box 425, Wall, SD 57790-0425 has filed an application for a water permit to impound 82.7 acre-feet of water by constructing a dam. The damsite is to be located on an unnamed tributary to the Little Buffalo Creek in the E½ NE¼ Section 22-T2S-R20E. Water is to be stored annually to an approximate elevation of 2464.5 feet mean sea level and is to be used to provide wetland habitat for production of waterfowl and other wildlife species.

Pursuant to SDCL 46-2A-2, the Chief Engineer of the Water Rights Division recommends APPROVAL of Application No. 2119-2 with qualifications because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water and 4) it is in the public interest. This application will be considered by the Water Management Board in the Pelican Room, Ramkota Inn, Hwy 212, Watertown, SD on May 23, 1990 at 10:00 a.m. The Chief Engineer's recommendation is not final or binding upon the Board. The Board is authorized to 1) approve, 2) approve with qualifications, 3) defer or 4) deny this application based on the facts presented at the public hearing.

Any interested person that intends to participate in the hearing before the Board by presenting evidence or cross-examining witnesses according to SDCL 1-26, must file a written petition with BOTH the applicant and Chief Engineer by May 11, 1990. The Chief Engineer's address is "Water Rights Division, Foss Building, 523 E. Capitol, Pierre, SD 57501 (605 773-3352)". The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application and the signature and mailing address of the petitioner or legal counsel if legal counsel is obtained. The applicant need not file a petition. Contact the Water Rights Division to request information on this application or to assure access to the hearing by the handicapped.

This hearing is an adversary proceeding. Any person filing a petition and/or the applicant have the right to be represented by a lawyer. These and other due process rights will be forfeited if not exercised. Decisions of the Board may be appealed to the Circuit Court and State Supreme Court as provided by law. The time of the hearing will also be automatically delayed for at least twenty days upon written request to the Chief Engineer from the applicant or a petitioner. The request for a delay must be received by May 11, 1990.

This application is made pursuant to SDCL 46-1-1 thru 46-1-9, 46-1-12 thru 46-1-15; 46-2-3.1, 46-2-9, 46-2-11, 46-2-13, 46-2-17; 46-2A-1 thru 46-2A-10, 46-2A-12, 46-2A-14, 46-2A-15; 46-5-1 thru 46-5-11, 46-5-13 thru 46-5-15, 46-5-24, 46-5-25, 46-5-30.2, 46-5-30.4, 46-5-31; and Board Rules ARSD 74:02:01:01 thru 74:02:01:15.

Publish April 12, 26, 1990



Department of Water & Natural Resources

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

JUL 10 1990

Robert Storch
USDA, Forest Service
Box 425
Wall SD 57790-0425

Dear Mr. Storch:

Enclosed is Water Permit No. 2119-2 as approved by the Water Management Board authorizing you to construct your water diversion system and put the water to beneficial use, not exceeding the limits as specified in the Water Permit.

Also enclosed is Form 10, Notice of Completion of Works and Application of Water to Beneficial Use, which you are to complete and submit to the Chief Engineer when you have completed the system and/or have put the water to beneficial use. An inspection can then be scheduled so that the Water License may be issued, thus completing your acquisition of a Water Right.

Very truly yours,

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

enclosures

PLEASE NOTE: Certain changes can be made in your permit within the five year construction period, usually without affecting the priority date provided an application to amend your permit is made within the five year period - i.e. changes in location or number of diversion points (wells) or location of land to be irrigated. Well locations for wells into the same aquifer can be moved up to 660 feet without application.

Applications to amend a permit after the five year construction period will be assigned a new priority date. Applications to change water sources, to add lands or increase original diversion rates, if approved will usually receive the date of the new application as a priority date regardless of the five year construction period.



United States
Department of
Agriculture

Forest
Service

Buffalo Gap
National
Grassland

Wall Ranger District
Box 425
Wall, SD 57790
605 279-2125

Reply To: 2630

Date: June 13, 1994

Water Rights Division
SD Dept of Water and Natural Resources
Attn: John Hatch, Chief Engineer
Joe Foss Building
Pierre, SD 57501-3181



Dear Mr. Hatch:

Enclosed is the Notice of Completion of Works and Application of Water to Beneficial Use (Form 10) for Water Permit No. 2119-2 dated July 10, 1990. In checking our records we located this form. Due to changes in our staff we are not sure if this form was completed. Please advise us as to the status of this application.

If you have any questions or concerns please contact Terri or Misty.

Sincerely,

WILLIAM M. PERRY
District Ranger

Enclosure





NOTICE OF COMPLETION OF WORKS AND
APPLICATION OF WATER TO BENEFICIAL USE

Date June 13, 1994

TO: Water Rights Division, DWNR
Joe Foss Building
Pierre SD 57501-3181

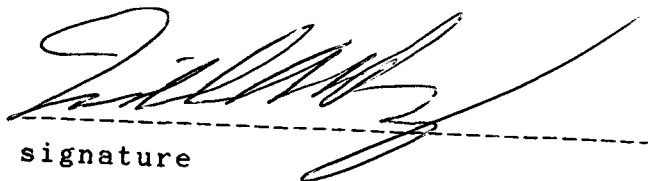
FROM: USDA Forest Service P.O. Box 425 Wall, SD 57790
name address city

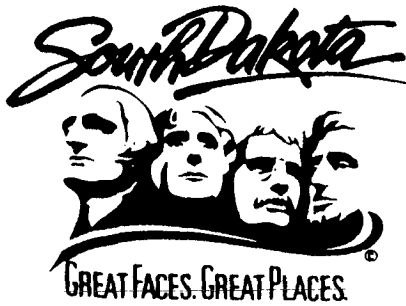
I have completed the construction of the water diversion system and I have put the water to beneficial use to the maximum extent it is going to be used. I have not exceeded the amounts specified in Water Permit No. 2119-2.

Water Permit No. 2119-2 states that the diversion system is to be constructed by May 24, 1995, and that the water it put to beneficial use by May 24, 1999.

The diversion system was completed on October 3, 1990.
Applying the water to beneficial use was completed on May 1, 1992.

You may schedule an inspection so that the Water License may be issued.


signature



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

June 29, 1994

2119-2

William M Perry, District Ranger
USDA Forest Service
Wall Ranger District
Box 425
Wall, SD 57790

Dear Mr. Perry:

This will acknowledge receipt of the "Notice of Completion of Works and Application of Water to Beneficial Use" for Water Permit No. 2119-2.

Water Permit No. 2119-2 was approved on May 24, 1990. The time limit for completion of works, as specified in the permit, is May 24, 1995. Typically, we do not schedule an inspection of the project until after the completion date expires. Receipt of the "Notice of Completion of Works" prior to the end of the completion date allows us to schedule an inspection and process the water license.

I am enclosing a copy of your Water Permit No. 2119-2 in the event you no longer have your original copy. An inspection will be scheduled at a later date. Thank you for making an inquiry into this matter. If you have any questions, please contact me.

Sincerely,

Genny McMath
Environmental Scientist
Water Rights Division
(605) 773-3352

enclosure



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181

November 2, 1995

2119-2

William M. Perry, District Ranger
USDA Forest Service
P.O. Box 425
Wall, SD 57790

Dear Mr. Perry:

The inspection of your water use system and the inspection of the extent of application of water to beneficial use, as developed under Water Permit No. 2119-2, has been completed. Your final water right document, the Water License, can now be issued.

Statutes require that we charge a \$50.00 fee for the inspection and issuance of the Water License. Upon receipt of the \$50.00 fee from you, we will begin processing your Water License.

Please remit fee to:
Department of Environment & Natural Resources
Water Rights Program
523 E. Capitol
Pierre, SD 57501-3181

South Dakota Water Law 46-5-30.1 requires that a permit holder may not divert water until the \$50.00 license fee has been paid. Please contact us if you have any questions.

Sincerely,

Cheryl F. Frost
Secretary
Water Rights Program
(605) 773-3352

NOTE: On check or money order, please specify your permit number. This will insure proper handling of the fee.

RECEIPT

414685

Division of Water Rights

South Dakota Department of Environment and Natural Resources

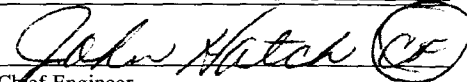
Pierre, _____ November 28, 19 95

RECEIVED OF USDA Forest Service, Wall Ranger Dist., 708 Main St., Box 425, Wall, SD 57790-04

the following amount in fees for services rendered as provided for by law:

Fee for Application for Permit No. _____ to Appropriate Water, to construct and to put water to beneficial use _____		
Fee for Application for Permit No. _____ to Appropriate Water, for Future Use _____		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. <u>2119-2</u>	50	00
Fee for Filing Transfer Form _____		
Fee for Filing Extension Request _____		
Fee for _____		

(Any Other Work Provided by Law)	Total	50 00

By John Hatch 
Chief Engineer

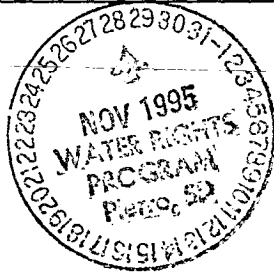


United States
Department of
Agriculture

Forest
Service

Buffalo Gap
National
Grassland

Wall Ranger District
Box 425
Wall, SD 57790
605 279-2125



Reply To: 6310-3

Date: November 27, 1995

Department of Environment & Natural Resources
Joe Foss Building
523 East Capitol
Pierre, SD 57501-3181



CERTIFIED

To Whom It May Concern:

I have attached check # 0203481045 for \$50.00 for Water Permit number 2119-2 for the USDA, Forest Service.

