

Form 222
1-87STATE OF IDAHO
DEPARTMENT OF WATER RESOURCESAPPLICATION FOR TRANSFER OF WATER RIGHT
PART 1Name of Applicant Crystal Springs Land & Cattle Co., Inc. Phone (208) 523-0620
Post Office address c/o Holden, Kidwell, Hahn & Crapo, P.L.L.C., P.O. Box 50130, Idaho Falls, Idaho 83405

A. PURPOSE OF TRANSFER

1. ☐ Change point of diversion ☒ Add diversion point(s) ☒ Change place of use
☒ Change nature of use ☒ Change period of use ☐ Other _____
2. Describe the reason for the proposed changes Construction of ponds & waterfowl sloughs on the property and restoration of degraded stream channels.

B. DESCRIPTION OF RIGHT(S) OR PORTION THEREOF, AFTER THE REQUESTED CHANGE

1.	Right Number	Priority	Amount (cfs/ac-ft)	Nature of Use	Period of Use
	<u>22-164</u>	<u>06/01/1899</u>	<u>24.3 afa</u>	<u>Wildlife storage</u>	
				<u>Recreation storage</u>	<u>01/01</u> to <u>12/31</u>
			<u>0.13 cfs</u>	<u>Diversion to Storage</u>	<u>01/01</u> to <u>12/31</u>
			<u>1.27 cfs</u>	<u>Irrigation</u>	<u>04/15</u> to <u>10/31</u>
					to _____
					to _____

2. Total amount of water being transferred 0.13 cfs cubic feet per second and/or 24.3 acre-feet per annum.3. Source of water Springs Tributary to Teton River

4. Point(s) of Diversion:

Lot	1/4	1/4	1/4	Sec.	Twp.	Rge.	County	Local name for diversion
	SW	SE	SW	35	5N	45E	TETON	EAST SPRINGS (POND)
	SW	SE	SW	35	5N	45E	TETON	EAST SPRINGS (SLOUGH)
	SE	SW	SW	35	5N	45E	TETON	NORTH SPRINGS (POND)
	SE	SW	SW	35	5N	45E	TETON	NORTH SPRINGS (SLOUGHS)
	SE	NW	NW	2	4N	45E	TETON	SOUTH SPRINGS (POND)
	NW	NE	NE	3	4N	45E	TETON	WEST SPRINGS (POND & SLOUGHS)
	NE	NW	NW	2	4N	45E	TETON	SOUTH SPRINGS (IRRIGATION)
	SE	SW	SW	35	5N	45E	TETON	NORTH SPRINGS (IRRIGATION)
		SE	SW	35	5N	45E	TETON	EAST SPRINGS (IRRIGATION)

5. Lands irrigated or place of use: (Permissible place of use for all water rights)

Twp	Rge	Sec	NE 1/4				NW 1/4				SW 1/4				SE 1/4				TOTALS
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
4N	45E	2						35.9											35.9
		3	19																19
5N	45E	35											33.2	21.9					55.1

Total Acres 110

6. General Information:

- a. Description of diversion system Diversion into ponds and wetland sloughs either on-stream or with a headgate.
- b. Are the lands from which you propose to transfer the water right subject to any liens, deeds of trust, mortgages, or contracts? Yes _____ No √. If yes, provide a notarized statement from the holder of the lien, deed of trust, mortgage or contract agreeing to the proposed changes.
- c. Describe the effect on the land now irrigated if the place of use is changed pursuant to this transfer:
None.
- d. Remarks:
This transfer is being filed to allow for stream restoration and fish habitat improvements. The changes in use will be mitigated with the drying up on approximately 11.1 acres of formerly irrigated lands.

ACTION OF THE DIRECTOR DEPARTMENT OF WATER RESOURCES

This is to certify that I have examined Application for Transfer of Water Rights No. _____ and said application is hereby _____, subject to the following limitations and conditions:

Witness my hand this _____ day of _____, 2007.

Close

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IDAHO DEPARTMENT OF WATER RESOURCES
Adjudication Recommended Right Report

07/23/2007

WATER RIGHT NO. 22-164

<u>Owner Type</u>	<u>Name and Address</u>
Current Owner	CRYSTAL SPRINGS LAND & CATTLE CO INC 339 E 600 S #1306 SALT LAKE CITY, UT 84111 (801)809-5000
Original Owner	LAZY 2 RANCH INC
Original Owner	JOSEPH BEASLEY C/O ELLA GRIGGS PO BOX 314 DRIGGS, ID 83422 (208)354-2227

Priority Date: 06/01/1899

Basis: Decreed

Status: Active

<u>Source</u>	<u>Tributary</u>
SPRINGS	TETON RIVER

<u>Beneficial Use</u>	<u>From</u>	<u>To</u>	<u>Diversion Rate</u>	<u>Volume</u>
IRRIGATION	04/15	10/31	1.4 CFS	
Total Diversion			1.4 CFS	

Location of Point(s) of Diversion:

SPRINGS	NENWNW Lt 4	Sec. 02	Township 04N	Range 45E	TETON County
SPRINGS	SESWSW	Sec. 35	Township 05N	Range 45E	TETON County
SPRINGS	SESW	Sec. 35	Township 05N	Range 45E	TETON County

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Place(s) of use:

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Place of Use Legal Description: IRRIGATION TETON County

Township	Range	Section	Lot	Tract	Acres	Lot	Tract	Acres	Lot	Tract	Acres	Lot	Tract	Acres
04N	45E	2	4	NWNW	37									
		3	1	NENE	19									
05N		35		SWSW	35		SESW	30						

Total Acres: 121

Conditions of Approval:

1. C18	This partial decree is subject to such general provisions necessary for the definition of the rights or for the efficient administration of the water rights as may be ultimately determined by the Court at a point in time no later than the entry of a final unified decree. Section 42-1412(6), Idaho Code.
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Dates:

Other Information:

State or Federal: S

Owner Name Connector:

Water District Number: 01

Generic Max Rate per Acre:

Generic Max Volume per Acre:

Swan Falls Trust or Nontrust:

Swan Falls Dismissed:

OLE Act Number:

ary Act Number:

Mitigation Plan: False

Close

10. To your knowledge, has any portion of this water right undergone a period of five or more consecutive years of non-use? No. If yes, describe _____

B. DESCRIPTION OF PORTION OF RIGHT BEING TRANSFERRED

(If the entire right is to be changed by the applicant, omit part B and C)

1. amount .13 cfs for Irrigation purposes from 04/15 to 10/31
 (cfs/ac-ft)
 amount _____ for _____ purposes from _____ to _____
 (cfs/ac-ft)
 amount _____ for _____ purposes from _____ to _____

2. Point(s) of Diversion:

Lot	1/4	1/4	1/4	Sec.	Twp.	Rge.	County	Local name for diversion
	SW	SE	SW	35	5N	45E	TETON	EAST SPRINGS (POND)
	SW	SE	SW	35	5N	45E	TETON	EAST SPRINGS (SLOUGH)
	SE	SW	SW	35	5N	45E	TETON	NORTH SPRINGS (POND)
	SE	SW	SW	35	5N	45E	TETON	NORTH SPRINGS (SLOUGH)
	SE	NW	NW	2	4N	45E	TETON	SOUTH SPRINGS (POND)
	NW	NE	NE	3	4N	45E	TETON	WEST SPRINGS (POND & SLOUGHS)

3. Lands irrigated or place of use:

Twp.	Rge.	Sec.	NE 1/4				NW 1/4				SW 1/4				SE 1/4				TOTALS
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
4N	45E	2						1.1											1.1
5N	45E	35										1.8	8.2						10

Total Acres 11.1

C. DESCRIPTION OF UNCHANGED PORTION OF RIGHT *(omit if there is no change)*

1. amount 1.27 cfs for Irrigation purposes from 04/15 to 10/31
 (cfs/ac-ft)
 amount _____ for _____ purposes from _____ to _____
 (cfs/ac-ft)
 amount _____ for _____ purposes from _____ to _____
 (cfs/ac-ft)

2. Point(s) of Diversion:

Lot	1/4	1/4	1/4	Sec.	Twp.	Rge.	County	Local name for diversion
	NE	NW	NW	2	4N	45E	TETON	SOUTH SPRINGS (IRRIGATION)
	SE	SW	SW	35	5N	45E	TETON	NORTH SPRINGS (IRRIGATION)
		SE	SW	35	5N	45E	TETON	EAST SPRINGS (IRRIGATION)

3. Lands irrigated or place of use:

Twp.	Rge.	Sec.	NE 1/4				NW 1/4				SW 1/4				SE 1/4				TOTALS
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
4N	45E	2						35.9											35.9
		3	19																19
5N	45E	35											33.2	22.2					55.1

Total Acres 110

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 Property_Line
 Mitigation_Acres
 22-164
 Section_Lines
 Quarter-quarters
 MajorRoads

November 7, 2007
2004 NAIP Aerial Photo

MINN

1.74

05N45E35

MSMS

0.21

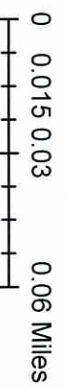
0.09

7.9

SESW

NEW!

1.06



B. CHANGES IN NATURE OF USE

1.	New Nature of Use	Amount (cfs/ac-ft)	Hours/days/year	Period of Use
	<u>Wildlife Storage</u>			
	<u>Recreation Storage</u>	<u>24.3 afa</u>	<u>24/365/1</u>	<u>01/01</u> to <u>12/31</u>
	<u>Diversion to Storage</u>	<u>0.15 cfs</u>	<u>24/365/1</u>	<u>01/01</u> to <u>12/31</u>

2. Quantity and quality of return flows and location of discharge:

The on-stream ponds will discharge water back into the stream channel when the ponds are filled. The off-stream ponds will not discharge into the stream channel and will be lined so there will be not return flow.

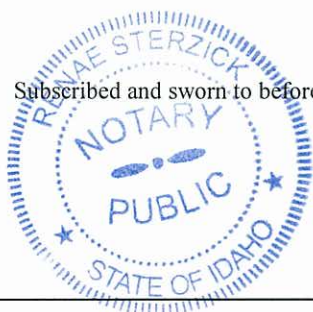
3. Describe effects on other water uses resulting from the proposed change:

None

I hereby asset that no one will be injured by such change and that the change does not constitute an enlargement in use of the original right. The information contained in this application is true to the best of my knowledge.

I understand that any willful misrepresentations made in this application may result in voiding its approval.

Subscribed and sworn to before me this 7th day of November, 2007.



(Signature of Applicant)

Notary Public

Residing at:

My Commission Expires

FOR DEPARTMENT USE ONLY

Transfer contains _____ pages and _____ attachments

Received by _____ Date _____ Protest filed by _____

Prelim. check by _____ Fee _____

Receipted by _____ Date _____

Published in _____ Copies of protest forwarded by _____

Pub. dates _____ Hearing held by _____ Date _____

Watermaster recommendation requested on _____ Recommended for ☐ approval ☐ denial

_____ rec'd _____ by _____

Copy of transfer sent to lien holder _____

B. CHANGES IN NATURE OF USE

1.	New Nature of Use	Amount (cfs/ac-ft)	Hours/days/year	Period of Use
	<u>Wildlife Storage</u>			
	<u>Recreation Storage</u>	<u>24.3 afa</u>	<u>24/365/1</u>	<u>01/01</u> to <u>12/31</u>
	<u>Diversion to Storage</u>	<u>0.15 cfs</u>	<u>24/365/1</u>	<u>01/01</u> to <u>12/31</u>

2. Quantity and quality of return flows and location of discharge:

The on-stream ponds will discharge water back into the stream channel when the ponds are filled. The off-stream ponds will not discharge into the stream channel and will be lined so there will be not return flow.

3. Describe effects on other water uses resulting from the proposed change:

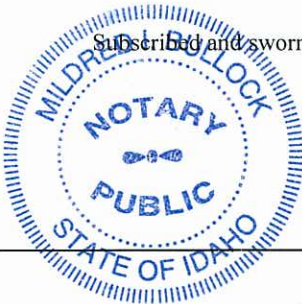
None

I hereby asset that no one will be injured by such change and that the change does not constitute an enlargement in use of the original right. The information contained in this application is true to the best of my knowledge.

