IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE STATE OF IDAHO,
IN AND FOR THE COUNTY OF TWIN FALLS

IN RE THE GENERAL ADJUDICATION
OF RIGHTS TO THE USE OF WATER FROM
THE SNAKE RIVER BASIN WATER SYSTEM.

CIVIL CASE NUMBER: 39576

Ident. Number: **A36-00068**
Date Received: 8/19/1988
Receipt No: S001554
Received By: _____

AMENDED **NOTICE OF CLAIM TO A WATER RIGHT ACQUIRED UNDER STATE LAW** **AMENDED**

1. Name: JOHN W JONES JR 208-837-4580
   Address: PO BOX 265
   HAGERMAN ID 83332
   AND/OR
   Name: DELORIS D JONES 208-837-4580
   Address: PO BOX 265
   HAGERMAN ID 83332

2. Date of Priority: FEB 1, 1888

3. Source: WEATHERBY SPRINGS Trib. to: BILLINGSLEY CREEK

4. Point of Diversion:

Township	Range	Section	1/4 of 1/4 of 1/4	Lot	County
07S	14E	30	NE SW		GOODING

5. Description of diverting works:
   HEADBOX & 36" PIPE FOR IRRIG., 18" PIPE FOR DOMEST, 150HP PUMP

6. Water is used for the following purposes:

Purpose	From	To	C.F.S	(or)	A.F.A.
IRRIGATION	03/15	11/15	12.500		
DOMESTIC	01/01	12/31	0.110		
STOCKWATER	01/01	12/31	4.700		
FISH PROPAGATION	01/01	12/31	12.500		
IRRIGATION	01/01	12/31	4.500		

7. Total Quantity Appropriated is:
   12.500 C.F.S. (and/or) A.F.A.

8. Total consumptive use is Acre Feet Per Annum.

9. Non-irrigation uses:
   DOMESTIC, 5 HOMES; STOCKWATER, 500 RANGE OR 10,000 SHEEP

10. Place of Use:

Township	Range	Section	1/4 of 1/4		Lot	Use	Acres
07S	13E	25	NE	NE		IRR	40.0
			NW	NE		IRR	40.0
			SW	NE		IRR	40.0
			SE	NE		IRR	40.0
			NE	SE		IRR	40.0
			NW	SE		IRR	40.0
			SW	SE		IRR	29.0
			SE	SE		IRR	40.0
					Section Acres		309.0
	14E	30	NW	NW	1	IRR	32.0
			SW	NW	2	IRR	32.0
			NE	SW		IRR	40.0
			NE	SW		FISH	
			NW	SW	3	IRR	32.0
			SW	SW	4	IRR	32.0
			SE	SW		IRR	40.0
					Section Acres		208.0
					Total Acres		517.0

11. Place of use in counties: GOODING

12. Do you own the property listed above as place of use? YES

13. Other Water Rights Used:
A36-07071, A36-00069, A36-00070

14. Remarks:
WATER USED FOR IRRIG, FISH PROP., STOCK, & DOMESTIC. USES WATER FROM 4 DIFERENT WATER RIGHTS FOR A TOTAL OF 87.05 CFS.
|
IRRIGATION USE YEAR ROUND FOR 4.50 CFS IS CLAIMED FOR IRRIGATION SYSTEM MAINTENANCE; CLAIM STATES THE 4.5 CFS MUST BE KEPT MOVING IN THE PIPE TO PREVENT DAMAGE TO THE SYSTEM & FREEZING.

15. Basis of Claim: DECREED

Case Number:

Court :

Decree date: / /

NEW INTERNATIONAL MORTGAGE BA — Decree Plaintiff
vs
IDAHO POWER COMPANY — Decree Defendant

16. Signature(s)

(a.) By signing below, I/We acknowledge that I/We have received, read and understand the form entitled "How you will receive notice in the Snake River Basin Adjudication." (b.) I/We do ____ do not ____ wish to receive and pay a small annual fee for monthly copies of the docket sheet.

Number of attachments: _____

For Individuals:

I/We do solemnly swear or affirm that the statements contained in the foregoing document are true and correct.

Signature of Claimant(s): _____ Date: _____

_____ Date: _____

State of Idaho)
) SS.
County of _____)

Subscribed and sworn (or affirmed) before me this _____ day

of _____ 19 _____ _____
Notary Public

Seal

Residing at _____

My Commission Expires _____

17. Notice of Appearance:
Notice is hereby given that I, _____ will be
Print Name
acting as attorney at law on behalf of the claimant signing above, and that all notices required by law to be mailed by the director to the claimant signing above should be mailed to me at the address listed below.

Signature_____

Address_____

Date_____

Form No. 42-1409 (2) a 1/88

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

IN RE THE GENERAL ADJUDICATION OF RIGHTS TO THE USE OF WATER FROM THE SNAKE RIVER BASIN WATER SYSTEM

CIVIL CASE NUMBER: 39576
Ident. Number 36-00068
Date Received
Receipt Number 5020752 1045

RECEIVED
DEC 08 1997
Department of Water Resource
Southern Region

Amended

NOTICE OF CLAIM TO A WATER RIGHT

ACQUIRED UNDER STATE LAW

ORIGINAL

Please type or print clearly

1. Name of Claimant (s) John Jones, Jr and Deloris D. Jones Phone (208) 837-4580
   Mailing Address P.O. Box 265 Hagerman, ID Zip 83332
2. Date of Priority (Only one (1) per claim) February 1, 1888
3. Source of water supply (a) Weatherby Springs
   which is tributary to (b) Billingsley Creek
4. a. Location of existing point of diversion is: Township 7S Range 14E Section 30,
   — 1/4 of NE 1/4 of SW 1/4, Govt. Lot, — B.M., County of Gooding
   Additional points of diversion if any: _____
   b. If instream flow, beginning point of claimed instream flow is:
   Township _____ Range _____ Section _____, _____ 1/4 of _____ 1/4 of _____ 1/4,
   Govt. Lot _____ B.M., County of _____
   ending point is: Township _____ Range _____ Section _____, _____ 1/4 of _____ 1/4 of
   _____ 1/4, Govt. Lot _____ B.M., County of _____
5. Description of existing diversion works (Dams, Reservoirs, Ditches, Wells, Pumps, Pipelines, Headgates, Etc), including the dates of any changes or enlargements in use, the dimensions of the diversion works as constructed and as enlarged and the depth of each well. Headbox to 36" pipe and 18" pipe.

6. Water is claimed for the following purposes:

		(both dates are inclusive)		(cfs)	(acre feet)
For Irrigation & Domestic	purposes from	Irrigation Season		amount 12.50	or
For Irrigation Maintenance	purposes from	1/1	to 12/31	amount 4.50	or
For Domestic	purposes from	1/1	to 12/31	amount .11	or
For Stockwater Fish Propagation	purposes from	1/1 1/1	to 12/31 12/31	amount 4.7 12.50	or

7. Total quantity claimed (a) 12.50 (cfs) and/or (b) _____ (acre feet)

8. Total consumptive use claimed is _____ acre feet per annum.

9. Non-irrigation uses; describe fully (eg. Domestic: Give number of households served; Stockwater: Type and number of livestock Etc.) I&DM: the 4.5 cfs must be kept moving in the pipe to prevent damage to the System & freezing; S: 10,000 sheep or 500 cattle; FP: this water is used for fish propagation before reaching the other uses (except domestic).

10. Description of place of use:
    a. If water is for irrigation, indicate acreage in each subdivision in the tabulation below.
    b. If water is used for other purposes, place a symbol of use (example: D for Domestic) in the corresponding place of use below. See instructions for standard symbols.

TWP	RNG	SEC	NE 1/4				NW 1/4				SW 1/4				SE 1/4				Totals
			NE1/4	NW1/4	SW1/4	SE1/4	NE1/4	NW1/4	SW1/4	SE1/4	NE1/4	NW1/4	SW1/4	SE1/4	NE1/4	NW1/4	SW1/4	SE1/4	
7S	13E	25	40	40	40	40									40	40	29	40	309
7S	14E	30						32	32		40	32	32	40					208
"	"	"									FP								

Total number of acres irrigated 517 Acres

11. In which county (ies) are lands listed above as place of use located? Gooding

12. Do you own the property listed above as place of use? Yes X No _____
    If your answer is No, describe in Remarks below the authority you have to claim this water right.

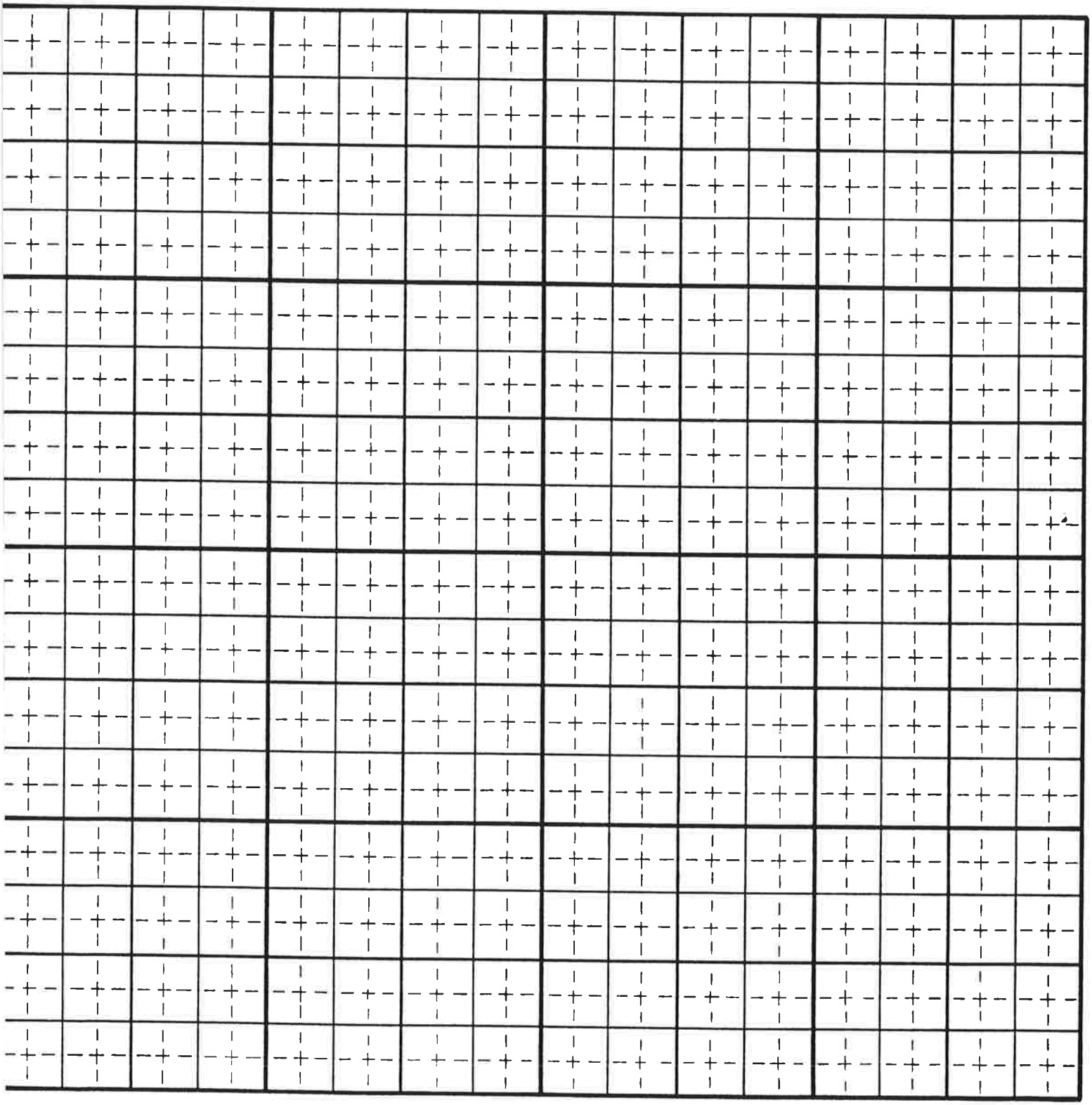
13. Describe any other water rights used at the same place and for the same purposes as described above.
    36-07071, 36-00069, 36-00070 or None ( )

14. Remarks:

Last Name Jones 36-00068

Map of Project: show clearly the point of diversion, place of use, section number, township, and range number.

Scale: 2 inches equals 1 mile see attached,



Last Name Jones Ident No. 36-00068 *Copies: White-State, Yellow-Claimant*

15. Basis of Claim (check one) Beneficial Use _____ Posted Notice _____ License _____ Permit _____
Decree ✓

If applicable provide IDWR Water Right Number 36-00068

Court _____ Case Number _____ Decree Date 3/22/32

Plaintiff vs Defendant New Int'l Mortgage Bank v. Idaho Power Co.

16. Signature (s)

(a.) By signing below, I/We acknowledge that I/We have received, read, and understand the form entitled "How you will receive notice in the Snake River Basin Adjudication." (b.) I/We do _____ do not _____ wish to receive and pay a small annual fee for monthly copies of the docket sheet.

Number of attachments _____

For Individuals: I do solemnly swear or affirm that the statements contained in the foregoing document are true and correct.

Signature of Claimant (s) [signature] for claimants Jones Date 12/3/97

_____ Date _____

For Organizations: I do solemnly swear or affirm that I am _____ (Title)

of _____ (Organization), that I have signed the foregoing document in the space below as _____ (Title) of _____ (Organization) and that the statements contained in the foregoing document are true and correct.

Signature of Authorized Agent _____

Title and Organization _____ Date _____

State of Idaho/or _____)
) SS.
County of Twin Falls)

Subscribed and sworn (or affirmed) before me this 3rd day of December 1997

SEAL

Notary Public Helen L McMillan

Residing at Jerome, Id

My Commission Expires 8/24/2001

Please Print Name

17. Notice of Appearance:

Notice is hereby given that I, Patrick D. Brown, Hepworth, Lezamiz will be acting as attorney at law on behalf of the claimant signing above, and that all notices required by law to be mailed by the director to the claimant signing above should be mailed to me at the address listed below.

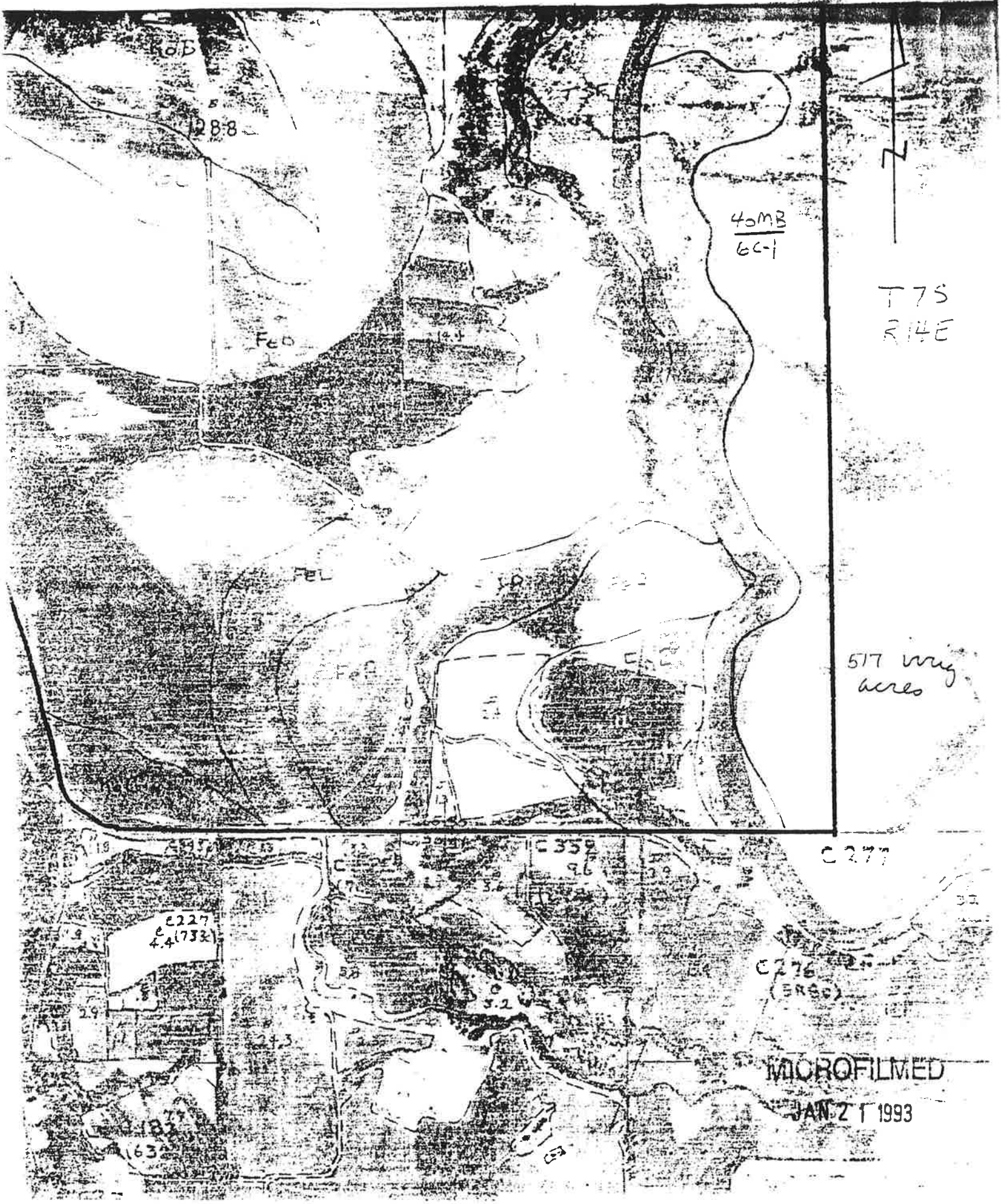
Signature [signature]

Address 133 Shoshone St. N., P.O. Box 389, Twin Falls, ID 83303-0389

Date 12/3/97

Last Name Jones Ident. Number 36 00068

Copies White-State, Yellow-Claimant


RoB
288
40mB
6C-1
T 7S
R 14E
FeD
FeL
517 uncorrected acres
C 277
C 359
C 227
4.4 (733)
C 276
(5R6C)
MICROFILMED
JAN 21 1993

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS:

That We, John W. Jones, Jr. and Deloris D. Jones, of Hagerman, County of Gooding, State of Idaho, have made, constituted and appointed and by these presents do make, constitute and appoint Patrick D. Brown of the law firm of Hepworth, Lezamiz & Hohnhorst, Chtd. of Twin Falls, Idaho, as power of attorney.

Said attorney is to act in our name, place and stead, and for our use and benefit in regard to all matters involving our ownership, or the adjudication thereof, of water rights pursuant to claim(s) filed in the Snake River Basin Adjudication, Civil Case No. 39576, Fifth Judicial District, State of Idaho.

My attorney is specifically authorized to execute all necessary or proper documents on my behalf in regard to the adjudication of the above mentioned water rights or claim(s), and to negotiate, compromise, or settle all matters relating to the Snake River Basin Adjudication.

This Power of Attorney shall remain in full force and effect until written notice of its revocation or notice of our death is received by any party relying upon this document.

This Power of Attorney shall be not be affected by our disability. It is our intent that this Power of Attorney shall continue in full force and effect in the event of our incapacity.

We further provide that photocopies of this Power of Attorney are to be given equal dignity, full affect, and recognition as if it were the original.

WITNESS my hand this 8 day of December, 1997.

John W. Jones Jr.
John W. Jones, Jr.

STATE OF IDAHO)
) ss.
County of Twin Falls)

On this 8th day of December, 1997, before me, the undersigned, a notary public in and for said county and state, personally appeared John W. Jones, Jr., known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that she executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

Debra L McMillan
NOTARY PUBLIC FOR IDAHO
Residing at: Jerome, Id
My Commission Expires: 8/24/2001

(51127poa.)llm

Form No. 42-1409 (2) a 1/88

COPY

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

IN RE THE GENERAL ADJUDICATION OF RIGHTS TO THE USE OF WATER FROM THE SNAKE RIVER BASIN WATER SYSTEM

CIVIL CASE NUMBER: 39576
Ident. Number 36-00068
Date Received
Receipt Number 5020752

RECEIVED
DEC 08 1997
Department of Water Resource
Southern Region

Amended

NOTICE OF CLAIM TO A WATER RIGHT

ACQUIRED UNDER STATE LAW

DEC 08 1997
Department of Water Resource
Southern Region

Please type or print clearly

1. Name of Claimant (s) John Jones Jr and Deloris D Jones Phone (208) 837-4580
   Mailing Address P.O. Box 265 Hagerman, ID Zip 83332
2. Date of Priority (Only one (1) per claim) February 1, 1888
3. Source of water supply (a) Weatherby Springs
   which is tributary to (b) Billingsley Creek
4. a. Location of existing point of diversion is: Township 7S Range 14E Section 30,
   — 1/4 of NE 1/4 of SW 1/4, Govt. Lot, — B.M., County of Gooding
   Additional points of diversion if any: _____
   b. If instream flow, beginning point of claimed instream flow is:
   Township _____ Range _____ Section _____, _____ 1/4 of _____ 1/4 of _____ 1/4,
   Govt. Lot _____ B.M., County of _____
   ending point is: Township _____ Range _____ Section _____, _____ 1/4 of _____ 1/4 of
   _____ 1/4, Govt. Lot _____ B.M., County of _____
5. Description of existing diversion works (Dams, Reservoirs, Ditches, Wells, Pumps, Pipelines, Headgates, Etc), including the dates of any changes or enlargements in use, the dimensions of the diversion works as constructed and as enlarged and the depth of each well. Headbox to 36" pipe and 18" pipe.

6. Water is claimed for the following purposes:

		(both dates are inclusive)			(cfs)		(acre feet)
For Irrigation & Domestic	purposes from	Irrigation Season	to		amount	12.50	or
For Irrigation Maintenance	purposes from	1/1	to	12/31	amount	4.50	or
For Domestic	purposes from	1/1	to	12/31	amount	.11	or
For Stockwater Fish Propagation	purposes from	1/1 1/1	to	12/31 12/31	amount	4.7 12.50	or

7. Total quantity claimed (a) 12.50 (cfs) and/or (b) _____ (acre feet)

8. Total consumptive use claimed is _____ acre feet per annum.

9. Non-irrigation uses; describe fully (eg. Domestic: Give number of households served; Stockwater: Type and number of livestock Etc.) I&DM: the 4.5 cfs must be kept moving in the pipe to prevent damage to the system & freezing; S: 10,000 sheep or 500 cattle; FP: this water is used for fish propagation before reaching the other uses (except domestic).

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7S	13E	25	40	40	40	40									40	40	29	40	309
7S	14E	30						32	32		40	32	32	40					208
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Total number of acres irrigated 517 Acres

11. In which county (ies) are lands listed above as place of use located? Gooding

12. Do you own the property listed above as place of use? Yes X No _____
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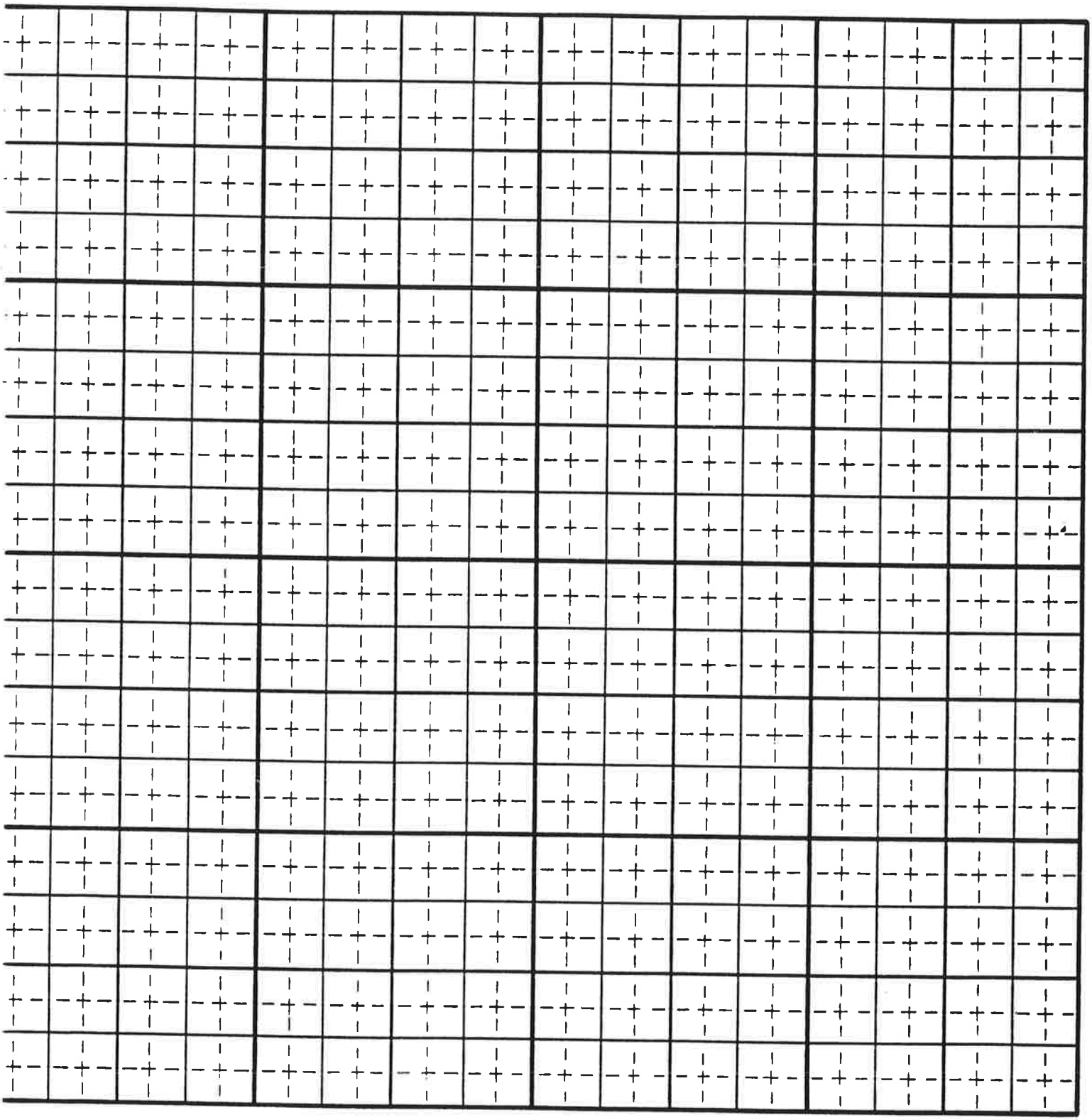
13. Describe any other water rights used at the same place and for the same purposes as described above.
    36-07071; 36-00069; 36-00070 or None ( )

14. Remarks:

Jones 36-00068

Map of Project: show clearly the point of diversion, place of use, section number, township, and range number.

Scale: 2 inches equals 1 mile see attached.



Last Name Jones Ident No. 36-00068 *Copies: White-State, Yellow-Claimant*

15. Basis of Claim (check one) Beneficial Use _____ Posted Notice _____ License _____ Permit _____
Decree V
If applicable provide IDWR Water Right Number 36-00068
Court _____ Case Number _____ Decree Date 3/22/32
Plaintiff vs Defendant New Int'l Mortgage Bank v. Idaho Power Co.

16. Signature (s)
(a.) By signing below, I/We acknowledge that I/We have received, read, and understand the form entitled "How you will receive notice in the Snake River Basin Adjudication." (b.) I/We do _____ do not _____ wish to receive and pay a small annual fee for monthly copies of the docket sheet.
Number of attachments _____

For Individuals: I do solemnly swear or affirm that the statements contained in the foregoing document are true and correct.