For my records I need an invoice with an original signature and the date it was paid. Thank you for your help.

Sincerely,

WILLIAM M. PERRY
District Ranger

Enclosures: (3)



Caring for the Land and Serving People



Permit No. 2119-2
Bad River - Water District

Report Of Examination Of Works And/Or Application of Water To Beneficial Use

TO: Chief Engineer, Division of Water Rights, DENR, Foss Bldg., Pierre, SD 57501

I have this day, October 12, 1995, made a thorough examination of the water use system constructed by USDA Forest Service of P.O. Box 425, Wall SD 57790 holder of Permit No. 2119-2, bearing the priority of March 14, 1990 authorizing the storage of 82.7 acre-feet of the waters of runoff for Recreational & Domestic purposes, in Jackson County.

I have to report on the conditions of the same as follows:

A. Works used to divert the water: **10.5 foot high dam with a Normal Storage Capacity of 82.7 acre feet.**

B. Works used to transport water to place of use: **N/A**

C. Works used to apply water to beneficial use: **Same as above**

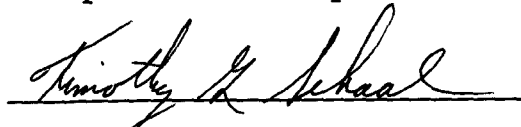
The system is in the following condition Good. The point of diversion is located 1120 ft. West & 1120 ft. South of the NE corner of Section 22-T2S-R20E (NE 1/4 NE1/4). The works are capable of storing 82.7 acre-feet of water which is to be used for Recreational & Domestic use. Water has been put to beneficial use to the maximum extent as follows:

The construction of the dam and storage of 82.7 acre feet of water.

and the license should be issued for 82.7 acre-feet of storage.

Applicable permit qualifications have been complied with: XX Yes No

Exceptions to compliance are: N/A Date Report Completed: October 16, 1995



Timothy G. Schaal, P.E.
Natural Resources Engineer III
Water Rights Program

REPORT ON INSPECTION OF PERMIT NO. 2119-2

Other permit(s) associated with the project:

DATE OF INSPECTION: October 12, 1995

NAME & ADDRESS OF INSPECTION CONTACT/ none
RELATIONSHIP TO PERMIT HOLDER, IF APPLICABLE:

NAME & ADDRESS OF PERMIT HOLDER: USDA Forest Service, P.O. Box 425, Wall, SD 57790

DIVERSION POINT LEGAL LOCATION: 1120 feet West & 1120 feet South of the NE corner of
Section 22-T2S-R20E (NE 1/4 NE 1/4)

DAM INFORMATION:

- 1) Height to crest 10.5 feet
- 2) Height to primary spillway 7.0 feet
- 3) Height to secondary spillway 8.5 ft
- 4) Crest width 12 feet
- 5) Crest length 540 feet
- 6) Spillway length feet
- 7) Spillway width 100 feet
- 8) Approx. storage 82.7 ac-ft
- 9) Approx. storage to crest 100 ac-ft
- 10) Date constructed: 1990

PERMIT QUALIFICATIONS AND REGULATIONS:

- 1) Soil and water permit lands agree with lands being irrigated and lands listed on permit NA
- 2) Special qualifications to permit being abided by YES
- 3) All structures, wells and lands on map YES
- 4) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period N/A

CHECK LIST FOR FIELD INSPECTION

Permit Number 2119-2 USDA Forest Service Date Oct. 12 1995

Other permit(s) associated with the project _____

NOTE: For Permits with additional wells or changes in well locations, record the following for each well: pumping capacity, date constructed, well driller and if a well log is available.

1. Diversion point legal location: 1120 ft. West & 1120 ft. South of
NE Corner Sec. 22-T2S-R20E (NE 1/4 NE 1/4)

2. Well Information: Well Drilling Firm _____

No. of wells _____ Depth(s) _____

a) Casing 1) diameter _____ inches

2) length _____ feet

3) type _____

d) Static Water Level _____ feet

e) Motor:

1) make _____

2) model No. _____

3) horsepower rating _____

b) Screen 1) type _____

2) length _____ feet

c) Pump 1) make _____

2) model _____

3) Size _____ inches

4) capacity _____ GPM

5) turbine pump - No. of stages _____

6) operating pressure _____ PSI

3. Distribution lines or canals:

a) type _____ b) size _____ c) length _____

4. System Type:

a) Sideroll:

1) length _____ feet

2) diameter of pipe _____ inches

3) sprinkler spacing _____ feet

b) Towline:

1) length _____ feet

2) sprinkler spacing _____ feet

4. System Type (continued):

c) Siphons:

- 1) size _____ inches
- 2) number _____

e) Center pivot:

- 1) make _____
- 2) overall length _____ feet
- 3) number of towers _____
- 4) distance between towers _____ feet
- 5) end gun _____ (Y/N)
- 6) high or low pressure _____
- 7) capacity _____ GPM

d) Gated pipe:

- 1) length _____ feet
- 2) diameter _____ inches
- 3) spacing of gates _____ inches

f) Gun:

- 1) make _____
- 2) nozzle size _____ inches
- 3) capacity _____ GPM
- 4) hose size _____ inches
- 5) hose length _____ feet

5. Dam Information: ID # 2220

- a) height to crest 10.5 feet
- b) height to primary spillway 7 feet
- c) height to secondary spillway 8.5 feet
- d) crest width 12 feet
- e) crest length 490 540 feet
- f) spillway length _____ feet
- g) spillway width 100 feet
- h) approx. storage 82.7 ac-ft
- i) approx. storage to crest 100 ac-ft
- j) date constructed 1990

k) outlet tubes:

- 1) diameter 48" Riser
30" Barrel inches
- 2) type CMP
- 3) valved No (Y/N)
- 4) valve type _____
- 5) location on structure
Center

l) category of dam 3 (I, II, III)

m) inspection sheet completed N (Y/N)

n) name of contractor _____

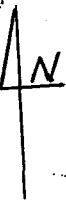
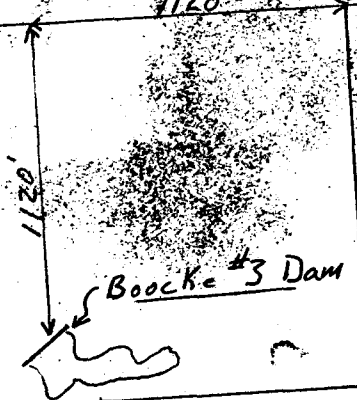
6. Chemigation Equipment:

- b) main line check valve _____ (Y/N)
- d) low pressure drain _____ (Y/N)
- f) interlock type _____
- g) injection pump type _____
- i) injection line check valve or positive displacement pump _____ (Y/N)
- j) all chemigation equipment appears to be installed in proper position and comply with chemigation laws and rules _____ (Y/N)
- k) comments:
- a) does chemigate _____ (Y/N)
- c) inspection port/air relief _____ (Y/N)
- e) discharge is 20' from source _____ (Y/N)
- h) injection check valve _____ (Y/N)

2-20

71-L

1120'



22

T2S-R20E

Robert G. Wood
October 16, 1945

2-20

71-L

21.3

16.9

2119-2

STATE OF SOUTH DAKOTA

WATER LICENSE NO. 2119-2

(1) The USDA, Forest Service, PO Box 425, Wall SD 57790 made Application No. 2119-2, March 14, 1990 for a water permit to store 82.7 acre feet of water annually from a unnamed tributary to the Little Buffalo Creek, Jackson County, South Dakota for waterfowl and wildlife production purposes. Permit No. 2119-2, with a priority date of March 14, 1990 was approved May 24, 1990 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before May 24, 1995 and for the application to beneficial use of said water on or before May 24, 1999.

The permit holder submitted a "*Notice of Completion of Works and Application of Water to Beneficial Use*" on June 14, 1994. The "*Notice*" stated the diversion system was completed on October 3, 1990 and the water placed to beneficial use May 1, 1992.

(2) It is certified that the applicant has complied with the provisions of South Dakota State Law relating to completion of the construction of the water supply system and is entitled to store 82.7 acre-feet of water annually for beneficial use. The location of the diversion point is 1120 feet west and 1120 feet south of the northeast corner of Section 22-T2S-R20E (NE 1/4 NE 1/4).

(3) The applicant has complied with the provisions of South Dakota State Law relating to the application of water to beneficial use.