I understand that any willful misrepresentations made in this application may result in voiding its approval.

Robert L. Harris Attorney
(Signature of Applicant)

Subscribed and sworn to before me this 15 day of August, 2007.



Mildred D. Bullock
Notary Public
Residing at: Blackfoot
My Commission Expires 11-28-07

FOR DEPARTMENT USE ONLY

Transfer contains 10 pages and _____ attachments

Received by _____ Date _____ Protest filed by _____

Prelim. check by _____ Fee E0 33157.15 7/25/07

Receipted by _____ Date E0 33154.100

Published in Teton Valley News Copies of protest forwarded by _____

Pub. dates _____ Hearing held by _____ Date _____

Watermaster recommendation requested on _____ Recommended for ☐ approval ☐ denial

_____ rec'd _____ by _____

Copy of transfer sent to lien holder _____

ATTACHMENT 2

Pond Consumptive Use Calculations
Climate Station: Driggs
Crystal Springs Land & Cattle Co., Inc.

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Annual FWW Evaporation (inches)*	35	35	35	35	35	35	35	35	35	35	35	35	35
Monthly Distribution (%)**	1	2	4	7	12	15	19	16	11	6	4	3	100
Monthly FWS Evaporation (in/mo)	0.35	0.7	1.4	2.45	4.2	5.25	6.65	5.6	3.85	2.1	1.4	1.05	35
Avg. Total Precipitation (in/mo)**	1.34	1.11	1.1	1.25	1.83	1.83	1.04	1.17	1.25	1.22	1.07	1.38	15.59
Pond Loss (Evap. - Precip., in)	0	0	0.3	1.2	2.37	3.42	5.61	4.43	2.6	0.88	0	0	20.81
Pond Surface Area (acres)	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08	3.08
Total Pond Loss (ac-in)	0.0	0.0	0.9	3.7	7.3	10.5	17.3	13.6	8.0	2.7	0.0	0.0	64.1
Total Pond Loss (ac-ft)	0.0	0.0	0.1	0.3	0.6	0.9	1.4	1.1	0.7	0.2	0.0	0.0	5.3

Note: for months where precipitation exceeds evaporation, the resultant pond loss is set to zero

Irrigation Consumption		Crop
Mean Irrig. Requirement (in/seas.)***	26.3	Pasture
Mean Irrig. Requirement (ft/seas.)***	2.19	
Acres to dry up for pond use	2.44	

*Molnau, Myron, Kpodze, Kojo C.S., and Craine, Katherine L., 1992. Monthly shallow pond evaporation in Idaho. ASAE paper PNW 92-111.
 **Data obtained from the Western Regional Climate Center, Monthly Climate Summary, Period of Record 1/3/1930 to 12/31/2006. See attached.
 *** ET Idaho Evapotranspiration and Consumptive Irrigation Water Requirements for Idaho, Driggs Station. Values were taken from the alfalfa - less frequent cuttings precipitation deficit values (growing season total) published in 2007 by R. G. Allen and C.W. Robison.
 ** See Attached Spreadsheets "Pond Consumptive Use Calculations".

ET Idaho --- Evapotranspiration and Consumptive Irrigation Water Requirements for Idaho

Please send suggestions for improving this site to robison@kimberly.uidaho.edu Copyright 2007, University of Idaho.

Driggs (NWS NOAA--102676) Statistics based on 30 years between 1971 to 2004

For a different land cover or crop click on the above link.

You can highlight this table and copy via the clipboard to a Microsoft Excel or OpenOffice spreadsheet to plot or otherwise work with this data.

Alfalfa - less frequent cuttings														
Precipitation Deficit (Click here for a graph)														
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Growing Season ^a	Annual
Mean	mm/day												mm	
Monthly ^b	-0.32	-0.02	0.24	0.65	2.28	5.90	4.93	5.52	2.52	0.72	-0.29	-0.43	667	664
15-Day Moving Average ^c	-0.32	-0.11	0.29	0.59	2.28	5.89	4.59	5.57	2.30	0.78	-0.28	-0.33		
7-Day Moving Average ^d	-0.32	-0.08	0.25	0.59	2.29	5.87	4.77	5.57	2.40	0.76	-0.31	-0.37		
3-Day Moving Average ^e	-0.32	-0.04	0.24	0.62	2.26	5.90	4.89	5.54	2.48	0.72	-0.29	-0.42		
Standard Deviation	mm/day												mm	
Monthly	0.65	0.52	0.67	0.32	1.82	1.33	1.07	1.36	0.90	1.21	0.45	0.65	105	116
15-Day Moving Average	0.69	0.70	0.58	0.51	1.66	1.90	1.45	1.37	1.34	1.08	0.67	0.57		
7-Day Moving Average	0.93	1.02	0.94	0.93	2.28	2.44	2.19	1.74	1.94	1.52	1.00	0.88		
3-Day Moving Average	1.30	1.40	1.47	1.52	3.13	3.09	2.88	2.24	2.71	2.15	1.47	1.38		
20% Exceedance	mm/day												mm	
Monthly	0.13	0.35	0.57	0.92	3.22	7.06	5.75	6.40	3.39	1.23	0.09	-0.02	730	748
15-Day Moving Average	0.51	0.62	1.10	1.49	5.14	8.11	7.22	7.28	4.35	2.18	0.57	0.36		
7-Day Moving Average	0.73	1.18	1.65	2.63	6.59	9.10	8.41	7.92	6.17	3.26	1.10	0.82		
3-Day Moving Average	0.97	1.50	2.46	3.72	7.69	9.82	9.05	8.61	7.04	4.05	1.75	1.15		
80% Exceedance	mm/day												mm	
Monthly	-0.75	-0.62	0.00	0.37	1.10	4.66	4.21	4.62	1.85	0.20	-0.81	-0.83	574	561
15-Day Moving Average	-1.55	-1.19	-0.51	-0.40	0.14	3.17	2.16	3.28	0.62	-0.60	-1.45	-1.57		
7-Day Moving Average	-3.00	-2.21	-2.24	-1.85	-1.92	0.29	0.09	1.48	-1.65	-2.24	-2.58	-2.64		
3-Day Moving Average	-5.07	-4.14	-4.88	-4.37	-6.79	-4.02	-4.09	-1.95	-6.30	-4.59	-5.24	-5.20		
Ave Highest ET	mm/day												--	
15-Day Moving Average ^f	0.28	0.41	0.85	1.17	3.70	7.24	6.44	6.50	3.70	1.61	0.38	0.25		
7-Day Moving Average ^g	0.62	1.00	1.39	1.94	5.09	8.35	7.73	7.28	5.19	2.42	0.85	0.59		
3-Day Moving Average ^h	0.87	1.33	1.98	2.90	6.58	9.23	8.46	7.87	6.32	3.07	1.32	0.92		
Ave Lowest ET	mm/day												--	
15-Day Moving Average ^f	-0.92	-0.46	-0.23	0.01	0.96	4.50	3.06	4.50	1.20	-0.11	-0.84	-0.97		
7-Day Moving Average ^g	-1.71	-1.23	-1.08	-0.98	-0.74	2.39	1.55	3.19	-0.07	-1.19	-1.80	-1.89		
3-Day Moving Average ^h	-3.08	-2.62	-2.74	-2.75	-4.18	-0.38	-1.04	1.04	-2.63	-3.56	-3.56	-3.59		
Special normal distribution parameters for monthly, seasonal, and annual intervals													--	

Skew	-0.25	-1.3	0.57	0.03	0.21	-0.24	0.02	-0.18	0.0	1.42	-0.36	-0.08	0.71	0.18
Kurtosis	0.68	4.02	1.31	2.86	0.86	2.87	0.63	0.80	3.07	1.42	3.09	0.61	4.07	4.11

^a Growing Season: This is usually the time from green up or planting in the spring to a killing frost or harvest in the fall. It is not applicable for entries without a growing season and will be blank.

^b Mean of the average daily value for month

^c Mean of the fourteen 15-day period averages contained in the month

^d Mean of the twenty three 7-day period averages contained in the month

^e Mean of the twenty seven 3-day period averages contained in the month

^f Mean of the highest/lowest 15-day period average in month

^g Mean of the highest/lowest 7-day period average in month

^h Mean of the highest/lowest 3-day period average in month

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This work and report were prepared by the University of Idaho Research and Extension Center at Kimberly, Idaho under contract with the Idaho Department of Water Resources. Work was supported by funding from IDWR and the Idaho Agricultural Experiment Station and Idaho Engineering Experiment Station. The authors gratefully acknowledge the long-term evapotranspiration data collection and long-standing advice provided by Dr. James L. Wright, USDA-ARS Kimberly (ret.), the more than two decades of high quality agricultural weather data collection by the U.S. Bureau of Reclamation AgriMet system, and the very long-standing, routine data collection by the hundreds of cooperative weather station volunteers across the state who, for more than one-hundred years, have faithfully observed daily air temperature and precipitation.

The citation for the evapotranspiration data used from this site should be: *Allen, Richard G. and Clarence W. Robison, 2006 (Revised 2007). Evapotranspiration and Consumptive Irrigation Water Requirements for Idaho, Research Technical Completion Report, Kimberly Research and Extension Center, University of Idaho, Moscow, ID.*

Questions regarding the data should be addressed to Clarence W. Robison or Richard G. Allen, University of Idaho, Kimberly Research and Extension Center, 3793 North 3600 East, Kimberly, ID 83341. Telephone (208)-423-6610

ATTACHMENT 3

Proposed East Springs Waterfowl Slough

This is a flow through construction utilizing the existing East Springs streambed as the approach for the water course. An area measuring 120'x70'x75' will be excavated to an average depth of 10" and a maximum depth of 24" with the existing streambed serving as the east bank.

Due to the shallow nature of the slough, bank sloping and contouring will not exceed 6:1. All excavated spoils will be placed in a previously designated area where they will be contoured and re-vegetated.

At the proposed outlet site, a dam/berm will be built. The dam/berm will be built at a maximum height of 18" above highest existing grade. A water control structure and fish impediment device will be incorporated into the constructed berm. To ensure the functionality, security, and longevity of the design, dual anti-seep mechanisms will be applied and a stringent re-vegetation schedule will be adhered to. The entire revetment of the berm will be constructed with a waterproof membrane underlayment. The waterproof membrane will be keyed into the existing river right and river left banks and covered with a minimum of 12" of fill soils prior to re-vegetation.