Signature of Claimant (s) [redacted] for claimants Jones Date 12/3/97

_____ Date _____

For Organizations: I do solemnly swear or affirm that I am _____
Title
of _____ , that I have signed the foregoing
Organization
document in the space below as _____ of _____
Title Organization
and that the statements contained in the foregoing document are true and correct.

Signature of Authorized Agent _____

Title and Organization _____ Date _____

State of Idaho/or _____)
) SS.
County of Twin Falls)

Subscribed and sworn (or affirmed) before me this 3rd day of December 1997

SEAL

Notary Public Leann L McMillan

Residing at Jerome, Id

My Commission Expires 8/24/2001

Please Print Name

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Notice is hereby given that I, Patrick D. Brown, Hepworth, Lezamiz will be acting as attorney at law on behalf of the claimant signing above, and that all notices required by law to be mailed by the director to the claimant signing above should be mailed to me at the address listed below.

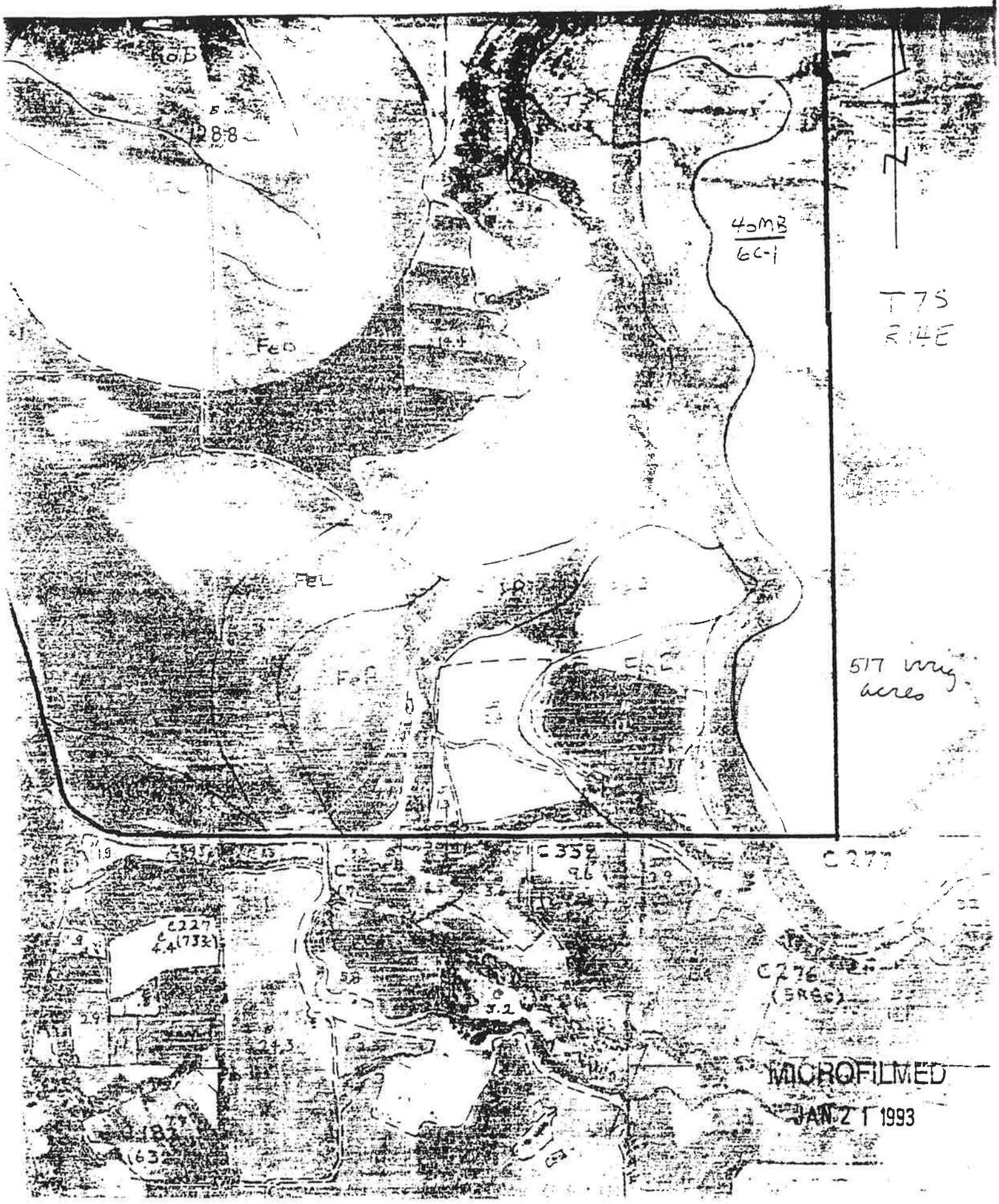
Signature [redacted]

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Date 12/3/97

Last Name Jones Ident. Number 36-00068

Copies White-State, Yellow-Claimant


RoB
288
40mB
6C-1
T 7S
R 14E
FeD
FeL
517 uncg. acres
C 359
C 277
C 227
4.4 (732)
C 276
(ERES)
3.2
243
MICROFILMED
JAN 21 1993

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE STATE OF IDAHO,
IN AND FOR THE COUNTY OF TWIN FALLS

IN RE THE GENERAL ADJUDICATION
OF RIGHTS TO THE USE OF WATER FROM
THE SNAKE RIVER BASIN WATER SYSTEM.

CIVIL CASE NUMBER: 39576

Ident. Number: **A36-00068**
Date Received: 8/19/1988
Receipt No: S001554
Received By: lw

COPY
FOR YOUR FILES
DO NOT RETURN

NOTICE OF CLAIM TO A WATER RIGHT
ACQUIRED UNDER STATE LAW

1. Name: JOHN JONES, JR. 208-837-4580
   Address: BOX 265
   HAGERMAN, ID 83332
   AND/OR
   Name: DELORIS D. JONES, JR. 208-837-4580
   Address: BOX 265
   HAGERMAN, ID 83332

2. Date of Priority: FEB 01, 1888

3. Source: WEATHERBY SPRINGS Trib. to: BILLINGSLEY CREEK

4. Point of Diversion:

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STOCKWATER	01/01	12/31	0.120

7. Total Quantity Appropriated is:
   12.500 C.F.S. (and/or) A.F.A.

8. Total consumptive use is Acre Feet Per Annum.

9. Non-irrigation uses:
   D/5 HOUSES, S/500 BEEF CATTLE

MICROFILMED
OCT 12 1994

10. Place of Use:

Township	Range	Section	1/4 of 1/4		Lot	Use	Acres
07S	13E	25	NE	NE		IRR	40.0
			NW	NE		IRR	40.0
			SW	NE		IRR	40.0
			SE	NE		IRR	40.0
			NE	SE		IRR	40.0
			NW	SE		IRR	40.0
			SW	SE		IRR	29.0
			SE	SE		IRR	40.0
						Section Acres	309.0
	14E	30	NW	NW	1	IRR	32.0
			SW	NW	2	IRR	32.0
			NE	SW		IRR	40.0
			NW	SW	3	IRR	32.0
			SW	SW	4	IRR	32.0
			SE	SW		IRR	40.0
						Section Acres	208.0
						Total Acres	517.0

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15. Basis of Claim: DECREED
Case Number:
Court :
Decree date:

NEW INTERNATIONAL MORTGAGE BAN
Decree Plaintiff

vs

IDAHO POWER COMPANY
Decree Defendant

MICROFILMED
OCT 12 1994

16. Signature(s)

(a.) By signing below, I/We acknowledge that I/We have received, read and understand the form entitled "How you will receive notice in the Snake River Basin Adjudication." (b.) I/We do ____ do not ✓ wish to receive and pay a small annual fee for monthly copies of the docket sheet.

Number of attachments: 2

For Individuals:

I/We do solemnly swear or affirm that the statements contained in the foregoing document are true and correct.

Signature of Claimant(s): John W. Jones Jr. Date: Aug 19 1988

Date:

State of Idaho)
) SS.
County of Twin Falls)

Subscribed and sworn (or affirmed) before me this 19th day of August 19 88

Roxanne Story
Notary Public

Seal

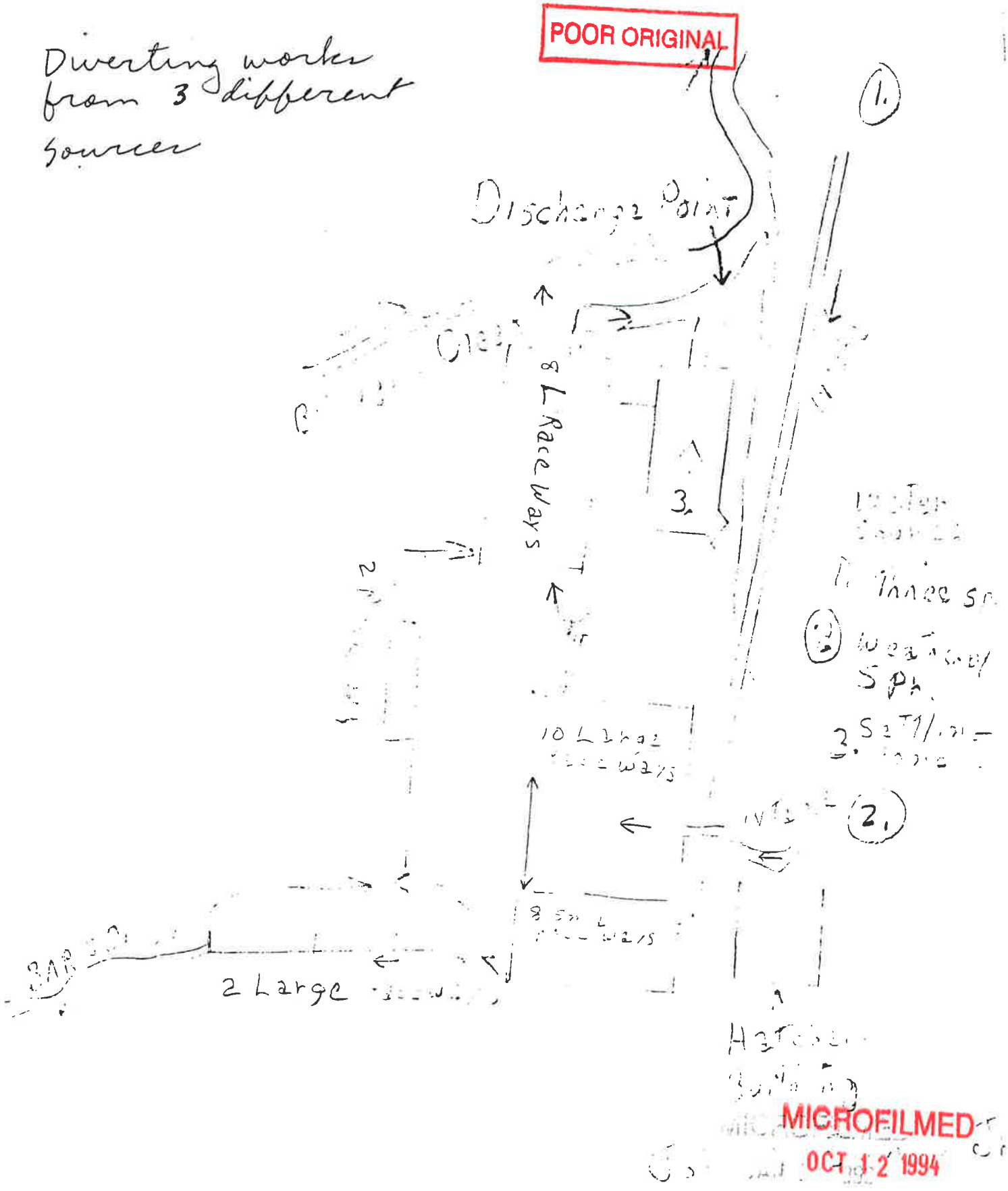
Residing at Buhl, Id

My Commission Expires 6-30-94

MICROFILMED
OCT 12 1994

POOR ORIGINAL

Diverting works from 3 different sources



MICROFILMED
OCT 12 1994


KoB
128.8
KoC
FeD
16.8
FeD
FeD
FeD
T5F
40MB
6C-1
T 7 S
R 4 E
513 irrig acres
C 358
C 227
C 276
(5RSc)
POOR ORIGINAL
MICROFILMED
OCT 2 1994

AJ5811NP
SELECTION FILE: HHT-NOA-BROWN

IDAHO DEPARTMENT OF WATER RESOURCES
SELECTION FILE CONTENTS

DATE: 03/05/93
TIME: 12:06:19
PAGE: 1

A36-00003B	A36-00003C	A36-00003E	A36-00003F	A36-00003G	A36-00003J	A36-00006	A36-00007	A36-00008	A36-00021B
A36-00022	A36-00023	A36-00033F	A36-00034B	A36-00035J	A36-00039C	A36-00039D	A36-00039E	A36-00039J	A36-00039M
A36-00039N	A36-00041A	A36-00041C	A36-00042A	A36-00048A	A36-00049	A36-00050D	A36-00051D	A36-00055AF	A36-00055BC
A36-00060	A36-00061	A36-00062	A36-00063	A36-00064B	A36-00068	A36-00069	A36-00070	A36-00071A	A36-00075
A36-00077C	A36-00079	A36-00086C	A36-00089A	A36-00090A	A36-00090F	A36-00092	A36-00094A	A36-00096A	A36-00097
A36-00098	A36-00099	A36-00100	A36-00101	A36-00103C	A36-00103F	A36-00106	A36-00108A	A36-00108B	A36-00110A
A36-00110B	A36-00111A	A36-00111B	A36-00112A	A36-00112B	A36-00113H	A36-00113J	A36-00119	A36-00120	A36-00121
A36-00123A	A36-00123E	A36-00133	A36-00134A	A36-00134C	A36-00135B	A36-00135C	A36-00141	A36-00192	A36-02002
A36-02038	A36-02169	A36-04091	A36-04142	A36-04260	A36-07071	A36-07081	A36-07089	A36-07092A	A36-07142
A36-07142A	A36-07172	A36-07229	A36-07233	A36-07346	A36-07658	A36-07875	A36-08099	A36-08317	A36-10055
A36-10119	A36-10120	A36-10140	A36-10141	A36-10168	A36-10231	A36-10249	A36-10283	A36-10283B	A36-10405
A36-10520	A36-10906	A36-15166	A36-15168	A36-15240	A36-15463				

TOTAL RECORDS IN SELECTION FILE: 116

MICROFILMED
OCT 12 1994

RECEIVED
FEB 10 1993
Department of Water Resources

HEPWORTH, NUNGESTER & LEZAMIZ,
CHARTERED
133 Shoshone St. North
P.O. Box 389
Twin Falls, ID 83303-0389
Telephone: (208)734-7510
Attorneys for Claimant
(PPK\HAGERMAN.NOA\lmr)

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

* * * * * * * * * * *

In Re the General Adjudication of Rights to the Use of Water from the Snake River Basin Water System	Case No. 39576
The State of Idaho, ex rel. R. Keith Higginson in his official capacity as director of the Idaho Department of Water Resources, Petitioner, vs. United States; State of Idaho; and all claimants to the use of water from the Snake River Basin Water System, Respondents.	**NOTICE OF APPEARANCE**

* * * * * * * * * * *

PLEASE BE NOTIFIED that the firm of Hepworth, Nungester & Lezamiz, Chartered, hereby appears on behalf of Hagerman Water

LAW OFFICES HN&L Chartered
Hepworth, Nungester, & Lezamiz

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OCT 12 1994

Users, Inc. and its individual members:

Anderson, Anita G.	A36-00050D
Babington Lynn J. & Kathy	A36-00003C
Banbury Pipe Co., Inc.	A36-10906
Banbury Pipe Co., Inc.	A36-02038
Big Bend Irrigation & Mining Co.	A36-00192
Big Bend Irrigation & Mining Co.	A36-00133
Big Spring Water User's Assoc.	A36-00022
Big Springs Water User's Assoc.	A36-00023
Big Springs Water User's Assoc.	A36-15166
Blastock, Alma E.	A36-00108B
Bolduc, Mark E.	A36-00103C
Boyer, Dale E. & Elaine M.	A36-00079
Brailsford, Robert H.	A36-04260
Brooks, Allen L. & Andree	A35-00060
Brooks, Allen L. & Andree	A36-07346
Bybee, Gertrude B. Owsley	A36-00042A
Bybee, Gertrude B. Owsley	A36-00041C
Candy, Walter W. & Margaret	A36-00135B
Candy, Walter W. & Margaret	A36-00134A
Clouser, Doris H. & John F.	A36-00090A
Clouser, Doris H. & John F.	A36-00089A
Crandlemire, Roger C. & George C.	A36-00113H
Crandlemire, Roger C. & George C.	A36-00112B
Crandlemire, Roger C. & George C.	A36-00111B
Crandlemire, Roger C. & George C.	A36-00113J
Crandlemire, Roger C. & George C.	A36-00110B
Crandlemire, Roger C.	A36-00134C
Crandlemire, Roger C.	A36-00135C
Crandlemire, Roger C.	A36-10140
Crandlemire, Roger C.	A36-10141
DeVries, Abraham & Hermina	A36-00055AF
Dice, Philip F. & Judith A.	A36-00041A
Dice, Philip F. & Judith A.	A36-10405
Erwin, Frank C. & Peggy	A36-00092
Fleming, Michael J. & Paul F.	A36-00064B
Flint, William E. and Vera C.	A36-00110A
Flint, William E. and Vera C.	A36-00111A
Flint, William E. and Vera C.	A36-00112A
Flint, William E. and Vera C.	A36-10168
Fuell, Keith L. & Jolene	A36-00086C
Gardner, Barbara & Robert B.	A36-00003B
Gardner, Barbara	A36-00003J
Gisler, Harry R.	A36-00021B
Gisler, Bradley	A36-00077C
Glauner, Frank L. & Joan	A36-00039E
Grigg, Mattie P. & Golden T.	A36-10283B
Gustafson Family Trust/Gustafson Ivan J. & Lucille co-trustees	A36-00033F
Hagerman Gun Club	A36-00100

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Chartered
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OCT 12 1994

Hagerman Gun Club	A36-00099
Hagerman Gun Club	A36-07233
Hagerman Gun Club	A36-07172
Hagerman Gun Club	A36-10249
Hagerman Water Users Assoc.	A36-15168
Jensen, Alice	A36-00055BC
Johnson, Ira L. & Huguette M.	A36-07142
Joint Hagerman School Dist 233	A36-15463
Jones, John W., Jr.	A36-00068
Jones, John W., Jr.	A36-00069
Jones, John W., Jr.	A36-07071
Jones, John W., Jr.	A36-00070
Kipp, Rudy B. & Elberta M.	A36-10119
Kipp, Rudy B. & Elberta M.	A36-10120
Kipp, Rudy B. & Elberta M.	A36-07658
Kiser, John & Karl Woodall & Sons, Inc	A36-00071A
Kiser, John & Karl Woodall & Sons, Inc	A36-00075
Korbis, George J. & Nellie W.	A36-00039N
Laughlin, Craig J. & Rita D.	A36-7089
Laughlin, Craig J. & Rita D.	A36-00051D
Littlefair, Larry & Tara	A36-0121
Littlefair, Larry & Tara	A36-10055
Littlefair, Larry & Tara	A36-00119
Littlefair, Larry & Tara	A36-00120
Lloyd, Cleave C.	A36-04142
Lloyd, Cleave C.	A36-00003G
McFaddan, Dan H. & Irma R.	A36-2169
McFaddan, Dan H. & Irma R.	A36-00048A
McFaddan, Dan H. & Irma R.	A36-00049
Morris, Howard & Rhonda	A36-00063
Morris, Howard & Rhonda	A36-00061
Morris, Howard & Rhonda	A36-00062
Mueller, Manfred	A36-00035J
Norwood Subdivision/	A36-15240
Ruby Springs Water Company	A36-07092A
Potter, Mark B. & Susan H.	A36-00039J
Rawson, Frank S. & Carol A.	A36-00123A
Reese, Bruce W. & LaRose A.	A36-04091
Reese, Bruce W. & LaRose A.	A36-10231
Rue, James O. & Beverly Jane	A36-07142A
Shaffer, Roger	A36-00034B
Simcoe, Doyt H. & Roxie J.	A36-00003F
Simpson, Michael, on behalf of Josephine Simpson Estate	A36-0123E
Simpson, Michael, on behalf of Josephine Simpson Estate	A36-0096A
Strange, Wm. (Penelope Turner-remainder man)	A36-00006
Strange, Wm. (Penelope Turner-remainder man)	A36-00007
Strange, Wm. (Penelope Turner-remainder man)	A36-00008
Veenendaal, Dick J.	A36-00108A
Veenendaal, Dick J.	A36-00039C

LAW OFFICES HN&L Chartered
Hepworth, Nungester, & Lezamiz

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OCT 12 1994

Vernon, Edith L.	A36-00003E
Walmsley, Fred J. & Susan K.	A36-00039D
Ward, John P. & Rush, Ruth E.	A36-00094-A
Ward, John P. & Rush, Ruth E.	A36-00090F
Watkins, Paul E. & Inez S.	A36-00106
Watkins, Paul E. & Inez S.	A36-08099
Wiens, M.J., Jr.	A36-07229
Wiens, M.J., Jr.	A36-07081
Wiens, M.J., Jr.	A36-80317
Wiens, M.J., Jr.	A36-00098
Wiens, M.J., Jr.	A36-00097
Wiens, M.J., Jr.	A36-02002
Wiens, M.J., Jr.	A36-00101
Wiens, M.J., Jr.	A36-00141
Wiens, M.J., Jr.	A36-10520
Woolley, Max J. & Blanche	A36-00039M
Ya-Ta-Hay Investments, Inc.	A36-10283A
Ya-Ta-Hay Investments, Inc.	A36-07875
Zink, Basil Lester & Myrle Hyde	A36-00103F

the respondents in the above-entitled action, as counsel of record for said Hagerman Water Users, Inc. and said individuals.

DATED This 9 day of February, 1993.

HEPWORTH, NUNGESTER & LEZAMIZ

By _____
PATRICK D. BROWN
Attorneys for Respondents

CERTIFICATE OF MAILING

The undersigned, a resident attorney of the State of Idaho, with offices at 133 Shoshone St. North, P.O. Box 389, Twin Falls, Idaho 83303, and one of the attorneys for the respondents in this matter, certifies that she caused to be mailed a copy of the above and foregoing NOTICE OF APPEARANCE on the 9 day of

MICROFILMED
OCT 12 1994

February, 1993, to:

Snake River Adjudication
District Court
P.O. Box 27070
Twin Falls, ID 83303-0126

Clive Strong
Chief Natural Resources Division
Office of Attorney General
Statehouse
Room 210
Boise, Idaho 83720

David Shaw
Adjudications Bureau Chief
Department of Water Resources
1301 North Orchard
Boise, Idaho 83706

United States Department of Justice
Environment and Natural Resources Division
550 West Fort Street, Box 33
Boise, ID 83734

Patrick D. Brown

MICROFILMED
OCT 12 1994

State of Idaho
DEPARTMENT OF WATER RESOURCES
1301 North Orchard Street, Statehouse Mail, Boise, Idaho 83720-9000
Phone: (208) 327-7900 FAX: (208) 327-7866

CECIL D. ANDRUS
GOVERNOR

R. KEITH HIGGINSON
DIRECTOR

March 1, 1993

Patrick D. Brown
Hepworth, Nungester and Lezamiz
133 Shoshone St. N.
P.O. Box 389
Twin Falls, ID 83303-0389

Re: Notice of Appearance

Dear Mr. Brown:

We received your Notice of Appearance on behalf of Hagerman Water Owners, Inc. and its individual members on February 10, 1993. The records listed on the notice were updated with some exceptions.

Claim numbers with "A" prefixes identify claims filed in the SRBA. Claim numbers without prefixes identify recommendations in the Director's Report. The following table identifies claimants for which you filed a notice of appearance, but the number you referred to is actually the identification of the recommendation. They have been updated with the notice information.

Claimant's Name	Recommendation No. (no "A" prefix)
Bybee, Gertrude B. Owsley	36-00042A 36-00041C
Candy, Walter W. & Margaret	36-00135B
Crandlemire, Roger C.	36-00134C 36-00135C
Gustafson Family Trust/Gustafson, Ivan J. & Lucille co-trustees	36-00033F
McFaddan, Dan H. & Irma R.	36-00048A
Muller, Manfred	36-00035J
Zink, Basil Lester & Myrle Hyde	36-00103F

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OCT 12 1994

The following is a list of claims that have been updated with the notice information, however, there is a discrepancy between IDWR records and the notice list (see third column).

Claimant's Name as listed on Notice of Appearance	As Claimed/ As Recommended	Claim No. or Claimant's Name in IDWR's Records
Anderson, Anita G.	A36-00050D/36-00050D	Andersen (name spelling is different)
Brailsford, Robert H.	A36-04260/36-04260	A36-04260B/36-04260B (claim was split--"B" suffix)
Brooks, Allen L. & Andree	A35-00060	A36-00060/36-00060 (Basin 36 instead of Basin 35)
Crandlemire, Roger C. & George C.	A36-00113J/36-00113J	Crandlemire, Roger C. (George C. not listed as claimant)
Gisler, Harry R.	A36-00021B/36-00021B	A36-00021/36-00021 (claim was renumbered)
Glauner, Frank L. & Joan	A36-00039E/36-00039E	Jean instead of Joan
Gustafson Family Trust/Gustafson, Ivan J. & Lucille co-trustees	A36-00011C/36-00033F	Gustafson, Ivan J. (not listed as a trust)
Johnson, Ira L. & Huguette M.	A36-07142/36-07142	Johnson, Ira L. (Huguette M. not listed as claimant)
Joint Hagerman School Dist. 233	A36-15463/36-15463	Original claim & IDWR records show school dist. as #3.
Jones, John W., Jr.	A36-00068/36-00068 A36-00069/36-00069 A36-07071/36-07071 A36-00070/36-00070	Jones, John W. Jr. & Deloris D. (Deloris D. is included as a claimant)

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OCT 12 1994

Claimant's Name as listed on Notice of Appearance	As Claimed/ As Recommended	Claim No. or Claimant's Name in IDWR's Records
Mueller, Manfred	A36-00034D/36-00035J	Muller (name spelling is different in IDWR records)
Strange, Wm. (Penelope Turner-remainder man)	A36-00006/36-00006 A36-00007/36-00007 A36-00008/36-00008	Strange, Wm. & Louise (Louise is included as a claimant, Penelope Turner is not in records)
Veenendaal, Dick J.	A36-00108A/36-00108A A36-00039C/36-00039C	Veenendaal, Dick J. & Sigrid E. (Sigrid E. is included as a claimant)
Wiens, M. J., Jr.	A36-80317	A36-08317/36-08317 (no. was transposed on notice)
Wiens, M. J., Jr.	A36-00098/36-15384	36-15384 (claim was combined with no. 36-00141 into no. 36-15384)
Wiens, M. J., Jr.	A36-00141/36-15384	36-15384 (claim was combined with no. 36-00098 into no. 36-15384)

The following claims have not been updated with the notice information because of the discrepancies listed in the third column.

Claimant's Name	Claim No. as listed on Notice of Appearance	Discrepancy Between Notice of Appearance and IDWR Records
Hagerman Gun Club	A36-00100/36-00100 A36-00099/36-00099 A36-07233/36-07233 A36-07172/36-07172 A36-10249/36-10249	Owners are listed as Bob Porter and Fred Surbaugh

MICROFILMED
OCT 12 1994

Claimant's Name	Claim No. as listed on Notice of Appearance	Discrepancy Between Notice of Appearance and IDWR Records
Ya-Ta-Hay Investments, Inc.	A36-07875/36-07875	No record of this claim no., nor any other claim no. for claimant other than A36-10283A/36-10283A (as listed)

Please review the claimants and claim numbers and let me know if you have any questions or problems with the claims as listed in IDWR's records. Also, please review the claims in the last table. We need to solve these discrepancies before IDWR's records are updated with the notice information. My phone number is 327-5444.