(4) Pursuant to South Dakota Water Law 46-5-30.1 the USDA, Forest Service, PO Box 425, Wall SD 57790 the holder and/or owner of Water Permit No. 2119-2 is issued a license to appropriate water, the right to store 82.7 acre feet of water annually from an unnamed tributary to the Little Buffalo Creek and runoff with a priority date of March 14, 1990 from the location specified in (2) of this license. The water is to be used for the purpose of waterfowl and wildlife production. This license is subject to any limitations or qualifications listed in Water Permit No. 2119-2 and subject to South Dakota State Law.


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

DEC 18 1995

date





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3181

DEC 18 1995

2119-2

William M. Perry, District Ranger
USDA Forest Service
P.O. Box 425
Wall, SD 57790

Dear Mr. Perry:

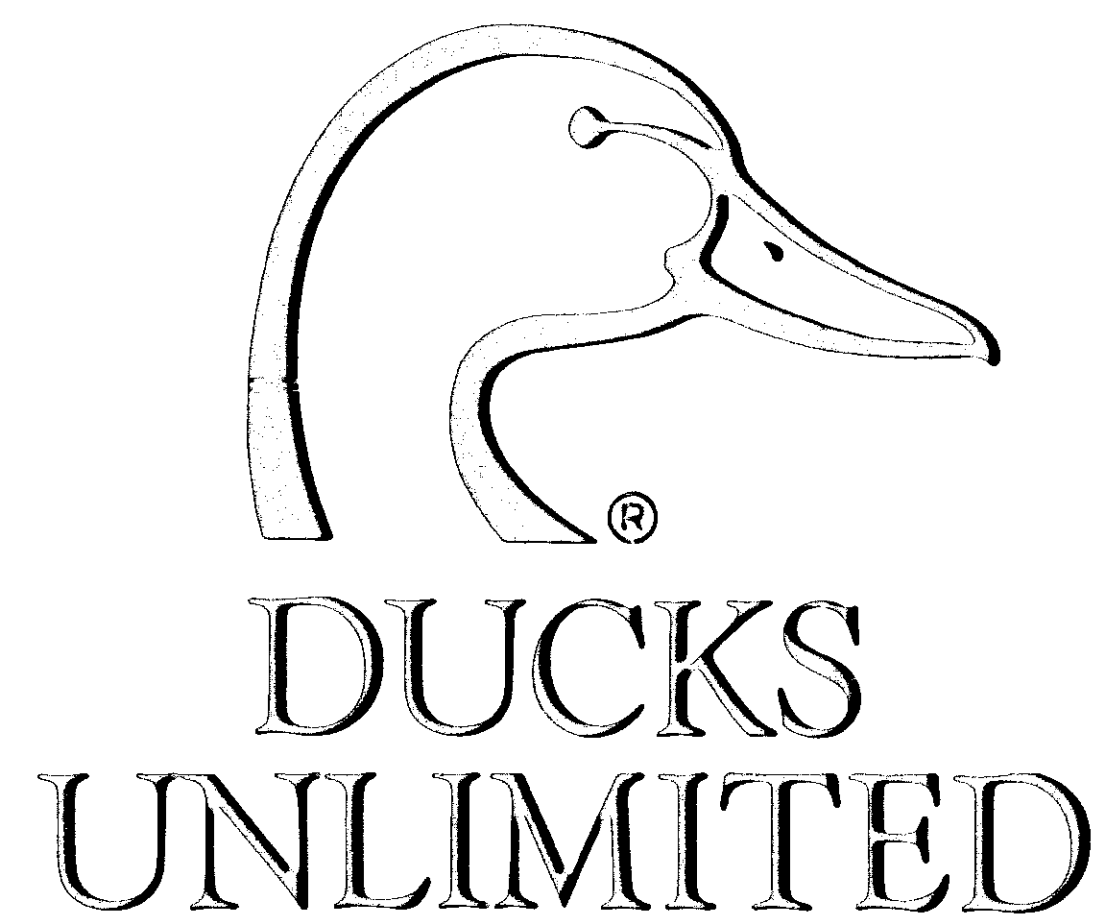
Enclosed is Water License No. 2119-2. Water License No. 2119-2 is the final document which completes the process of obtaining a water right.

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

Very truly yours,

JOHN HATCH, Chief Engineer
Water Rights Program
(605) 773-3352

rd
enclosures



DUCKS UNLIMITED

PROJECT

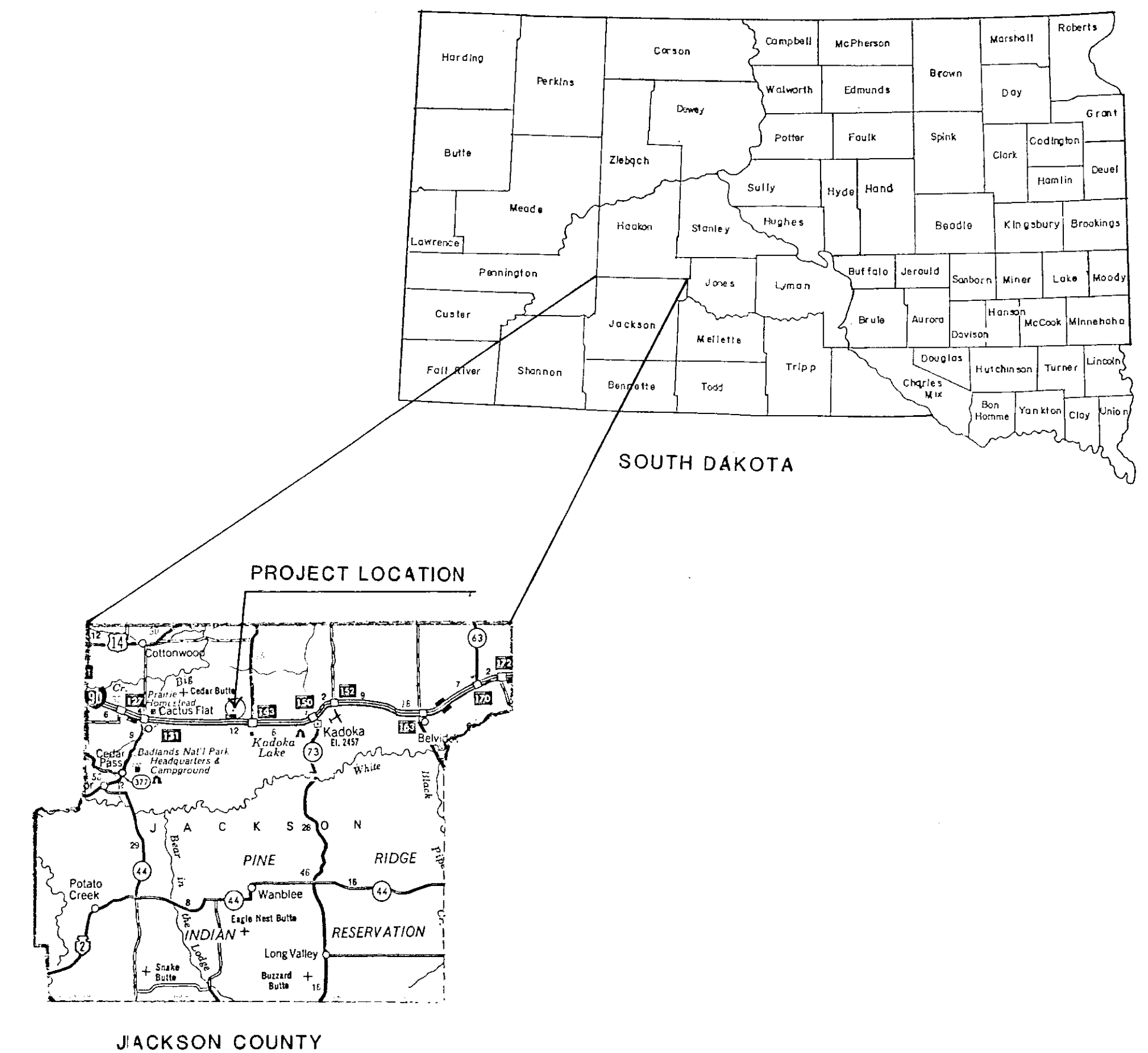
BOOCKE # 3

SEC. 22, TWP. 2 S., RGE. 20 E.