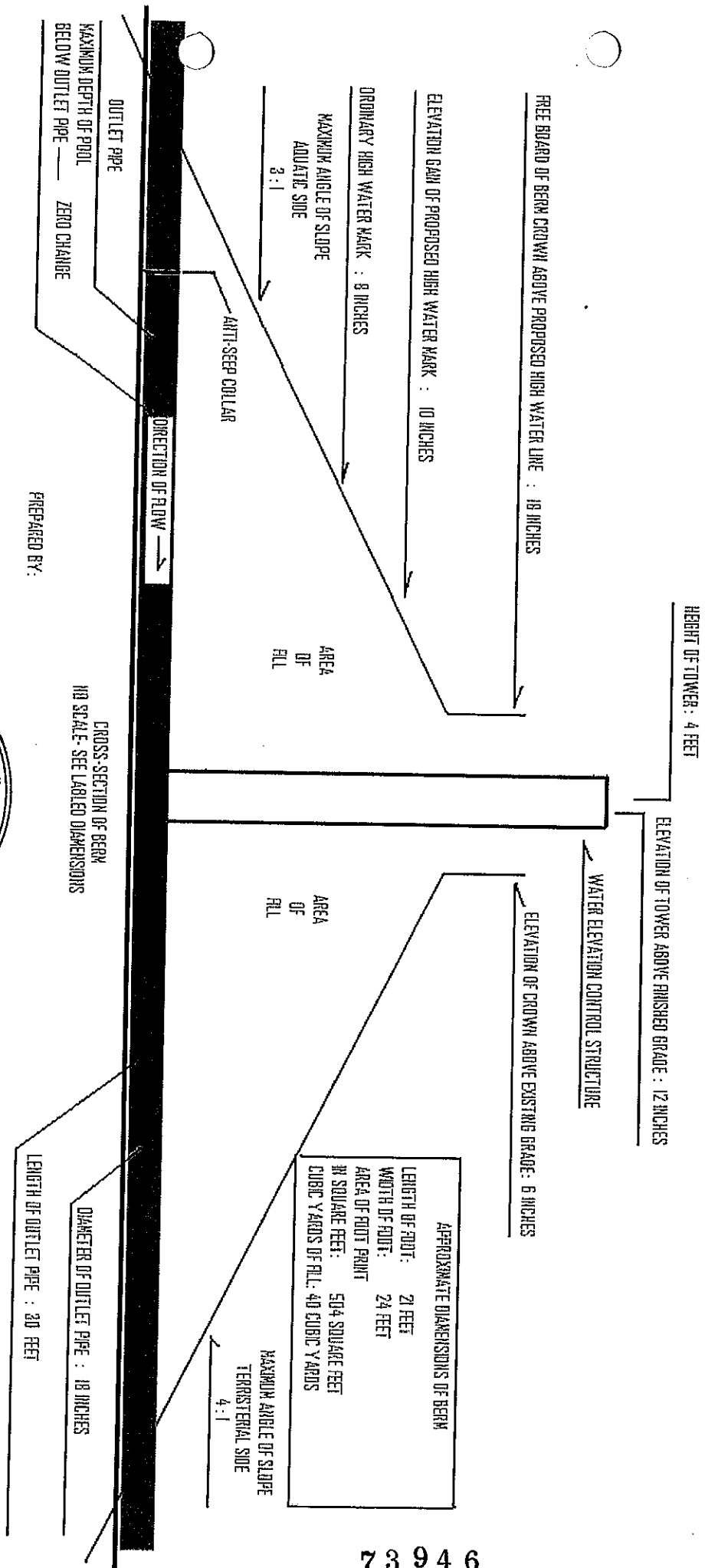
The intention of the water control structure is to insure a consistent perennial water level securing the desired habitat enhancement.

Total volume of excavated spoils = ^{212 cu} 8,183 cu yd

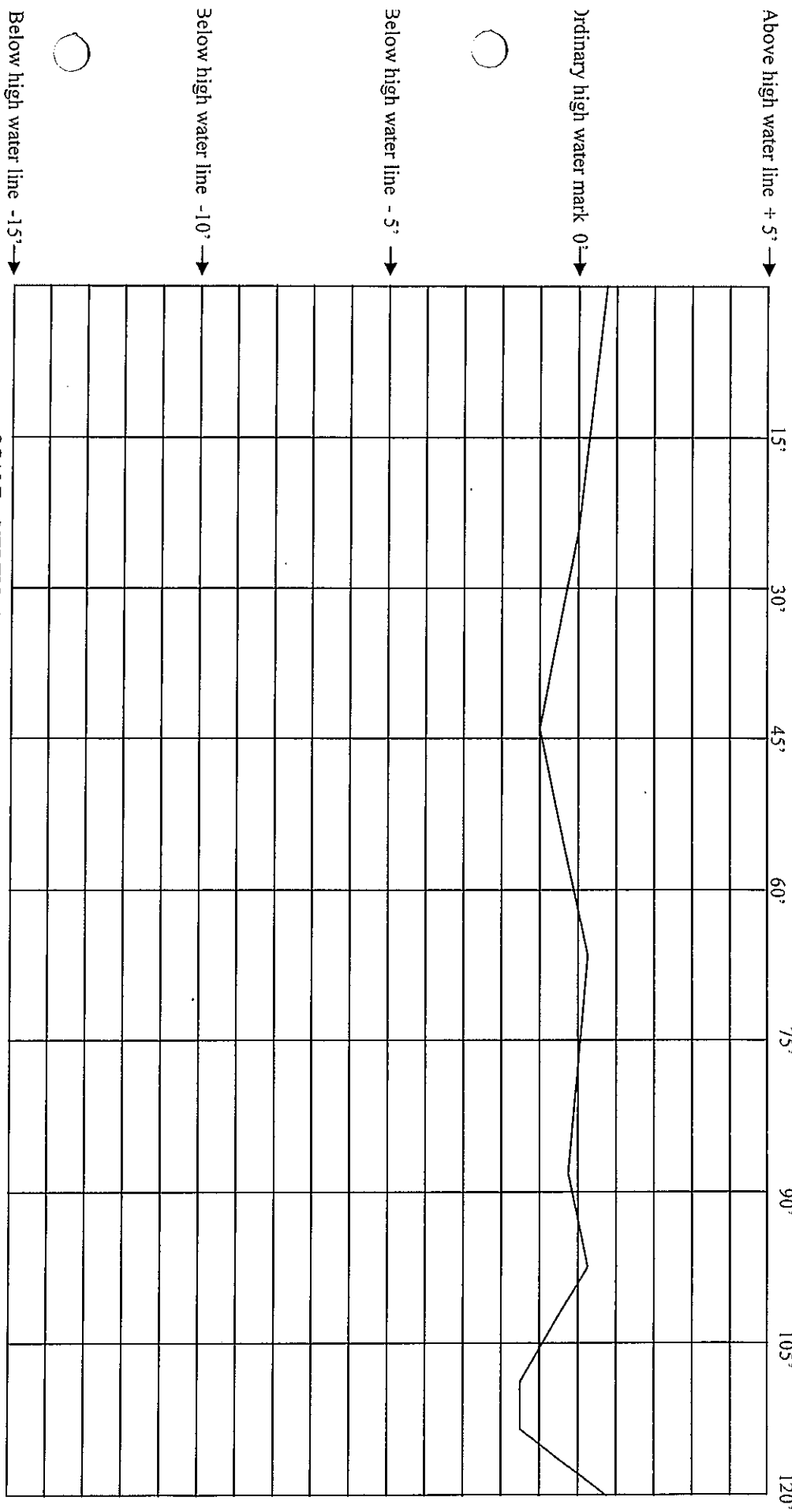
Total water surface area = 3,811 sq ft or 0.09 ac

SITE: EAST SPRINGS WATERBOWL SLOUGH

NOTE: SEE ADDITIONAL DOCUMENTATION - SITE MAP, TEXT AND DESIGN QUANTITIES



SITE: EAST SPRINGS WATERFOWL SLOUGH



SCALE: VERTICAL— 1 LINE/ROW = 1 FOOT

HORIZONTAL— 1 LINE/COLUMN = 15'

CROSS-SECTION OF POOL (FROM WEST BANK TO EAST BANK)

NOTE: SEE ADDITIONAL DOCUMENTATION—SITE MAP, TEXT, AND DESIGN QUANTITIES

Proposed East Pond

This is a flow through construction which encompasses a 100 section of east springs as the eastern edge of the design. The main body of the pond will be excavated off channel and later connected to the existing stream.

One unique feature of this pond is the utilization of existing willow clumps and a small aspen grove, which will be left in place as undisturbed islands.

The excavated spoils from the pond will be placed on site in a previously designated area where they will be contoured and re-vegetated.

All pond shaping will be completed during excavation with 50% of the contouring down to 2' below water line excavated at a 5:1 slope. The remaining 50% down to 2' below waterline will be excavated at a 3:1 slope. From a depth of 2' below water line a variable slope with a maximum angle of 2.5:1 will be constructed.

To further the enhancement, there will be four rocks 3' in diameter, three rocks 4' in diameter placed at intervals and varying depths in the water. Additionally, there will be two 10' aspen logs anchored at intervals and varying depth in the water.

Total volume of excavated spoils=1,384cy

Total volume of rock and woody fill=8.74cy

Total water surface area=9,340 or 0.21 ac

Proposed East Springs Center Pond

This is a flow through construction utilizing the existing streambed and a previous shallow excavation as the approach for the water course. For practical construction purposes and environmental concerns, the excavation will be a three phase process. The isolated excavations will be conjoined to embody the pond as a whole at completion.

The first phase of construction will be done off channel, to the west of the existing excavation. The spoils from this excavation will be placed on site in a previously designated area.

The second excavation site is to the east of the existing streambed and will be also done off channel. Again, the spoils will be placed in a previously designated area.

The third phase of construction will take place in the existing streambed. In an effort to mitigate downstream siltation, the creek will be diverted to the west of the island shown on the site map and be reconnected to the existing stream at the outlet point. After the stream has been diverted to the west, the existing streambed will be excavated connecting it to the previously constructed phase one and two aspects.

All shaping will be completed during excavation with 50% of the contouring down to 2' below water line excavated at a 5:1 slope. The remaining 50% down to 2' below waterline will be excavated at a 3:1 slope. From a depth of 2' below water line a variable slope with a maximum angle of 2.5:1 will be constructed.

At the proposed outlet site a dam/berm will be built. The berm will be built to a maximum height of 18" above the highest existing grade. A water control structure and fish impediment device will be incorporated into the constructed berm. To ensure the functionality, security, and longevity of the design, dual anti-seep mechanisms will be applied and a stringent re-vegetation schedule will be adhered to. The entire revetment of the berm will be constructed with a waterproof membrane underlayment. The waterproof membrane will be keyed into the existing river right and river left banks and covered with a minimum of 12" of fill soils prior to re-vegetation.

All of the excavated spoils not used to build the berm will be placed in a previously designated area where they will be contoured and re-vegetated.

To further the enhancement, there will be ten aquascaping boulders 3' in diameter, five aquascaping boulders 4' in diameter, and five aquascaping boulders 5' in diameter placed at intervals and varying depths in the water. Additionally, there will be four 10' aspen logs anchored at intervals and varying depth in the water.

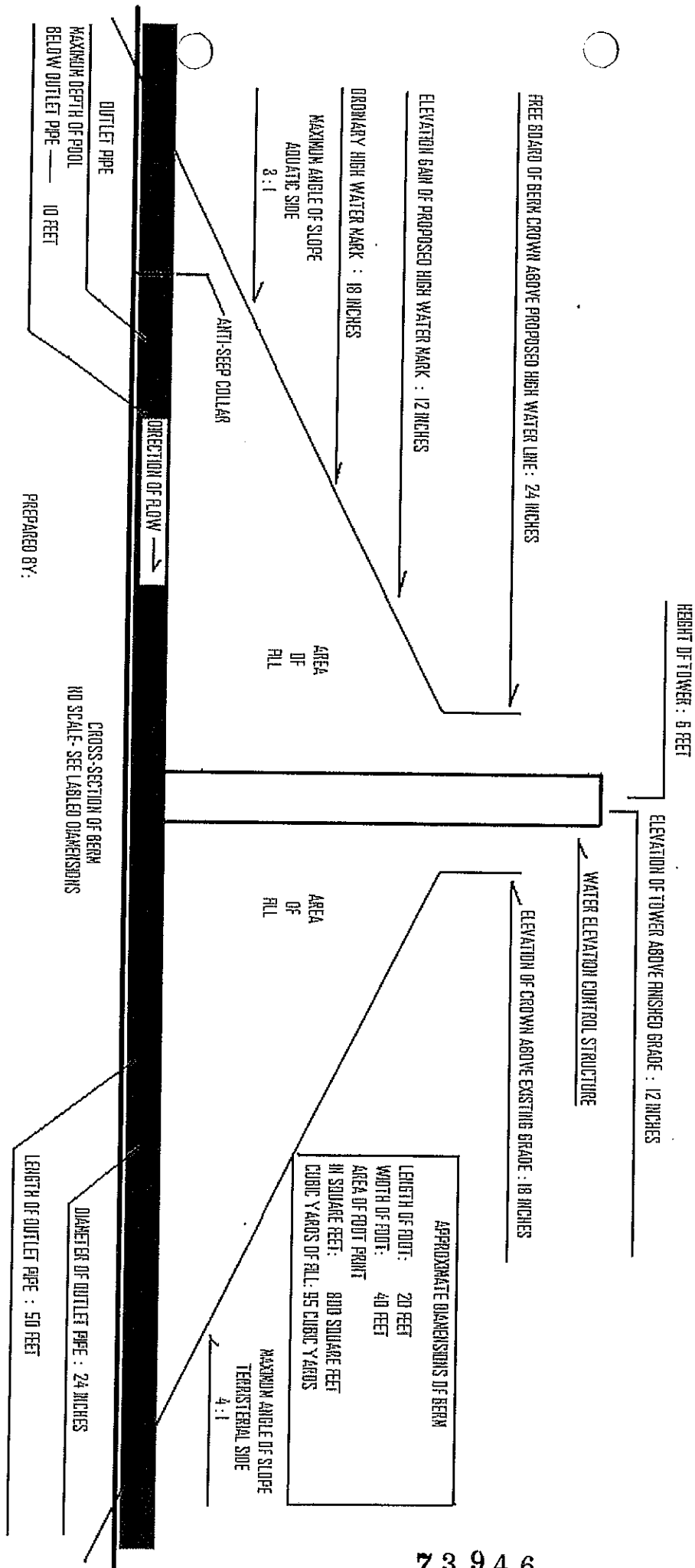
Total volume of excavated spoils=8,183cy