Please note we have received your supplemental and second supplemental notices of appearance and are currently working to update those records. We will inform you if there are any discrepancies.

Sincerely,

Jodi I. Schultz

JODI I. SCHULTZ
Legal Assistant
Idaho Department of Water Resources

cc: IDWR Southern Region

MICROFILMED
OCT 12 1994

03/06/2002

IDAHO DEPARTMENT OF WATER RESOURCES

PRELIMINARY RECOMMENDATION OF WATER RIGHTS ACQUIRED UNDER STATE LAW

RIGHT NUMBER: 36-68

NAME AND ADDRESS: DELORIS D JONES
PO BOX 265
HAGERMAN ID 83332

JOHN W JONES JR
PO BOX 265
HAGERMAN ID 83332

SOURCE: WEATHERBY SPRINGS TRIBUTARY: BILLINGSLEY CREEK

QUANTITY: 10.74 CFS

THE PORTION OF THIS RIGHT IN EXCESS OF 8.51 CFS IS SUBORDINATED TO ALL GROUND WATER AND SURFACE WATER RIGHTS WITH PRIORITY DATES BEFORE DECEMBER 31, 1999.

USE OF THIS RIGHT WITH RIGHT 36-00069 IS LIMITED TO A TOTAL COMBINED DIVERSION RATE OF 10.74 CFS. THE PORTION OF COMBINED WATER RIGHTS 36-00068 AND 36-00069 IN EXCESS OF A TOTAL COMBINED DIVERSION RATE OF 8.51 CFS IS SUBORDINATED TO ALL GROUND WATER AND SURFACE WATER RIGHTS WITH PRIORITY DATES BEFORE DECEMBER 31, 1999.

THE APPROPRIATOR IS ENTITLED TO THE QUANTITY OF WATER DESCRIBED FOR STOCK WATER PURPOSES AT A POINT OF MEASUREMENT WHERE THE DELIVERY DITCH ENTERS THE PLACE OF USE DESCRIBED.

THE APPROPRIATOR IS ENTITLED TO THE QUANTITY OF WATER DESCRIBED FOR DOMESTIC PURPOSES AT A POINT OF MEASUREMENT WHERE THE DELIVERY DITCH ENTERS THE PLACE OF USE DESCRIBED.

THE QUANTITY OF WATER UNDER THIS RIGHT FOR DOMESTIC AND STOCKWATER USES SHALL NOT EXCEED 13,000 GALLONS PER DAY.

PRIORITY DATE: 02/01/1888

POINT OF DIVERSION:

T07S R14E S30 SENESW Within GOODING County

PURPOSE AND PERIOD OF USE:

PURPOSE OF USE	PERIOD OF USE	QUANTITY
STOCKWATER	1/01 12/31	0.120 CFS
DOMESTIC	1/01 12/31	0.110 CFS
IRRIGATION	2/15 11/30	10.510 CFS

THE IRRIGATION USE UNDER THIS RIGHT IN EXCESS OF 8.28 CFS IS SUBORDINATED TO ALL WATER RIGHTS WITH PRIORITY DATES BEFORE DECEMBER 31, 1999.

PLACE OF USE:

STOCKWATER Within GOODING County

T07S R14E S25 NESE T07S R14E S30 Lot 3 NWSW

DOMESTIC Within GOODING County

T07S R14E S25 NESE

IRRIGATION Within GOODING County

IDAHO DEPARTMENT OF WATER RESOURCES

PRELIMINARY RECOMMENDATION OF WATER RIGHTS ACQUIRED UNDER STATE LAW

T07S R13E S25		NENE	40.0	T07S R13E S25		NWNE	40.0
T07S R13E S25		SWNE	40.0	T07S R13E S25		SENE	40.0
T07S R13E S25		NESE	38.0	T07S R13E S25		NWSE	38.0
T07S R13E S25		SWSE	30.0	T07S R13E S25		SESE	36.0
T07S R14E S30	Lot 1	NWNW	18.0	T07S R14E S30	Lot 2	SWNW	25.0
T07S R14E S30		NESW	5.0	T07S R14E S30	Lot 3	NWSW	26.0
T07S R14E S30	Lot 4	SWSW	27.0	T07S R14E S30		SESW	11.0

414 ACRES TOTAL

USE OF THIS RIGHT WITH RIGHT NO. 36-00069 IS LIMITED TO TO THE IRRIGATION OF A COMBINED TOTAL OF 414 ACRES IN A SINGLE IRRIGATION SEASON.

OTHER PROVISIONS NECESSARY FOR DEFINITION OR ADMINISTRATION OF THIS WATER RIGHT:

THE SUBORDINATED PORTION OF THIS WATER RIGHT SHALL NOT BE ASSERTED, DELIVERED, HONORED, USED, ENFORCED, EFFECTIVE OR OTHERWISE RECOGNIZED AS VALID IF IT WOULD CAUSE OR REQUIRE EITHER DIRECTLY OR INDIRECTLY, CURTAILMENT OF, INJURY TO, OR MITIGATION FROM ANY WATER RIGHTS WITH PRIORITY DATES EARLIER THAN DECEMBER 31, 1999. THE SUBORDINATION SHALL RUN WITH AND BE PERPETUAL SERVITUDES UPON THIS WATER RIGHT AND WATER RIGHT 36-00069 AND THE ASSOCIATED LANDS, INCLUDING ANY NEW LANDS TO WHICH ALL OR ANY PORTIONS OF THESE TWO WATER RIGHTS ARE TRANSFERRED.

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. THE QUANTITY OF WATER DECREED FOR THIS WATER RIGHT FOR DOMESTIC USE AND STOCKWATER USE IS NOT A DETERMINATION OF HISTORICAL BENEFICIAL USE.

EXPLANATORY MATERIAL: Decreed

RECEIVED
MAR 05 2002
Department of Water Resources
Southern Region

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

In Re SRBA) Subcase 36-00068
)
Case 39576) **STANDARD FORM 5**
)
)
)

This form is used to report the stipulated elements of one water right acquired under state law and/or a federal reserved water right. Submission of this form will not automatically result in the issuance of a partial decree. The Presiding Judge or Special Master will conduct any hearing necessary to determine whether the facts, data, expert opinions and law support the issuance of a partial decree for the water right.

The parties agree that the Snake River Basin Adjudication Court has jurisdiction of the parties and subject matter to enter a partial decree for this water right; that they have been served with sufficient process, according to the law; and that they have appeared, prosecuted, and defended their positions with regard to this water right dispute.

The parties and IDWR agree and stipulate that the elements of this water right should be described per the attached. The parties and IDWR have further indicated their concurrence by initialing each of the attached pages.

Date: 9/29, 2000

IDWR Concurrence

Patrick D. Brown, Attorney
for John W. and Deloris Jones

Josephine P. Beeman 9/28/00
Attorney for North Snake Ground
Water District

Michael C. Creamer 9/28/00
Attorney for Crunney Bros, Kevin
Michaelson and Doug Grant

9/29/00
Deputy Attorney General for the Idaho
Department of Fish and Game

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

In Re SRBA) Subcase 36-00038
)
Case 39576) STANDARD FORM 5
)
)
)

This form is used to report the stipulated elements of one water right acquired under state law and/or a federal reserved water right. Submission of this form will not automatically result in the issuance of a partial decree. The Presiding Judge or Special Master will conduct any hearing necessary to determine whether the facts, data, expert opinions and law support the issuance of a partial decree for the water right.

The parties agree that the Snake River Basin Adjudication Court has jurisdiction of the parties and subject matter to enter a partial decree for this water right, that they have been served with sufficient process, according to the law; and that they have appeared, prosecuted, and defended their positions with regard to this water right dispute.

The parties and IDWR agree and stipulate that the elements of this water right should be described per the attached. The parties and IDWR have further indicated their concurrence by initialing each of the attached pages.

Date: _____, 2000

D and R.J. 10/2/00
IDWR Concurrence

Josephine P. Beeman 9/20/00
Attorney for North Snake Ground Water District

Patrick D. Brown, Attorney
for John W. and Deloris Jones

Attorney for Cranney Bros, Kevin Michaelson and Doug Grant

Deputy Attorney General for the Idaho Department of Fish and Game

IDAHO DEPARTMENT OF WATER RESOURCES
RECOMMENDED WATER RIGHTS ACQUIRED UNDER STATE LAW

DATE: SEP 28, 2000
PAGE: A-1

RIGHTS FROM: SOURCE: WEATHERBY SPRINGS TRIBUTARY: BILLINGSLEY CREEK

RIGHT NUMBER: 36-00068

NAME AND ADDRESS: JOHN W. JONES, JR.
DELORIS D. JONES
P. O. BOX 265
HAGERMAN, ID 83332

SOURCE: WEATHERBY SPRINGS TRIBUTARY: BILLINGSLEY CREEK

QUANTITY: 10.74 CFS

THE PORTION OF THIS RIGHT IN EXCESS 8.51 CFS IS SUBORDINATED TO ALL GROUND WATER AND SURFACE WATER RIGHTS WITH PRIORITY DATES BEFORE DECEMBER 31, 1999.

THE APPROPRIATOR IS ENTITLED TO THE QUANTITY OF WATER DESCRIBED FOR STOCK WATER PURPOSES AT A POINT OF MEASUREMENT WHERE THE DELIVERY DITCH ENTERS THE PLACE OF USE DESCRIBED, SO LONG AS THE QUANTITY DIVERTED AT THE POINT OF DIVERSION DOES NOT CONSTITUTE UNREASONABLE WASTE.

THE APPROPRIATOR IS ENTITLED TO THE AMOUNT OF WATER DESCRIBED FOR DOMESTIC PURPOSES AT A POINT OF MEASUREMENT WHERE THE DELIVERY DITCH ENTERS THE PLACE OF USE DESCRIBED, SO LONG AS THE QUANTITY DIVERTED AT THE POINT OF DIVERSION DOES NOT CONSTITUTE UNREASONABLE WASTE.

THE QUANTITY OF WATER UNDER THIS RIGHT FOR DOMESTIC AND STOCKWATER USES SHALL NOT EXCEED 13,000 GALLONS PER DAY.

USE OF THIS RIGHT WITH RIGHT NO. 36-00069 IS LIMITED TO A TOTAL COMBINED DIVERSION RATE OF 10.74 CFS. THE PORTION OF COMBINED WATER RIGHT NOS. 36-00068 AND 36-00069 IN EXCESS OF A TOTAL COMBINED DIVERSION RATE OF 8.51 CFS IS SUBORDINATED TO ALL GROUND WATER AND SURFACE WATER RIGHTS WITH PRIORITY DATES BEFORE DECEMBER 31, 1999.

PRIORITY DATE: 02/01/1888

POINT OF DIVERSION: T07S R14E S30 SENESW Within GOODING County

PURPOSE AND PERIOD OF USE:

PURPOSE OF USE	PERIOD OF USE		QUANTITY
IRRIGATION	02-15	11-30	10.51 CFS
STOCKWATER	01-01	12-31	0.12 CFS
DOMESTIC 5 HOMES	01-01	12-31	0.11 CFS

THE IRRIGATION USE UNDER THIS RIGHT IN EXCESS OF 8.28 CFS IS SUBORDINATED TO ALL WATER RIGHTS WITH PRIORITY DATES BEFORE DECEMBER 31, 1999.

PLACE OF USE:

IRRIGATION	Within GOODING County			
T07S R13E S25	NENE 40	NWNE 40	SWNE 40	SENE 40
	NESE 38	NWSE 38	SWSE 30	SESE 36
R14E S30	LOT 1(NWNW) 18	LOT 2(SWNW) 25	NESW 5	LOT 3(NWSW) 20
	LOT 4(SWSW) 27	SESW 11		

414 ACRES TOTAL

JFB 9/28/00
MRC 9/28/00

STANDARD FORM 5

IDAHO DEPARTMENT OF WATER RESOURCES
RECOMMENDED WATER RIGHTS ACQUIRED UNDER STATE LAW

RIGHT NUMBER: 36-00068 (cont'd)

PLACE OF USE: (cont'd)

USE OF THIS RIGHT WITH RIGHT NO. 36-00069 IS LIMITED TO THE IRRIGATION OF A COMBINED TOTAL OF 414 ACRES IN A SINGLE IRRIGATION SEASON.

STOCKWATER		Within GOODING County
T07S R14E	S25	NESE
	S30	LOT 3(NWSW)
DOMESTIC		Within GOODING County
T07S R14E	S 25	NESE

OTHER PROVISIONS NECESSARY FOR DEFINITION OR ADMINISTRATION OF THIS WATER RIGHT:

THE SUBORDINATED PORTIONS OF THIS RIGHT AND WATER RIGHT NO. 36-00069 SHALL NOT BE ASSERTED, DELIVERED, HONORED, USED, ENFORCED, EFFECTIVE, OR OTHERWISE RECOGNIZED IF IT WOULD CAUSE OR REQUIRE, EITHER DIRECTLY OR INDIRECTLY, CURTAILMENT OF, INJURY TO, OR MITIGATION FROM ANY SURFACE OR GROUND WATER RIGHTS WITH PRIORITY DATES BEFORE DECEMBER 31, 1999. THE SUBORDINATIONS SHALL RUN WITH AND BE PERPETUAL SERVITUDES UPON THIS WATER RIGHT AND WATER RIGHT NO. 36-00069 AND UPON THE ASSOCIATED LANDS, INCLUDING ANY NEW LANDS TO WHICH ALL OR ANY PORTIONS OF THESE TWO WATER RIGHTS ARE TRANSFERRED.

THE QUANTITY OF WATER DECREED FOR THIS WATER RIGHT FOR DOMESTIC USE AND STOCKWATER USE IS NOT A DETERMINATION OF HISTORICAL BENEFICIAL USE.

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.

JPB 9/28/00
MCC 9/28/00
9/29/00

EXPLANATORY MATERIAL: BASIS OF CLAIM - DECREE

STANDARD FORM 5

IDAHO DEPARTMENT OF WATER RESOURCES
RECOMMENDED WATER RIGHTS ACQUIRED UNDER STATE LAW

DATE: SEP 28, 2000
PAGE: A-1

RIGHTS FROM: SOURCE: WEATHERBY SPRINGS TRIBUTARY: BILLINGSLEY CREEK

RIGHT NUMBER: 36-00068

NAME AND ADDRESS: JOHN W. JONES, JR.
DELORIS D. JONES
P. O. BOX 265
HAGERMAN, ID 83332

SOURCE: WEATHERBY SPRINGS TRIBUTARY: BILLINGSLEY CREEK

QUANTITY: 10.74 CFS

THE PORTION OF THIS RIGHT IN EXCESS 8.51 CFS IS SUBORDINATED TO ALL GROUND WATER AND SURFACE WATER RIGHTS WITH PRIORITY DATES BEFORE DECEMBER 31, 1999.

THE APPROPRIATOR IS ENTITLED TO THE QUANTITY OF WATER DESCRIBED FOR STOCK WATER PURPOSES AT A POINT OF MEASUREMENT WHERE THE DELIVERY DITCH ENTERS THE PLACE OF USE DESCRIBED, SO LONG AS THE QUANTITY DIVERTED AT THE POINT OF DIVERSION DOES NOT CONSTITUTE UNREASONABLE WASTE.

THE APPROPRIATOR IS ENTITLED TO THE AMOUNT OF WATER DESCRIBED FOR DOMESTIC PURPOSES AT A POINT OF MEASUREMENT WHERE THE DELIVERY DITCH ENTERS THE PLACE OF USE DESCRIBED, SO LONG AS THE QUANTITY DIVERTED AT THE POINT OF DIVERSION DOES NOT CONSTITUTE UNREASONABLE WASTE.

THE QUANTITY OF WATER UNDER THIS RIGHT FOR DOMESTIC AND STOCKWATER USES SHALL NOT EXCEED 13,000 GALLONS PER DAY.

USE OF THIS RIGHT WITH RIGHT NO. 36-00069 IS LIMITED TO A TOTAL COMBINED DIVERSION RATE OF 10.74 CFS. THE PORTION OF THE COMBINED WATER RIGHT NOS. 36-00068 AND 36-00069 IN EXCESS OF A TOTAL COMBINED DIVERSION RATE OF 8.51 CFS IS SUBORDINATED TO ALL GROUND WATER AND SURFACE WATER RIGHTS WITH PRIORITY DATES BEFORE DECEMBER 31, 1999.

PRIORITY DATE: 02/01/1888

POINT OF DIVERSION: T07S R14E S30 SENESW Within GOODING County

PURPOSE AND PERIOD OF USE:

PURPOSE OF USE	PERIOD OF USE		QUANTITY
IRRIGATION	02-15	11-30	10.51 CFS
STOCKWATER	01-01	12-31	0.12 CFS
DOMESTIC 3 HOMES	01-01	12-31	0.11 CFS

THE IRRIGATION USE UNDER THIS RIGHT IN EXCESS OF 8.28 CFS IS SUBORDINATED TO ALL WATER RIGHTS WITH PRIORITY DATES BEFORE DECEMBER 31, 1999.

PLACE OF USE: IRRIGATION Within GOODING County

T07S R13E S25	NENE 40	NWNE 40	SWNE 40	SENE 40
	NESE 36	NWSE 36	SWSE 36	SESE 36
R14E S30	LOT 1(NWNW) 18	LOT 2(SWNW) 25	NENW 5	LOT 3(NWSW) 26
	LOT 4(SWSW) 27	SESW 11		

414 ACRES TOTAL

JPB 9/28/00
DC 10/2/00

STANDARD FORM 5

IDAHO DEPARTMENT OF WATER RESOURCES
RECOMMENDED WATER RIGHTS ACQUIRED UNDER STATE LAW

DATE: SEP 28, 2000
PAGE: A-2

RIGHT NUMBER: 36-00068 (cont'd)

PLACE OF USE: (cont'd)

USE OF THIS RIGHT WITH RIGHT NO. 36-00069 IS LIMITED TO THE IRRIGATION OF A COMBINED TOTAL OF 614 ACRES IN A SINGLE IRRIGATION SEASON.

STOCKWATER		Within GOODING County
T07S R14E S25		NESE
	S30	LOT 3(NWSW)
DOMESTIC		Within GOODING County
T07S R14E S 25		NESE

OTHER PROVISIONS NECESSARY FOR DEFINITION OR ADMINISTRATION OF THIS WATER RIGHT:

THE SUBORDINATED PORTIONS OF THIS RIGHT AND WATER RIGHT NO. 36-00069 SHALL NOT BE ASSERTED, DELIVERED, HONORED, (USED), ENFORCED, EFFECTIVE, OR OTHERWISE RECOGNIZED IF IT WOULD CAUSE OR REQUIRE, EITHER DIRECTLY OR INDIRECTLY, CURTAILMENT OF, INJURY TO, OR MITIGATION FROM ANY SURFACE OR GROUND WATER RIGHTS WITH PRIORITY DATES BEFORE DECEMBER 31, 1999. THE SUBORDINATIONS SHALL RUN WITH AND BE PERPETUAL SERVITUDES UPON THIS WATER RIGHT AND WATER RIGHT NO. 36-00069 AND UPON THE ASSOCIATED LANDS, INCLUDING ANY NEW LANDS TO WHICH ALL OR ANY PORTIONS OF THESE TWO WATER RIGHTS ARE TRANSFERRED.

THE QUANTITY OF WATER DECREED FOR THIS WATER RIGHT FOR DOMESTIC USE AND STOCKWATER USE IS NOT A DETERMINATION OF HISTORICAL BENEFICIAL USE.

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.

JPB 9/28/00
Dru 10/2/00

EXPLANATORY MATERIAL: BASIS OF CLAIM - DECREE

STANDARD FORM 5

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE
STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

In Re SRBA)
)
Case No. 39576)
)

PARTIAL DECREE PURSUANT TO
I.R.C.P. 54(b) FOR

Water Right 36-00068

2000 NOV 27 PM 2:36

SRBA
TWIN FALLS CO., IDAHO
FILED

NAME AND ADDRESS: JOHN W JONES JR
JONES, DELORIS D.
PO BOX 265
HAGERMAN, ID 83332

SOURCE: WEATHERBY SPRINGS TRIBUTARY: BILLINGSLEY CREEK

QUANTITY: 10.74 CFS

THE PORTION OF THIS RIGHT IN EXCESS OF 8.51 CFS IS SUBORDINATED TO ALL GROUND WATER AND SURFACE WATER RIGHTS WITH PRIORITY DATES BEFORE DECEMBER 31, 1999.

THE APPROPRIATOR IS ENTITLED TO THE QUANTITY OF WATER FOR STOCKWATER PURPOSES AT A POINT OF MEASUREMENT WHERE THE DELIVERY DITCH ENTERS THE PLACE OF USE DESCRIBED.

THE APPROPRIATOR IS ENTITLED TO THE QUANTITY OF WATER FOR DOMESTIC PURPOSES AT A POINT OF MEASUREMENT WHERE THE DELIVERY DITCH ENTERS THE PLACE OF USE DESCRIBED.

THE QUANTITY OF WATER UNDER THIS RIGHT FOR DOMESTIC AND STOCKWATER USES SHALL NOT EXCEED 13,000 GALLONS PER DAY.

USE OF THIS RIGHT WITH RIGHT 36-00069 IS LIMITED TO A TOTAL COMBINED DIVERSION RATE OF 10.74 CFS. THE PORTION OF COMBINED WATER RIGHTS 36-00068 AND 36-00069 IN EXCESS OF A TOTAL COMBINED DIVERSION RATE OF 8.51 CFS IS SUBORDINATED TO ALL GROUND WATER AND SURFACE WATER RIGHTS WITH PRIORITY DATES BEFORE DECEMBER 31, 1999.

PRIORITY DATE: 02/01/1888

POINT OF DIVERSION: T07S R14E S30 SENESW Within Gooding County

PURPOSE AND PERIOD OF USE:

PURPOSE OF USE	PERIOD OF USE	QUANTITY
Irrigation	02-15 TO 11-30	10.51 CFS
Domestic 5 HOMES	01-01 TO 12-31	0.11 CFS
Stockwater	01-01 TO 12-31	0.12 CFS

THE IRRIGATION USE UNDER THIS RIGHT IN EXCESS OF 8.28 CFS IS SUBORDINATED TO ALL WATER RIGHTS WITH PRIORITY DATES BEFORE DECEMBER 31, 1999.

ADD

PLACE OF USE:

Irrigation — Within Gooding County

T07S R13E S25	NENE 40.0	NWNE 40.0
	SWNE 40.0	SENE 40.0
	NESE 38.0	NWSE 38.0
	SWSE 30.0	SESE 36.0
R14E S30 LOT 01	(NWNW)18.0	LOT 02 (SWNW)25.0
	NESW 5.0	LOT 03 (NWSW)26.0
LOT 04	(SWSW)27.0	SESW 11.0

414.0 Acres Total

Stockwater — Within Gooding County

T07S R14E S25 NESE
S30 LOT 03 (NWSW)

Domestic — Within Gooding County

T07S R14E S25 NESE

PLACE OF USE (continued)

USE OF THIS RIGHT WITH RIGHT 36-00069 IS LIMITED TO THE IRRIGATION OF A COMBINED TOTAL OF 414 ACRES IN A SINGLE IRRIGATION SEASON.

OTHER PROVISIONS NECESSARY FOR DEFINITION OR ADMINISTRATION OF THIS WATER RIGHT:

THE QUANTITY OF WATER DECREED FOR THIS WATER RIGHT FOR DOMESTIC AND STOCKWATER USES IS NOT A DETERMINATION OF HISTORICAL BENEFICIAL USE.

THE SUBORDINATED PORTIONS OF THIS WATER RIGHT SHALL NOT BE ASSERTED, DELIVERED, HONORED, USED, ENFORCED, EFFECTIVE OR OTHERWISE RECOGNIZED AS VALID IF IT WOULD CAUSE OR REQUIRE EITHER DIRECTLY OR INDIRECTLY, CURTAILMENT OF, INJURY TO, OR MITIGATION FROM ANY WATER RIGHTS WITH PRIORITY DATES EARLIER THAN DECEMBER 31, 1999. THE SUBORDINATIONS SHALL RUN WITH AND BE PERPETUAL SERVITUDES UPON THIS WATER RIGHT AND WATER RIGHT 36-00069 AND UPON THE ASSOCIATED LANDS, INCLUDING ANY NEW LANDS TO WHICH ALL OR ANY PORTIONS OF THESE TWO WATER RIGHTS ARE TRANSFERRED.

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. I.C. SECTION 42-1412(6).

RULE 54(b) CERTIFICATE

With respect to the issues determined by the above judgment or order, it is hereby CERTIFIED, in accordance with Rule 54(b), I.R.C.P., that the court has determined that there is no just reason for delay of the entry of a final judgment and that the court has and does hereby direct that the above judgment or order shall be a final judgment upon which execution may issue and an appeal may be taken as provided by the Idaho Appellate Rules.

B L Wood

Barry Wood
Administrative District Judge
Presiding Judge of the
Snake River Basin Adjudication

IDAHO DEPARTMENT OF WATER RESOURCES

Adjudication Recommendation Report 36-68 V2

WATER RIGHT NUMBER: 36-68 V2

Owner Type	Name and Address
Attorney	PATRICK D BROWN PARKER WARR & BROWN LLP 812 SHOSHONE ST E BUHL, ID 83316 (208)735-8812
Current Owner	DELORIS D JONES PO BOX 265 HAGERMAN, ID 83332 (208)837-4580
Current Owner	JOHN W JONES JR PO BOX 265 HAGERMAN, ID 83332 (208)837-4580

SF5 10-2-2000

Priority Date: 02/01/1888

Basis: Decreed

Status: Active

Source	Tributary
WEATHERBY SPRINGS	BILLINGSLEY CREEK

Beneficial Use	From To	Diversion Rate	Annual Volume
STOCKWATER	1/01 to 12/31	0.120 CFS	
DOMESTIC	1/01 to 12/31	0.110 CFS	
IRRIGATION	2/15 to 11/30	10.510 CFS	
	Total Diversion:	10.740 CFS	

DK 3/6/2002

Location of Point(s) of Diversion

WEATHERBY SPRINGS SE1/4NE1/4SW1/4 Sec. 30, Twp 07S, Rge 14E, B.M.

GOODING County

Place of Use

STOCKWATER

Twp Rge Sec	NE				NW				SW				SE				Totals
	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
07S 14E 25													X				
07S 14E 30										X L3							

DOMESTIC

Twp Rge Sec	NE				NW				SW				SE				Totals
	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	

please 11-27-2000

IDAHO DEPARTMENT OF WATER RESOURCES

Adjudication Recommendation Report 36-68 V2

	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	Totals
07S 14E 25													X				

IRRIGATION

Twp Rge Sec	NE				NW				SW				SE				
	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	Totals
07S 13E 25	40.0	40.0	40.0	40.0									38.0	38.0	30.0	36.0	302.0
07S 14E 30						18.0 L1	25.0 L2		5.0	26.0 L3	27.0 L4	11.0					112.0

Total Acres: 414

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.
2. N01 THE APPROPRIATOR IS ENTITLED TO THE QUANTITY OF WATER DESCRIBED FOR STOCK WATER PURPOSES AT A POINT OF MEASUREMENT WHERE THE DELIVERY DITCH ENTERS THE PLACE OF USE DESCRIBED, ~~SO LONG AS THE QUANTITY DIVERTED AT THE POINT OF DIVERSION DOES NOT CONSTITUTE UNREASONABLE WASTE.~~
3. N03 THE APPROPRIATOR IS ENTITLED TO THE AMOUNT OF WATER DESCRIBED FOR DOMESTIC PURPOSES AT A POINT OF MEASUREMENT WHERE THE DELIVERY DITCH ENTERS THE PLACE OF USE DESCRIBED, ~~SO LONG AS THE QUANTITY DIVERTED AT THE POINT OF DIVERSION DOES NOT CONSTITUTE UNREASONABLE WASTE.~~
4. N09 THE QUANTITY OF WATER DECREED FOR THIS WATER RIGHT FOR DOMESTIC USE AND STOCKWATER USE IS NOT A DETERMINATION OF HISTORICAL BENEFICIAL USE.
5. N14 THE QUANTITY OF WATER UNDER THIS RIGHT FOR DOMESTIC AND STOCKWATER USES SHALL NOT EXCEED 13,000 GALLONS PER DAY.