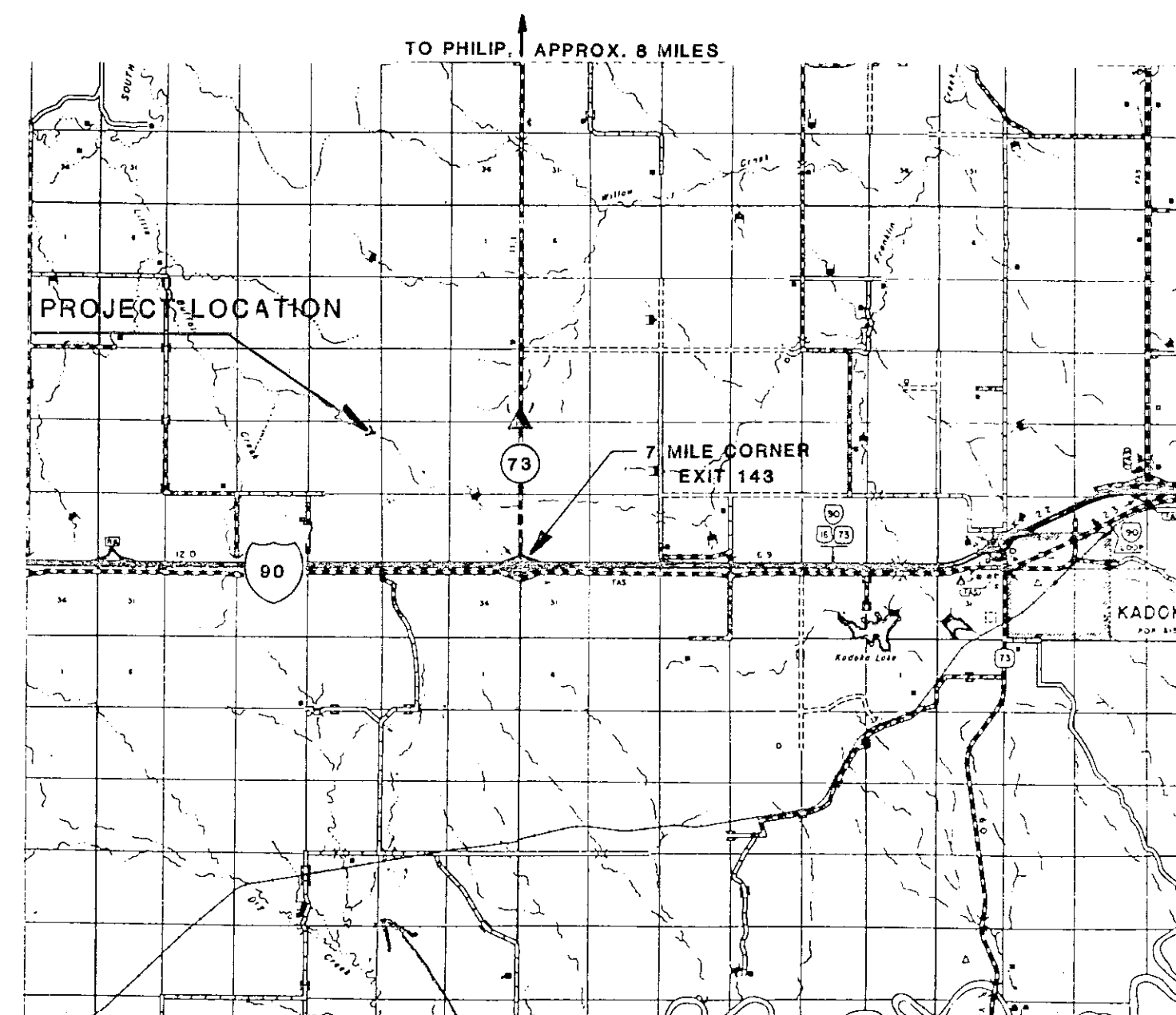
JACKSON COUNTY, SOUTH DAKOTA

IN COOPERATION WITH

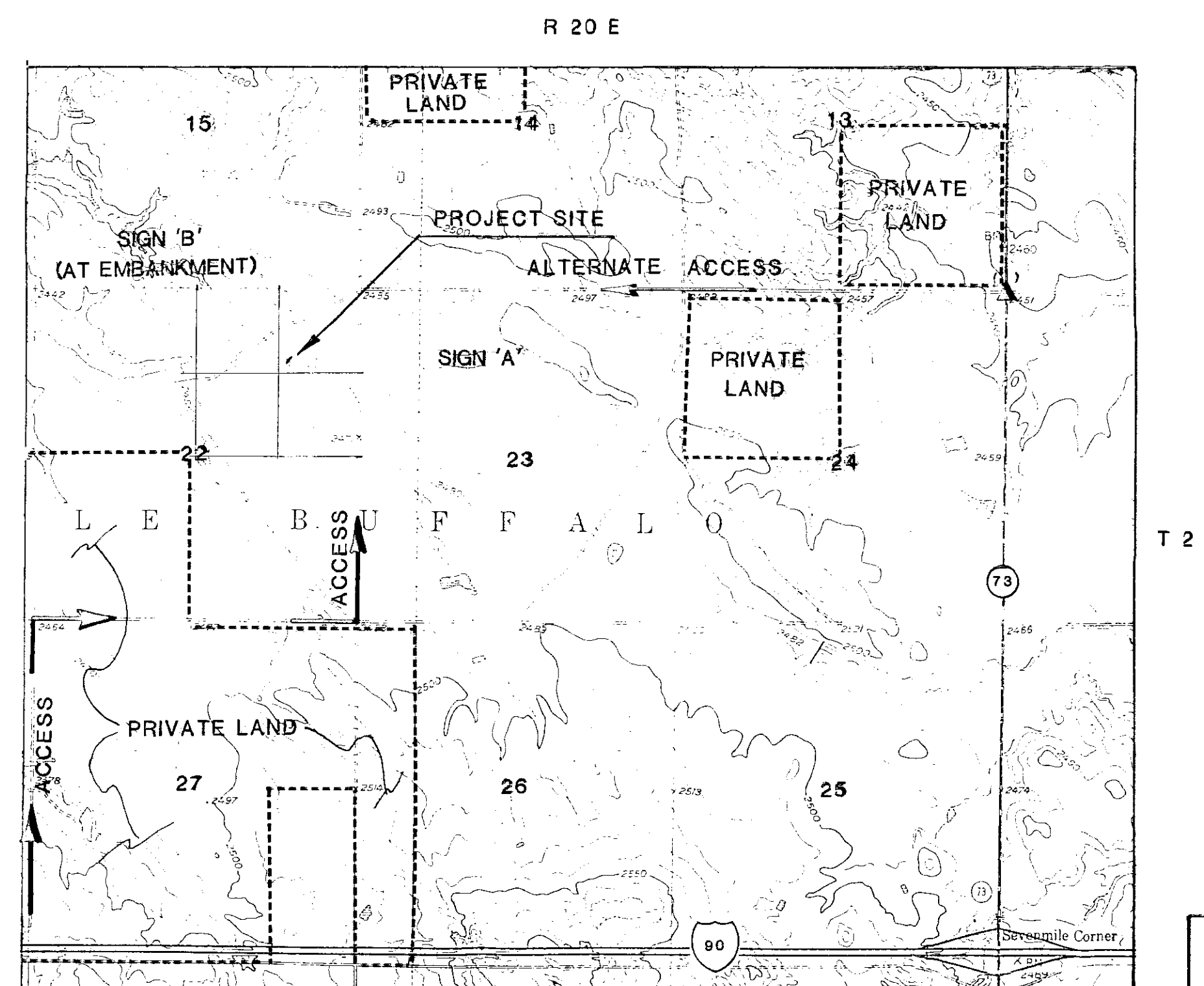
US. FOREST SERVICE



IS 7 MI. WEST 2 MI. NORTH OF KADOKA



LOCATION MAP



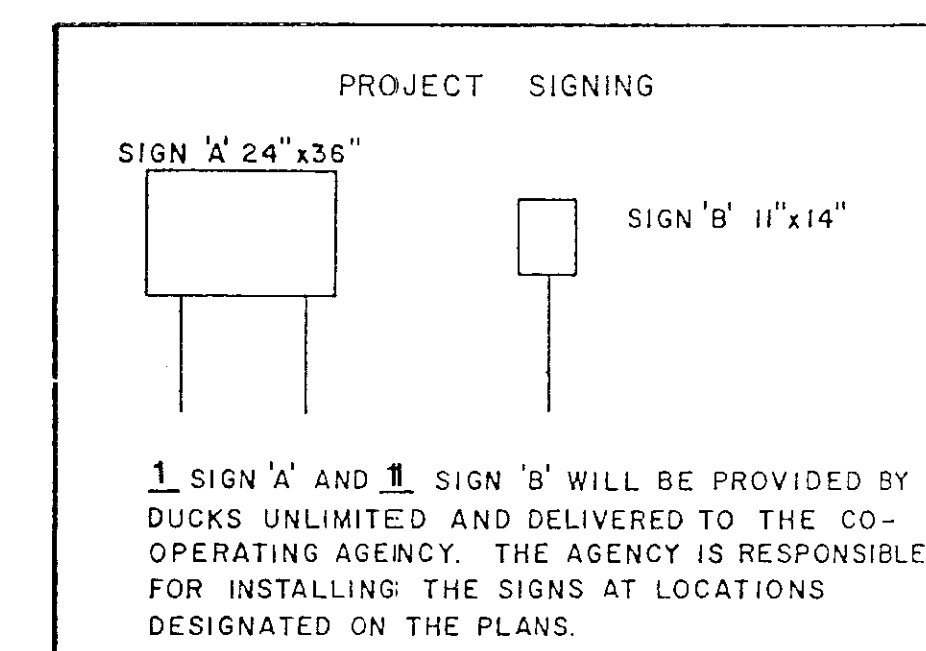
VICINITY MAP
SCALE: 1"=2000'