Total volume of rock and woody fill=26.48cy

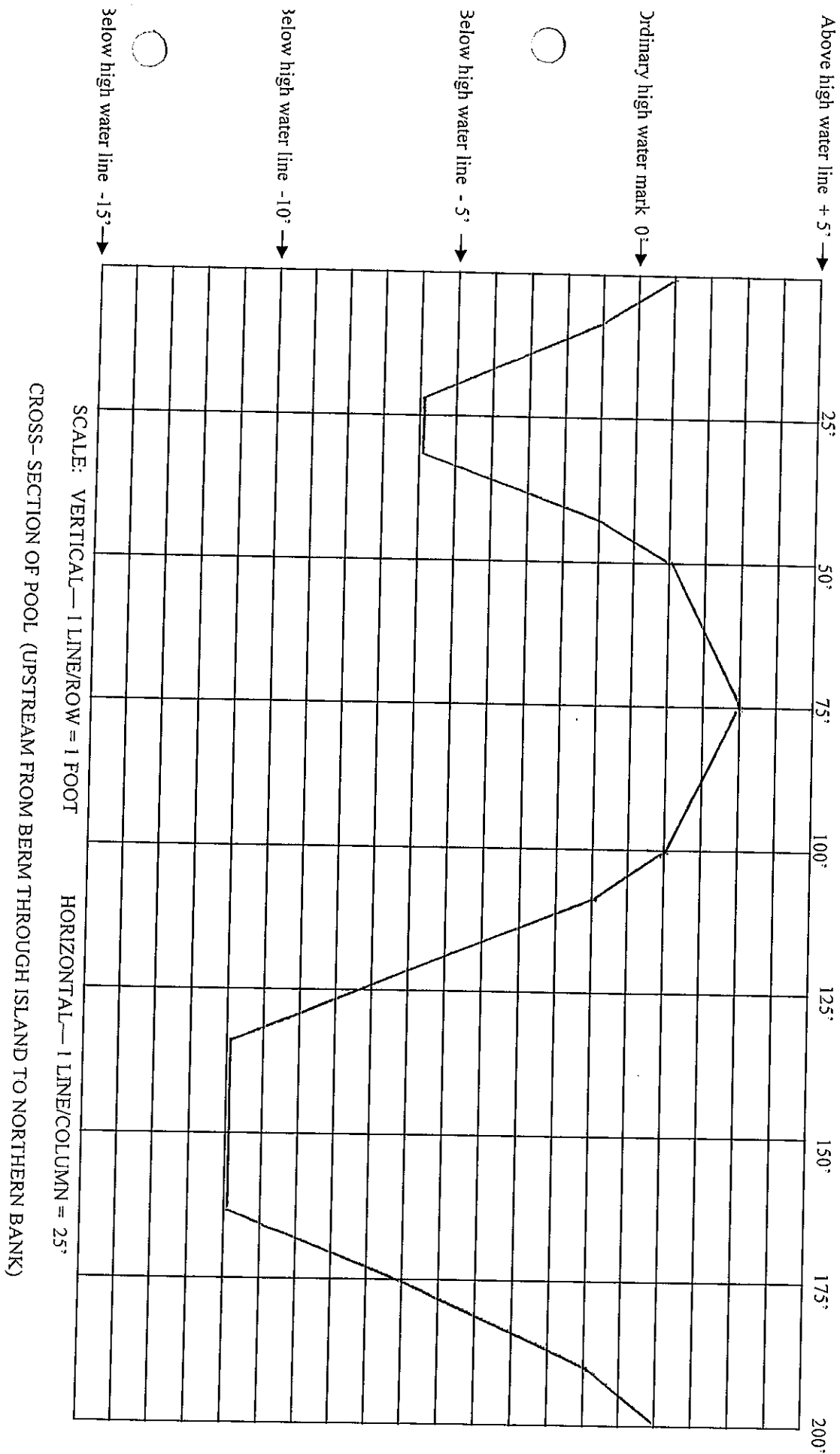
Total water surface area=55,183 or 1.27 ac

SITE: EAST SPRINGS CENTER POND

NOTE: SEE ADDITIONAL DOCUMENTATION - SITE MAP, TEXT AND DESIGN QUANTITIES



SITE: EAST SPRINGS CENTER POND



NOTE: SEE ADDITIONAL DOCUMENTATION—SITE MAP, TEXT, AND DESIGN QUANTITIES

Proposed South Pond

At the approach point of diversion, a small inlet channel will be constructed. This channel leads to a water control structure and fish migration impediment that will be established as the inlet of the pond. Because of this, the pond will be excavated and later connected to the existing South spring.

All shaping will be completed during excavation of the pond, with 50% of the contouring down to 2' below water line excavated at a 5:1 slope. The remaining 50% down to 2' below waterline will be excavated at a 3:1 slope. From a depth of 2' below the water line a variable slope with a maximum angle of 2.5:1 will be constructed.

At the proposed outlet site a dam/berm will be built. The berm will be built to a maximum height of 18" above the highest existing grade. A water control structure and fish impediment device will be incorporated into this constructed berm. To ensure the functionality, security, and longevity of the design, dual anti-seep mechanisms will be applied and a stringent re-vegetation schedule will be adhered to. The entire revetment of the berm will be constructed with a waterproof membrane underlayment. The waterproof membrane will be keyed into the existing river right and river left banks and covered with a minimum of 12" of fill soils prior to re-vegetation.

Once the water control structure has been installed, the desired water height will be achieved through the damming effect of the structure.

All of the excavated spoils not used to build the berm will be placed in a previously designated area where they will be contoured and re-vegetated.

To further the enhancement, there will be eight aquascaping boulders 3' in diameter, five aquascaping boulders 4' in diameter, and three aquascaping boulders 5' in diameter placed at intervals and varying depths in the water. Additionally, there will be five 10' aspen logs anchored at intervals and varying depth in the water.

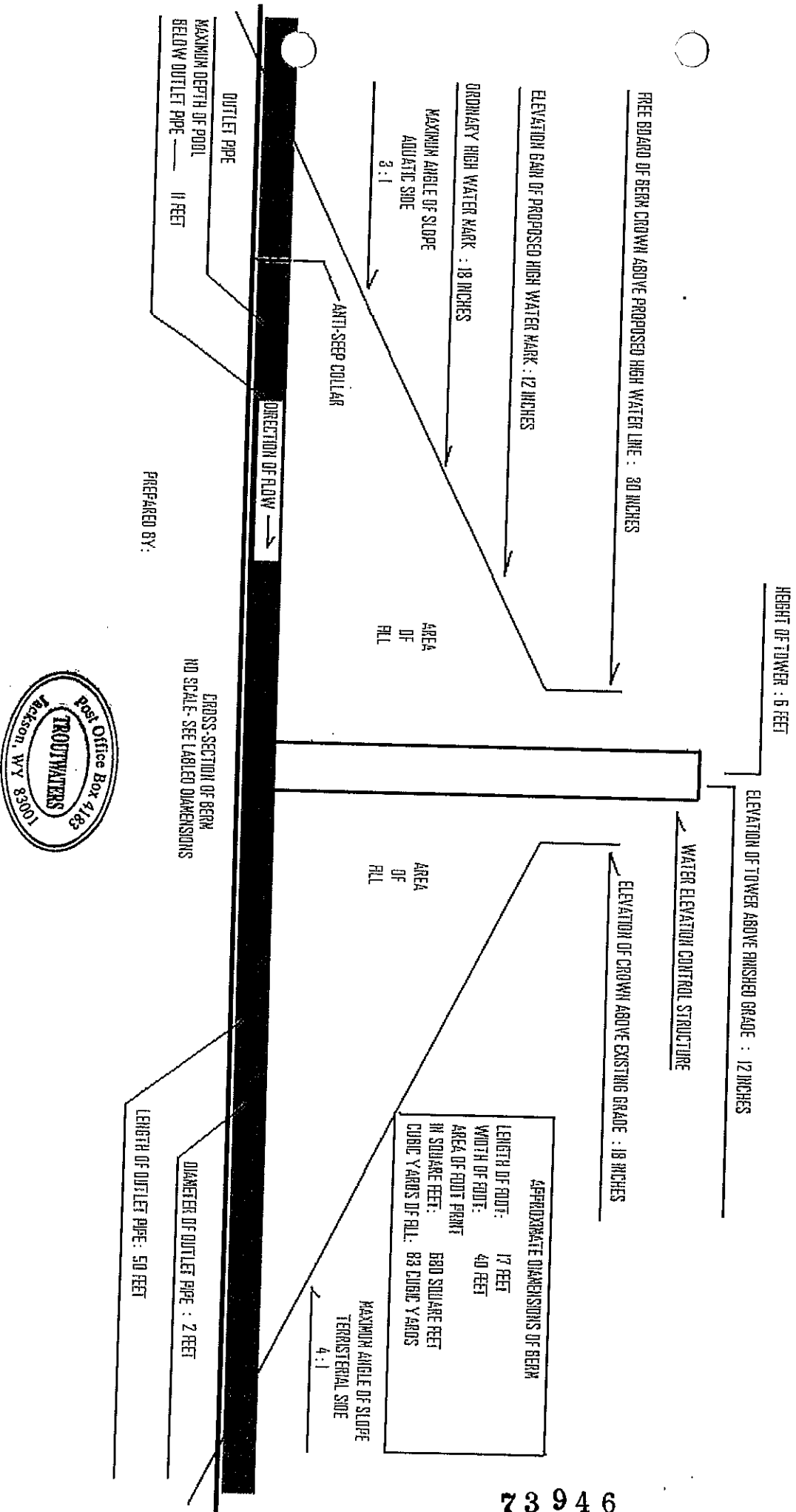
Total volume of excavated spoils=6,594cy