Remarks:

1. Quantity USE OF THIS RIGHT WITH RIGHT NO. 36-00069 IS LIMITED TO A TOTAL COMBINED RATE OF DIVERSION RATE OF 10.74 CFS.
2. Place of Use - Irrigation USE OF THIS RIGHT WITH RIGHT NO. 36-00069 IS LIMITED TO TO THE IRRIGATION OF A COMBINED TOTAL OF 414 ACRES IN A SINGLE IRRIGATION SEASON.

C18

IDAHO DEPARTMENT OF WATER RESOURCES

Adjudication Recommendation Report 36-68 V2

Comments:

1. BEDKE 3/8/1991 SCC-STAFF REVIEW
Comment:

2. CHRISTEN 8/7/1992 COPIED FROM REMARKS
Comment: WATER USED FOR IRRIG, FISH PROP., STOCK, & DOMESTIC. USES WATER FROM 4 DIFERENT WATER RIGHTS FOR A TOTAL OF 87.05 CFS.

3. SCHULTZ 9/24/1992 NOTICE OF ERROR (NOE)
Comment: NOE RECEIVED 9/23/92. CHANGED NOE FLAG FROM BLANK TO A. CLAIM VERIFIED 8/18/92. DID NOT REVERIFY ANY PART OF CLAIM.

4. CHRISTEN 10/14/1992 RESPONSE TO NOE
Comment: RESPONSE WAS A MAILING TO INFORM CLAIMANT THAT THE PERIOD OF USE FOR HAGERMAN VALLEY HAS BEEN CHANGED BUT BASED UPON CURRENT INFO THE RATE FOR THIS CLAIM WILL NOT CHANGE NOR WILL 36-00069 BE REINSTATED. KKC. 10-14-92.

5. CHRISTEN 10/20/1992 CHANGE TO CLAIM 10-20-92.
Comment: ADDED COND CODES N01 & N02. KKC.

6. SOUTH3 10/23/1992 RECOMMENDATION CHANGED
Comment: DIVERSION RATE FOR THIS RIGHT WAS RECONSIDERED FOR IRRIGATION USE. DIVERSION FROM WEATHERBY SPRINGS IS KNOWN TO BE 10+ CFS. IT IS NOT FELT THAT THE DIVERSION FOR IRRIGATION SHOULD BE LIMIT- ED TO THE AMOUNT CURRENTLY PUMPED FROM HOLDING PONDS BY PUMPS THAT THE CLAIMANT FEELS ARE OLD AND IN DISREPAIR. BECAUSE THE THEORETICAL DIVERSION CAPACITY OF THESE PUMPS EXCEEDS THE RE- QUIRED 1"/ACRE BY A CONSIDERABLE AMOUNT, WE HAVE DECIDED TO ALLOW 8.02 CFS UNDER THIS RIGHT FOR IRRIGATION. RMC

7. SCHULTZ 2/19/1993 ADDED NEW ATTORNEY
Comment: RECEIVED NOTICE OF APPEARANCE FROM HEPWORTH NUNGESTER LEZAMIZ 2/10/93.

8. SCLELLAN 1/29/1998 REFORMAT UPDATE
Comment: REVISED ACRES PER GIS. COMBINED USE LIMITS BASED ON USES ADDED TOGETHER, CAPACITY OF IRRIGATION 8.25 + .11 + .12 = 8.48 CFS. DOMESTIC AND STOCK ARE DELIVERED VIA SEPARATE PIPELINE.

9. SSHERMAN 4/24/1998 SUBSTITUTION OF COUNSEL
Comment: SUBSTITUTION OF COUNSEL REC'D 4/16/1998, PATRICK D BROWN OF PARKER WARR & BROWN LLP REPRESENTING JOHN W JONES JR.

IDAHO DEPARTMENT OF WATER RESOURCES

Adjudication Recommendation Report 36-68 V2

Dates and Other Information:

Decreed Date:
Enlargement Use Priority Date:
Enlargement Statute Priority Date:
Defendant:
Plaintiff:
Civil Case Number:
Judicial District:
Notice of Error Flag: RECEIVED - CHANGED BEFORE PROP RECOM RPT
State or Federal: S
Owner Name Connector: AND
Water District Number: 36A
Generic Max Rate Per Acre:
Generic Max Volume Per Acre:
Swan Falls Trust or Nontrust:
Swan Falls Dismissed:
DLE Act Number:
Carey Act Number:
Mitigation Plan: False

SubCase:

SubCase Number: 36-68
Class: 2
SF5 Filed Date: 10/2/2000
Special Master Recom Signed Date: 11/1/2000
Attorney Assigned: NICHOLAS B SPENCER
Adjudication Agent:
Basis of Claim:
Date Filed: 4/29/1993 Objection Status: Active
Date Filed: 7/31/1998 Objection Status: Active
Date Filed: 7/17/2000 Objection Status: Active
Date Filed: 7/18/2000 Objection Status: Active
Date Filed: 7/18/2000 Objection Status: Active
Date Filed: 7/18/2000 Objection Status: Active
Date Filed: 7/18/2000 Objection Status: Active

PATRICK D. BROWN, P.C.
LAW OFFICES

October 11, 1999

RECEIVED
OCT 13 1999
Department of Water Resources
Southern Region

Mr. David Tuthill
Idaho Department of Water Resources
1341 Fillmore Street, suite 200
Twin Falls, ID 83301-3380

RE: SUBCASES NO. 36-00068 and 36-00069, JOHN W. JONES

Dear Mr. Tuthill:

According to testimony you gave at the August 11, 1999 trial in subcase No. 36-00039D it is, and has been since 1998, IDWR's statewide policy to recommend quantities based on gravity irrigation, not on sprinkler irrigation, if the right was established by gravity irrigation.

My understanding is the recommendation in this subcase was based on a sprinkler analysis. I ask that you amend the Director's Report to reflect the quantity of water IDWR believes reasonable and necessary for flood irrigation, as of the time the right was established.

Please let me know immediately if you will amend the Director's Report accordingly or if you need any information from my client in order to do so.

Also, if for some reason you cannot or will not amend the Director's Report, please let me know, including any reasons. I look forward to hearing from you.

Sincerely,

Patrick D. Brown
Attorney at Law

pdb/tf

109 SOUTH ADAMS STREET • JEROME, IDAHO • 83338
PHONE: 208-644-1967 • FAX: 208-644-1970

Bill Stones

36-00068

36-00069

Expert Witness Report

SRBA Case No 39576

Subcases 36-00068, 37-00069

Bill Jones

March 26, 1999

C.E. Brockway P.E. PhD.

Brockway Engineering P.L.L.C.

The property owned by Bill Jones lies in the E1/2 Sec 25 T 7S R13E and the W1/2 Sec 30 T7S R 14E. It consists of parcels irrigated from the Weatherby Springs and Houghland tunnel. Examination of aerial photos including 1969 SCS Conservation Map Plan and 1987 aerial photos from the FSA, USDA NRCS soils maps and farm maps the minimum irrigated area prior to installation of sprinklers includes 326.5 acres.

Water supply from the springs was conveyed by contour earthen ditches. The ditch running north from Weatherby springs furnished water to a siphon which conveyed water across Billingsley Creek to the high point of the farm on the west side of the Creek. From there water was conveyed in earthen ditches and a pipeline throughout the farm. The 1969 map attached shows the ditch and field system in place at that time.

Soil permeability and infiltration rates are high, up to 20 in./hr. USDA NRCS soil classifications include Quincy fine sand (QUB), Kecko fine sandy loam (KOB), Fathom-Kudlac-Anchustequi complex (FKE), and Fathom loamy fine sand (FAB) soils.

Surface irrigation consisted of furrow application from ditches throughout the area. Field slopes and run lengths are highly variable.

Based on interviews with and data supplied by Mr. Jones, irrigation has historically utilized primarily 12 hour sets. Historically, control of furrow flows was accomplished with cutouts from earthen ditches and later from siphon tubes.

The duty of water on these lands is in excess of 0.02 cfs/acre (1 miner's inch/acre). In order to estimate the irrigation requirement for the farm, an analysis using procedures developed by Hubble Engineering for the Idaho Department of Water Resources was utilized. The procedures were incorporated in a computer program developed by C.W.

Robison P.E. which has been reviewed by IDWR and utilized previously in numerous "excess flow analyses". Input data sets and computer output for each analysis are included in Appendix A to this report. NRCS soils data are also included in Appendix A. Farm delivery requirement(duty of water) was calculated using set times and furrow flows as reported or appropriate for the run lengths (field length) and soil types. Project irrigation diversion requirements were calculated for the analysis period utilizing the Bliss weather data set modified for Hagerman and utilizing an 80% probability level of crop consumptive use. Calculations were also performed for the peak period consumptive use.

Estimated irrigation requirements using the Hubble approach or any other method are sensitive to irrigation management procedures. Irrigation efficiency and water requirements are very sensitive to the length of time water is left on the field (set time) and the discharge that is set in each furrow, either from siphon tubes or cutouts. Furrow infiltration rates are highly variable due to soil property variability, slope inconsistencies, antecedent moisture conditions, and crop litter in the furrow. Irrigator's judgement as to how long to leave water on the field or how 'strong' to set the tubes varies from person to person. Estimates of irrigation requirements are therefore best utilized to provide a guideline as to the range of expected requirements rather than to precisely determine what flows early irrigators should have used.

For the area irrigated (326.5 acres) the estimated base peak project diversion requirement is 2.31 inches/acre (15.11 cfs) and the analysis period (maximum monthly with 80% probability) project irrigation requirement is 2.01 inches/acre (13.13 cfs). This assumes approximately 50% alfalfa, 20% field corn, 15% pasture on steeper slopes, and 15% grain on the 36 fields.

The project irrigation requirement includes ditch losses from the springs to the property and the main ditch across the property which conveys water to other users west of the farm. It does not include on-farm ditches. Seepage losses were computed in the main ditches using the Worstell method with a coefficient of 1.5.

A sensitivity analysis was performed to show the effect on calculated irrigation water requirements if the irrigator chooses different set times or furrow flows. That analysis is shown in Appendix A. The furrow flow rates were varied from 80% to 160% of the base

furrow flow and the set time was calculated for 12, 18, and 2 hours. The table in Appendix A shows that the required peak project diversion rate from all sources could vary from 12.69 to 47.55 cfs or 1.94 to 7.28 miner' inches per acre.
The diversion from Weatherby spring to the Jones irrigated area earthen ditch through basalt rock talus slopes which flows north to the siphon inlet. The main ditch across the property was built in native sandy loam soil and was approximately 8 feet wide. Ditch losses computed by the Worstell method for the supply ditch and the main ditches were 0.36 cfs which is included in the estimated project irrigation requirement.
The irrigation system was converted from gravity surface irrigation to sprinkler irrigation after 1969. The SCS farm aerial photo of 1987 shows primarily sprinkler irrigation. Acreges determined by the Idaho Department of Water Resources from GIS maps show 414 sprinkler irrigated acres.

Based on the irrigation requirements analysis, the historic duty of water under 37-00068 and 37-00069 including transmission loss in the supply ditches, is 2.31 in/acre(15.11 cfs); however, depending on irrigation management levels, crop selection, or local weather conditions, the irrigation requirement could as much as 7.28 in/acre. The SRBA claim of 12.5 cfs under 36-00068 and 1.0 cfs under 36-00069 for a total of 13.5 cfs is well within the expected range of irrigation diversion requirements.

APPENDIX A

Irrigation Water Requirements Analysis
Version 1.25
1999-03-26 @ 14:03:47

Bill Jones Excess Flow Analysis
Brockway Engineering and C. W. Robison
Ditch losses in Ditch 1, 2, 4, 9, and 10 only

PROJECT IRRIGATION DIVERSION REQUIREMENTS
SUMMARY

Total Irrigated Area: 326.50 acres

Based on analysis period irrigation requirement

Max Project Diversion: 13.13 cfs(2.011 mi/ac)

Based on analysis period peak consumptive use

Peak Project Diversion: 15.11 cfs(2.314 mi/ac)

Bill Jones Excess Flow Analysis
Brockway Engineering and C. W. Robison
Ditch losses in Ditch 1, 2, 4, 9, and 10 only

SENSITIVITY ANALYSIS

Run Date: 03-26-1999
Base file: jones1.dat

PEAK PROJECT DIVERSION IN CFS
Furrow flow in FRACTION OF BASE. Set time in HOURS.

	Set time		
F Flow	12	18	24
0.80	12.69	18.86	25.02
1.00	15.11	22.48	29.86
1.20	18.06	26.91	35.76
1.40	21.01	31.33	41.65
1.60	23.96	35.76	47.55

PEAK PROJECT DIVERSION IN MINER'S INCHES PER ACRE
Furrow flow in FRACTION OF BASE. Set time in HOURS.

	Set time		
F Flow	12	18	24
0.80	1.94	2.89	3.83
1.00	2.31	3.44	4.57
1.20	2.77	4.12	5.48
1.40	3.22	4.80	6.38
1.60	3.67	5.48	7.28

```
Bill Jones Excess Flow Analysis
Brockway Engineering and C. W. Robison
Ditch losses in Ditch 1, 2, 4, 9, and 10 only
hagerman.cir
   15   30    4    4    0
  0.8
Ditch 10        2.  0.270 2.   2.    3.  1.50
Ditch 9        11.  0.078 2.   2.    3.  1.50
Ditch 13        4.  0.120 2.   2.    0.  0.00
Ditch 12       11.  0.380 0.   0.    0.  0.00
Ditch 11A       6.  0.130 2.   2.    0.  0.00
Ditch 11       11.  0.190 2.   2.    0.  0.00
Ditch 8         8.  0.190 8.  12.    0.  0.00
Ditch 7         9.  0.100 8.  12.    0.  0.00
Ditch 6        10.  0.085 8.  12.    0.  0.00
Ditch 5        11.  0.250 8.  12.    0.  0.00
Ditch 4        12.  0.130 8.  12.    3.  1.50
Ditch 3        13.  0.250 0.   0.    0.  0.00
Ditch 2        15.  0.200 8.  12.    3.  1.50
Ditch 1        15.  0.140 2.   2.    3.  1.50
Effective Div.  0.  0.000 0.   0     0.  0.00
FURROW FLD.A   48.  12.   3.0  370. .007
FURROW FLD.B   48.  12.   8.0  825. .007
FURROW FLD.C   48.  12.   4.0  410. .007
FURROW FLD.DE  48.  12.   6.0  410. .004
FURROW FLD.F   48.  12.   7.0  490. .007
FURROW FLD.GH  48.  12.   7.0  490. .030
FURROW FLD.I   48.  12.   6.0  580. .018
FURROW FLD.J   48.  12.   3.0  290. .018
FURROW FLD.KL  48.  12.   5.0  510. .011
FURROW FLD.M   48.  12.   3.0  200. .030
FURROW FLD.N   48.  12.   5.0  200. .050
FURROW FLD.O   48.  12.  10.0  990. .012
FURROW FLD.PU  48.  12.   5.0  530. .008
FURROW FLD.Q   48.  12.   4.0  370. .043
FURROW FLD.R   48.  12.   5.0  540. .033
FURROW FLD.S   48.  12.   4.0  370. .025
FURROW FLD.T   48.  12.   3.0  290. .038
FURROW FLD.V   48.  12.   5.0  490. .010
FURROW FLD.W   48.  12.   3.0  200. .010
FURROW FLD.X   48.  12.   6.0  580. .009
FURROW FLD.Y   48.  12.   4.0  410. .022
FURROW FLD.Z   48.  12.   6.0  370. .100
FURROW FLD.AA  48.  12.   7.0  540. .017
FURROW FLD.BB  48.  12.   7.0  200. .043
FURROW FLD.C&D 48.  12.  15.0 1200. .060
FURROW FLD.EE  48.  12.   5.0  120. .140
FURROW FLD.FF  48.  12.   4.0  410. .015
FURROW FLD.GG  48.  12.   7.0  660. .025
FURROW FLD.HIJ 48.  12.   3.0  160. .015
FURROW FLD.KK  48.  12.   3.0  330. .015
QUB            2.0  0.94 1.84 2.74 3.64 4.54
KOB            2.0  1.56 3.05 4.31 5.73 7.47
FKE            2.0  1.41 2.79 4.17 5.55 6.93
FAB            2.0  1.14 2.28 3.42 4.56 5.70
Alfalfa Hay    50.0 2.5  .10
Pasture        50.0 2.5  .10
Spring Grain   50.0 2.5  .10
Field Corn     50.0 2.5  .10
1
Alfalfa Hay    5.4  10.6 5.5  0.0  0.0  0.0  4.9  2.0  6.4  2.4  0.0  15.6 8.7
               3.9  2.4  1.9  1.3  3.2  6.3  1.1  4.5  0.0  0.0  0.0  0.0  0.0
               1.4  3.9  2.6  5.0
```

Pasture	2.1	4.2	2.2	0.0	0.0	0.0	2.0	0.8	2.6	0.9	0.0	6.2	3.5
	1.6	0.9	0.8	0.5	1.3	2.5	0.4	1.8	0.0	0.0	0.0	0.0	0.0
	0.5	1.6	1.0	2.0									
Spring Grain	1.6	3.2	1.6	0.0	0.0	0.0	1.5	0.6	1.9	0.7	0.0	4.7	2.6
	1.2	0.7	0.6	0.4	1.0	1.9	0.3	1.4	0.0	0.0	0.0	0.0	0.0
	0.4	1.2	0.8	1.5									
Field Corn	1.6	3.2	1.6	0.0	0.0	0.0	1.5	0.6	1.9	0.7	0.0	4.7	2.6
	1.2	0.7	0.6	0.4	1.0	1.9	0.3	1.4	0.0	0.0	0.0	0.0	0.0
	0.4	1.2	0.8	1.5									
2													
Alfalfa Hay	0.0	0.0	0.0	6.5	1.7	7.8	4.9	0.0	0.0	0.0	2.1	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0									
Pasture	0.0	0.0	0.0	2.6	0.7	3.1	2.0	0.0	0.0	0.0	0.8	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0									
Spring Grain	0.0	0.0	0.0	1.9	0.5	2.3	1.5	0.0	0.0	0.0	0.6	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0									
Field Corn	0.0	0.0	0.0	1.9	0.5	2.3	1.5	0.0	0.0	0.0	0.6	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0									
3													
Alfalfa Hay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	9.5	2.4	6.4	0.5
	0.0	0.0	0.0	0.0									
Pasture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	3.8	1.0	2.6	0.2
	0.0	0.0	0.0	0.0									
Spring Grain	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	2.9	0.7	1.9	0.2
	0.0	0.0	0.0	0.0									
Field Corn	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	2.9	0.7	1.9	0.2
	0.0	0.0	0.0	0.0									
4													
Alfalfa Hay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.3	0.0
	0.0	0.0	0.0	0.0									
Pasture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7	0.0
	0.0	0.0	0.0	0.0									
Spring Grain	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	0.0
	0.0	0.0	0.0	0.0									
Field Corn	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	0.0
	0.0	0.0	0.0	0.0									
Ditch 10	.148	.129	0.0	0.0									
Ditch 9	.195	0.0	0.0	0.0									
Ditch 13	.072	0.0	0.0	0.0									
Ditch 12	.102	0.0	0.0	0.0									
Ditch 11A	0.0	0.0	.542	0.0									
Ditch 11	0.0	0.0	.144	0.0									
Ditch 8	0.0	.636	0.0	0.0									
Ditch 7	.020	.235	0.0	0.0									
Ditch 6	.052	0.0	0.0	0.0									
Ditch 5	.151	0.0	0.0	0.0									
Ditch 4	.244	0.0	0.0	0.0									
Ditch 3	.018	0.0	0.0	0.0									
Ditch 2	0.0	0.0	0.0	0.0									
Ditch 1	0.0	0.0	.314	1.0									
Effective Div.	0.0	0.0	0.0	0.0									

Irrigation Water Requirements Analysis
Version 1.25
1999-03-26 @ 14:03:47

Bill Jones Excess Flow Analysis
Brockway Engineering and C. W. Robison
Ditch losses in Ditch 1, 2, 4, 9, and 10 only

Canal/Lateral Discharge Summary
(cubic feet per second)

Canal/Lateral	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Ditch 10	**** Seepage Rate: .20 cfs/mi or .05 cfs ****							
Based on analysis period irrigation requirement								
DS Delivery	.0	.0	.0	.0	.0	.0	.0	.0
On-Farm Div.	.0	.7	1.3	1.4	1.3	1.0	.7	.3
Seepage Loss	.0	.1	.1	.1	.1	.1	.1	.1
US Div. Req.	.0	.8	1.3	1.4	1.4	1.0	.7	.4
Based on analysis period peak consumptive use								
DS Delivery	.0	.0	.0	.0	.0	.0	.0	.0
On-Farm Div.	.0	.9	1.5	1.6	1.5	1.1	.8	.4
Seepage Loss	.0	.1	.1	.1	.1	.1	.1	.1
US Div. Req.	.0	.9	1.6	1.6	1.6	1.1	.8	.4
Ditch 9	**** Seepage Rate: .20 cfs/mi or .02 cfs ****							
Based on analysis period irrigation requirement								
DS Delivery	.0	.8	1.3	1.4	1.4	1.0	.7	.4
On-Farm Div.	.0	.8	1.4	1.5	1.5	1.1	.7	.3
Seepage Loss	.0	.0	.0	.0	.0	.0	.0	.0
US Div. Req.	.0	1.6	2.8	3.0	2.9	2.2	1.5	.7
Based on analysis period peak consumptive use								
DS Delivery	.0	.9	1.6	1.6	1.6	1.1	.8	.4
On-Farm Div.	.0	1.0	1.7	1.8	1.7	1.2	.9	.4
Seepage Loss	.0	.0	.0	.0	.0	.0	.0	.0
US Div. Req.	.0	2.0	3.4	3.4	3.3	2.4	1.7	.8
Ditch 13	**** Seepage Rate: .00 cfs/mi or .00 cfs ****							
Based on analysis period irrigation requirement								
DS Delivery	.0	.0	.0	.0	.0	.0	.0	.0
On-Farm Div.	.0	.3	.5	.6	.6	.4	.3	.1
Seepage Loss	.0	.0	.0	.0	.0	.0	.0	.0
US Div. Req.	.0	.3	.5	.6	.6	.4	.3	.1

Based on analysis period peak consumptive use

DS Delivery	.0	.0	.0	.0	.0	.0	.0	.0
On-Farm Div.	.0	.4	.6	.7	.6	.5	.3	.2
Seepage Loss	.0	.0	.0	.0	.0	.0	.0	.0
US Div. Req.	.0	.4	.6	.7	.6	.5	.3	.2

Ditch 12 **** Seepage Rate: .00 cfs/mi or .00 cfs ****

Based on analysis period irrigation requirement

DS Delivery	.0	.3	.5	.6	.6	.4	.3	.1
On-Farm Div.	.0	.4	.8	.8	.8	.6	.4	.2
Seepage Loss	.0	.0	.0	.0	.0	.0	.0	.0
US Div. Req.	.0	.7	1.3	1.4	1.3	1.0	.7	.3

Based on analysis period peak consumptive use

DS Delivery	.0	.4	.6	.7	.6	.5	.3	.2
On-Farm Div.	.0	.5	.9	.9	.9	.6	.4	.2
Seepage Loss	.0	.0	.0	.0	.0	.0	.0	.0
US Div. Req.	.0	.9	1.6	1.6	1.5	1.1	.8	.4

Ditch 11A **** Seepage Rate: .00 cfs/mi or .00 cfs ****

Based on analysis period irrigation requirement

DS Delivery	.0	.0	.0	.0	.0	.0	.0	.0
On-Farm Div.	.0	.5	.9	1.0	1.0	.7	.5	.2
Seepage Loss	.0	.0	.0	.0	.0	.0	.0	.0
US Div. Req.	.0	.5	.9	1.0	1.0	.7	.5	.2

Based on analysis period peak consumptive use

DS Delivery	.0	.0	.0	.0	.0	.0	.0	.0
On-Farm Div.	.0	.6	1.1	1.1	1.1	.8	.5	.3
Seepage Loss	.0	.0	.0	.0	.0	.0	.0	.0
US Div. Req.	.0	.6	1.1	1.1	1.1	.8	.5	.3

Ditch 11 **** Seepage Rate: .00 cfs/mi or .00 cfs ****

Based on analysis period irrigation requirement

DS Delivery	.0	.5	.9	1.0	1.0	.7	.5	.2
On-Farm Div.	.0	.1	.2	.3	.3	.2	.1	.1
Seepage Loss	.0	.0	.0	.0	.0	.0	.0	.0
US Div. Req.	.0	.7	1.2	1.2	1.2	.9	.6	.3

Based on analysis period peak consumptive use

DS Delivery	.0	.6	1.1	1.1	1.1	.8	.5	.3
On-Farm Div.	.0	.2	.3	.3	.3	.2	.1	.1
Seepage Loss	.0	.0	.0	.0	.0	.0	.0	.0
US Div. Req.	.0	.8	1.4	1.4	1.3	1.0	.7	.3

Ditch 8 **** Seepage Rate: .00 cfs/mi or .00 cfs ****

Based on analysis period irrigation requirement

DS Delivery	.0	.0	.0	.0	.0	.0	.0	.0
On-Farm Div.	.0	.5	.9	1.0	1.0	.7	.5	.2
Seepage Loss	.0	.0	.0	.0	.0	.0	.0	.0
US Div. Req.	.0	.5	.9	1.0	1.0	.7	.5	.2

Based on analysis period peak consumptive use

DS Delivery	.0	.0	.0	.0	.0	.0	.0	.0
On-Farm Div.	.0	.6	1.1	1.1	1.1	.8	.5	.3
Seepage Loss	.0	.0	.0	.0	.0	.0	.0	.0
US Div. Req.	.0	.6	1.1	1.1	1.1	.8	.5	.3

Ditch 7 **** Seepage Rate: .00 cfs/mi or .00 cfs ****

Based on analysis period irrigation requirement

DS Delivery	.0	.5	.9	1.0	1.0	.7	.5	.2
On-Farm Div.	.0	.3	.5	.5	.5	.4	.3	.1
Seepage Loss	.0	.0	.0	.0	.0	.0	.0	.0
US Div. Req.	.0	.8	1.4	1.5	1.5	1.1	.7	.3

Based on analysis period peak consumptive use

DS Delivery	.0	.6	1.1	1.1	1.1	.8	.5	.3
On-Farm Div.	.0	.3	.6	.6	.6	.4	.3	.1
Seepage Loss	.0	.0	.0	.0	.0	.0	.0	.0
US Div. Req.	.0	1.0	1.7	1.7	1.6	1.2	.8	.4

Ditch 6 **** Seepage Rate: .00 cfs/mi or .00 cfs ****

Based on analysis period irrigation requirement

DS Delivery	.0	.8	1.4	1.5	1.5	1.1	.7	.3
On-Farm Div.	.0	.2	.4	.4	.4	.3	.2	.1
Seepage Loss	.0	.0	.0	.0	.0	.0	.0	.0
US Div. Req.	.0	1.0	1.8	1.9	1.9	1.4	.9	.4