INDEX

1. VICINITY MAP
2. MARSH SITE PLAN, MARSH DATA, PROFILES
3. WATER CONTROL STRUCTURE: SITE PLAN, PROFILES, & DETAILS
4. SOILS INFORMATION (WHEN AVAILABLE)

SPECIFICATIONS

- 201 MOBILIZATION
- 202 SITE PREPARATION
- 204 EMBANKMENT CONSTRUCTION
- 205 WATER
- 206 WATER CONTROL STRUCTURE INSTALLATION
- 207 CULVERT INSTALLATION
- 208 CAST-IN-PLACE REINFORCED CONCRETE



PRELIMINARY

	PROJECT NO. SD-100-01	DESIGNED BY: RCS
	BOOCKE NO. 3	DRAWN BY: WCK
GREAT PLAINS REGIONAL OFFICE	VICINITY MAP	SURVEYED BY: TRE
DATE: 3-1-90	SHEET NO: 1 OF 4	APPROVED BY:

282930371234567
MAR 1990
DIVISION OF
WATER RIGHTS
Pierre, SD
19245015111121113114



DUCKS UNLIMITED

PROJECT

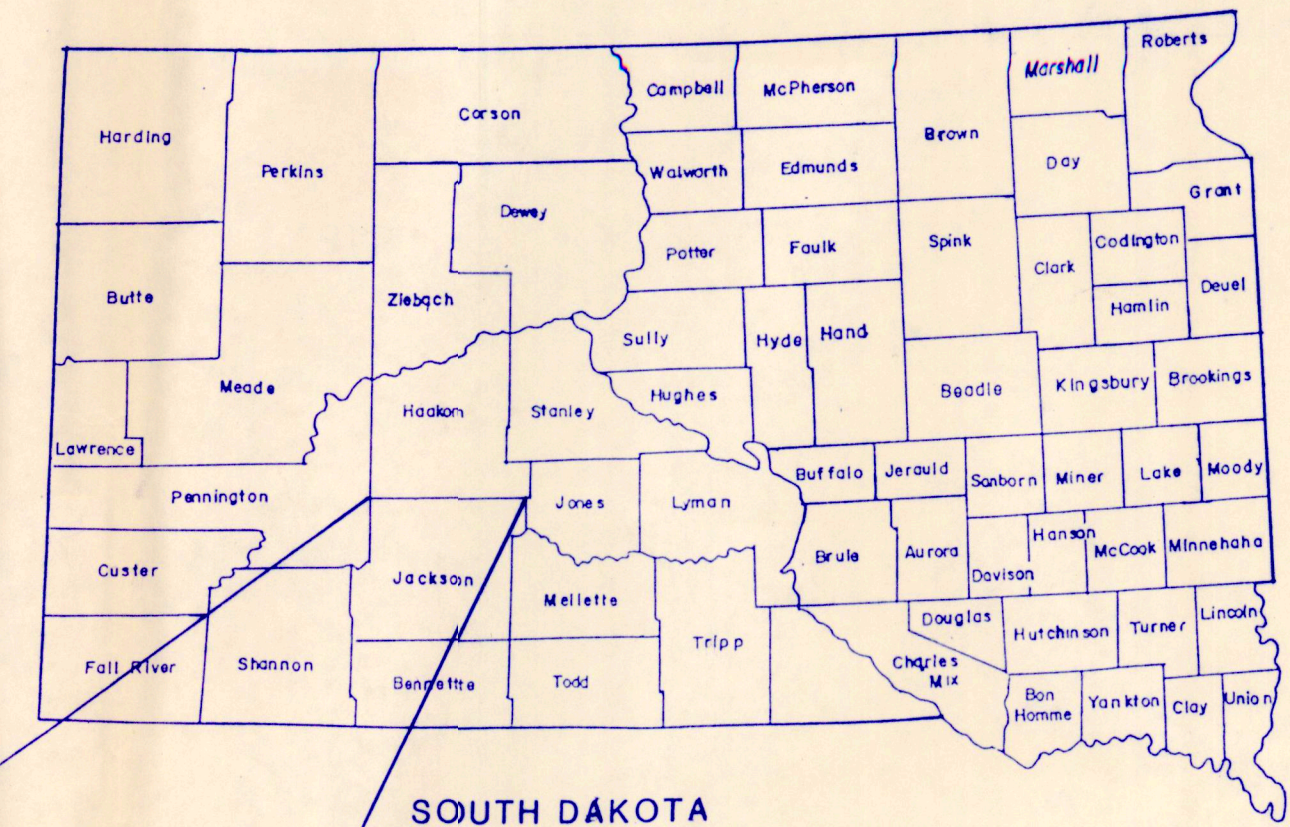
BOOCKE # 3

SEC. 22, TWP. 2 S., RGE. 20 E.