Total volume of rock and woody fill=19.63cy

Total water surface area=44,510 or 1.02 ac

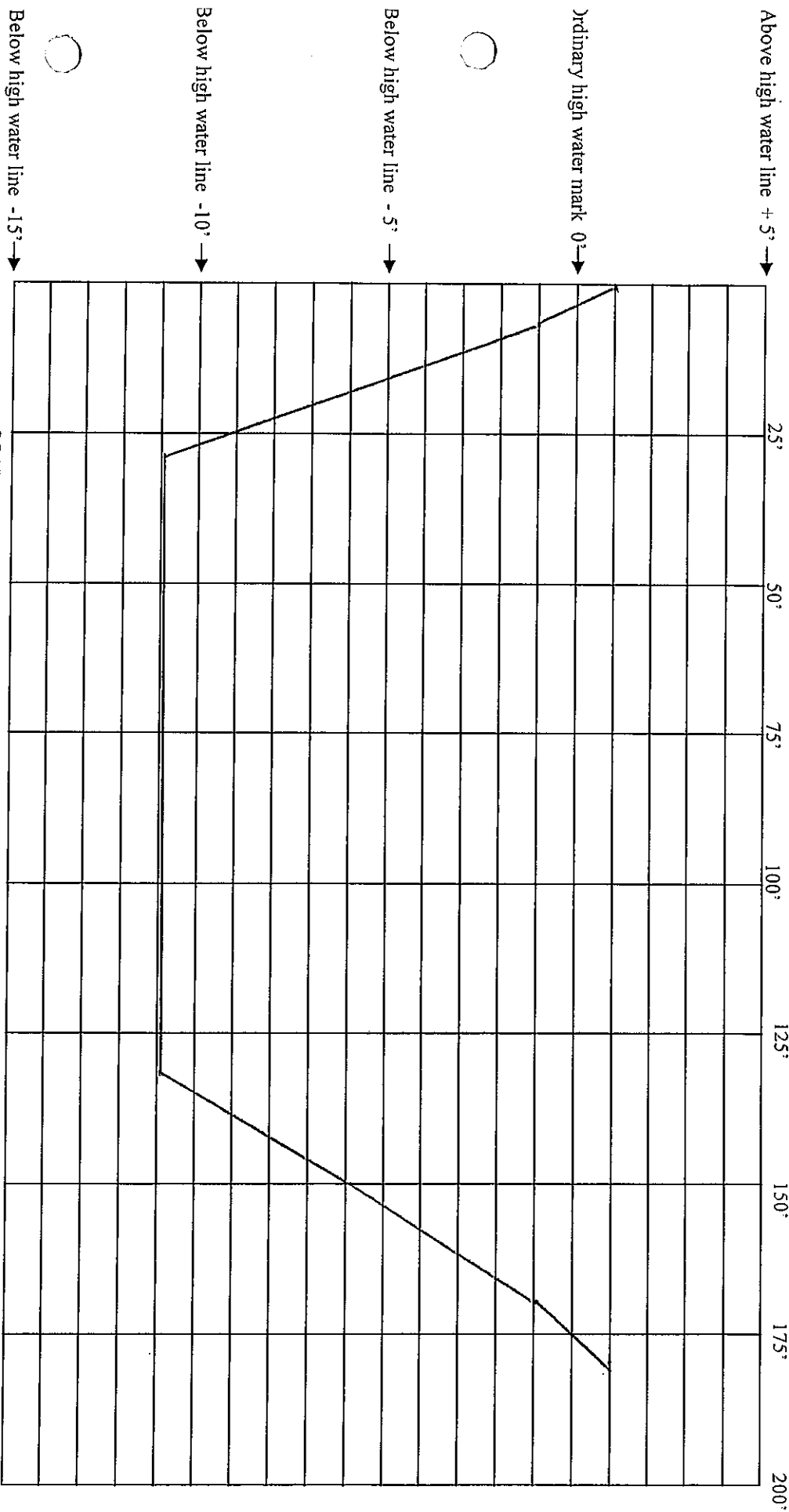
SITE: SOUTH POND

NOTE: SEE ADDITIONAL DOCUMENTATION - SITE MAP, TEXT AND DESIGN QUANTITIES



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SITE: SOUTH POND



SCALE: VERTICAL—1 LINE/ROW = 1 FOOT

HORIZONTAL—1 LINE/COLUMN = 25'

CROSS-SECTION OF POOL (FROM SOUTH BANK TO NORTH BANK WITHIN THE EAST ARM)

NOTE: SEE ADDITIONAL DOCUMENTATION—SITE MAP, TEXT, AND DESIGN QUANTITIES

Proposed West Pond

This is a flow through construction utilizing the existing West Spring water course.

The pond will be excavated off channel to the east of the existing streambed and later connected to the stream.

Incorporated within the overall waterline of the pond, areas designated for waterfowl will be constructed. One specific waterfowl slough will be constructed contiguous to the southeast corner of the pond. The other waterfowl slough will be excavated contiguous to the southwest corner of the pond (see site map). Both waterfowl sloughs will be shallow bodies of water with an average depth of 10" and a maximum depth of 24".

All shaping will be completed during excavation with 50% of the contouring down to 2' below water line excavated at a 5:1 slope. The remaining 50% down to 2' below waterline will be excavated at a 3:1 slope. From a depth of 2' below water line a variable slope with a maximum angle of 2.5:1 will be constructed.

At the proposed outlet site a dam/berm will be built. The berm will be built to a maximum height of 18" above the highest existing grade. A water control structure and fish impediment device will be incorporated into the constructed berm. To ensure the functionality, security, and longevity of the design, dual anti-seep mechanisms will be applied and a stringent re-vegetation schedule will be adhered to. The entire revetment of the berm will be constructed with a waterproof membrane underlayment. The waterproof membrane will be keyed into the existing river right and river left banks and covered with a minimum of 12" of fill soils prior to re-vegetation.

Once the water control structure has been installed, the desired water height will be achieved through the damming effect of the structure, submerging both the waterfowl sloughs and the pond to the designed depth.

All of the excavated spoils not used to build the berm will be placed in a previously designated area where they will be contoured and re-vegetated.

To further the enhancement, there will be six aquascaping boulders 3' in diameter, and five aquascaping boulders 4' in diameter placed at intervals and varying depths in the water. Additionally, there will be six 10' aspen logs anchored at intervals and varying depth in the water.

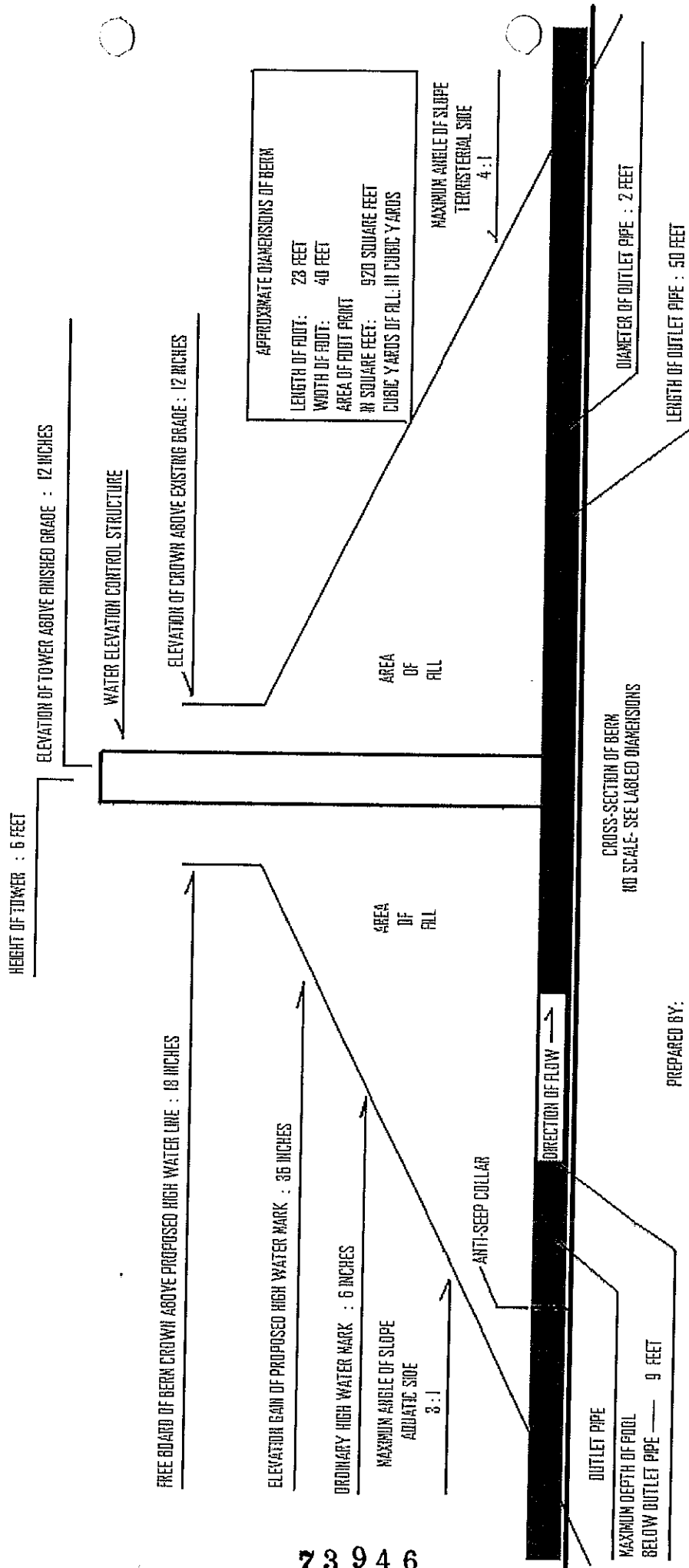
Total volume of excavated spoils=3,155cy

Total volume of rock and woody fill=14.88cy

Total water surface area=21,294 or 0.49 ac

SITE: WEST FORO

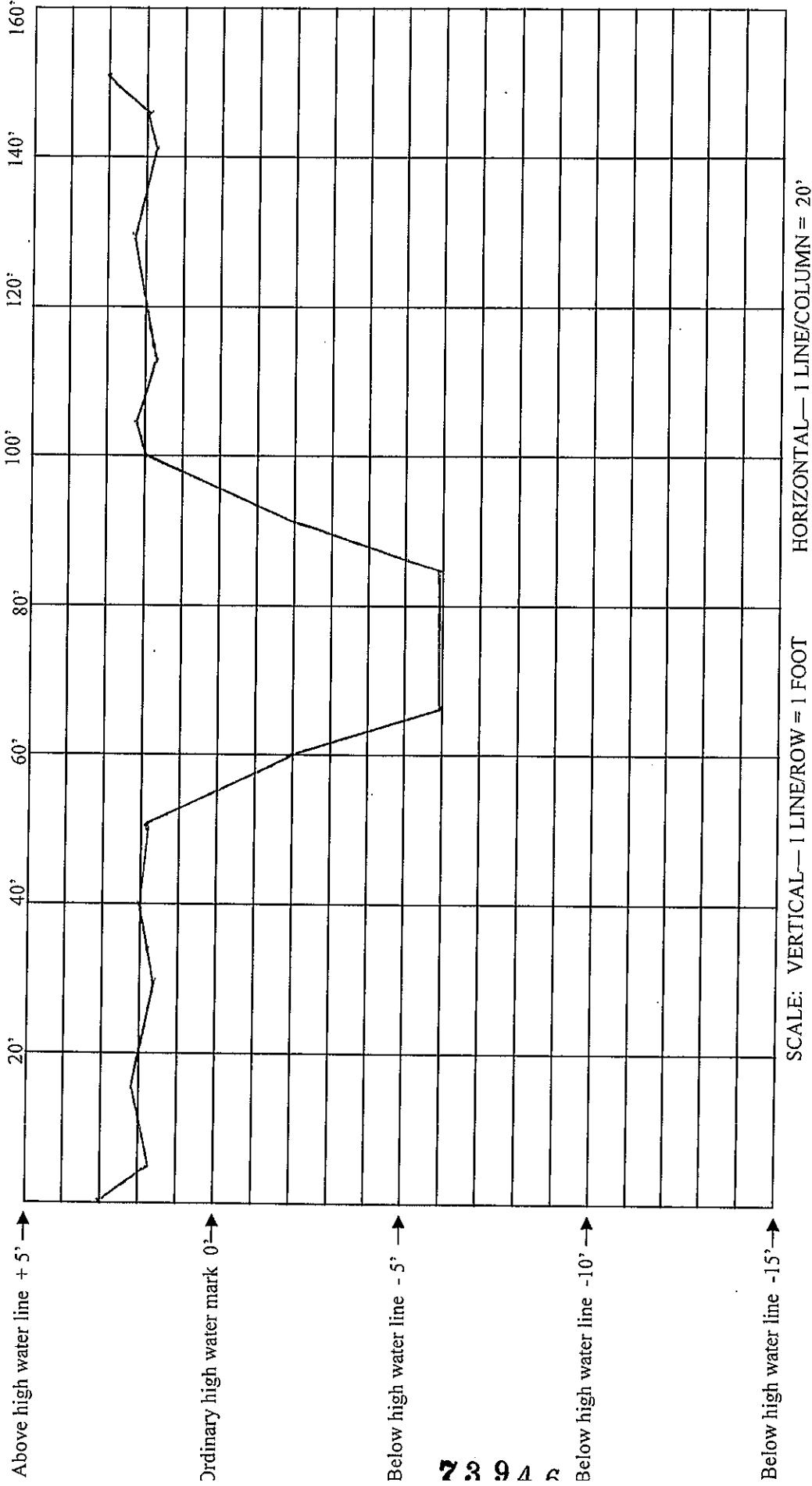
NOTE: SEE ADDITIONAL DOCUMENTATION - SITE MAP, TEXT AND DESIGN QUANTITIES



PREPARED BY:

73 946

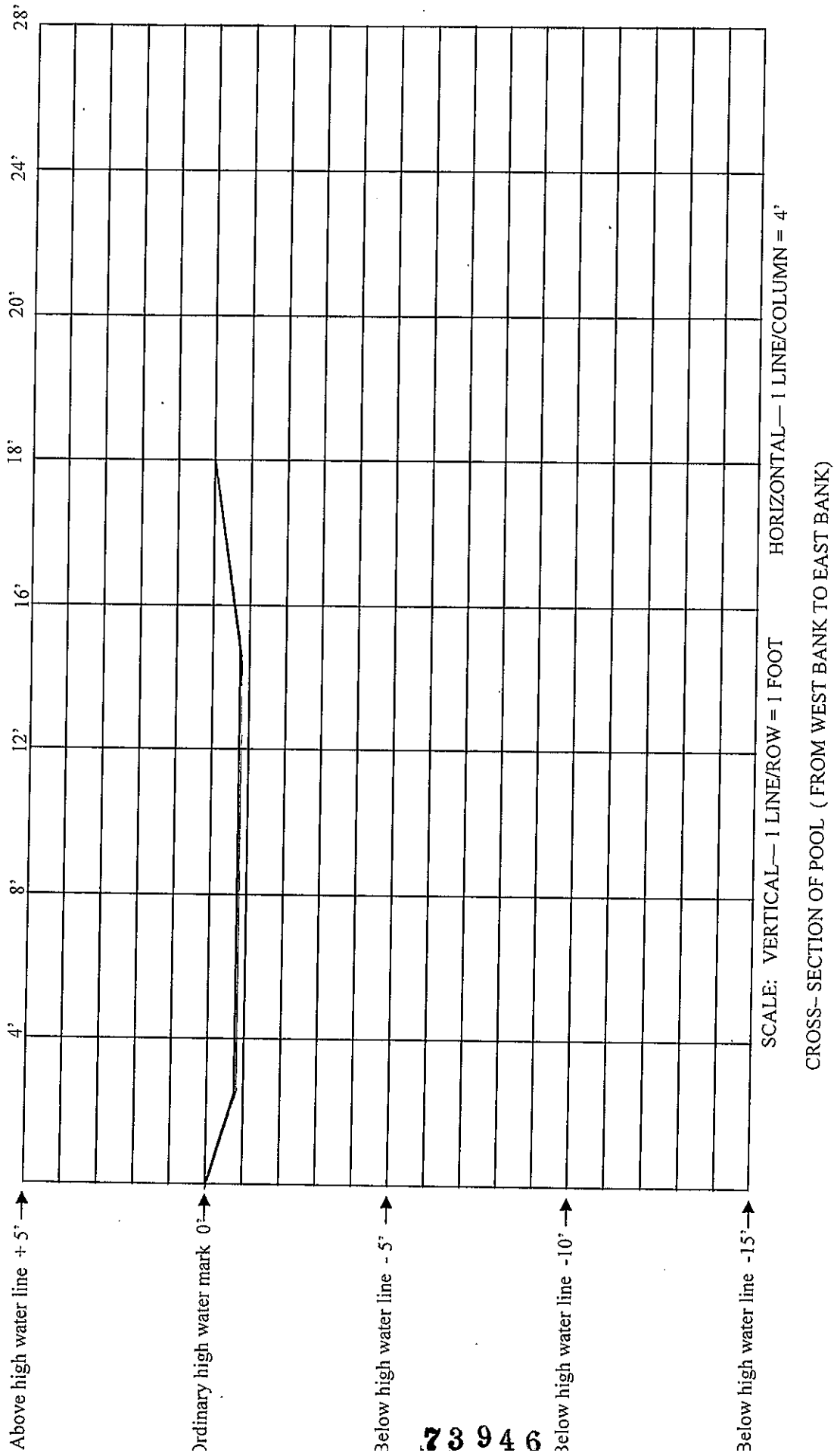
SITE: WEST POND



CROSS-SECTION OF POOL (FROM BERM THROUGH WEST SLOUGH INTO POND AND THROUGH EAST SLOUGH)

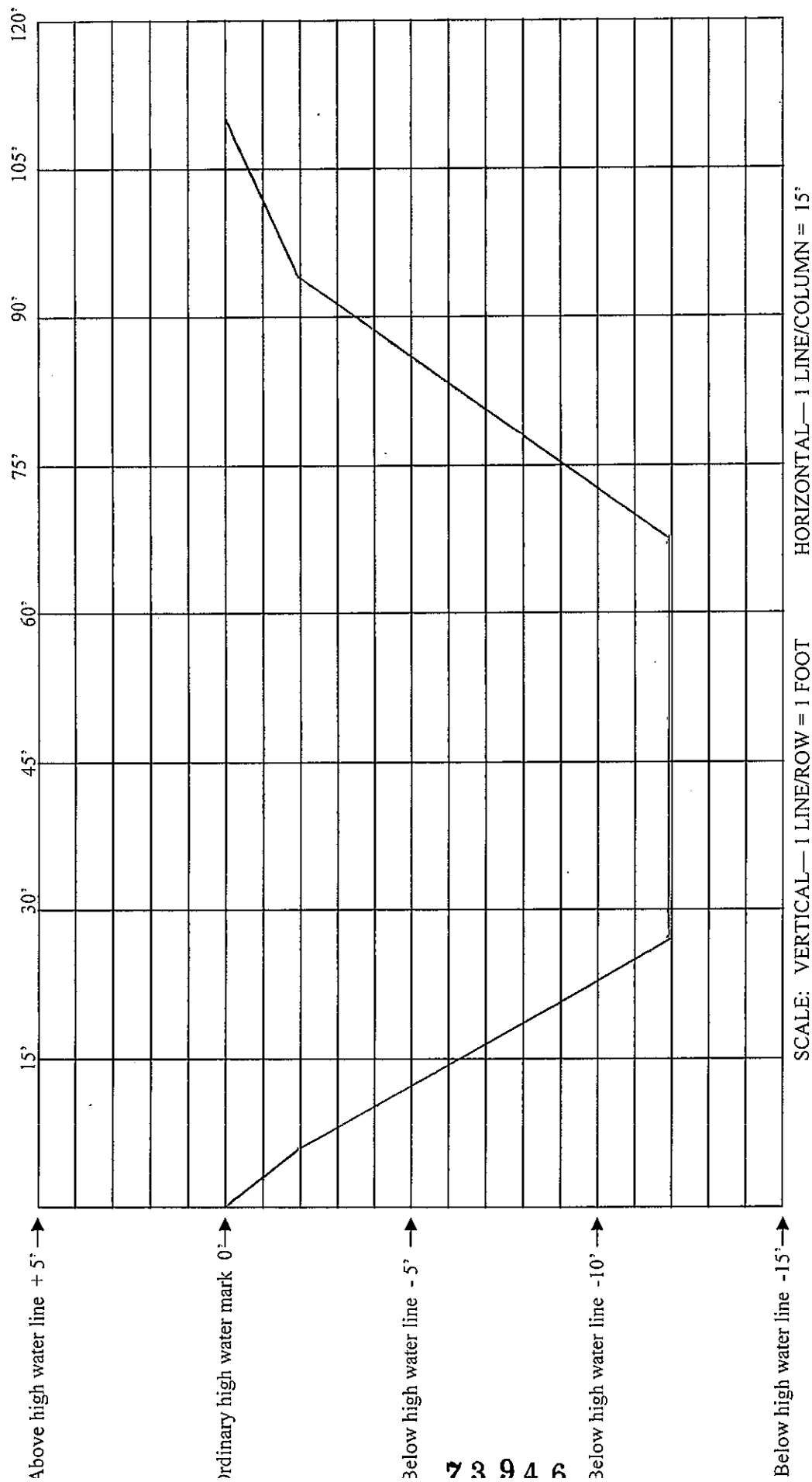
NOTE: SEE ADDITIONAL DOCUMENTATION—SITE MAP, TEXT, AND DESIGN QUANTITIES

SITE: 4 NORTH SPRINGS WATERFOWL SLOUGHS (TYPICAL CROSS—SECTION



NOTE: SEE ADDITIONAL DOCUMENTATION—SITE MAP, TEXT, AND DESIGN QUANTITIES

SITE: EAST POND



CROSS-SECTION OF POOL (FROM WEST BANK TO EAST BANK)

NOTE: SEE ADDITIONAL DOCUMENTATION—SITE MAP, TEXT, AND DESIGN QUANTITIES

EAST SPRING WATERPUMP SLONGH

$$\frac{212}{\frac{8,183 \text{ yd}^3}{1613.33}} = \frac{13140.52}{5.072 \text{ A-F}}$$

EAST POND

$$1,384 \text{ yd}^3 - 8.74 \text{ yd}^3 = \frac{1375.26 \text{ yd}^3}{1613.33} = .852 \text{ yd}^3$$

EAST SPRINGS CENTER POND

$$8,183 \text{ yd}^3 - 26.48 \text{ yd}^3 = \frac{8156.52 \text{ yd}^3}{1613.33} = 5.06 \text{ A-F}$$

SOUTH POND

$$6,594 \text{ yd}^3 - 19.63 \text{ yd}^3 = \frac{6574.37}{1613.33} = 4.08 \text{ A-F}$$

WEST POND

$$3,155 \text{ yd}^3 - 14.88 \text{ yd}^3 = \frac{3140.12}{1613.33} = 1.95 \text{ A-F}$$

$$\text{TOTAL} = \frac{27614.53}{1613.33} = 17.12 \text{ A-F}$$

ATTACHMENT 4

Lazy 2 Ranch WEST SPRING CREEK Fisheries and Waterfowl Enhancement Design Quantities

Site Location	Work Description	Dimension of Excavation (ft.)	Excavation (CY)	Fill (CY)	Description of Fill
1	pool	18'x12'x5'	40	0	0
2	slot	18'x6'x3'	12	0	0
3	slot	28'x5'x3'	15.5	0	0
4	corner pocket	9'x9'x4'	12	0	0
5	slot/pool	Exhibit "A"	25	0	0
6	slot	15'x6'x3'	10	0	0
7	corner pocket	11'x11'x4'	18	0	0
8	slot	42'x18'x1'	28	0	0
9	pool/slot	Exhibit "A"	12	0	0
10	corner pocket	15'x9'x3'	15	0	0
11	pool/placed rock	11'x10'x5'	20	1	placed 3' rock
12	slot	15'x9'x4'	20	0	0
13	slot/corner pocket/ placed rock	Exhibit "A"	20	0	0
Total			247.5	1	



Lazy 2 Ranch SOUTH SPRING CREEK Fisheries and Waterfowl Enhancement Design Quantities

Site Location	Work Description	Dimension of Excavation(ft.)	Excavation (CY)	Fill (CY)	Description of Fill
1	slot	14'x12'x4'	25	0	0
2	pool	14.7'x14.7'x5'	40	0	0
3	slot/slot/placed log	13.2'x12'x5'	30	1	3' placed rock
Total			95	1	



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Lazy 2 Ranch NORTH SPRING CREEK Fisheries and Waterfowl Enhancement Design Quantities

Site Location	Work Description	Dimension of Excavation(ft.)	Excavation (CY)	Fill (CY)	Description of Fill
1	waterfowl slough	18'x18'x1'	12	0	0
2	waterfowl slough	20'x18'x1'	13	0	0
3	waterfowl slough	25'x18'x1'	16	0	0
4	waterfowl slough	18'x12'x1'	8	0	0
5	waterfowl slough	18'x15'x1'	10	0	0
6	waterfowl slough	15'x9'x1'	5	0	0
Total			64	0	



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Lazy 2 Ranch EAST SPRING CREEK Fisheries and Waterfowl Enhancement Design Quantities