Based on analysis period peak consumptive use

DS Delivery	.0	1.0	1.7	1.7	1.6	1.2	.8	.4
On-Farm Div.	.0	.3	.5	.5	.5	.3	.2	.1
Seepage Loss	.0	.0	.0	.0	.0	.0	.0	.0
US Div. Req.	.0	1.2	2.1	2.2	2.1	1.5	1.0	.5

Ditch 5 **** Seepage Rate: .00 cfs/mi or .00 cfs ****

Based on analysis period irrigation requirement

DS Delivery	.0	1.0	1.8	1.9	1.9	1.4	.9	.4
On-Farm Div.	.0	.6	1.1	1.2	1.2	.9	.6	.3
Seepage Loss	.0	.0	.0	.0	.0	.0	.0	.0
US Div. Req.	.0	1.6	2.9	3.1	3.0	2.2	1.5	.7

Based on analysis period peak consumptive use

DS Delivery	.0	1.2	2.1	2.2	2.1	1.5	1.0	.5
On-Farm Div.	.0	.8	1.4	1.4	1.3	1.0	.7	.3
Seepage Loss	.0	.0	.0	.0	.0	.0	.0	.0
US Div. Req.	.0	2.0	3.5	3.6	3.4	2.5	1.7	.8

Ditch 4 **** Seepage Rate: .80 cfs/mi or .10 cfs ****

Based on analysis period irrigation requirement

DS Delivery	.0	4.6	8.1	8.7	8.5	6.3	4.3	2.0
On-Farm Div.	.0	1.0	1.8	1.9	1.9	1.4	.9	.4
Seepage Loss	.0	.1	.1	.1	.1	.1	.1	.1
US Div. Req.	.0	5.8	10.0	10.8	10.4	7.8	5.3	2.5

Based on analysis period peak consumptive use

DS Delivery	.0	5.7	9.8	10.1	9.5	6.9	4.8	2.3
On-Farm Div.	.0	1.3	2.2	2.2	2.1	1.5	1.1	.5
Seepage Loss	.0	.1	.1	.1	.1	.1	.1	.1
US Div. Req.	.0	7.0	12.1	12.4	11.7	8.5	6.0	3.0

Ditch 3 **** Seepage Rate: .00 cfs/mi or .00 cfs ****

Based on analysis period irrigation requirement

DS Delivery	.0	5.8	10.0	10.8	10.4	7.8	5.3	2.5
On-Farm Div.	.0	.1	.1	.1	.1	.1	.1	.0
Seepage Loss	.0	.0	.0	.0	.0	.0	.0	.0
US Div. Req.	.0	5.8	10.1	10.9	10.6	7.9	5.4	2.5

Based on analysis period peak consumptive use

DS Delivery	.0	7.0	12.1	12.4	11.7	8.5	6.0	3.0
On-Farm Div.	.0	.1	.2	.2	.2	.1	.1	.0
Seepage Loss	.0	.0	.0	.0	.0	.0	.0	.0
US Div. Req.	.0	7.1	12.2	12.6	11.9	8.7	6.1	3.0

Ditch 2 **** Seepage Rate: .80 cfs/mi or .16 cfs ****

Based on analysis period irrigation requirement

DS Delivery	.0	5.8	10.1	10.9	10.6	7.9	5.4	2.5
On-Farm Div.	.0	.0	.0	.0	.0	.0	.0	.0
Seepage Loss	.0	.2	.2	.2	.2	.2	.2	.2
US Div. Req.	.0	6.0	10.3	11.1	10.7	8.0	5.5	2.7

Based on analysis period peak consumptive use

DS Delivery	.0	7.1	12.2	12.6	11.9	8.7	6.1	3.0
On-Farm Div.	.0	.0	.0	.0	.0	.0	.0	.0
Seepage Loss	.0	.2	.2	.2	.2	.2	.2	.2
US Div. Req.	.0	7.3	12.4	12.7	12.0	8.8	6.2	3.1

Ditch 1 **** Seepage Rate: .20 cfs/mi or .03 cfs ****

Based on analysis period irrigation requirement

DS Delivery	.0	.0	.0	.0	.0	.0	.0	.0
On-Farm Div.	.0	1.1	1.9	2.0	2.0	1.5	1.0	.5
Seepage Loss	.0	.0	.0	.0	.0	.0	.0	.0
US Div. Req.	.0	1.1	1.9	2.1	2.0	1.5	1.0	.5

Based on analysis period peak consumptive use

DS Delivery	.0	.0	.0	.0	.0	.0	.0	.0
On-Farm Div.	.0	1.3	2.3	2.4	2.2	1.6	1.1	.5
Seepage Loss	.0	.0	.0	.0	.0	.0	.0	.0
US Div. Req.	.0	1.4	2.3	2.4	2.2	1.6	1.1	.6

Effective Div. **** Seepage Rate: .00 cfs/mi or .00 cfs ****

Based on analysis period irrigation requirement

DS Delivery	.0	7.1	12.2	13.1	12.8	9.5	6.5	3.2
On-Farm Div.	.0	.0	.0	.0	.0	.0	.0	.0
Seepage Loss	.0	.0	.0	.0	.0	.0	.0	.0
US Div. Req.	.0	7.1	12.2	13.1	12.8	9.5	6.5	3.2

Based on analysis period peak consumptive use

DS Delivery	.0	8.7	14.7	15.1	14.3	10.5	7.4	3.7
On-Farm Div.	.0	.0	.0	.0	.0	.0	.0	.0
Seepage Loss	.0	.0	.0	.0	.0	.0	.0	.0
US Div. Req.	.0	8.7	14.7	15.1	14.3	10.5	7.4	3.7

BILL JONES EXCESS FLOW ANALYSIS

Breakdown of irrigation system acres and soil type acreage
Brockway Engineering, PLLC 3/25/99

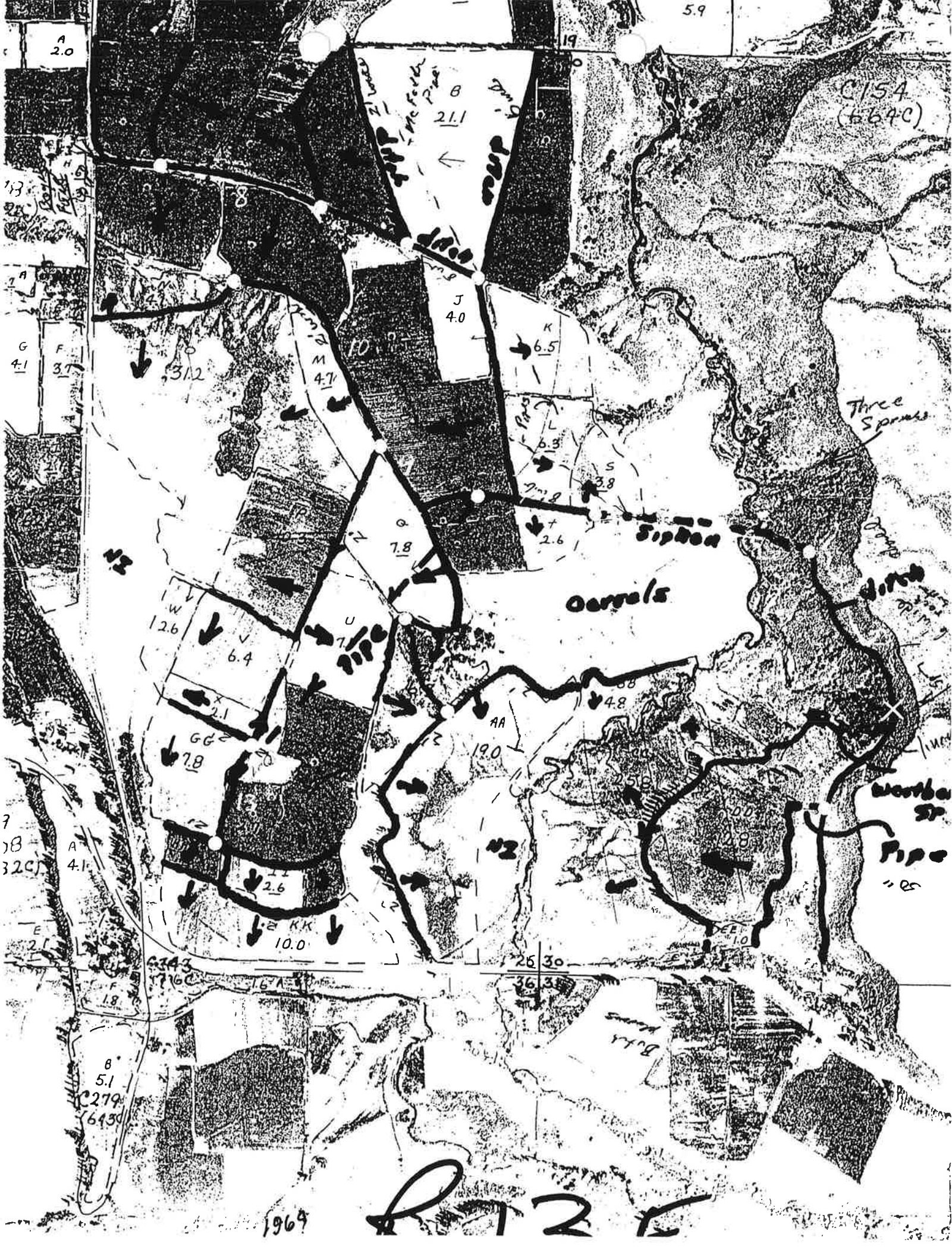
Irrig sys (field)	Acres	Soil	Acreage breakdown by soil type: QUB	KOB	FKE	FAB	Acreage breakdown by crop Alf (50%)	Past (20%)	SGrn (15%)	FCrn(15%)
A	10.7	QUB	10.7	0.0	0.0	0.0	5.4	2.1	1.6	1.6
B	21.1	QUB	21.1	0.0	0.0	0.0	10.6	4.2	3.2	3.2
C	10.9	QUB	10.9	0.0	0.0	0.0	5.5	2.2	1.6	1.6
DE	12.9	KOB	0.0	12.9	0.0	0.0	6.5	2.6	1.9	1.9
F	3.3	KOB	0.0	3.3	0.0	0.0	1.7	0.7	0.5	0.5
GH	15.6	KOB	0.0	15.6	0.0	0.0	7.8	3.1	2.3	2.3
I	19.5	QUB/KOB	9.8	9.8	0.0	0.0	9.8	3.9	2.9	2.9
J	4.0	QUB	4.0	0.0	0.0	0.0	2.0	0.8	0.6	0.6
KL	12.8	QUB	12.8	0.0	0.0	0.0	6.4	2.6	1.9	1.9
M	4.7	QUB	4.7	0.0	0.0	0.0	2.4	0.9	0.7	0.7
N	4.1	KOB	0.0	4.1	0.0	0.0	2.1	0.8	0.6	0.6
O	31.2	QUB	31.2	0.0	0.0	0.0	15.6	6.2	4.7	4.7
PU	17.4	QUB	17.4	0.0	0.0	0.0	8.7	3.5	2.6	2.6
Q	7.8	QUB	7.8	0.0	0.0	0.0	3.9	1.6	1.2	1.2
R	4.7	QUB	4.7	0.0	0.0	0.0	2.4	0.9	0.7	0.7
S	3.8	QUB	3.8	0.0	0.0	0.0	1.9	0.8	0.6	0.6
T	2.6	QUB	2.6	0.0	0.0	0.0	1.3	0.5	0.4	0.4
V	6.4	QUB	6.4	0.0	0.0	0.0	3.2	1.3	1.0	1.0
W	12.6	QUB	12.6	0.0	0.0	0.0	6.3	2.5	1.9	1.9
X	2.1	QUB	2.1	0.0	0.0	0.0	1.1	0.4	0.3	0.3
Y	9.0	QUB	9.0	0.0	0.0	0.0	4.5	1.8	1.4	1.4
Z	6.3	FKE	0.0	0.0	6.3	0.0	3.2	1.3	0.9	0.9
AA	19.0	FKE	0.0	0.0	19.0	0.0	9.5	3.8	2.9	2.9
BB	4.8	FKE	0.0	0.0	4.8	0.0	2.4	1.0	0.7	0.7
C&D	38.6	FAB/FKE	0.0	0.0	12.8	38.6	19.3	7.7	5.8	5.8
EE	1.0	FKE	0.0	0.0	1.0	0.0	0.5	0.2	0.2	0.2
FF	2.7	QUB	2.7	0.0	0.0	0.0	1.4	0.5	0.4	0.4
GG	7.8	QUB	7.8	0.0	0.0	0.0	3.9	1.6	1.2	1.2
HIJ	5.1	QUB	5.1	0.0	0.0	0.0	2.6	1.0	0.8	0.8
KK	10.0	QUB	10.0	0.0	0.0	0.0	5.0	2.0	1.5	1.5
TOTAL	312.5		197.2	45.7	43.9	38.6	156.3	62.5	46.9	46.9

BILL JONES EXCESS FLOW ANALYSIS

Acreage breakdown by crop applicable to each soil type for each irrigation system

Irrig sys (field)	For soil QUB: Alfalfa	Pasture	SGrain	FCorn	For soil KOB: Alfalfa	Pasture	SGrain	FCorn
A	5.4	2.1	1.6	1.6	0.0	0.0	0.0	0.0
B	10.6	4.2	3.2	3.2	0.0	0.0	0.0	0.0
C	5.5	2.2	1.6	1.6	0.0	0.0	0.0	0.0
DE	0.0	0.0	0.0	0.0	6.5	2.6	1.9	1.9
F	0.0	0.0	0.0	0.0	1.7	0.7	0.5	0.5
GH	0.0	0.0	0.0	0.0	7.8	3.1	2.3	2.3
I	4.9	2.0	1.5	1.5	4.9	2.0	1.5	1.5
J	2.0	0.8	0.6	0.6	0.0	0.0	0.0	0.0
KL	6.4	2.6	1.9	1.9	0.0	0.0	0.0	0.0
M	2.4	0.9	0.7	0.7	0.0	0.0	0.0	0.0
N	0.0	0.0	0.0	0.0	2.1	0.8	0.6	0.6
O	15.6	6.2	4.7	4.7	0.0	0.0	0.0	0.0
PU	8.7	3.5	2.6	2.6	0.0	0.0	0.0	0.0
Q	3.9	1.6	1.2	1.2	0.0	0.0	0.0	0.0
R	2.4	0.9	0.7	0.7	0.0	0.0	0.0	0.0
S	1.9	0.8	0.6	0.6	0.0	0.0	0.0	0.0
T	1.3	0.5	0.4	0.4	0.0	0.0	0.0	0.0
V	3.2	1.3	1.0	1.0	0.0	0.0	0.0	0.0
W	6.3	2.5	1.9	1.9	0.0	0.0	0.0	0.0
X	1.1	0.4	0.3	0.3	0.0	0.0	0.0	0.0
Y	4.5	1.8	1.4	1.4	0.0	0.0	0.0	0.0
Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C&D	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FF	1.4	0.5	0.4	0.4	0.0	0.0	0.0	0.0
GG	3.9	1.6	1.2	1.2	0.0	0.0	0.0	0.0
HIJ	2.6	1.0	0.8	0.8	0.0	0.0	0.0	0.0
KK	5.0	2.0	1.5	1.5	0.0	0.0	0.0	0.0

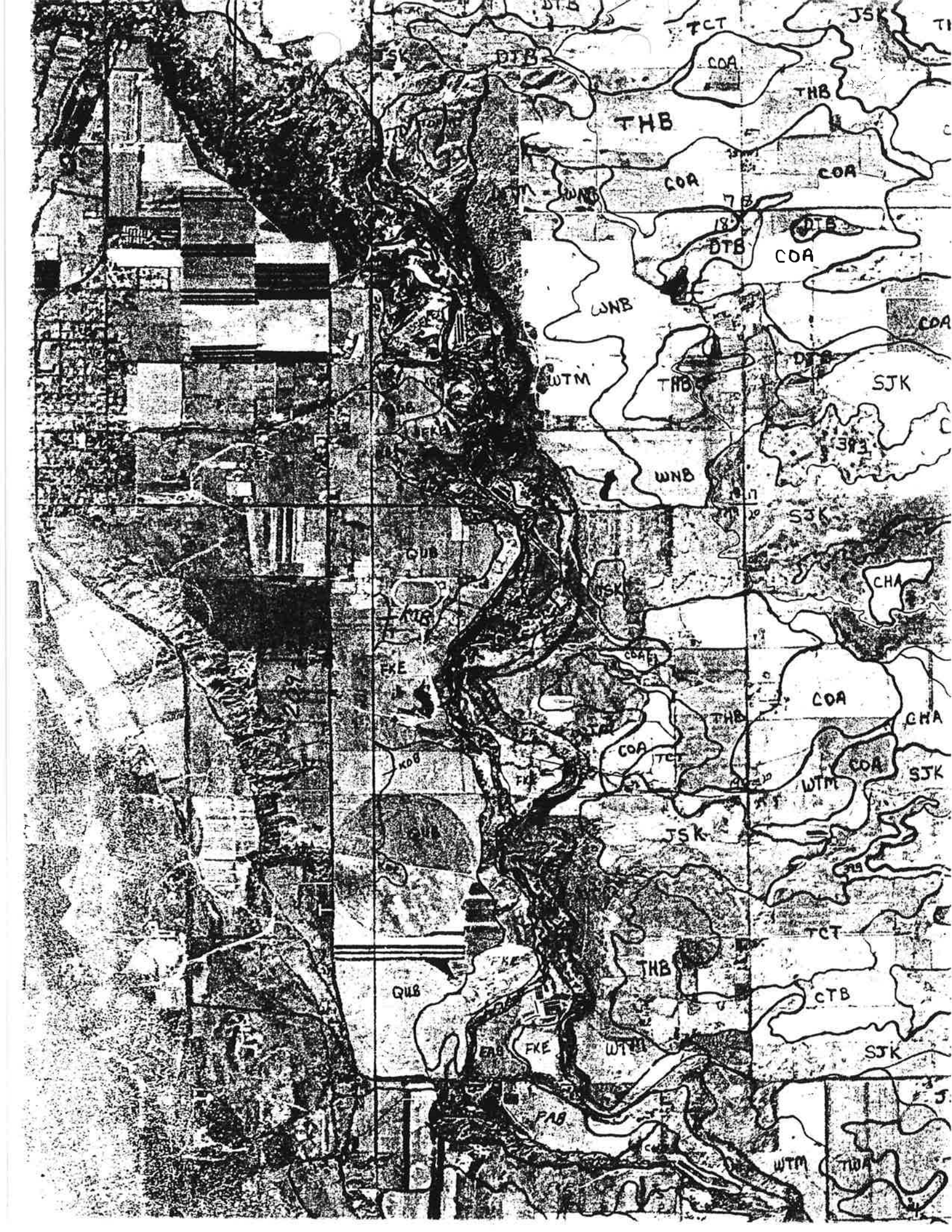
Irrig sys (field)	For soil FKE: Alfalfa	Pasture	SGrain	FCorn	For soil FAB: Alfalfa	Pasture	SGrain	FCorn
A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
B	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
F	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
J	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
O	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Q	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
R	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
V	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
X	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Y	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Z	3.2	1.3	0.9	0.9	0.0	0.0	0.0	0.0
AA	9.5	3.8	2.9	2.9	0.0	0.0	0.0	0.0
BB	2.4	1.0	0.7	0.7	0.0	0.0	0.0	0.0
C&D	6.4	2.6	1.9	1.9	19.3	7.7	5.8	5.8
EE	0.5	0.2	0.2	0.2	0.0	0.0	0.0	0.0
FF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HIJ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KK	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0


A 2.0
B 21.1
C154 (64C)
19
5.9
J 4.0
K 6.5
G 4.1
F 3.7
31.2
M 4.7
1.0
L 6.3
S 3.8
Three Sprs
Q 7.8
2.6
W 12.6
V 6.4
U
X 2.1
GG 7.8
AA 19.0
4.8
A 4.1
2.6
KK 10.0
EE 1.0
26 30
36 31
1.6
1.8
B 5.1
C279 (64D)
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R12

Guidelines for the Evaluation of Irrigation Diversion Rates

State of Idaho
Department of Water Resources
1301 North Orchard Street
Boise, Idaho 83720

Prepared by Hubble Engineering, Inc.
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Boise, Idaho 83704


DTB
TCT
JSK
COA
THB
WNB
WTM
SJK
CHA
QUB
FKE
KDB
FAB
CTB
TWA

PHYSICAL PROPERTIES OF SOILS

Endnote -- PHYSICAL PROPERTIES OF SOILS

This report shows estimates of some characteristics and features that affect soil behavior. These estimates are given for the major layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

CLAY as a soil separate consists of mineral soil particles that are less than 0.002 millimeter in diameter. In this report, the estimated clay content of each major soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter. The amount and kind of clay greatly affect the fertility and physical condition of the soil. They determine the ability of the soil to adsorb cations and to retain moisture. They influence shrink-swell potential, permeability, plasticity, the ease of soil dispersion, and other soil properties. The amount and kind of clay in a soil also affect tillage and earthmoving operations.

MOIST BULK DENSITY is the weight of soil (ovendry) per unit volume. Volume is measured when the soil is at field moisture capacity, the moisture content at 1/3 bar moisture tension. Weight is determined after drying the soil at 105 degrees C. In this report, the estimated moist bulk density of each major soil horizon is expressed in grams per cubic centimeter of soil material that is less than 2 millimeters in diameter. Bulk density data are used to compute shrink-swell potential, available water capacity, total pore space, and other soil properties. The moist bulk density of a soil indicates the pore space available for water and roots. A bulk density of more than 1.6 can restrict water storage and root penetration. Moist bulk density is influenced by texture, kind of clay, content of organic matter, and soil structure.

PERMEABILITY refers to the ability of a soil to transmit water or air. The estimates indicate the rate of downward movement of water when the soil is saturated. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Permeability is considered in the design of soil drainage systems, septic tank absorption fields, and construction where the rate of water movement under saturated conditions affects behavior.

AVAILABLE WATER CAPACITY refers to the quantity of water that the soil is capable of storing for use by plants. The capacity for water storage is given in inches of water per inch of soil for each major soil layer. The capacity varies, depending on soil properties that affect the retention of water and the depth of the root zone. The most important properties are the content of organic matter, soil texture, bulk density, and soil structure. Available water capacity is an important factor in the choice of plants or crops to be grown and in the design and management of irrigation systems. Available water capacity is not an estimate of the quantity of water actually available to plants at any given time.

SHRINK-SWELL POTENTIAL is the potential for volume change in a soil with a loss or gain of moisture. Volume change occurs mainly because of the interaction of clay minerals with water and varies with the amount and type of clay minerals in the soil. The size of the load on the soil and the magnitude of the change in soil moisture content influence the amount of swelling of soils in place. Laboratory measurements of swelling of undisturbed clods were made for many soils. For others, swelling was estimated on the basis of the kind and amount of clay minerals in the soil and on measurements of similar soils. If the shrink-swell potential is rated moderate to very high, shrinking and swelling can cause damage to buildings, roads, and other structures. Special design is often needed. Shrink-swell potential classes are based on the change in length of an unconfined clod as moisture content is increased from air-dry to field capacity. The change is based on the soil fraction less than 2 millimeters in diameter. The classes are "Low," a change of less than 3 percent; "Moderate," 3 to 6 percent; and "High," more than 6 percent. "Very high," greater than 9 percent, is sometimes used.

PHYSICAL PROPERTIES OF SOILS

Endnote -- PHYSICAL PROPERTIES OF SOILS--Continued

ORGANIC MATTER is the plant and animal residue in the soil at various stages of decomposition. In report J, the estimated content of organic matter is expressed as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter. The content of organic matter in a soil can be maintained or increased by returning crop residue to the soil. Organic matter affects the available water capacity, infiltration rate, and tilth. It is a source of nitrogen and other nutrients for crops.

EROSION FACTOR K indicates the susceptibility of the whole soil (including rocks and rock fragments) to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter (up to 4 percent) and on soil structure and permeability. Values of K range from 0.05 to 0.69. The higher the value, the more susceptible the soil is to sheet and rill erosion by water.

EROSION FACTOR Kf is like EROSION FACTOR K but it is for the fine-earth fraction of the soil. Rocks and rock fragments are not considered.

EROSION FACTOR T is an estimate of the maximum average annual rate of soil erosion by wind or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

WIND ERODIBILITY GROUPS are made up of soils that have similar properties affecting their resistance to wind erosion in cultivated areas. The groups indicate the susceptibility of soil to wind erosion. Soils are grouped according to the following distinctions:

1. Coarse sands, sands, fine sands, and very fine sands. These soils are generally not suitable for crops. They are extremely erodible, and vegetation is difficult to establish.

2. Loamy coarse sands, loamy sands, loamy fine sands, loamy very fine sands, and sapric soil material. These soils are very highly erodible. Crops can be grown if intensive measures to control wind erosion are used.

3. Coarse sandy loams, sandy loams, fine sandy loams, and very fine sandy loams. These soils are highly erodible. Crops can be grown if intensive measures to control wind erosion are used.

4L. Calcareous loams, silt loams, clay loams, and silty clay loams. These soils are erodible. Crops can be grown if intensive measures to control wind erosion are used.

4. Clays, silty clays, noncalcareous clay loams, and silty clay loams that are more than 35 percent clay. These soils are moderately erodible. Crops can be grown if measures to control wind erosion are used.

PHYSICAL PROPERTIES OF SOILS

Endnote -- PHYSICAL PROPERTIES OF SOILS--Continued

5. Noncalcareous loams and silt loams that are less than 20 percent clay and sandy clay loams, sandy clays, and hemic soil material. These soils are slightly erodible. Crops can be grown if measures to control wind erosion are used.

6. Noncalcareous loams and silt loams that are more than 20 percent clay and noncalcareous clay loams that are less than 35 percent clay. These soils are very slightly erodible. Crops can be grown if ordinary measures to control wind erosion are used.

7. Silts, noncalcareous silty clay loams that are less than 35 percent clay, and fibric soil material. These soils are very slightly erodible. Crops can be grown if ordinary measures to control wind erosion are used.

8. Soils that are not subject to wind erosion because of coarse fragments on the surface or because of surface wetness.

The WIND ERODIBILITY INDEX is used in the wind erosion equation (WEQ). The index number indicates the amount of soil lost in tons per acre per year. The range of wind erodibility index numbers is 0 to 300.