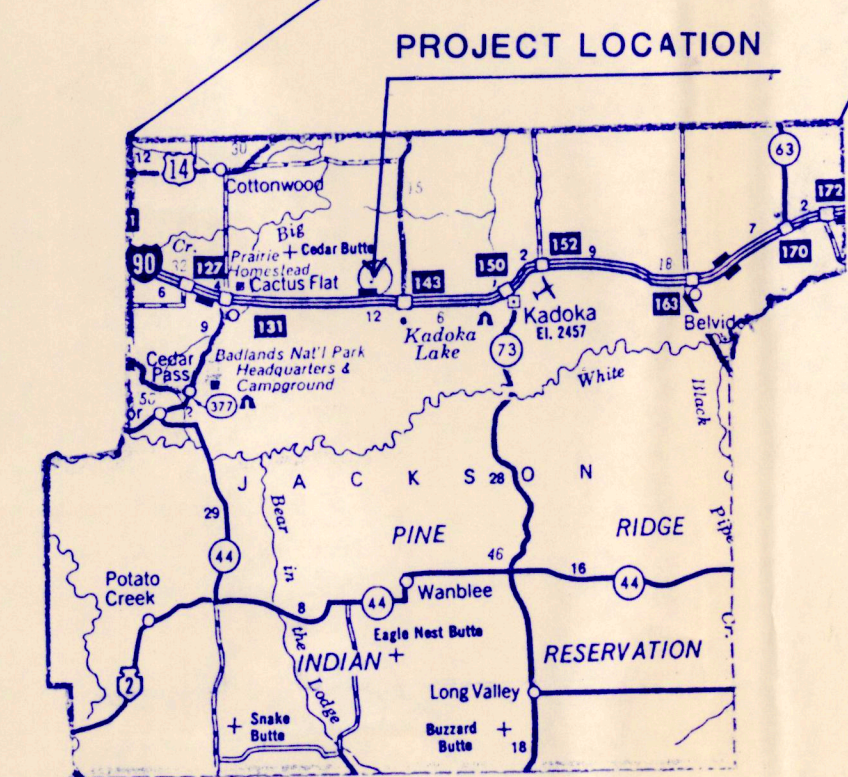
JACKSON COUNTY, SOUTH DAKOTA

IN COOPERATION WITH

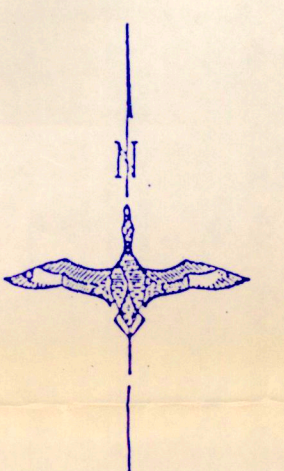
US. FOREST SERVICE



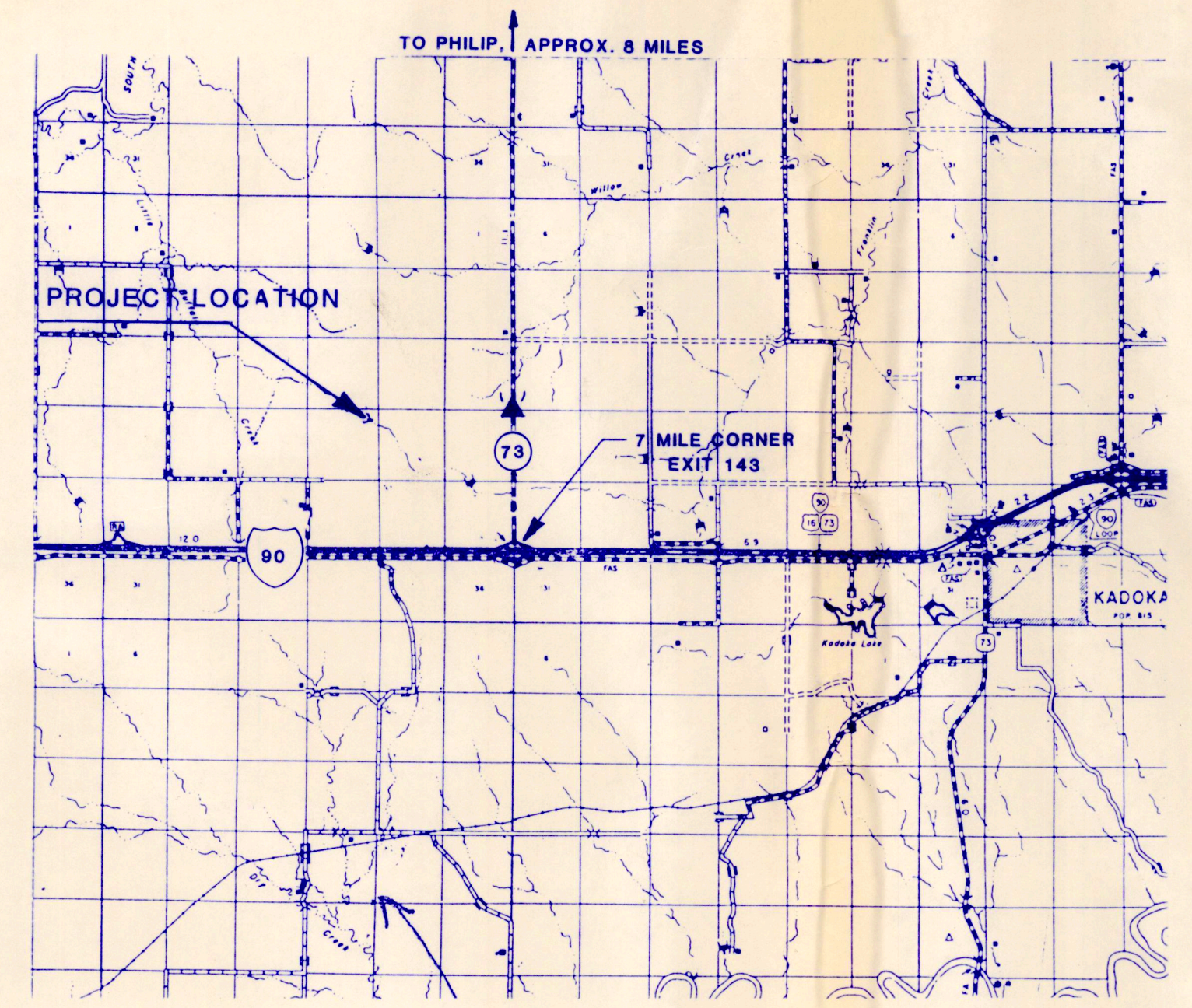
SOUTH DAKOTA



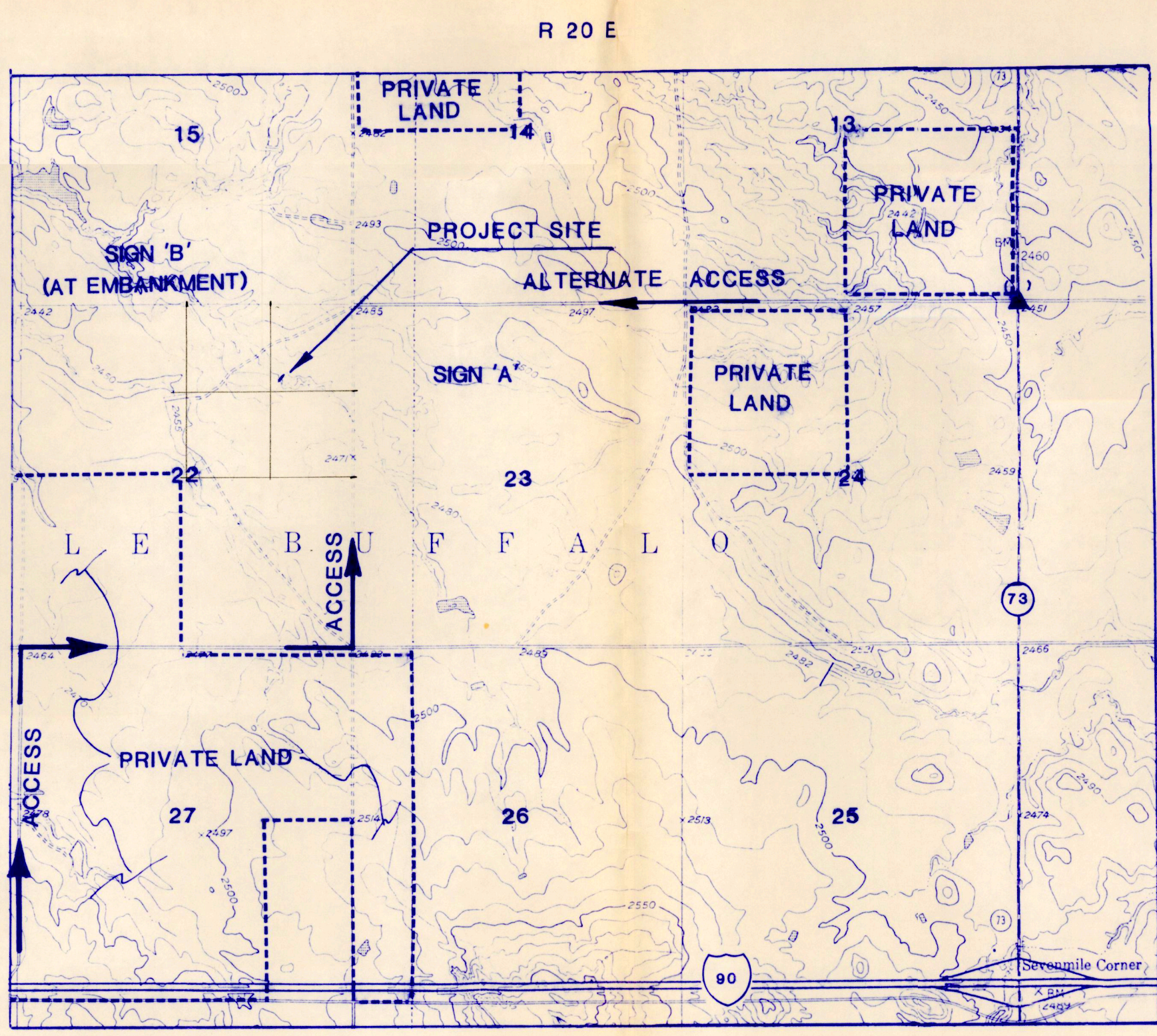
JACKSON COUNTY



IS 7 MI. WEST 2 MI. NORTH OF KADOKA



LOCATION MAP



VICINITY MAP
SCALE: 1"=2000'

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- 207 CULVERT INSTALLATION
- 208 CAST-IN-PLACE REINFORCED CONCRETE

PROJECT SIGNING

SIGN 'A' 24" x 36"