Site Location	Work Description	of Excavation (ft.)	Excavation (CY)	Fill (CY)	Description of Fill
1	pool	18'x12'x5'	40	0	0
2	check dam/drop pool	18'x15'x5'	50	4	pit run
3	slot	15'x6'x3'	15	0	0
4	log/pool	13.5'x12'x5'	30	0.37	10' aspen log
5	Waterfowl Slough	32'x25'x1'	32.4	0	0
6	pool	40'x15'x4.5'	100	0	0
7	rock check dam	20'x10'	0	5	pit run/rock
8	corner pocket	15'x9'x3'	15	0	0
9	slot	12'x10'x4'	18	0	0
10	pool	9'x8'x3'	8	0	0
11	pool	9'x5'x3'	5	0	0
12	pool	18'x12'x5'	40	0	0
13	pool/placed rock	14'x12'x4'	25	1	rock
14	pool	11'x11'x4'	18	0	0
15	pool/placed log	15'x9'x4'	20	0.37	10' aspen log
16	slot	20'x8'x3'	18	0	0
17	pool	9'x5'x3'	5	0	0
18	pool/check dam	18'x15'x5'	50	3.66	pit run/2' rock
19	pool	12'x10'x4'	18	0	0
20	pool	15'x9'x4'	20	0	0
21	loosen spawning gravel	20'x8'	0	0	0
22	pool/placed rock	12'x14'x4'	25	1	placed 3' rock
23	placed rock/pool	15'x9'x4'	20	1	placed 3' rock
24	pool	13'x12'x5'	30	0	0
25	slot	9'x8'x3'	8	0	0
26	slot	18'x15'x5'	50	0	0
27	slot/pool	Exhibit "A"	35	0	0
28	slot	12'x9'x3'	12	0	0
29	pool	15'x6'x3'	10	0	0
30	pool	18'x15'x5'	50	0	0
31	corner pocket	12.6'x15'x5'	35	0	0
32	slot	11'x6.5'x3'	8	0	0
33	slot	15'x9'x4'	20	0	0
34	pool	13'x11.4'x4'	22	0	0
35	bank sloping	Exhibit "A"	0	0	0
35a	slot/pool	Exhibit "A"	20	0	0
36	slot	18'x6'x3'	12	0	0
37	slot	11'x6.5'x3'	8	0	0
38	slot	15'x6'x3'	10	0	0
39	corner pocket	8'x6'x3'	5	0	0
40	slot	11'x6.5'x3'	8	0	0
41	corner pocket	8'x6'x3'	5	0	0
42	pool	18'x15'x5'	50	0	0
43	slot	25'x9'x3'	25	0	0
44	loosen spawning gravel	16'x6'	0	0	0
45	slot	9'x5'x3'	5	0	0
46	corner pocket	9'x8'x3'	10	0	0
47	pool	12'x14'x4'	25	0	0
48	slot	9'x5'x3'	5	0	0
48a	pool	14'x12'x4'	25	0	0
48b	slot/corner pocket	Exhibit "A"	18	0	0
49	slot/pool	Exhibit "A"	18	0	0
50	slot	30'x8'x3'	30	0	0



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Lazy 2 Ranch EAST SPRING CREEK Fisheries and Waterfowl Enhancement Design Quantities Continued

Site Location	Work Description	Dimension of Excavation (ft.)	Excavation (CY)	Fill (CY)	Description of Fill
51	slot/corner pocket	Exhibit "A"	18	0	0
52	pool	13'x7'x3'	10	0	0
53	corner pocket	13'x8.5'x3'	12	0	0
54	slot/pocket	Exhibit "A"	15	0	0
55	slot	17'x8'x3'	15	0	0
56	pool	15'x15'x5'	40	0	0
57	pool	15'x15'x5'	40	0	0
58	pool	15'x15'x5'	40	0	0
59	pool	15'x15'x5'	40	0	0
60	pool	15'x15'x5'	40	0	0
61	pool/slot/check dam	11'x10'x5'	20	4	pit run/ placed 3' rock
62	pool	15'x9'x3'	15	0	0
63	loosen spawning gravel	12'x6'	0	0	0
64	slot	20'x8'x3'	18	0	0
65	pool	8'x6'x3'	5	0	0
66	slot	15'x9'x4'	20	0	0
67	slot	9'x5'x3'	5	0	0
68	slot	17'x8'x3'	15	0	0
69	pool	9'x8'x3'	8	0	0
70	slot	12'x10'x4'	18	0	0
71	slot	18'x6'x3'	12	0	0
72	loosen spawning gravel	20'x4'	0	0	0
73	pool	8'x6'x3'	5	0	0
74	corner pocket	9'x8'x3'	8	0	0
75	slot	12'x10'x4'	18	0	0
76	corner pocket	13'x7'x3'	10	0	0
77	slot	15'x9'x4'	20	0	0
78	loosen spawning gravel	20'x6'	0	0	0
Total			1598.4	20.4	



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STREAM CHANNEL ALTERATION CALCULATIONS

WEST SPRING CREEK					
	Dimension 1	Dimension 2	Surface Area (ft^2)		
1	18	12	216		
2	18	6	108		
3	28	5	140		
4	9	9	81		
5	12	14	168		
6	15	6	90		
7	11	11	121		
8	42	18	756		
9	6	7	42		
10	15	9	135		
11	11	10	110		
12	15	9	135		
13			0		
			TOTAL	2102	
SOUTH SPRING CREEK					
	Dimension 1	Dimension 2	Surface Area (ft^2)		
1	14	12	168		
2	14.7	14.7	216.09		
3	13.2	13.2	174.24		
			TOTAL	558.33	
NORTH SPRING CREEK					
	Dimension 1	Dimension 2	Surface Area (ft^2)		
1	18	18	324		
2	20	18	360		
3	25	18	450		
4	18	12	216		
5	18	15	270		
6	15	9	135		
			TOTAL	1755	
EAST SPRING CREEK					
	Dimension 1	Dimension 2	Surface Area (ft^2)		
1	18	12	216		
2	18	15	270		
3	15	6	90		
4	13.5	12	162		
5	32	25	800		
6	40	15	600		
7	20	10	200		
8	15	9	135		
9	12	10	120		
10	9	8	72		
11	9	5	45		
12	18	12	216		
13	14	12	168		
14	11	11	121		
15	15	9	135		
16	20	8	160		
17	9	5	45		
18	18	15	270		
19	12	10	120		
20	15	9	135		
21	20	6	0		
22	12	14	168		
23	15	9	135		
24	13	12	156		
25	9	8	72		
26	18	15	270		

27	12.6	15	189		
28	12	9	108		
29	15	6	90		
30	18	15	270		
31	12.6	15	189		
32	11	6.5	71.5		
33	15	9	135		
34	13	11.4	148.2		
35			0		
35A	11	10	110		
36	18	6	108		
37	11	6.5	71.5		
38	15	6	90		
39	8	6	48		
40	11	6.5	71.5		
41	8	6	48		
42	18	15	270		
43	25	9	225		
44	16	6	0		
45	9	5	45		
46	9	8	72		
47	12	14	168		
48	9	5	45		
48A	14	12	168		
48B	12	10	120		
49	12	10	120		
50	30	9	270		
51	12	10	120		
52	13	7	91		
53	13	8.5	110.5		
54	17	8	136		
55	17	8	136		
56	15	15	225		
57	15	15	225		
58	15	15	225		
59	15	15	225		
60	15	15	225		
61	11	10	110		
62	15	9	135		
63	12	6	0		
64	20	8	160		
65	8	6	48		
66	15	9	135		
67	9	5	45		
68	17	8	136		
69	9	8	72		
70	12	10	120		
71	18	6	108		
72	20	4	0		
73	8	6	48		
74	9	8	72		
75	12	10	120		
76	13	7	91		
77	15	9	135		
78	20	8	0		
			TOTAL	11385.2	
	OVERALL TOTAL (ft^2)	15800.53			
	OVERALL TOTAL (acres)	0.36			

Pond Consumptive Use Calculations
Climate Station: Driggs
Crystal Springs Land & Cattle Co., Inc.

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Annual FWW Evaporation (inches)*	35	35	35	35	35	35	35	35	35	35	35	35	35
Monthly Distribution (%)*	1	2	4	7	12	15	19	16	11	6	4	3	100
Monthly FWS Evaporation (in/mo)	0.35	0.7	1.4	2.45	4.2	5.25	6.65	5.6	3.85	2.1	1.4	1.05	35
Avg. Total Precipitation (in/mo)**	1.34	1.11	1.1	1.25	1.83	1.83	1.04	1.17	1.25	1.22	1.07	1.38	15.59
Pond Loss (Evap. - Precip., in)	0	0	0.3	1.2	2.37	3.42	5.61	4.43	2.6	0.88	0	0	20.81
Pond Surface Area (acres)	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36
Total Pond Loss (ac-in)	0.0	0.0	0.1	0.4	0.9	1.2	2.0	1.6	0.9	0.3	0.0	0.0	7.5
Total Pond Loss (ac-ft)	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.6

Note: for months where precipitation exceeds evaporation, the resultant pond loss is set to zero

Irrigation Consumption		Crop
Mean Irrig. Requirement (in/seas.)***	26.3	Pasture
Mean Irrig. Requirement (ft/seas.)***	2.19	
Acres to dry up for pond use	0.29	

*Molnar, Myron, Kporde, Kojo C.S., and Craine, Katherine L., 1992. Monthly shallow pond evaporation in Idaho. ASAE paper PNW 92-111.

**Data obtained from the Western Regional Climate Center, Monthly Climate Summary, Period of Record 1/3/1930 to 12/31/2006. See attached.

*** ET Idaho Evapotranspiration and Consumptive Irrigation Water Requirements for Idaho, Driggs Station. Values were taken from the alfalfa - less frequent cuttings precipitation deficit values (growing season total) published in 2007 by R. G. Allen and C.W. Robison.

** See Attached Spreadsheets "Pond Consumptive Use Calculations".

ATTACHMENT 5

$$\begin{array}{l} \text{WEST SPRING : } 247.5 - 1 = \underline{246.5} \\ \text{CREEK} \quad \quad \quad 1613.33 = .1528 \text{ A-F} \end{array}$$

$$\begin{array}{l} \text{SOUTH SPRING : } 95 - 1 = \underline{94} \\ \text{CREEK} \quad \quad \quad 1613.33 = .0583 \text{ A-F} \end{array}$$

$$\begin{array}{l} \text{NORTH SPRING : } 64 - 0 = \underline{64} \\ \text{CREEK} \quad \quad \quad 1613.33 = .03967 \text{ A-F} \end{array}$$

$$\begin{array}{l} \text{EAST SPRING : } 1598.4 - 20.4 = \underline{1578} \\ \text{CREEK} \quad \quad \quad 1613.33 = .978 \text{ A-F} \\ \hline 1.2288 \end{array}$$

$$\begin{array}{l} \text{TOTAL : } - \\ \hline 1982.5 \\ 1613.33 = 1.228 \text{ A-F} \end{array}$$

Lazy 2 Ranch WEST SPRING CREEK Fisheries and Waterfowl Enhancement Design Quantities

Site Location	Work Description	Dimension of Excavation (ft.)	Excavation (CY)	Fill (CY)	Description of Fill
1	pool	18'x12'x5'	40	0	0
2	slot	18'x6'x3'	12	0	0
3	slot	28'x5'x3'	15.5	0	0
4	corner pocket	9'x9'x4'	12	0	0
5	slot/pool	Exhibit "A"	25	0	0
6	slot	15'x6'x3'	10	0	0
7	corner pocket	11'x11'x4'	18	0	0
8	slot	42'x18'x1'	28	0	0
9	pool/slot	Exhibit "A"	12	0	0
10	corner pocket	15'x9'x3'	15	0	0
11	pool/placed rock	11'x10'x5'	20	1	placed 3' rock
12	slot	15'x9'x4'	20	0	0
13	slot/corner pocket/ placed rock	Exhibit "A"	20	0	0
Total			247.5	1	



73946

Lazy 2 Ranch SOUTH SPRING CREEK Fisheries and Waterfowl Enhancement Design Quantities