PHYSICAL PROPERTIES OF SOILS
edit

(Entries under "Erosion factors--T" apply to the entire profile. Entries under "Wind erodibility group" and "Wind erodability index" apply only to the surface layer)

Map symbol and soil name	Depth	Clay	Moist bulk density	Permeability	Available water capacity	Shrink-swell potential	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
								K	Kf	T		
	In	Pct	g/cc	In/hr	In/in		Pct					
55: FAB												
Fathom	0-7	0-5	1.40-1.60	6.00-20.00	0.09-0.10	Low	0.6-0.9	0.20	0.20	5	2	134
	7-61	0-5	1.40-1.60	6.00-20.00	0.09-0.10	Low	0.0-0.5	0.20	0.20			
59: FKE												
Fathom 50%	0-7	0-5	1.40-1.60	6.00-20.00	0.09-0.10	Low	0.6-0.9	0.20	0.20	5	2	134
	7-61	0-5	1.40-1.60	6.00-20.00	0.09-0.10	Low	0.0-0.5	0.20	0.20			
Kudlac 25%	0-3	20-25	1.15-1.25	0.20-0.60	0.14-0.16	Low	0.5-1.0	0.43	0.43	5	4L	86
	3-60	25-35	1.50-1.65	0.00-0.06	0.12-0.16	Moderate	0.0-0.5	0.43	0.43			
Anchustequi 25%	0-7	20-27	1.30-1.40	0.60-2.00	0.13-0.15	Low	1.0-2.0	0.43	0.43	5	6	48
	7-60	5-35	1.25-1.45	0.20-20.00	0.07-0.19	Moderate	0.0-1.0	0.37	0.37			
97: KOB												
Kecko	0-9	10-18	1.25-1.45	2.00-6.00	0.12-0.14	Low	1.0-2.0	0.24	0.24	5	3	86
	9-21	10-18	1.25-1.50	2.00-6.00	0.12-0.14	Low	0.0-0.5	0.24	0.24			
	21-44	3-18	1.25-1.60	2.00-6.00	0.08-0.13	Low	0.0-0.5	0.10	0.10			
	44-60	10-18	1.25-1.45	2.00-6.00	0.12-0.17	Low	0.0-0.5	0.10	0.10			
98: KOC												
Kecko	0-9	10-18	1.25-1.45	2.00-6.00	0.12-0.14	Low	1.0-2.0	0.24	0.24	5	3	86
	9-21	10-18	1.25-1.50	2.00-6.00	0.12-0.14	Low	0.0-0.5	0.24	0.24			
	21-44	3-18	1.25-1.60	2.00-6.00	0.08-0.13	Low	0.0-0.5	0.10	0.10			
	44-60	10-18	1.25-1.45	2.00-6.00	0.12-0.17	Low	0.0-0.5	0.10	0.10			
153: QMB												
Quincy	0-2	1-6	1.35-1.50	6.00-20.00	0.08-0.11	Low	0.5-1.0	0.15	0.15	5	1	310
	2-61	1-7	1.45-1.60	6.00-20.00	0.06-0.09	Low	0.5-1.0	0.28	0.28			

	1'	2'	3'	4'	5'
	1.14	2.28	3.42	4.52	5.70
	1.71	3.39	5.07	6.75	8.43
	1.63	3.19	4.75	6.31	7.87
wtd avg	1.41	2.79	4.17	5.55	6.93

NONTECHNICAL SOILS DESCRIPTION REPORT
edit

Map Symbol	Soil name and description
55 FAB	Fathom loamy fine sand, 1 to 4 percent slopes This soils is very deep and somewhat excessively drained. Slopes are 1 to 4 percent. Permeability is rapid, available water capacity is low, runoff is very slow and the hazard of erosion by water is none to slight and severe by wind. The surface texture is loamy fine sand about 7 inches thick. This soils is very deep and somewhat excessively drained. Slopes are 1 to 4 percent. Permeability is rapid, available water capacity is low, runoff is very slow and the hazard of erosion by water is none to slight and severe by wind. The surface texture is loamy fine sand about 7 inches thick.
59 FKE	Fathom-Kudlac-Anchustequi complex, 8 to 35 percent slopes This map unit is about 50 percent Fathom loamy fine sand, 20 percent Kudlac silt loam and 20 percent Anchusteque loam. Slopes are 8 to 35 percent. Runoff is rapid to very rapid and the hazard of erosion by water is severe and severe by wind. Fathom soils are very deep and somewhat excessively drained, have rapid permeability and low available water capacity. Kudlac and Anchustequi soils are very deep and well or somewhat poorly drained, have very slow or moderate permeability and high available water capacity. This map unit is about 50 percent Fathom loamy fine sand, 20 percent Kudlac silt loam and 20 percent Anchusteque loam. Slopes are 8 to 35 percent. Runoff is rapid to very rapid and the hazard of erosion by water is severe and severe by wind. Fathom soils are very deep and somewhat excessively drained, have rapid permeability and low available water capacity. Kudlac and Anchustequi soils are very deep and well or somewhat poorly drained, have very slow or moderate permeability and high available water capacity.
97 KOB	Kecko fine sandy loam, 2 to 4 percent slopes

NONTECHNICAL SOILS DESCRIPTION REPORT
edit

Map Symbol	Soil name and description
97 KOB	This soils is very deep and well drained. Slopes are 2 to 4 percent. Permeability is moderately rapid, available water capacity is moderate, runoff is slow and the hazard of erosion by water is slight and moderate by wind. The surface texture is fine sandy loam about 9 inches thick. This soils is very deep and well drained. Slopes are 2 to 4 percent. Permeability is moderately rapid, available water capacity is moderate, runoff is slow and the hazard of erosion by water is slight and moderate by wind. The surface texture is fine sandy loam about 9 inches thick.
98 KOC	Kecko fine sandy loam, 4 to 8 percent slopes This soils is very deep and well drained. Slopes are 4 to 8 percent. Permeability is moderately rapid, available water capacity is moderate, runoff is slow and the hazard of erosion by water is slight and moderate by wind. The surface texture is fine sandy loam about 9 inches thick. This soils is very deep and well drained. Slopes are 4 to 8 percent. Permeability is moderately rapid, available water capacity is moderate, runoff is slow and the hazard of erosion by water is slight and moderate by wind. The surface texture is fine sandy loam about 9 inches thick.
153 QUB	Quincy fine sand, 1 to 4 percent slopes This soils is very deep and excessively drained. Slopes are 1 to 4 percent. Permeability is rapid, available water capacity is low, runoff is very slow and the hazard of erosion by water is none to slight and very severe by wind. The surface texture is fine sand about 2 inches thick.

NONTECHNICAL SOILS DESCRIPTION REPORT
edit

Map Symbol	Soil name and description
	This soils is very deep and excessively drained. Slopes are 1 to 4 percent. Permeability is rapid, available water capacity is low, runoff is very slow and the hazard of erosion by water is none to slight and very severe by wind. The surface texture is fine sand about 2 inches thick.

10' contour

HAGERMAN

1050

3093

3101

3100

3200

3080

3050

3100

25

25

Spring

Fish Farm

3050

3000

3050

3050

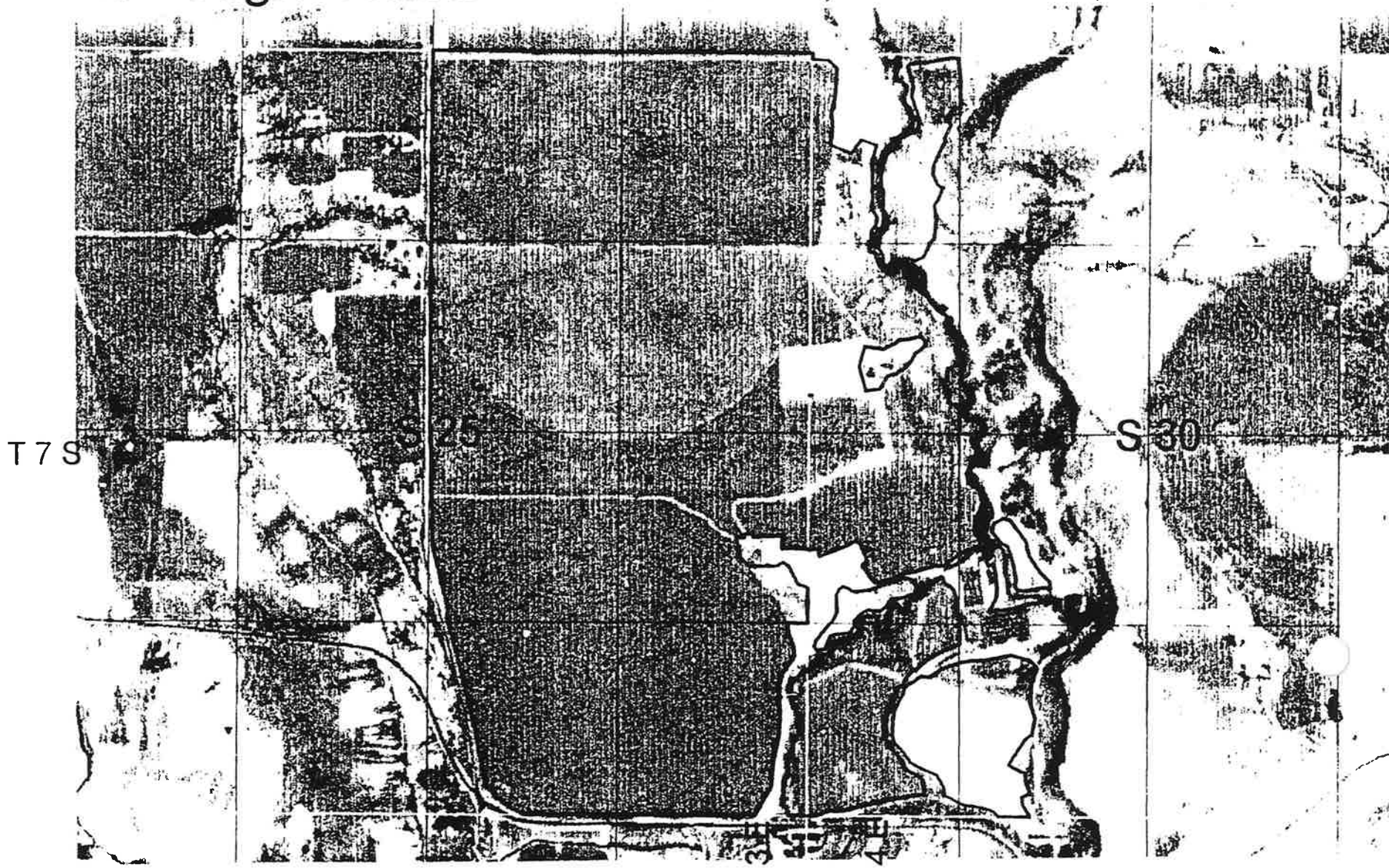
3070

CURREN

VADER

BITCH

Water Right Numbers 36-00068, 36-00069, & 36-0007



Map prepared by: M. Pa
Date prepared: 1/27/98
1987-88 NAPP photogra

IRRIGATION WATER DIVERSION REQUIREMENTS PROGRAM

by
Clarence W. Robison

INTRODUCTION

The rate and volume water requirements for an irrigation diversion are driven by three aspects of crop production: crop consumptive use, leaching of soil salts, and frost protection. The primary aspect is to supply the crop's consumptive use requirements. Losses associated with the inefficieny of irrigation applications systems typically meet the leaching requirements. There have been many studies quantifying the amount of water consumed by individual crops and procedures for estimating the usage from weather or climatic data. These procedures are explained in many irrigation texts and engineering reference materials such as Jensen, et al.[1] The State of Idaho Department of Water Resources commissioned a study with the University of Idaho evaluated the methods of estimating consumptive use and irrigation requirements for the various agricultural crops produced in the state. The study recommended the FAO-Blaney-Criddle method for estimates of crop consumptive use for the state.[2] Utilization of the crop consumptive use estimates and the associated cropped areas will not yield the required diversion rate to irrigate those crops. The required diversion rates and volumes will depend on the soil characteristics, the irrigation application and delivery system, and system management.

For the purposes of water allocation, some have suggested that the crop with the highest annual consumptive irrigation requirement should determine the diversion rate and volume under a mono cropping assumption. This would yield conservative estimates of the potential diversion requirements; but, are unrealistic. For long term profitability, agriculture requires crop rotations to maintain land productivity and product quality. Secondly, mean consumptive use or irrigation requirement would reflect a deversion rate and volume that would be inadequate fifty percent of the time. Therefore, the program uses crop patterns in conjunction with soil and on farm management practices for project areas.

A computer program was developed to estimate the peak and annual diversion requirements for an irrigated area. The program computes rate and volume requirements for an irrigated area given information describing the area. The procedure requires information describing the irrigation and delivery systems, the soils, and the crops. The program does not estimate or compute crop consumptive use or irrigation requirement. The program uses this data in conjunction with soils and irrigation system information. The procedure used by the program is similar to that described by the Hubble Report, "Guidelines for the Evaluation of Irrigation Diversion Rates."[3] The program consists of four major areas: water requirements, application requirements, system efficiencies, and distribution losses.

The following definitions are offered to assist in clarifing the procedures used in the program.

Consumptive Use (***cu***): The amount of water transpired by an activity growing crop plus the amount water evaporated from the soil surface and foliage occuping the area around the growing crop. Typically expressed as a depth per time (mm/day or in/day).

Consumptive Irrigation Requirement (***cir***): The amount of irrigation water required to meet the consumptive use of a crop after accounting for natural precipitation. It typically has the units of depth per time (in/day).

Available Water Holding Capacity (***awhc***): The amount of water held by the soil profile after draining. It typically has the units of depth per unit depth (in/foot).

Allowable Soil Moisture Depletion (***asmd***): The amount of soil moisture which can be depleted from the root zone before the crop suffers stress which would impact crop yield and quality. It typically is a percentage or fraction of the available water holding capacity.

Irrigation Application Depth (***iad***): The amount of water required to replenish the soil moisture in the crop root zone to holding capacity. (in)

Irrigation Return Period (***irp***): The time between irrigations (days).

Irrigation Application Efficiency: The percentage of applied irrigation water stored in the root zone and used by the crop to satisfy crop consumptive use. It is typically a percentage.

METHODS

Irrigation Application Depth

The purpose of irrigation is to supply the crop with its water requirements and any leaching requirements based on the soils and irrigation water. Each irrigation should replenish the soil moisture in the crops root zone. The amount of soil moisture to be replenished by irrigation is the irrigation application depth. The soil moisture capacity, crop rooting depth, and allowable soil moisture depletion for a crop determines the application depth.

$$iad_{crop\,soil} = asmd_{crop} * arzsm_{crop\,soil} \quad [1]$$

where:

$iad_{crop\,soil}$ ..... Irrigation application requirement, depth

$asmd_{crop}$ ..... Allowable soil moisture depletion, fraction.

$arzsm_{crop\,soil}$ ..... Available root zone soil moisture, depth.

The program computes the available root zone soil moisture from the soil moisture profile given by the user and the crop rooting depth using a linear interpolation procedure. For example a soil moisture capacity curve for a Bruneau area soil is shown in Figure 1. The program expects the cumulative soil moisture for 0 to 5 feet by 1 foot intervals. If the soil profile does not extend six feet in depth, the portion beyond the end of the profile should be treated as a soil without any moisture holding capability.

Table 1. Rooting depths and allowable soil moisture depletion for various crops.[3,4,5]

Crop	Rooting Depth	Time to Reach	Allowable Depletion
Alfalfa	4 - 5ft	-- Perennial --	50-60%
Dry Beans	2 - 2.5 ft	50 days after planting	40-50%
Clover	2 - 3 ft	-- Perennial --	40-50%
Corn	3 - 4 ft	10 days after tasseling	50%
Corn, Sweet	2.5 - 3 ft	10 days after tasseling	40%
Grapes	3 ft	-- Perennial --	65%
Hops	5 ft		50%
Mint	2 - 3ft		40-50%
Onions	1.5 ft		30%
Orchard	5 - 6 ft	-- Perennial --	50-65%
Potatos	2 - 3 ft	80 days after planting	30-40%
Pasture/Turf	2 - 3 ft	-- Perennial --	50-60%
Peas	2 - 3 ft		50%
Small Grains	3 - 4 ft	heading	50-60%
Sugar Beets	3 - 5 ft	10-60 days after planting	50%

The user supplies the rooting depth over the season and allowable soil moisture deficit for each crop. For perennial crops (alfalfa, pasture grasses, and orchards) the crop rooting depth changes from year to year. The user should select a rooting depth typical of average crop age. Table 1 summarizes typical rooting depths for various crops. For example, a mature alfalfa hay crop typically has a rooting depth of 4 feet with an allowable soil moisture depletion of 50 percent which would result in an irrigation application depth of 2.75 inches for the soil shown in Figure 1.

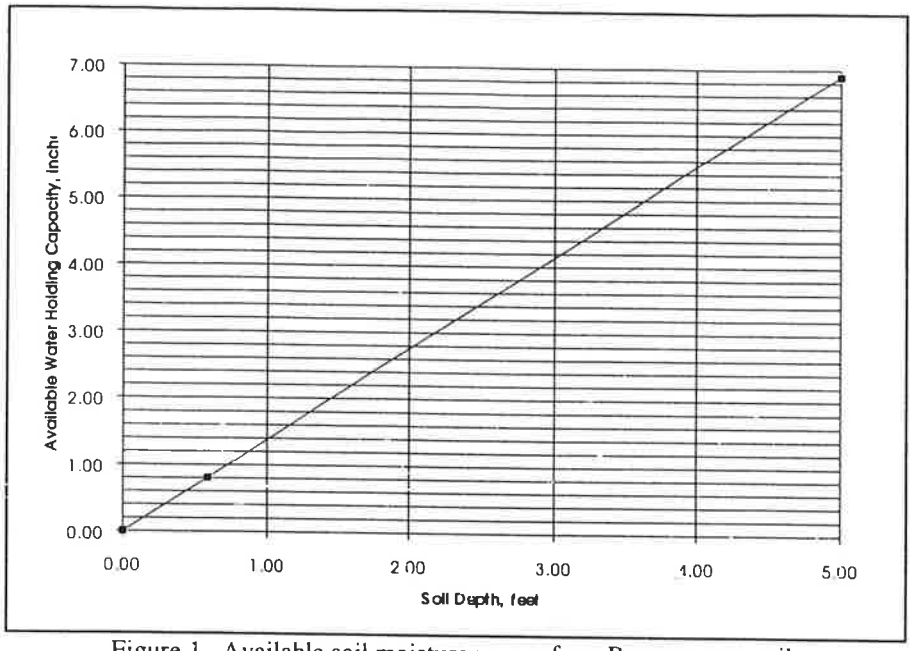


Figure 1. Available soil moisture versus for a Bruneau area soil.

Crop Water Requirements

The program requires crop consumptive use and irrigation requirement data inconjunction with a user specified probability level for meeting the crop needs. Allen and Brockway[3] prepared consumptive irrigation requirements for various areas of the State of Idaho based upon the FAO Blaney-Criddle method of estimating crop evapotranspiration. The numbers in their report reflect the mean (average) consumptive irrigation requirements based upon the weather data available for the area. Thus, their published number reflects that fifty percent of the time the actual requirment will be greater than that published. In determination of an irrigation water right or permit, the mean requirement is probably not adquate. Irrigated farm operators would prefer an estimate that is met more than fifty percent of the time. The program combines the consumptive use and and irrigation requirement with the published standard deviations and a risk level specified by the user. The current version of the program assumes that the consumptive uses and irrigation requirements are normally distributed.

Peak Consumptive Use

The peak diversion rate for a system is associated with a peak daily consumptive use. The daily consumptive use is also associated with the irrigation return period or irrigation application depth. The higher the soil moisture holding capacity, longer irrigation return intervals, the peak consumputive use approaches the monthly consumptive use. In determining the peak consumptive for a crop, the monthly consumptive reported by Allen and Brockway[3] is first adjusted for the level or risk assuming a normal distribution according to the following formula[6]:

$$cu_{crop} = \overline{cu_{crop}} + std_{cu} * z \quad \text{.....[2]}$$

where:

cu_{crop} .....Crop consumpitve use associated with a level of risk.

$\overline{cu_{crop}}$ .....Published cromp monthly mean consumptive use.

std_{cu} .....Published standard deviation of the crop consumptive use.

z .....Standardized normalized variate associated with a given probability.

The consumptive use is then adjusted for the irrigation return interval period by the irrigation application depth for the crop. The procedure use for adjusting the consumptive use is outlined in Jensen[2].

$$pcu_{crop,soil} = cu_{crop} * f(iad_{crop,soil}) \quad [3]$$

where:

$pcu_{crop,soil}$ .....Peak crop consumpitve use associated with a level of risk.

$f(iad_{crop,soil})$ ....Function relating allowable soil moisture depletion for crop on a soil and monthly .....consumptive use to peak consumptive use, Figure 6.6, page 223, Jensen[2].

The function yields values of x.xx, x.xx, and x.xx for allowable depletions of x.xx, x.xx, and x.xx inches respectively.

Irrigation Requirement

The monthly and annual diversion requirement (volume) is based on the crop irrigation requirement. To adjust the published mean daily irrigation requirement for the level of risk the following formula is applied:

$$cir_{crop} = \overline{cir_{crop}} + std_{cir} * z \quad [4]$$

where:

cir_{crop} .....Consumpitve irrigation requirement associated with a level of risk.

$\overline{cir_{crop}}$ .....Published mean consumptive irrigation requirement.

std_{cir} .....Published standard deviation of the consumptive irrigation requirement.

z .....Standardized normalized variate associated with a given probability.

For example, the mean alfalfa hay consumptive irrigation requirment for June is 0.25 inches per day[7] in the Bruneau area with a standard deviation of 0.04. Thus, the requirement associated with the 80 percent risk level (is not exceeded eighty percent of time) is 0.28 inches per day (12 percent increase).

Soil Infiltration and Intake Families

The analysis of irrigation system efficiency requires an estimate of the infiltration rate for the soil. The methods that will be used to determine system efficiency are based on the USDA - NRCS (SCS) intake family infiltration. The cummulative infiltration function is expressed as:

$$F_n = aT_n^b + c \quad [5]$$

where:

T_n ....time for infiltration, minutes

F_n .....cummulative infiltration, inches, for time

a, b, c .....infiltration coefficients associated with an intake family.

There are two intake families. The first intake family is referred to as the flood intake family and the second is referred as the furrow intake family. The flood intake family is used in border irrigation system analysis and the second is used in furrow and corrugate irrigation systems analysis. The two families are related to each other by the following equation[8]:

$$frw_{family} = 0.28 + 0.14 * fld_{family} \quad [6]$$

where:

fld_{family} .....flood intake family

frw_{family} .....furrow intake family

Infiltration coeffecients based on the intake family are computed based upon the standard equations published by the USDA-NRCS. The coffecients for the flood intake family are computed with the following equation:

$$a = \left(\frac{fld_{family} + 3.1877}{339.06} \right)^{0.71638} \quad \text{[7]}$$

$$b = \left(\frac{fld_{family} + 1.8572}{238.32} \right)^{0.06862} \quad for\ fld_{family} < 5.14$$

$$b = \left(\frac{fld_{family} - 2.5696}{237890} \right)^{0.021171} \quad for\ fld_{family} \geq 5.14 \quad \text{[8]}$$

The infiltration coefficients associated with the furrow intake family are computed with the following equations:

$$a = \left(\frac{frw_{family} + 0.166281}{47.467904} \right)^{0.716378} \quad \text{[9]}$$

$$b = \left(\frac{frw_{family} - 0.02}{33.364573} \right)^{0.06862} \quad for\ fwr_{family} < 1.0$$

$$b = \left(\frac{frw_{family} - 0.639737}{33304.67292} \right)^{0.021171} \quad for\ fwr_{family} \geq 1.0 \quad \text{[10]}$$

Also associated with the furrow intake families are coefficients describing the irrigation water advance through the furrow to the end of the field. These coefficients are usually determined with the following equations:

$$f = 2.3211 + 5.8653 * fwr_{family} \quad \text{[11]}$$

$$g = 4.4685 * 10^{-4} + 0.0015764 * fwr_{family} \quad \text{[12]}$$

Irrigation System Application Efficiency

The on farm irrigation diversion requirement has to reflect losses in the application of the irrigation water on the field were the crop is grown. There are many various methods of appling irrigation water: furrow, border, sprinkler, flood, etc. Each of the methods have their advantages and disadvantages and efficiencies. Typically, the largest factor influencing each application method efficiency is the irrigator which is difficult to quantify. The current version of the program has provisions to handle furrow irrigation, level border irrigation, handline - wheel-line sprinkler irrigation, center pivot irrigation, and contour ditch (wild flooding).

Contour Ditch

The program computes irrigation efficiencies for the contour ditch (wild flooding) method of irrigation by a simple mass balance. The user is expected to enter information regarding the length of run, typical flow rate and associated ditch length (field width) irrigated per set, and the time associated with set. The application efficiency is computed with the following equation:

$$AE = \frac{iad * fl * sw}{12 * Q * T_{set} * 3600} * 100 \quad \text{[13]}$$

where:

AE ..... application efficiency, percent
Q ..... typical flow rate, cfs.
T_{set} ..... set time, hours.
fl ..... field run length, feet
sw ..... set width, feet

No checks are performed to applicability of the method, nor, adaquate distribution. The user is advised to refer to local NRCS design guidelines for reasonable efficiencies. For example, on moderately smooth topography conditions and a net irrigation application depth of 3 inches, the USDA NRCS (SCS) has estimated efficiencies for contour ditch irrigation[8] as shown in Table 2.

Table 2. Efficiency of Contour Ditch Irrigation, Percent

Flood Intake Family	Land Slope (Percent)				
	1 - 2	2 - 4	4 - 8	8 - 16	16 - 32
0.1	8	5	4	3	2
0.3	21	15	11	8	5
0.5	26	18	13	9	6
1.0	54	38	39	20	13
1.5	55	55	39	28	15
2.0	53	55	50	37	25
3.0	52	55	58	52	35

Furrow Irrigation

The program utilizes procedures outlined in Chapter 5, Section 15 Irrigation, of the USDA NRCS (SCS) National Engineering Handbook[9] to evaluate the furrow irrigation system efficiency. The program does not attempt to determine the optimum furrow inflow; however, it attempts to estimate the efficiency of the system based on the supplied system management. The equations utilized are the equivalent intake depth equation and the time of advance equation.

$$AE = \frac{1.039 * iad * fw * fl}{q * T_{set}} \quad [14]$$

where

AE ..... irrigation application efficieny, percent
iad ..... gross irrigation application depth, inches
fw ..... furrow spacing, feet
fl ..... furrow spacing, feet
q ..... furrow inflow, gpm
T_{set} ..... set time, minutes

To evaluate the adequacy of the irrigation, the amount of water infiltrated at the end of the furrow must be determined. This requires computing the infiltration opportunity time at the end of the furrow and then computing the amount infiltrated.

$$T_o = T_{set} - T_{adv} \quad [15]$$

where

T_o ..... infiltration opportunity time at end of furrow, minutes
T_{adv} ..... advance time for water to reach end of furrow, minutes

$$T_{adv} = \frac{fl}{f} e^{\frac{g * fl}{q * S^{0.5}}} \quad [16]$$

where

f, g ..... soil furrow intake family advance coefficients
S ..... furrow slope, feet/feet

If the opportunity time, T_o, is less than zero, then the end of field was not irrigated. If the opportunity time is greater than zero, then the amount infiltrated at the furrow end is estimated with the following equation:

$$F_o = \frac{\left[a * T_o^{\,b} + c\right]}{fw} * \left(0.269 * \left(\frac{q * n}{S^{0.5}} \right)^{0.425} + 0.746 \right) \quad [17]$$

where

F_o ..... infiltrated depth at the furrow end, inches
a, b, c ..... soil furrow intake family infiltration coefficients
n ..... Manning's roughness coefficient for furrow or corrugation.

If the end of furrow infiltrated depth, F_o, is less than the desired irrigation application depth (*iad*), then the furrow end was not adequately irrigated.