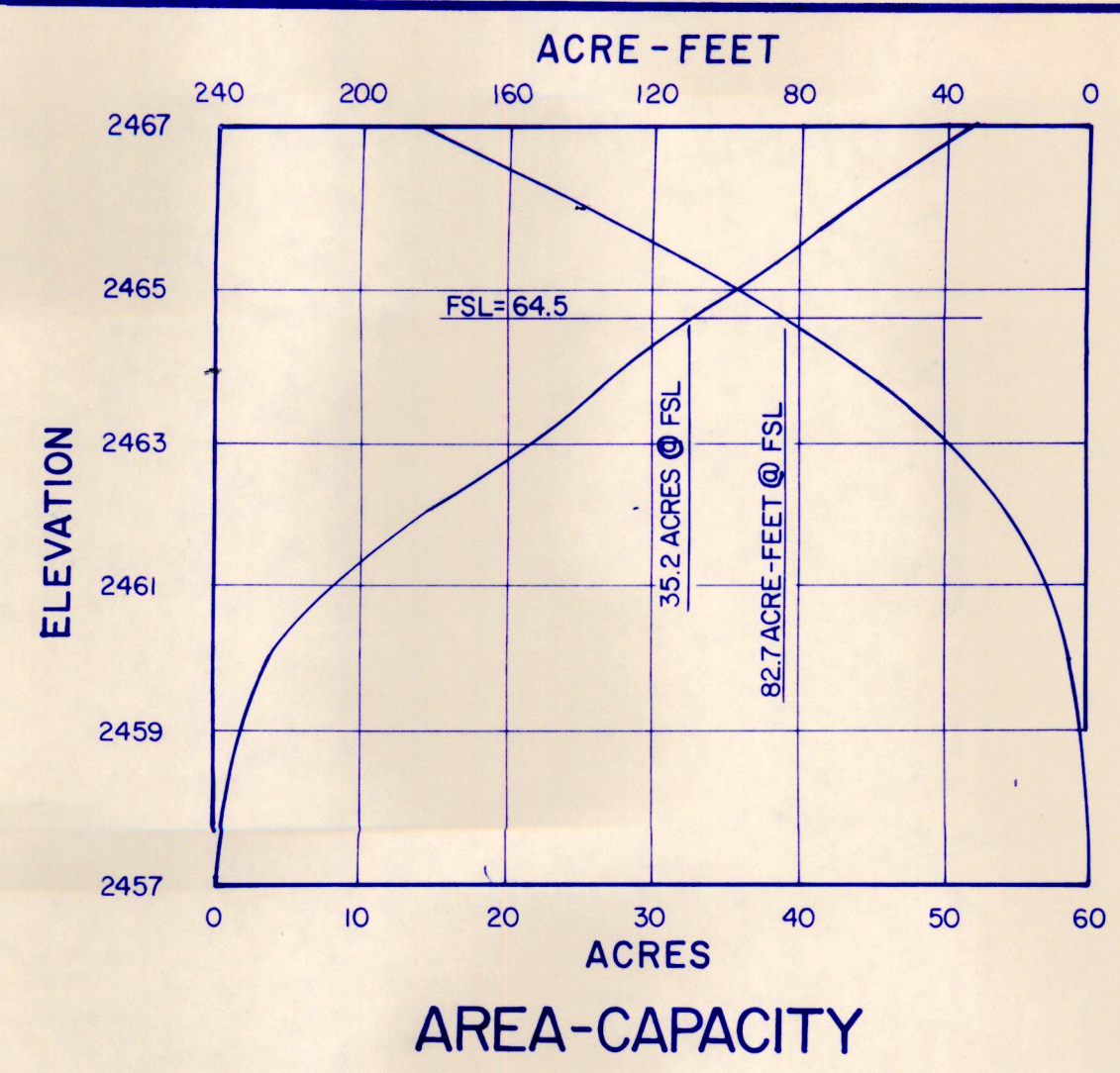
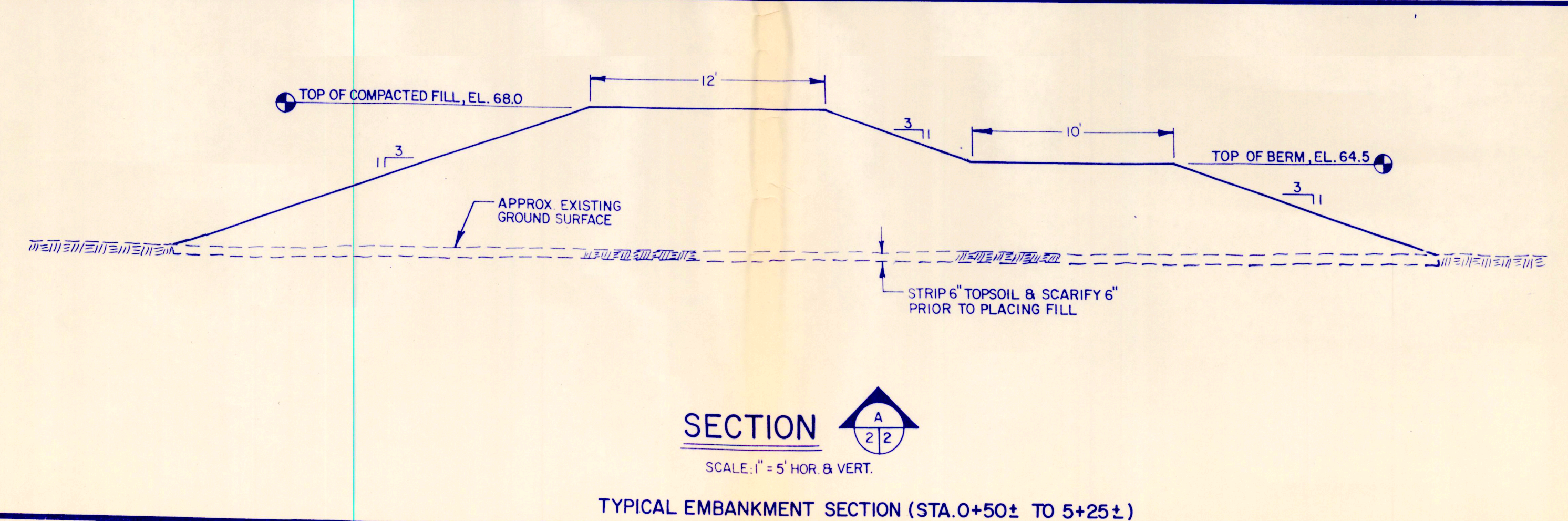
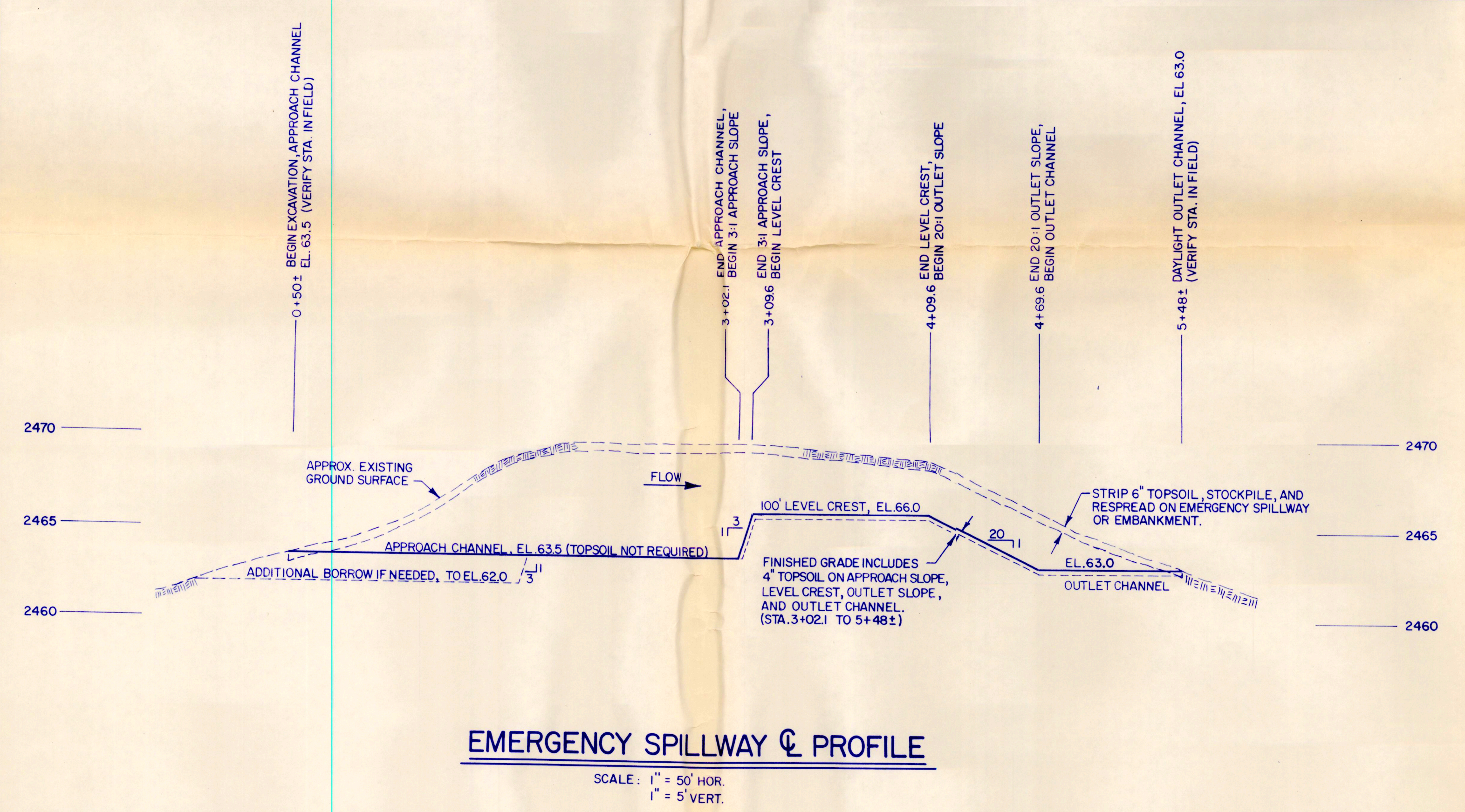
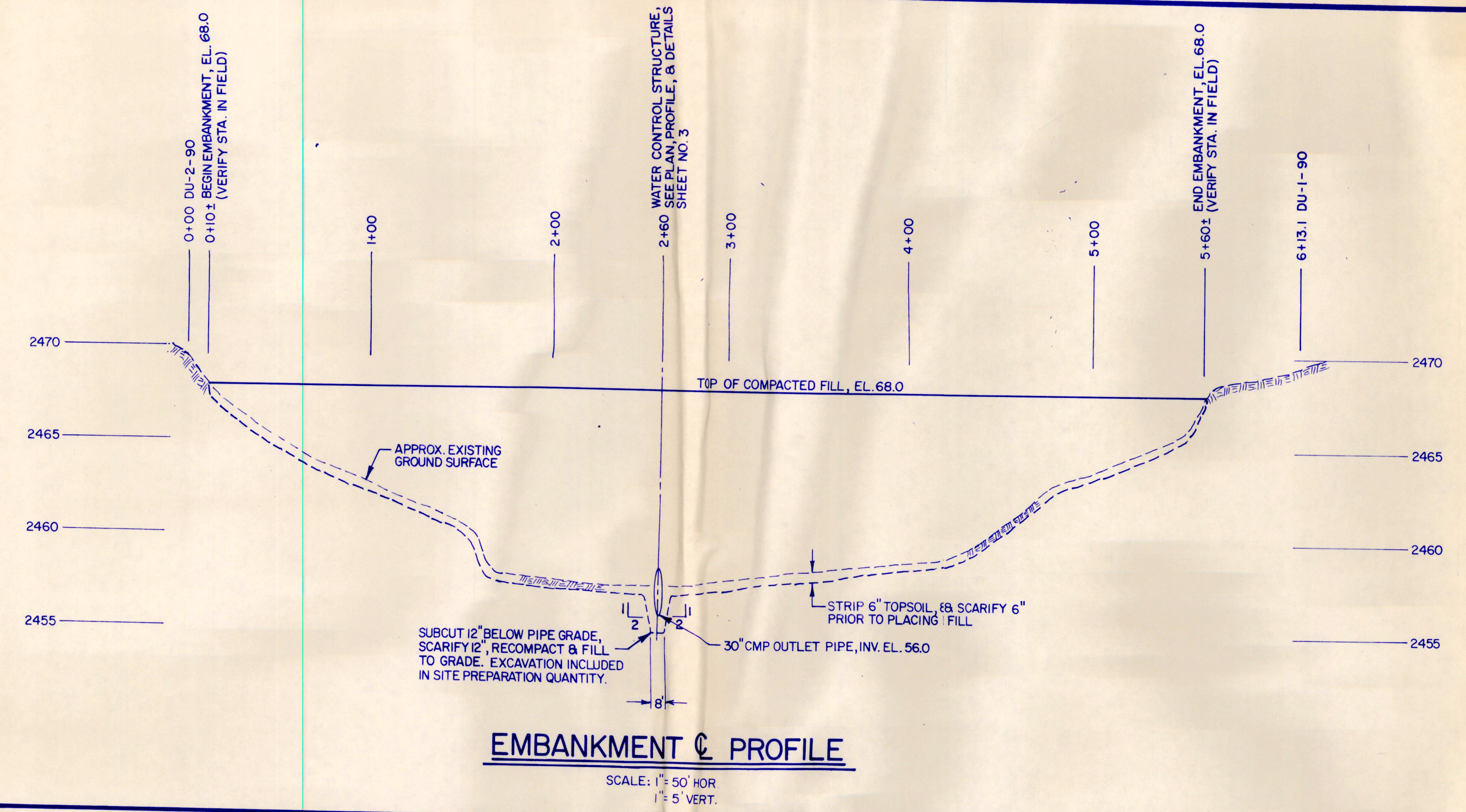
SIGN 'B' 11" x 14"