Site Location	Work Description	Dimension of Excavation(ft.)	Excavation (CY)	Fill (CY)	Description of Fill
1	slot	14'x12'x4'	25	0	0
2	pool	14.7'x14.7'x5'	40	0	0
3	slot/slot/placed log	13.2'x12'x5'	30	1	3' placed rock
Total			95	1	



73946

Lazy 2 Ranch NORTH SPRING CREEK Fisheries and Waterfowl Enhancement Design Quantities

Site Location	Work Description	Dimension of Excavation(ft.)	Excavation (CY)	Fill (CY)	Description of Fill
1	waterfowl slough	18'x18'x1'	12	0	0
2	waterfowl slough	20'x18'x1'	13	0	0
3	waterfowl slough	25'x18'x1'	16	0	0
4	waterfowl slough	18'x12'x1'	8	0	0
5	waterfowl slough	18'x15'x1'	10	0	0
6	waterfowl slough	15'x9'x1'	5	0	0
Total			64	0	



73946

Lazy 2 Ranch EAST SPRING CREEK Fisheries and Waterfowl Enhancement Design Quantities

Site Location	Work Description	of Excavation (ft.)	Excavation (CY)	Fill (CY)	Description of Fill
1	pool	18'x12'x5'	40	0	0
2	check dam/drop pool	18'x15'x5'	50	4	pit run
3	slot	15'x6'x3'	15	0	0
4	log/pool	13.5'x12'x5'	30	0.37	10' aspen log
5	Waterfowl Slough	32'x25'x1'	32.4	0	0
6	pool	40'x15'x4.5'	100	0	0
7	rock check dam	20'x10'	0	5	pit run/rock
8	corner pocket	15'x9'x3'	15	0	0
9	slot	12'x10'x4'	18	0	0
10	pool	9'x8'x3'	8	0	0
11	pool	9'x5'x3'	5	0	0
12	pool	18'x12'x5'	40	0	0
13	pool/placed rock	14'x12'x4'	25	1	rock
14	pool	11'x11'x4'	18	0	0
15	pool/placed log	15'x9'x4'	20	0.37	10' aspen log
16	slot	20'x8'x3'	18	0	0
17	pool	9'x5'x3'	5	0	0
18	pool/check dam	18'x15'x5'	50	3.66	pit run/2' rock
19	pool	12'x10'x4'	18	0	0
20	pool	15'x9'x4'	20	0	0
21	loosen spawning gravel	20'x8'	0	0	0
22	pool/placed rock	12'x14'x4'	25	1	placed 3' rock
23	placed rock/pool	15'x9'x4'	20	1	placed 3' rock
24	pool	13'x12'x5'	30	0	0
25	slot	9'x8'x3'	8	0	0
26	slot	18'x15'x5'	50	0	0
27	slot/pool	Exhibit "A"	35	0	0
28	slot	12'x9'x3'	12	0	0
29	pool	15'x6'x3'	10	0	0
30	pool	18'x15'x5'	50	0	0
31	corner pocket	12.6'x15'x5'	35	0	0
32	slot	11'x6.5'x3'	8	0	0
33	slot	15'x9'x4'	20	0	0
34	pool	13'x11.4'x4'	22	0	0
35	bank sloping	Exhibit "A"	0	0	0
35a	slot/pool	Exhibit "A"	20	0	0
36	slot	18'x8'x3'	12	0	0
37	slot	11'x6.5'x3'	8	0	0
38	slot	15'x6'x3'	10	0	0
39	corner pocket	8'x6'x3'	5	0	0
40	slot	11'x6.5'x3'	8	0	0
41	corner pocket	8'x6'x3'	5	0	0
42	pool	18'x15'x5'	50	0	0
43	slot	25'x9'x3'	25	0	0
44	loosen spawning gravel	16'x6'	0	0	0
45	slot	9'x5'x3'	5	0	0
46	corner pocket	9'x8'x3'	10	0	0
47	pool	12'x14'x4'	25	0	0
48	slot	9'x5'x3'	5	0	0
48a	pool	14'x12'x4'	25	0	0
48b	slot/corner pocket	Exhibit "A"	18	0	0
49	slot/pool	Exhibit "A"	18	0	0
50	slot	30'x9'x3'	30	0	0



73940

72916

Lazy 2 Ranch EAST SPRING CREEK Fisheries and Waterfowl Enhancement Design Quantities Continued

Site Location	Work Description	Dimension of Excavation (ft.)	Excavation (CY)	Fill (CY)	Description of Fill
51	slot/corner pocket	Exhibit "A"	18	0	0
52	pool	13'x7'x3'	10	0	0
53	corner pocket	13'x8.5'x3'	12	0	0
54	slot/pocket	Exhibit "A"	15	0	0
55	slot	17'x8'x3'	15	0	0
56	pool	15'x15'x5'	40	0	0
57	pool	15'x15'x5'	40	0	0
58	pool	15'x15'x6'	40	0	0
59	pool	15'x15'x5'	40	0	0
60	pool	15'x15'x5'	40	0	0
61	pool/slot/check dam	11'x10'x5'	20	4	pit run/ placed 3' rock
62	pool	15'x9'x3'	15	0	0
63	loosen spawning gravel	12'x6'	0	0	0
64	slot	20'x8'x3'	18	0	0
65	pool	8'x6'x3'	5	0	0
66	slot	15'x9'x4'	20	0	0
67	slot	9'x5'x3'	5	0	0
68	slot	17'x0'x3'	15	0	0
69	pool	9'x8'x3'	8	0	0
70	slot	12'x10'x4'	18	0	0
71	slot	18'x6'x3'	12	0	0
72	loosen spawning gravel	20'x4'	0	0	0
73	pool	8'x6'x3'	5	0	0
74	corner pocket	9'x8'x3'	8	0	0
75	slot	12'x10'x4'	18	0	0
76	corner pocket	13'x7'x3'	10	0	0
77	slot	15'x9'x4'	20	0	0
78	loosen spawning gravel	20'x8'	0	0	0
Total			1598.4	20.4	



ATTACHMENT 6

SUMMARY

<u>MITIGATION CATEGORY</u>	<u>VOLUME</u>	<u>EQUIVALENT ACREAGE</u>
Pond Surface Area ... <u>EVAPORATION</u> 5.35 afa	5.35 afa	2.44 acres
Pond Volume	17.12 afa	7.82 acres
Stream Surface Area	0.6 afa	0.29 acres
Stream Volume	1.23 afa	0.56 acres
Totals:	24.3	11.1

24.1

11.0

G:\WPDATA\RLH\13812 Crystal Springs\Surface chart.wpd:cdv

$$2.19 \times 11 = 24.1 \text{ AF}$$

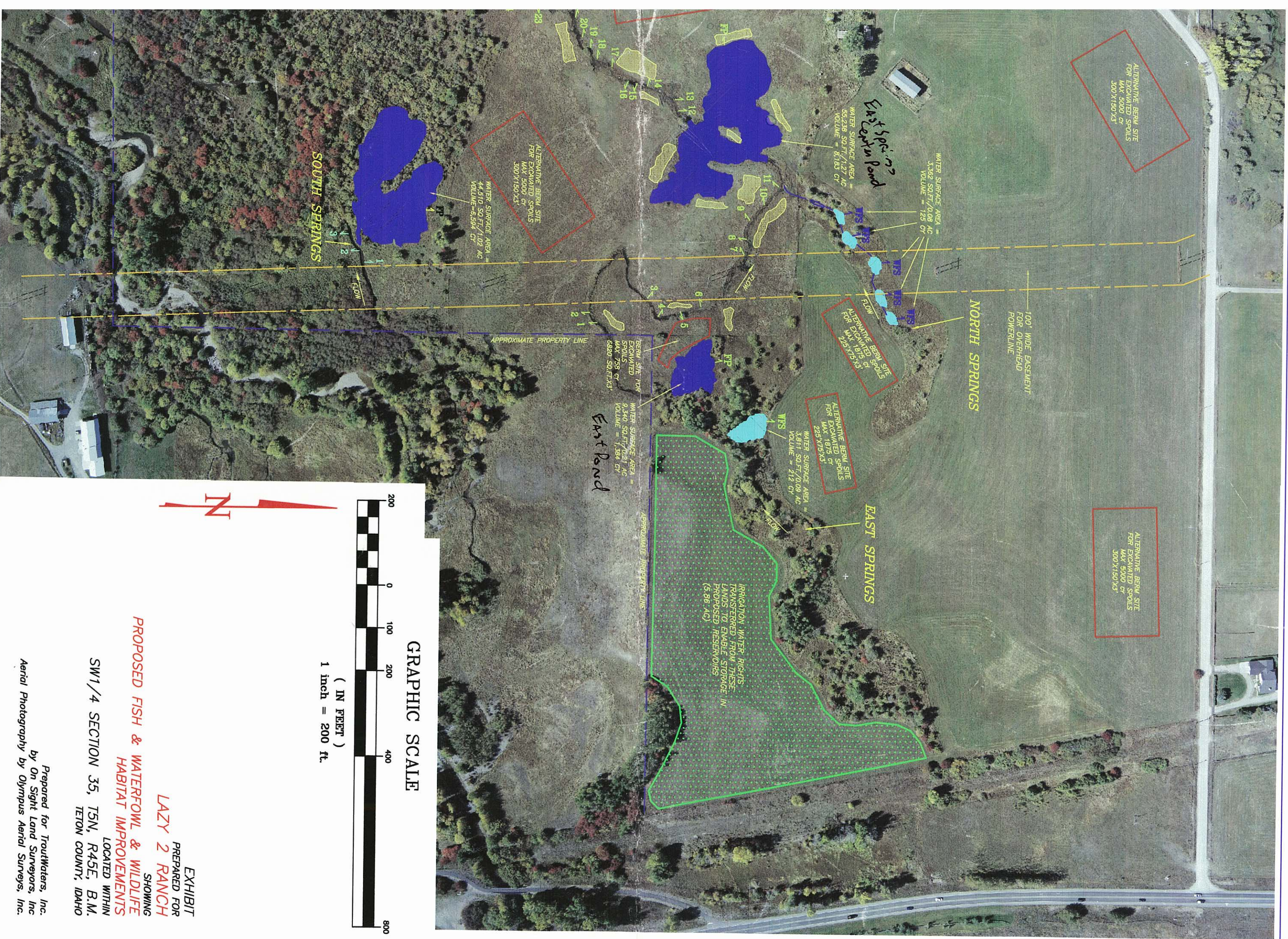


EXHIBIT
PREPARED FOR
LAZY 2 RANCH
SHOWING
**PROPOSED FISH & WATERFOWL & WILDLIFE
HABITAT IMPROVEMENTS**

LOCATED WITHIN
SW1/4 SECTION 35, T5N, R45E, B.M.
TETON COUNTY, IDAHO

Prepared for TroutWaters, Inc.
by On Sight Land Surveyors, Inc
Aerial Photography by Olympus Aerial Surveys, Inc.

DESCRIPTION OF ABBREVIATIONS

PROPOSED SPRING ENHANCEMENTS:

1- SITE OF PROPOSED SPRING ENHANCEMENT -
NORTH SPRING
REFER TO EXHIBIT "A" FOR DETAILED DESCRIPTIONS

**SOUTH SPRING
REFER TO EXHIBIT "A" FOR DETAILED DESCRIPTIONS**

EAST SPRING
REFER TO EXHIBIT "A" FOR DETAILED DESCRIPTIONS

WEST SPRING
REFER TO EXHIBIT "A" FOR DETAILED DESCRIPTIONS

LEGEND

FPP

PROPOSED FISHING POND

WTS **1** **PROPOSED WATER FOWL SLOUGH**

PROPOSED AREA OF DISTURBANCE AND DEPOSITION OF SPOILS EXCAVATED DURING CONSTRUCTION OF FISHING PONDS AND WATER FOWL SLOUGHS

ALTERNATIVE SITE FOR THE DEPOSITION OF
EXCAVATED SPOILS

PROPOSED ZONE FOR REVEGETATION
PLANTING OF DENUDED WOODY PLANTS
(33,837 SQ.FT./0.78 AC)