Border Irrigation

Border irrigation systems consist of level or gradient borders with or without end stops. The current version of the program does computes efficiency for level and gradient borders without end stops. The equations for estimating border irrigation efficiency are based on inflow rates per unit width. The unit inflow rate is estimated from the following equation and assumes that the entire border is irrigated with the specified flow.

$$q_u = Q/W \quad [18]$$

where

q_u ..... flowrate per unit width, ft^2/sec
Q ..... border inflow rate, cfs
W ..... border width, feet

The program assumes that level borders have slopes less than 0.4 percent (0.004 ft/ft) while gradient borders have sloples 0.4 percent or greater. For level borders the recession time (lag time), T_L, is zero. For gradient borders the recession time is estimated from the following equation:

$$T_L = \frac{0.0897 * q_u^{0.2} * n^{1.2}}{S_o^{0.5}} \quad [19]$$

where

S_o ..... border strip slope, ft/ft
n ..... Mannings roughness coefficient

The time, T_n, required to infiltrated the desired application depth, *iad*, is estimated from the flood intake family infiltration function:

$$T_n = \left(\frac{iad - c}{a} \right)^{1/b} \quad [20]$$

where

T_n ..... infiltration opportunity time, minutes
iad ..... desired infiltration depth, inches
a, b, c ..... flood intake family coefficients

The adequacy of border irrigation is determined by comparing the irrigation set with the time of application. The set time should be greater than or equal to the required application time. The required application time is estimated by:

$$T_s \geq T_a = T_n - T_L \quad [21]$$

where

T_s ..... set (inflow) time, minutes
T_a ..... required application time, minutes

The efficiency is estimated by the following equation:

$$AE = \frac{iad * L}{7.2 * q_u * T_s} \quad [22]$$

where

AE ..... irrigation application efficiency, percent
L ..... border length, feet

Sprinker Irrigation

Irrigation efficiencies with sprinkler systems are usually between 60 and 90 percent. Table 3 shows typical efficiencies for various sprinkler systems. For center pivot and linear move systems efficiencies are not estimated, these are expected to be specified in the input dataset. For the other systems the program estimates the efficiency from lateral spacings and lengths (area), set time, and lateral flowrates using the following equation:

Table 3. Sprinkler System Irrigation Efficiencies

Sprinker System Type	Efficiency Range
Hand Move	60 - 85%
Solid Set	60 - 90%
Side Roll	60 - 85%
Linear Move	80 - 90%
Center Pivot	75 - 88%

$$AE = \frac{1.039 * iad * L * W}{Q * T} \quad [23]$$

where

AE ..... irrigation application efficiency, percent
Q ..... lateral inflow rate, gallons per minute
T ..... set time, hours
L ..... lateral line length, feet
W ..... spacing between lateral risers, feet
iad ..... irrigation application depth, inches

Irrigation Delivery System Losses

There are losses associated with canals and laterals which delivery the irrigation water from the source to the farm, field, were it is applied. The are several methods for determining the seepage loss from a channel. These include field measurement of the loss or estimation with a seepage formula. Three estimation methods are incorporated into the program: the Mortiz, Etchverry, and Wortstell seepage formulas. These formulas are as follows:

$$S_m = 0.2 * C * \sqrt{Q/V} \quad [24]$$

where

S_m ..... Mortiz seepage loss estimate, cfs/mile
C ..... factor representing canal (lateral) seepage characteristic, ft/day
Q ..... canal (lateral) discharge, cfs
V ..... canal (lateral) velocity, ft/sec

$$S_e = K * i * \sqrt{Q/V} \quad [25]$$

where:

S_e ..... Etchverry seepage loss estimate, cfs/mile
K ..... canal shape constant
i ..... canal (lateral) seepage intensity, ft/day
Q ..... canal (lateral) discharge, cfs
V ..... canal (lateral) velocity, ft/sec

$$S = 0.0667 * i * W \quad [26]$$

where:

S_w ..... Wortstell seepage loss estimate, cfs/mile
i ..... canal (lateral) seepage intensity, ft/day
W ..... canal (lateral) water surface top width, ft

In the methods where a discharge is required for estimating the seepage loss, the downstream flow and any diversions are combined for the discharge. Regardless of how the seepage estimate is determined, the seepage loss for a canal, lateral, segment is computed by:

$$loss_l = S_l * length_l \quad [27]$$

where:

$loss_l$ .....conveyance loss for lateral (canal), cfs
S_l.....lateral (canal) seepage rate, cfs/mile
$length_l$.....lateral (canal) segment length, miles

On Farm/Field Delivery Requirements

For each time step associated with the consumptive use data, the on farm, field, irrigation delivery requirement is determined from estimated irrigation system application efficiencies, crop requirements and areas of each crop, soil, and irrigation system combination. The peak delivery requirement is computed by:

$$ofpr_{crop,soil,system} = \frac{cu_{crop}}{AE_{crop,soil,system}} * area_{crop,soil,syster} \quad [28]$$

where:

$ofpr$.....on farm, field peak delivery rate for given crop, soil, and irrigation system, ac-in/day
cu .....peak crop consumptive use for given risk level, inches/day
AE.....irrigation efficiency for given crop, soil, and irrigation system combination, percent
$area$ .....area associated with given crop, soil, and irrigation system, acres

The delivery volume for the time period associated with the crop water use data is determined from the following equation:

$$ofdr_{crop,soil,system} = \frac{cir_{crop}}{AE_{crop,soil,system}} * area_{crop,soil,syster} \quad [29]$$

where:

$ofdr$.....on farm, field, diversion volume for given crop, soil, and irrigation system, ac-in/day
cir.....crop irrigation requirement for given risk level, inches/day
AE.....irrigation efficiency for given crop, soil, and irrigation system combination, percent
$area$ .....area associated with given crop, soil, and irrigation system, acres

Aggregation

The program does not compute requirements on an individual field or farm basis. Instead, the program computes requirements on each combination of crop, soil, and irrigation system for each consumputive use time period. Once the on farm, field, requirement is determined; the program aggregates the peak diversion rate and period diversion volume based on the soil types for each time period.

$$fpr_{soil} = \sum_{crop} \sum_{system} ofpr_{crop,soil,systen} \quad [30]$$

where

$ofpr$.....on farm, field, peak delivery rate for given crop, soil, and irrigation system, ac-in/day
fpr .....on farm, field, peak delivery rate for a soil classification, ac-in/day

$$fdr_{soil} = \sum_{crop} \sum_{system} ofdr_{crop,soil,systen} \quad [31]$$

where

$ofdr$.....on farm, field, diversion volume for given crop, soil, and irrigation system, ac-in/day
fdr .....on farm, field, diversion volume for a soil classification, ac-in/day

To translate aggregated on farm, field, requirements to the point of diversion; the program expects for each defined lateral segment the percentage of each soil type served by it and the lateral segment which supplies it with water. A lateral segment is not required to serve any soil type or any down stream lateral segment. For example in figure x, lateral segments are shown as numbered line segments and soils are shown as lettered areas. Lateral segment number 1 only delivers water to lateral segment number 2. The area defined as soil a is serviced by lateral segments 2 and 3. Lateral segment 3 delivers water to two lateral segments inaddition to delivering water to a portion of soil a. Lateral segment 6 delivers water to lateral segment 7 and delivers water to a portion of soils e and c and all of soil d. Starting with the downstream segments, the program applies the following formalu to determine the inflow into each lateral segment.

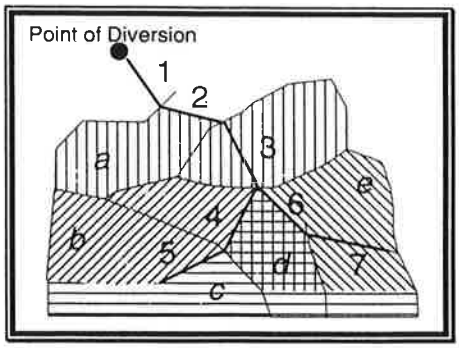


Figure x. Soils and Laterals Representation.

$$Q_i = \sum Q_d + \sum_{soil} \left(psl_{i,soil} * fdr_{soil} \right) + loss_i \quad [32]$$

where

Q_i .....require inflow into lateral segment i,

Q_d.....downstream lateral delivery requirements for segment i

$psl_{i,soil}$.....percent of soil classification served by segment i.

PROGRAM IMPLEMENTATION

The methods describe in the preceeding section were implemented in a FORTRAN program. The listing of the program is found in Appendix A. The program uses dynamic allocation of array space and thus requirements for running the program will depend on the amount of detail required to describe the irrigated area. The program was compiled using the Microsoft FORTRAN PowerStation Version 1 compiler.

PROGRAM OPERATION

The program is configured to operate on matrixes describing the various cropping, soil, and irrigation system patterns for each consumptive use period. The program utilizes two input data files. The first data file is unique for the system, area, which irrigation diversion requirements are being determined for. The file contains crop, soil, and irrigation system mixtures and characteristics. Also, the file contains the data describing the delivery system network of canals and laterals. The second data file describes the crop water use data and rooting depth data as a function of time. This file is not unique to a system, it should describe the crop water use and rooting depths for a climatic region and may be used with other system analyses within the same climatic region. The two files are linked via the crop names found within the two files. The second file may contain more crops than the first file; however, each crop specified in the first file must be defined in the second file.

Table x. Regional Crop Water Use Data File Format

Line	Format	Description
1	A80	Data set descriptive title
2	2I5	Number of mean to peak values followed by number of water use periods for the crops
3	10X,11F6.0	
4	10X,11F6.0	
5	10X,11A6	Water Use Period Descriptors
6	A15	Crop Name for next 5 records
7	15X,11F6.2	Crop rooting depth by period, feet
8	15X,11F6.2	Consumptive Use, in/day/period
9	15X,11F6.2	Irrig. Requirement, in/day/period
10	15X,11F6.2	Consumptive Use standard dev.
11	15X,11F6.2	Irrig. Requirement standard dev
Repeat Line 6 through 11 for remaining crops.		
LAST	A15	END-OF FILE

Regional Crop Water Use Data File

The regional crop water use data file is constructed from published information on crop water use such as Allen and Brockway[3]. The file contains several data areas of which five are repeated for each crop and vary throughout the irrigation season. The first area is simple documentation. The second area describes the relationship between the mean use value in the data set and an estimated peak use due soil moisture holding capacity. The five data areas specific to the crops are found next for each crop. Finally, the end of data is signal by a single record with the contents "END OF FILE" as the last record. The format of the data file is describe in Table x. The first record of the data file is an alphanumeric record for documenting the crop water use data. It suggested that the source of the data be included in the descriptive title. The next record indicates the number of points used to describe the mean to peak usage relationship. Record three contains irrigation application depths and record four contains peak to mean ratios associated with the depths. The fifth record identifies the water use periods that are represented by the data. Records 6 through 11 describe the data for a specific crop which is identified in record 6. An example data file is shown in Figure x.

```
Bruneau Consumptive Use from Allen and Brockway 83
   11    8
App.Depth  15.38 26.92 38.46 53.85 69.23 92.31 115.4 142.3 161.5 176.9 192.3
Peak to M  1.154 1.138 1.123 1.108 1.092 1.077 1.061 1.046 1.038 1.031 1.023
           Mar   Apr   May   Jun   Jul   Aug   Sep   Oct Total
Alfalfa Hay
Root Depth      4.00  4.00  4.00  4.00  4.00  4.00  4.00
MEAN CU         2.72  6.08  7.23  6.98  5.36  3.43  1.20 1011.
MEAN IR         2.18  5.62  6.39  6.79  3.16  3.17  0.94 926.0
STDEV CU        0.26  0.66  0.44  0.28  0.25  0.27  0.10  29.0
STDEV IR        0.48  0.66  0.98  0.32  0.64  0.44  0.31  57.0
Alfalfa Seed
Root Depth      4.00  4.00  4.00  4.00  4.00  4.00  4.00
MEAN CU         3.26  5.90  7.27  6.20  3.23  1.68  0.59 861.0
MEAN IR         2.69  5.45  6.42  6.01  3.05  1.44  0.34 778.0
STDEV CU        0.31  0.38  0.44  0.25  0.15  0.13  0.05  25.0
STDEV IR        0.53  0.65  0.98  0.29  0.51  0.31  0.28  52.0
Dry Beans
Root Depth      0.00  0.50  1.00  1.75  2.50  0.00  0.00
MEAN CU               1.97  4.39  7.93  3.25              541.0
MEAN IR               1.67  3.79  7.75  3.13              505.0
STDEV CU              0.13  0.26  0.32  0.15               17.0
STDEV IR              0.34  0.68  0.34  0.45               35.0
Field Corn
Root Depth      0.00  0.75  1.50  3.00  3.00  3.00  3.00
MEAN CU               1.97  3.61  7.72  6.58  4.05  1.05 767.0
MEAN IR               1.64  2.96  7.52  6.37  3.79  0.80 709.0
STDEV CU              0.13  0.22  0.31  0.30  0.31  0.08  23.0
STDEV IR              0.37  0.68  0.34  0.70  0.48  0.08  42.0
Silage Corn
Root Depth      0.00  0.75  1.50  3.00  3.00  3.00  3.00
MEAN CU               1.97  3.61  7.72  6.58  4.05        734.0
MEAN IR               1.64  2.96  7.52  6.37  3.79        686.0
STDEV CU              0.13  0.22  0.31  0.30  0.31         24.0
STDEV IR              0.37  0.68  0.34  0.70  0.48         45.0
Potatos
Root Depth      1.50  2.00  2.00  2.00  2.00  2.00  2.00
MEAN CU         1.49  2.58  6.40  7.13  5.32  2.66        783.0
MEAN IR         1.12  2.31  5.81  6.98  5.16  2.48        731.0
STDEV CU        0.14  0.17  0.39  0.29  0.24  0.21         23.0
STDEV IR        0.31  0.34  0.74  0.50  0.52  0.32         44.0
Sugar Beets
Root Depth      1.50  1.50  3.00  3.00  3.00  3.00  3.00
MEAN CU         1.49  2.00  4.82  8.52  6.88  4.51  2.23 935.0
MEAN IR         1.00  1.66  4.12  8.32  6.66  4.24  1.96 857.0
STDEV CU        0.14  0.13  0.29  0.35  0.32  0.35  0.18  24.0
STDEV IR        0.39  0.37  0.78  0.87  0.73  0.52  0.36  50.0
Spring Grain
Root Depth 0.65  0.65  3.00  3.00  3.00  3.00  3.00
MEAN CU    0.78  4.74  5.79  6.26  3.42  1.62              646.0
MEAN IR    0.64  3.92  5.19  7.48  3.42  1.03              669.0
STDEV CU   0.06  0.37  0.37  0.50  0.23  0.06               25.0
STDEV IR   0.20  0.97  0.58  0.96  0.35  0.34               48.0
Winter Grain
Root Depth 1.00  1.50  3.50  3.50  3.50  3.50  3.50
MEAN CU    1.06  4.01  6.56  6.27  3.43  1.13              646.0
MEAN IR    0.83  3.14  6.13  7.44  3.47  0.99              774.0
STDEV CU   0.13  0.49  0.43  0.50  0.23  0.06
STDEV IR   0.35  1.21  0.67  1.01  0.26  0.10               53.0
Pasture
Root Depth      2.00  2.00  2.00  2.00  2.00  2.00
MEAN CU         2.64  5.05  5.33  6.61  5.49  4.16  2.30 1024.
MEAN IR         2.33  4.64  5.60  6.43  5.29  3.90  2.61 944.0
STDEV CU        0.27  0.33  0.38  0.27  0.25  0.32  0.23  26.0
STDEV IR        0.48  0.57  0.88  0.30  0.61  0.49  0.40  53.0
Orchard
Root Depth      5.00  5.00  5.00  5.00  5.00  5.00  5.00
MEAN CU         3.16  4.31  6.85  7.30  6.06  4.43  2.30 1024.
MEAN IR         1.66  3.92  6.06  7.11  5.86  4.17  2.03 943.0
STDEV CU        0.21  0.28  0.41  0.30  0.28  0.34  0.19  27.0
STDEV IR        0.43  0.52  0.92  0.33  0.66  0.51  0.36  54.0
END_OF_FILE
```

Figure x. Example Regional Crop Water Use Data File

System Definition File

The irrigated area system definition file defines the physical characteristics of the area and the irrigation management features, and the cropping information. The file contains several different data areas. The overall format specification for the individual records in the file are listed in Table xx and an example data file is shown in figure xx. The first data area is simple documentation of the data file. It constists of three alpha-numeric records. The second data area defines the number of irrigation systems, the number of crops, the number of soil types, and the number canal (lateral) segments and the risk level associated with the analysis.

The third data area of the file supplies the physical information concerning the canal -- lateral distribution system. For each later segment information describing the segment is given. The lateral segments must be entered starting at with the furtherest downstream segment. The last segment entered should be the canal should be the one assoicated with the point of diversion. The numbering of the segments corresponds to the order they are entered in the data file. Currently, there are four options for seepage loss computations. The options are identified by numerical values of LMETHD. The first method associated with a value of 0 for LMETHD assumes a measured loss. This measured loss is entered as FAC1. The second method assoicated with a LMETHD value of 1 is based on the Moritz equation. The program uses the FAC1 value as the Moritz seepage coefficient C and assumes that it has the units of feet per day. The third method assoicated with a LMETHD value of 2 is based on the Etchverry formula. With this method, FAC1 is assumed to be i (ft/day) and FAC2 equals the Etchverry K value. The last method assoicated with a LMETHD value of 3 uses the Worstell method where LFAC1 equals the seepage factor i (ft/day). This data area starts with record 5 and ends when all the lateral segments have been defined. Line A shown in Table x.x describes the format associated with each lateral segment record.

The next data area describes the various irrigation systems used in the area of interest. For each irrigation system, a record with the format shown in Table x.x for line B should be found in the data area. The first three characters of the irrigation system name control how the program computes the application efficieny. Currently, the program handles furrow (FUR), gradient border (BOR), contour ditch (___), sprinker (SPR), and center pivot (PIV) irrigation systems. The estimated efficiency is only used with the center pivot irrigation system. The remaining data elements depend on the type of irrigation system specified. For furrow irrigation systems the estimated

Table xx. System Definition File Format Specifications.

Line	Format	Description
1,2,3	A80	Dataset documentation, title, etc.
4	4I5,F5.0	NSEG,NSYS,NSOIL,NCROP,RISK
A	A15,7F5.2	Canal/Lateral Information Name -- 15 character identifier UPSEG -- Upstream segment number LENGTH -- Length of segment (miles) WIDTH -- Top width of segment (feet) XFAREA -- Cross sections flow area (sq. ft) LMETHD -- Method of seepage loss computation CFAC1 -- Factor associated with seepage comp. CFAC2 -- Facotr associated with seegage comp
B	A15,6F5.2	Irrigation System Information Name -- Irrigation System Name and Code ESTEFF -- Estimated system efficiency, % SETIME -- Set time, hours FLOW -- Inflow, gpm LENGTH -- length assoicated with system, feet SFAC1 -- System dependent factor SFAC2 -- System dependent factor
C	A15,7F5.2	Soil Information Name -- Soil Classification Identifier INFAM -- NRCS Flood Intake Family AWHC1 -- Water holding capacity 0 -- 1 ft, inches AWHC2 -- Water holding capacity 0 -- 2 ft, inches AWHC3 -- Water holding capacity 0 -- 3 ft, inches AWHC4 -- Water holding capacity 0 -- 4 ft, inches AWHC5 -- Water holding capacity 0 -- 5 ft, inches AWHC6 -- Water holding capacity 0 -- 6 ft, inches
D	A15,9F5.2	Crop Information Name -- Crop Identifier (Linkage to CU Data) ADEF -- Allowable soil moisture depletion, % FUR -- Furrow spacing, ft NROF -- Mannings roughness coefficient
E	A80	Consumptive Use File Descriptor
F.1	I5	Soil Classification Position (Section C)
F.2	A15,10F5.1 15X,10F5.1	Crop Area Mix for soil specified in F.1 CNAME -- Crop Identifier Area.1 -- Crop Area using Irrig.Sys. 1 for soil Area.2 -- Crop Area using Irrig.Sys. 2 for soil Area.3 -- Crop Area using Irrig.Sys. 3 for soil ... Area.N -- Crop Area using Irrig.Sys. N for soil
G	A15,10F5.1	Soil Classification service by lateral segments LName -- Lateral Segment Identifier Frac.1 -- Fraction of soil class 1 served by lateral Frac.2 -- Fraction of soil class 2 served by lateral Frac.3 -- Fraction of soil class 3 served by lateral ... Frac.N -- Fraction of soil class N served by lateral

efficiency is not used. The next three elements: SETIME, FLOW, and LENGTH, describe individual furrow characteristics of set time, furrow infow, and furrow length. The furrow slope is given as SFAC1. The data element identified as SFAC2 is not used for furrow systems. For gradient border irrigation systems, the first data element, ESTEFF, is not used. The next three elements (SETIME, FLOW, and LENGTH) describe the individual border strip characteristics of inflow time (set time), inflow rate, and border length. The data elements SFAC1 and SFAC2 describe the border width and border slope respectively. Contour ditch or wild flooding irrigation methods do not utilize the ESTEFF data element. The next three data elements refer to contour ditch characteristics based the lenght of ditch used during an irrigation set. For sprinkler irrigation systems which are not linear move or center pivots; the first data element is not used and the remaining element describe a sprinkler lateral line. The spacing between laterals is given as SFAC1. SFAC2 is not used. For center pivot and linear move systems, the program assumes that the application efficiency is readily known and is entered as the first data element.

Following the irrigation system specification, the next data area (Line C, Table x.x) characterizes the various soil classifications within the area of interest. For each soil class there should be a record corresponding to Line C in the data file and there should also be NSOIL records. Each soil classification should be given an identifier followed by the USDA-NRCS food intake family number and the available water holding capacity of the soil in one foot intervals to 6 feet. If the soil depth is less than 6 feet the user should still enter values which reflect no additional water holding capacity.

The fifth data area which follows the soils information is the cropping information. For each crop grown in the area of interest there should be a record corresponding to Line D from Table x.x. The crop identifier used must be the same identifier used in the water requirements data file. The additional elements of allowable depletion, furrow spacing, and roughness coefficient should reflect local cropping practices.

The next data record specifies the water requirements data file descriptor. The data file descriptor may or may not contain the path specification depending on the users's installation and file storage proceedures.

Up to this point, the data file has been defining the individual characteristics of lateral segments, soils, irrigation systems, and crops. The remainder of the data file specifies the mix of crops, irrigation systems, soils and how the lateral segments serve the irrigated area. First for each soil classification found in the fifth data area, the area for each crop under an irrigation system is specified in blocks. The first data record (Line F.1, Table x.x) of the block identifies the soil classification record position with the soils definition area. It is followed by a record (Line F.2, Table x.x) for each crop grown within the system identifing the number of acres grown under each irrigation system. The areas should correspond to the order in which the irrigation systems were

```
Bruneau Buckaroo Ditch Irrigation Water Diversion Requirements
Brockway Engineering -- C.E. Brockway and C.W. Robison
Dataset Created 12/29/94 -- Modified 4/20/96
bruneau.dat
    3    5   11    3
  .80
Hutch. to End     2.0 2.37 7.50 12.0 0.00 .784
Jones to Hutch    3.0 4.53 9.00 13.0 0.00 .784
Div. to Jones     0.0 4.57 10.0 14.5 0.00 .784
SPRINKLER        80.0 24.0 165.1320.  50.
FURROW .5%       40.0 24.0 12.01320. .005
FURROW 1.%       40.0 24.0 12.01320. .010
FURROW 2.%       40.0 24.0 12.01320. .020
FURROW 4.%       40.0 24.0 12.01320. .040
Map Unit 10       2.0 1.40 2.80 4.15 5.50 6.90 6.90
Map Unit 11       2.0 1.30 2.92 4.04 5.50 7.00 7.00
Map Unit 12       1.2 2.40 4.80 7.20 9.50 11.7 11.7
Map Unit 50       1.9 1.75 3.55 4.30 4.85 5.40 5.40
Map Unit 60       1.4 1.85 3.40 5.00 6.55 7.90 7.90
Map Unit 65       1.5 2.22 4.40 6.60 8.65 10.8 10.8
Map Unit 70       1.4 2.25 4.65 7.05 9.05 11.1 11.1
Map Unit 71       1.5 2.30 4.50 6.60 8.80 10.8 10.8
Map Unit 96       1.6 1.48 2.85 4.20 5.60 7.00 7.00
Map Unit 100      2.0 1.50 2.90 4.30 5.80 7.40 7.40
Map Unit 101      2.2 1.20 2.30 3.40 4.60 5.70 5.70
Alfalfa Hay      60.0 2.50 0.10
Silage Corn      50.0 2.50 0.04
Spring Grain     50.0 2.50 0.04
00001              ! Map Unit 10  -- 205
Alfalfa Hay         0.    0. 184.   0.   0.
Silage Corn         0.    0.   8.   0.   0.
Spring Grain        0.    0.  13.   0.   0.
00002              ! Map Unit 11  -- 832
Alfalfa Hay         0.    0. 745.   0.   0.
Silage Corn         0.    0.  35.   0.   0.
Spring Grain        0.    0.  52.   0.   0.
00003              ! Map Unit 12  -- 144
Alfalfa Hay         0. 129.   0.   0.   0.
Silage Corn         0.    6.   0.   0.   0.
Spring Grain        0.    9.   0.   0.   0.
00004              ! Map Unit 50  --  76
Alfalfa Hay         0.    0.   0.  68.   0.
Silage Corn         0.    0.   0.   3.   0.
Spring Grain        0.    0.   0.   5.   0.
00005              ! Map Unit 60  -- 545
Alfalfa Hay         0. 488.   0.   0.   0.
Silage Corn         0.  23.   0.   0.   0.
Spring Grain        0.  34.   0.   0.   0.
00006              ! Map Unit 65  -- 650
Alfalfa Hay         0.    0.   0. 582.   0.
Silage Corn         0.    0.   0.  27.   0.
Spring Grain        0.    0.   0.  41.   0.
00007              ! Map Unit 70  -- 155
Alfalfa Hay         0.    0.   0. 137.   0.
Silage Corn         0.    0.   0.   6.   0.
Spring Grain        0.    0.   0.  10.   0.
00008              ! Map Unit 71  -- 127
Alfalfa Hay         0.    0.   0.  45.   0.
Silage Corn         0.    0.   0.   5.   0.
Spring Grain        0.    0.   0.   8.   0.
00009              ! Map Unit 96  --  79
Alfalfa Hay         0.    0.  78.   0.   0.
Silage Corn         0.    0.   0.   0.   0.
Spring Grain        0.    0.   2.   0.   0.
00010              ! Map Unit 100 -- 339
Alfalfa Hay         0.    0.   0. 295.   0.
Silage Corn         0.    0.   0.  14.   0.
Spring Grain        0.    0.   0.  21.   0.
00011              ! Map Unit 101 --  11
Alfalfa Hay         0.    0.   0.   0.   9.
Silage Corn         0.    0.   0.   0.   1.
Spring Grain        0.    0.   0.   0.   1.
Hutch. to End  0.333 .333 .333 .333 .333 .333 .333 .333 .333 .333 .333
Jones to Hutch 0.333 .333 .333 .333 .333 .333 .333 .333 .333 .333 .333
Div. to Jones  0.334 .334 .334 .334 .334 .334 .334 .334 .334 .334 .334
```

Figure xx. System Definition Data File

defined. If there are five irrigation systems defined there should be five areas specified for the crop. Again, the crop record is repeated until all the crop areas have been defined for the soil and the data block is repeated for all the soil types.

The last data area, identifies the irrigated areas served by each lateral segment. Each lateral segment requires a record corresponding to Line G in Table x.x in the data file. The sequence of the data records must correspond to the sequence in definition area. The record contains the lateral segment identifier followed by the percentage of each soil classification area served by the lateral segment. The percentages must be in the order which the soils were defined.

Program Output

The output from the program consists of the input data sets, the computed crop requirements based on the risk level specified, the on field (farm) application requirements for each crop, irrigation system, and soil type, a summary of the on field (farm) application requirements for the entire area, the flow and loss characteristics associated with each lateral segment for delievery of the on field (farm) application requirements, and a summary diversion requirements for the irrigated area including losses associated with the canal -- lateral distribution network.

---

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[4]Trimmer, W. L. and H. J. Hansen, 1986. "Irrigation Scheduling", A Pacific Northwest Extension Publication, PNW 288. Oregon State University Extension Service, University of Idaho Cooperative Extension Service, and Washingtion State University Cooperative Extension Service.

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[7]Allen, R. G. and C. E. Brockway, 1983. "Estimating Consumptive Irrigation Requirements for Crops in Idaho Appendix F", Research Technical Completion Report. Idaho Water and Energy Resources Research Institute, University of Idaho, Moscow, Idaho 83843.