1 SIGN 'A' AND 1 SIGN 'B' WILL BE PROVIDED BY DUCKS UNLIMITED AND DELIVERED TO THE CO-OPERATING AGENCY. THE AGENCY IS RESPONSIBLE FOR INSTALLING THE SIGNS AT LOCATIONS DESIGNATED ON THE PLANS.

PRELIMINARY

	PROJECT NO. SD-100-01	DESIGNED BY: RCS
	BOOCKE NO. 3	DRAWN BY: WCK
GREAT PLAINS REGIONAL OFFICE	VICINITY MAP	SURVEYED BY: TRE
DATE: 3-1-90	SHEET NO: 1 OF 4	CHECKED BY:
APPROVED BY:		APPROVED BY:

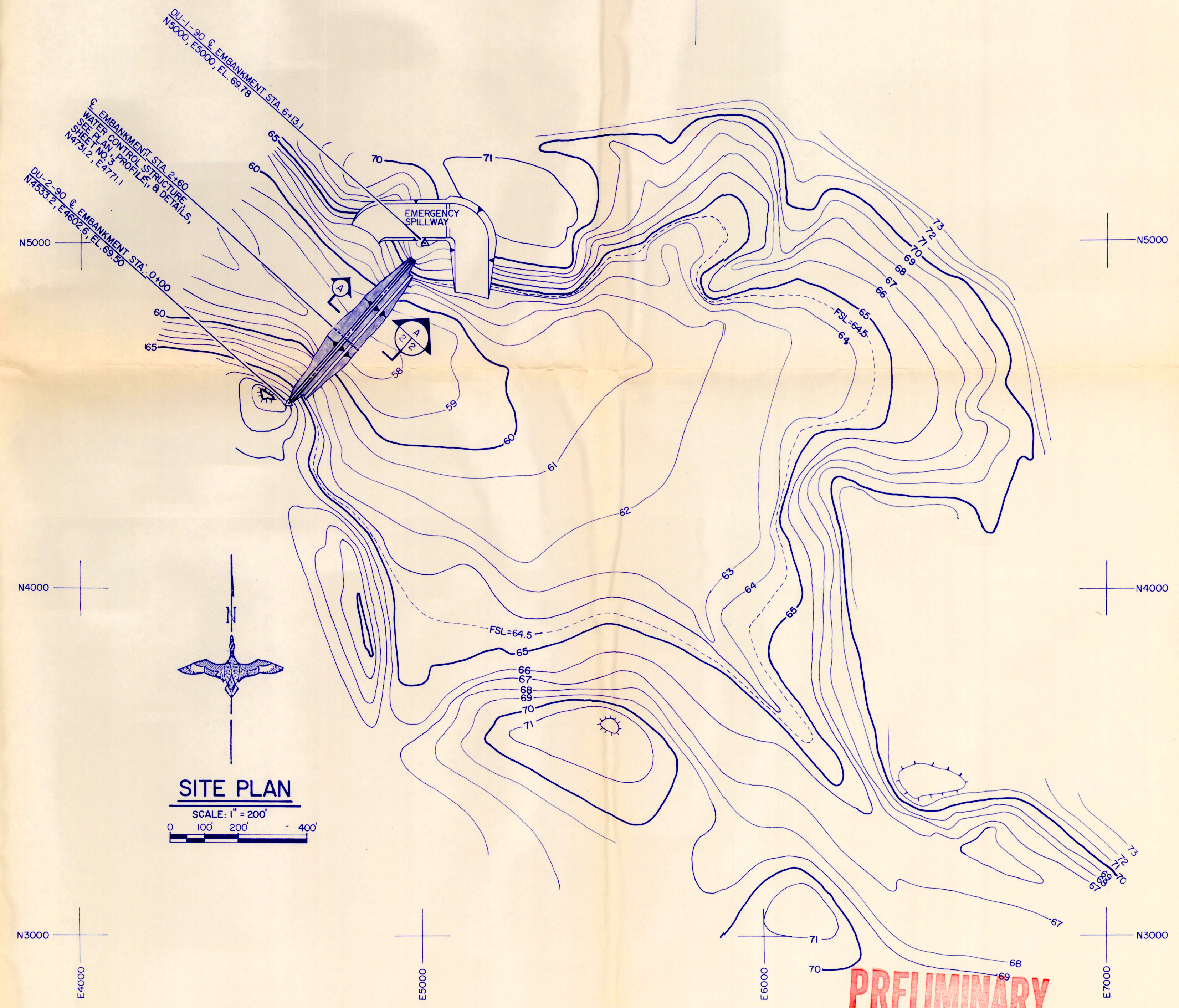
2119-2



MARSH DATA
FULL SERVICE LEVEL (FSL) = EL. 2464.5
SURFACE AREA AT FSL = 35.2 ACRES
STORAGE CAPACITY AT FSL = 82.7 ACRES-FEET
SHORELINE AT FSL = 1.1 MILES

Top of Dam Elev. - 68
P. Spillway - 64.5
2nd Spillway - 66
Bottom - 57.5

APPROX. LOCATION NE COR. SEC. 22, T25N, R20E



SITE PLAN
SCALE: 1" = 200'
0 100' 200' 400'

ESTIMATED QUANTITIES	
SITE PREPARATION	703 C.Y.
EMBANKMENT CONSTRUCTION	7927 C.Y.
WATER CONTROL STRUCTURE	1 EACH
CULVERT INSTALLATION- 30" CMP, 16 GA.	60 L.F.

	PROJECT NO.: SD-100-01	DESIGNED BY: RCS
	BOOCKE NO. 3	DRAWN BY: TSP
	SITE PLAN, MARSH DATA, SPILLWAY AND EMBANKMENT PROFILES	SURVEYED BY: TRE
	DATE: FEB. 27, 1990	CHECKED BY:

SHEET NO.: 2 OF 4	APPROVED BY:	APPROVED BY:
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