[8]_____, 1970. Irrigation Guide for Southern and Southeastern Idaho. U. S. Department of Agriculture, Soil Conservation Service, Boise, Idaho.

[9]_____, 1984. National Engineering Handbook, Section 15 IRRIGATION, Chapter 5, Furrow Irrigation. United States Department of Agriculture, National Resource Conservation Service, Washington, D. C.

APPENDIX A

```
C*******************************************************************
C*******************************************************************
C
C     Project/Farm Irrigation Water Requirements Program
C     by Clarence W. Robison, PE
C     Inital Coding 15JUL94
C
C     Purpose:  To compute the diversion volume and rate of water required
C               to irrigate a specified crop distribution on a mix of soil
C               types with various irrigation methods and delievery system
C               at a specified probability level to meet crop water usage
C               and leaching requirements.
C
C     Methodology:  The Hubble report, Guidelines for the evaulation
C               irrigation diversion rates, is used as the basis for the
C               program.  The produce outline by Hubble Engineering involves
C               the following processes
C
C       Step 1    Collect various data on Crop soil-system distribution mix
C
C       Step 2 -- Referencing Allen and Brockway collect CU/IR data for area.
C
C       Step 3    Apply level of risk probability based stdev of CU/IR
C
C       Step 4    CU by ASAE Nomograph Figure 9
C
C     Version 1.00 Initial Development
C             1.20 Add Peak ET to Mean ET Ratio as a function of App Depth.
C                  Compute peak diversion requirements based on CU
C                  Compute seasonal diversion requirements based on IR
C     Version 1.25 Added Contour Ditch Method Evaluation as outlined by
C                  by the Hubble Report
C

      PROGRAM        IRWTRREQ
      INTEGER        NCANAL, NIRSYS, NSOILS, NCROPS, NPERID
      INTEGER        NP2R
      CHARACTER*72   ATITLE(3), DUMTIT
      CHARACTER*32   ANDATE, TSTAMP
      CHARACTER*72   CUFILE
      CHARACTER*15   CRNAME(15), SLNAME(15), ISNAME(15), CLNAME(15)
C     CHARACTER*15   CRNAME[ALLOCATABLE](:),
C    #               SLNAME[ALLOCATABLE](:),
C    #               ISNAME[ALLOCATABLE](:),
C    #               CLNAME[ALLOCATABLE](:)
      CHARACTER*6    PRNAME(13)
C     CHARACTER*6    PRNAME[ALLOCATABLE](:)
      REAL           CRDIST[ALLOCATABLE](:,:,:)
      REAL           CRSOIL[ALLOCATABLE](:,:)
      REAL           CRINFO[ALLOCATABLE](:,:)
      REAL           ISINFO[ALLOCATABLE](:,:)
      REAL           SLINFO[ALLOCATABLE](:,:)
      REAL           CLINFO[ALLOCATABLE](:,:)
      REAL           CRPUSE[ALLOCATABLE](:,:,:)
      REAL           ETPAPP[ALLOCATABLE](:)
      REAL           ETPRAT[ALLOCATABLE](:)
      REAL           ETP2ND[ALLOCATABLE](:)
      REAL           ADEFCT[ALLOCATABLE](:,:,:)
      REAL           PEAKCU[ALLOCATABLE](:,:,:)
      REAL           APPEFF[ALLOCATABLE](:,:,:,:)
      REAL           DIVREQ[ALLOCATABLE](:,:,:,:)
      REAL           PEAKRQ[ALLOCATABLE](:,:,:,:)
      REAL           CRPSUM[ALLOCATABLE](:)
      INTEGER        I, J, K, L, FORCE
      INTEGER        ERR                 ! ,FLG
      INTEGER*2      FUREFF,BOREFF,SPREFF,CONEFF
      LOGICAL        STRNCMP
      REAL           CUPROB,X
      EXTERNAL       TSTAMP

C
C *** Start things off with opening message.
      WRITE(*,*) ' Project/Farm Irrig. Water Requirements'
      WRITE(*,*) ' Clarence Robison, PE'
      WRITE(*,*) ' Version 1.25'
      WRITE(*,*) ' irwtrreq [-i:input] [-o:output]'
      write(*,*) ' '
      CALL STARTS
C
C *** Ok, Files have been opened -- time to proceed.
      FORCE = 0
      ANDATE = TSTAMP()
      READ(5,10) ATITLE
      WRITE(6,20) ' ',ANDATE,ATITLE
C
C *** Read in the filenames containing the cu/ir data
      READ(5,10)  CUFILE
      OPEN(7,FILE=CUFILE,STATUS='OLD',IOSTAT=ERR)
      IF( ERR.NE.0 ) THEN
        WRITE(6,999) 'I/O Error:',ERR,' Opening '//CUFILE
        WRITE(*,999) 'I/O Error:',ERR,' Opening '//CUFILE
        WRITE(*,10) ' Program terminating'
        STOP
      ENDIF
      READ(7,10) DUMTIT
      READ(7,21) NP2R, NPERID
C     ALLOCATE( PRNAME(NPERID+1), STAT=ERR )
      READ(7,10) DUMTIT
      READ(7,10) DUMTIT
      READ(7,30) (PRNAME(I),I=1,NPERID)
      CLOSE(7,STATUS='KEEP')
C
C *** Read control info -- Number of classifications
      READ(5,21) NCANAL,NIRSYS,NSOILS,NCROPS,FORCE
      READ(5,22) CUPROB
      WRITE(6,23)CUFILE,CUPROB*100.0,NCANAL,NIRSYS,NSOILS,NCROPS,NPERID
C
C *** Now, allocate memory catagory names, info., and data
      ALLOCATE(
C    #          CLNAME(NCANAL),
C    #          ISNAME(NIRSYS),
C    #          SLNAME(NSOILS),
C    #          CRNAME(NCROPS),
     #          CRPSUM(NCROPS),
     #          ETPAPP(NP2R),
     #          ETPRAT(NP2R),
     #          ETP2ND(NP2R),
     #          ISINFO(NIRSYS,5),
     #          SLINFO(NSOILS,6),
     #          CRINFO(NCROPS,3),
     #          CLINFO(NCANAL,9),
     #          CRDIST(NIRSYS,NCROPS,NSOILS),
     #          CRSOIL(NCROPS,NSOILS),
     #          CRPUSE(NCROPS,NPERID+1,3),
     #          ADEFCT(NPERID,NCROPS,NSOILS),
     #          DIVREQ(NPERID,NCROPS,NSOILS,NIRSYS),
     #          PEAKRQ(NPERID,NCROPS,NSOILS,NIRSYS),
     #          PEAKCU(NPERID,NCROPS,NSOILS),
     #          APPEFF(NPERID,NCROPS,NSOILS,NIRSYS),STAT=ERR)
      IF(ERR.NE.0) THEN
        WRITE(*,13) 'MEM Error:',ERR,' allocating data space'
        GOTO 9000
      ENDIF
C
C *** Read in catagory names and info -- same order as limits
C     Canal/Lateral Info --
C           name, upseg, length, width, area, type, fac1, fac2
      DO 1000 I=1,NCANAL
        DO J=1,12
          CLINFO(I,J) = 0.0
        ENDDO
 1000   READ(5,25) CLNAME(I),(CLINFO(I,J),J=1,7)
C     irrsys  ass.eff set time flow.gpm length width slope
```

```
      DO 1010 I=1,NIRSYS
 1010   READ(5,25) ISNAME(I),(ISINFO(I,J),J=1,6)
C     soil    intake fam awc 1 awc 2 awc 3 awc 4 awc 5
      DO 1020 I=1,NSOILS
 1020   READ(5,25) SLNAME(I),(SLINFO(I,J),J=1,6)
C     crop    all def fur spa fur rough
      DO 1030 I=1,NCROPS
 1030   READ(5,25) CRNAME(I),(CRINFO(I,J),J=1,3)
C
C *** Write out Catagory Information
C     Canal/Lateral Info
      WRITE(6,32)
      DO 1100 I=1, NCANAL
        L = CLINFO(I,5)
        K = CLINFO(I,1)
        IF( L.EQ.0 ) WRITE(6,33) I,CLNAME(I),K,(CLINFO(I,J),J=2,4),
     #                'Specified S=',CLINFO(I,6),'cfs/mi'
        IF( L.EQ.1 ) WRITE(6,33) I,CLNAME(I),K,(CLINFO(I,J),J=2,4),
     #                'Moritz    C=',CLINFO(I,6),'ft/day'
        IF( L.EQ.2 ) WRITE(6,33) I,CLNAME(I),K,(CLINFO(I,J),J=2,4),
     #                'Etchverry i=',CLINFO(I,6),'ft/day K=',
     #                 CLINFO(I,7)
        IF( L.EQ.3 ) WRITE(6,33) I,CLNAME(I),K,(CLINFO(I,J),J=2,4),
     #                'Worsteli  i=',CLINFO(I,6),'ft/day'
        IF( L.LT.0 .OR. L.GT.3 ) WRITE(6,13)CLNAME(I) I,
     #                'Error: Unknown Seepage Method'
 1100 CONTINUE
C
C *** Irrigation System Information
      WRITE(6,35)
      DO 1110 I=1,NIRSYS
        IF( STRNCMP(ISNAME(I)(1:3),'FUR') ) THEN
          K = 1
          WRITE(6,37) ISNAME(I),(ISINFO(I,J),J=1,K)
        ELSEIF( STRNCMP(ISNAME(I)(1:3),'FUR') ) THEN
          K = 5
          WRITE(6,36) ISNAME(I),(ISINFO(I,J),J=1,K)
        ELSEIF( STRNCMP(ISNAME(I)(1:3),'CON') ) THEN
          K = 5
          WRITE(6,36) ISNAME(I),(ISINFO(I,J),J=1,K)
          IF( ISINFO(I,3)/ISINFO(I,5)/4.488 .GT. 1.0 ) THEN
            WRITE(6,11)'                    Warning: Q >= 1cfs/100ft'
          ENDIF
        ELSE
          K = 5
          WRITE(6,37) ISNAME(I),(ISINFO(I,J),J=1,K)
        ENDIF
 1110 CONTINUE
      WRITE(6,40)
      DO 1120 I=1,NSOILS
 1120   WRITE(6,42) SLNAME(I),(SLINFO(I,J),J=1,6)
      WRITE(6,45)
      DO 1130 I=1,NCROPS
 1130   WRITE(6,46) CRNAME(I),(CRINFO(I,J),J=1,3)
C
C *** Read crop mix by soil by crop by system
      DO 1200 K=1,NSOILS
        READ(5,50) L
        DO 1200 J=1,NCROPS
 1200     READ(5,52) (CRDIST(I,J,L),I=1,NIRSYS)
C
C *** OUTPUT CROP DISTRIBUTION
      DO J=1,NCROPS
        CRPSUM(J)=0.0
      ENDDO
      WRITE(6,20) CHAR(12),ANDATE,ATITLE
      DO 1230 K=1,NSOILS
        WRITE(6,54) SLNAME(K)    by Irrigation System    (I I=1,NIRSYS)
        DO 1220 J=1,NCROPS
          CRSOIL(J,K) = 0.0
          DO 1210 I=1,NIRSYS
 1210       CRSOIL(J,K) = CRSOIL(J,K) + CRDIST(I,J,K)
          CRPSUM(J) = CRPSUM(J) + CRSOIL(J,K)
 1220     WRITE(6,56) CRNAME(J),CRSOIL(J,K),(CRDIST(I,J,K),I=1,NIRSYS)
 1230   WRITE(6,10) '  '
      WRITE(6,57)
      WRITE(6,58) (I,ISNAME(I),I=1,NIRSYS)
C
C *** Ok, crop irrig reqs data
      CALL IRREQP(CRPUSE,CUFILE,CUPROB,CRNAME,NCROPS,PRNAME,NPERID,
     #            NP2R,ETPAPP,ETPRAT)
C
C *** Ok, Now determine Allowable deficit for each crop and soil.
      WRITE(6,20) CHAR(12),ANDATE,ATITLE
      WRITE(6,60) 'Allowable Soil Water Deficit -- inches',CUPROB*100.0,
     #            'IR'
      DO 1400 K=1,NSOILS
        WRITE(6,62) SLNAME(K),(PRNAME(I),I=1,NPERID)
          CALL COMADF(NPERID,NCROPS,NSOILS,CRINFO,SLINFO,CRPUSE,
     #                ADEFCT,K,CRNAME)
 1400 CONTINUE
C
C *** Compute Peak Consumptive Use Requirement
      WRITE(6,20) CHAR(12),ANDATE,ATITLE
      WRITE(6,60) 'Peak Consumptive Use based on Peak:Mean(ASWD)',
     #            CUPROB*100.,'CU'
C
C *** FIRST PERFORM SPLINE FIT ON THE PEAK ET TO APP.DEP CURVE
      CALL SPLINE( ETPAPP, ETPRAT, NP2R, 1.0E31, 1.0E31, ETP2ND)
      DO 1500 K=1,NSOILS
        WRITE(6,62) SLNAME(K),(PRNAME(I),I=1,NPERID)
        DO 1480 J=1,NCROPS
          WRITE(6,65) CRNAME(J)
          DO 1460 I=1,NPERID
            IF(CRPUSE(J,I,2).LE.0) THEN
              PEAKCU(I,J,K) = 0
              WRITE(6,66) '    --'
            ELSE
              CALL SPLINT(ETPAPP,ETPRAT,ETP2ND,NP2R,ADEFCT(I,J,K),X)
              PEAKCU(I,J,K) = CRPUSE(J,I,3)*X
              WRITE(6,67) PEAKCU(I,J,K)
            ENDIF
 1460     CONTINUE
 1480     WRITE(6,10) '  '
 1500   CONTINUE
C
C *** Proceed with Irrigation Application Efficieny Analysis
      DO 3000 L=1,NSOILS
      DO 2000 K=1,NIRSYS
C *** Loop for excluding printouts associated with zero acres
        zero = 0.0
        DO J=1,NCROPS
          zero = zero + crdist(k,j,l)
        ENDDO
        IF( zero .le. 0.001) goto 1900
        WRITE(6,20) CHAR(12),ANDATE,ATITLE
        WRITE(6,70) 'Irrigation System Analysis',SLNAME(L)
        WRITE(6,72) ISNAME(K)
        IF( ISNAME(K)(1:3).EQ.'FUR' ) THEN
          WRITE(6,80) (ISINFO(K,J),J=2,5)
          WRITE(6,79) '**CROP**     ',(PRNAME(I),I=1,NPERID)
          DO J=1,NCROPS
            IF( CRDIST(K,J,L).LE.0.0 ) THEN ! No crop
            ELSE
              WRITE(6,65) CRNAME(J)
              DO I=1,NPERID
                IF( ADEFCT(I,J,L).GT.0.0 ) THEN
                  ERR=FUREFF(ADEFCT(I,J,L), ISINFO(K,5), CRINFO(J,2),
     &                ISINFO(K,4), ISINFO(K,3), CRINFO(J,3), ISINFO(K,2),
     &                SLINFO(L,1), EFF )
                  IF( ERR.EQ.-1 ) THEN
                    WRITE(6,83) ' @@@ '
                    APPEFF(I,J,L,K) = ISINFO(K,1)
                  ELSEIF( ERR.EQ.1 ) THEN
                    APPEFF(I,J,L,K) = EFF
                    WRITE(6,82) EFF,'*'
```

```
              ELSE
                APPEFF(I,J,L,K) = EFF
                WRITE(6,82) EFF,' '
              ENDIF
              IF(FORCE.NE.0.AND.APPEFF(I,J,L,K).LE.ISINFO(K,1)) THEN
                DIVREQ(I,J,L,K)=CRDIST(K,J,L)/ISINFO(K,1)*100.0
     &                    *CRPUSE(J,I,2)
                PEAKRQ(I,J,L,K)=CRDIST(K,J,L)/ISINFO(K,1)*100.0
     &                    *PEAKCU(I,J,L)
              ELSE
                DIVREQ(I,J,L,K)=CRDIST(K,J,L)/APPEFF(I,J,L,K)*100.0
     &                    *CRPUSE(J,I,2)
                PEAKRQ(I,J,L,K)=CRDIST(K,J,L)/APPEFF(I,J,L,K)*100.0
     &                    *PEAKCU(I,J,L)
              ENDIF
            ELSE
              APPEFF(I,J,L,K) = 0.0
              DIVREQ(I,J,L,K) = 0.0
              PEAKRQ(I,J,L,K) = 0.0
              WRITE(6,83) ' --- '
            ENDIF
          ENDDO
          WRITE(6,10)
        ENDIF
      ENDDO
      WRITE(6,10)
      WRITE(6,84) 'Note the following symbol meanings'
      WRITE(6,84) '    @@@ = Water did not reach end of furrow'
      WRITE(6,84)         '  * = End-of-Furrow application insufficient'
    ELSEIF( ISNAME(K)(1:3).EQ.'BOP' ) THEN
      WRITE(6,85) (ISINFO(K,J),J=2,5)
      WRITE(6,79) '**CROP**      ',(PRNAME(I),I=1,NPERID)
      DO J=1,NCROPS
        IF( CRDIST(K,J,L).LE.0.0 ) THEN ! No crop
        ELSE
          WRITE(6,65) CRNAME(J)
          DO I=1,NPERID
            IF( ADEFCT(I,J,L).GT.0.0 ) THEN
              ERR=BOPEFF(ADEFCT(I,J,L),ISINFO(K,2),ISINFO(K,3),
     &                   ISINFO(K,4),ISINFO(K,5),EFF )
              IF( ERR.EQ.1 ) THEN
                APPEFF(I,J,L,K) = EFF
                WRITE(6,82) EFF,'*'
              ELSE
                APPEFF(I,J,L,K) = EFF
                WRITE(6,82) EFF,' '
              ENDIF
              IF(FORCE.NE.0.AND.APPEFF(I,J,L,K).LE.ISINFO(K,1)) THEN
                DIVREQ(I,J,L,K)=CRDIST(K,J,L)/ISINFO(K,1)*100.0
     &                    *CRPUSE(J,I,2)
                PEAKRQ(I,J,L,K)=CRDIST(K,J,L)/ISINFO(K,1)*100.0
     &                    *PEAKCU(I,J,L)
              ELSE
                DIVREQ(I,J,L,K)=CRDIST(K,J,L)/APPEFF(I,J,L,K)*100.0
     &                    *CRPUSE(J,I,2)
                PEAKRQ(I,J,L,K)=CRDIST(K,J,L)/APPEFF(I,J,L,K)*100.0
     &                    *PEAKCU(I,J,L)
              ENDIF
            ELSE
              APPEFF(I,J,L,K) = 0.0
              DIVREQ(I,J,L,K) = 0.0
              PEAKRQ(I,J,L,K) = 0.0
              WRITE(6,83) ' --- '
            ENDIF
          ENDDO
          WRITE(6,10)
        ENDIF
      ENDDO
      WRITE(6,10)
      WRITE(6,84) '       * = Insufficient application'
    ELSEIF( ISNAME(K)(1:3).EQ.'SPR' ) THEN
      WRITE(6,86) (ISINFO(K,J),J=2,5)
      WRITE(6,79) '**CROP**      ',(PRNAME(I),I=1,NPERID)
      DO J=1,NCROPS
        IF( CRDIST(K,J,L).LE.0.0 ) THEN ! No crop
        ELSE
          WRITE(6,65) CRNAME(J)
          DO I=1,NPERID
            IF( ADEFCT(I,J,L).GT.0.0 ) THEN
              ERR=SPREFF(ADEFCT(1,J,L),ISINFO(K,2),ISINFO(K,3),
     &                   ISINFO(K,4),ISINFO(K,5),EFF )
              IF( ERR.EQ.1 ) THEN
                APPEFF(I,J,L,K) = EFF
                WRITE(6,82) EFF,'*'
              ELSE
                APPEFF(I,J,L,K) = EFF
                WRITE(6,82) EFF,' '
              ENDIF
              IF(FORCE.NE.0.AND.APPEFF(I,J,L,K).LE.ISINFO(K,1)) THEN
                DIVREQ(I,J,L,K)=CRDIST(K,J,L)/ISINFO(K,1)*100.0
     &                    *CRPUSE(J,I,2)
                PEAKRQ(I,J,L,K)=CRDIST(K,J,L)/ISINFO(K,1)*100.0
     &                    *PEAKCU(I,J,L)
              ELSE
                DIVREQ(I,J,L,K)=CRDIST(K,J,L)/APPEFF(I,J,L,K)*100.0
     &                    *CRPUSE(J,I,2)
                PEAKRQ(I,J,L,K)=CRDIST(K,J,L)/APPEFF(I,J,L,K)*100.0
     &                    *PEAKCU(I,J,L)
              ENDIF
            ELSE
              APPEFF(I,J,L,K) = 0.0
              DIVREQ(I,J,L,K) = 0.0
              PEAKRQ(I,J,L,K) = 0.0
              WRITE(6,83) ' --- '
            ENDIF
```

```
          ENDDO
          WRITE(6,10) '
        ENDIF
      ENDDO
      WRITE(6,10) ' '
      WRITE(6,84) '       * = Insufficient application '
    ELSEIF( ISNAME(K)(1:3).EQ.'PIV' ) THEN
      WRITE(6,88)
      WRITE(6,79) '**CROP**     ',(PRNAME(I),I=1,NPERID)
      DO J=1,NCROPS
        IF( CRDIST(K,J,L).LE.0.0 ) THEN ! No crop
        ELSE
          WRITE(6,65) CRNAME(J)      '
          DO I=1,NPERID
            IF( ADEFCT(I,J,L).GT.0.0 ) THEN
              EFF=ISINFO(K,1)
              APPEFF(I,J,L,K) = EFF
              WRITE(6,82) EFF,'
              IF(FORCE.NE.0.AND.APPEFF(I,J,L,K).LE.ISINFO(K,1)) THEN
                DIVREQ(I,J,L,K)=CRDIST(K,J,L)/ISINFO(K,1)*100.0
     &                          *CRPUSE(J,I,2)
                PEAKRQ(I,J,L,K)=CRDIST(K,J,L)/ISINFO(K,1)*100.0
     &                          *PEAKCU(I,J,L)
              ELSE
                DIVREQ(I,J,L,K)=CRDIST(K,J,L)/APPEFF(I,J,L,K)*100.0
     &                          *CRPUSE(J,I,2)
                PEAKRQ(I,J,L,K)=CRDIST(K,J,L)/APPEFF(I,J,L,K)*100.0
     &                          *PEAKCU(I,J,L)
              ENDIF
            ELSE
```

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July 1998

Present title:

Senior Member-Brockway Engineering P.L.L.C

Formerly-Research Professor - Civil and Agricultural Engineering: Supervision of research conducted by the University Water Resources Research Institute and the College of Engineering at Kimberly, Idaho. Graduate student supervision and directed studies instruction in Water Management and Water Resources related subjects.

Associate Director - Idaho Water Resources Research Institute

Summary of education beyond high school:

Institution, Degree, Year

University of Idaho 1955-59, B.S.-Civil Engineering, 1959
California Institute of Technology 1959-60, M.S.- Civil Engineering, 1960
University of Colorado, Denver, Colorado, Management, 1963
University of Denver; Denver, Colorado, Civil Engineering, 1964
Utah State University, Ph.D.-Water Resources Engineering, 1977

Number of years service on this faculty: 32

Date of original appointment: 1965
Dates of advancement in rank:
Associate Research Professor: 1974
Professor-50% Agricultural Engineering, 50% Civil Engineering : 1978

Subjects and courses taught:

CE 500, CE 600, CE 502

Summary of academic experience:

University of Idaho - Research Professor - Civil and Agricultural Engineering, 1978-
University of Idaho - Associate Research Professor, Civil Engineering, 1974-78
University of Idaho - Assistant Research Professor, Civil Engineering, 1965-74
Boise College - Instructor in Engineering, 1961-63

Summary of other experience:

University of Idaho - USAID Pakistan Project on Irrigation Systems Management Research, 1984 -

U.S. Bureau of Reclamation - Hydraulic Research Laboratory, Denver, Colorado - Hydraulic Research Engineer, 1963-65
U.S. Bureau of Reclamation - Boise, Idaho - Hydraulic Engineer, 1961-63
Converse Foundation Engineering, Inc. - Pasadena, California - Foundation Engineer, 1960-61
California Institute of Technology - Pasadena, California - Assistant Project Engineer, U.S. Public Health Service Research Project, 1959-60

Consultant:

Twin Falls Canal Company - Twin Falls, Idaho - Hydrology and water use.
North Side Canal Company-Jerome, Idaho- Hydrology and water use
Micron Technology-Ground water and water supply
J.R. Simplot Company- Land disposal of processing waste, water supply, water rights
City of Twin Falls-Water supply and hydrology
Idaho Trout Processors-Hydraulics and water supply
Cedar Mesa Reservoir and Canal Co., Redding, California - Water management consultant.
Clear Springs Trout Company, Buhl, Idaho - Water supply and distribution systems.
Idaho Power Company, Boise, Idaho - Relationships of groundwater and surface water - Upper Snake River Basin - water right adjudication.
Idaho Department of Fish and Game - Evaluation of groundwater stream relationship for litigation - Parma vicinity.
Blaine County, Idaho – Waste disposal systems for high density rural subdivisions.
Reynolds and West Reynolds Irrigation Districts - Irrigation water requirements, systems analysis.
U.S. Bureau of Reclamation (was Maricopa County Water District) - Arizona. Flood study.
Office of Technology Assessment - U.S. Congress - Irrigation Distribution Systems.
U.S. Department of Justice - Indian Water Rights
Montgomery Engineers - Ground-water quality evaluations
J.U.B. Engineers, Twin Falls, Idaho - Ground-water and hydraulics
Amalgamated Sugar Company, Idaho- Hydrology and waste disposal

Registered Professional Engineer: Idaho and Colorado

Special Awards or Honors:

Recipient of Bausch & Lomb Science Award
Member - Phi Beta Sigma, Freshman honorary, University of Idaho
Outstanding Freshman Engineer Award - University of Idaho, 1955
Member and secretary of Sigma Tau, National Engineering Honorary
Member and Vice-president of ASCE student chapter, University of Idaho
University of Idaho undergraduate scholarship 1957-58, 1958-59
Honorary Membership ASTM, 1959

Special Awards, cont'd.

U. S. Army National Defense Transporation Award, 1958
Distinguished Military Graduate - University of Idaho
Top Ten Graduating Senior - University of Idaho, 1959
No. 2 in graduating class of 889, University of Idaho, 1959
Representative of USBR Division of Research at 1963 Intergovernmental Training Program, Denver, 1964
Scholarship - University of Denver, Graduate School of Management, 1964
National Science Foundation Fellowship - Utah State University, 1967-68
Outstanding Young Engineer Award for Idaho, National Society of Professional Engineers, 1968
Engineer of the Year, 1997 American Society of Agricultural Engineers
Idaho Water Users Hall of Fame-1998

Membership in professional and scholarly organizations:

National Society of Professional Engineers, 1967 - present
Idaho Society of Professional Engineers, 1967 - present; President 1978
American Society of Civil Engineers - Irrigation & Drainage Division Committee Chairman:

1) Operation and Maintenance of Irrigation and Drainage Systems, 1975-1981
2) Water Quality Committee, 1980-1984, Chairman
3) Task Committee on Guidelines for Erosion and Sediment Control in Irrigated Agriculture, 1980-1983, Chairman
4) Publications Committee, 1985-1992

Research Society of America
National Council of Examiners for Engineering and Surveying, 1981-1991
Idaho Board of Professional Engineers and Professional Land Surveyors, 1981-1991, Chairman
American Water Resources Association

Offices held in such organizations:

National Society of Professional Engineers
Member - Young Engineers Committee, 1973-74
Chairman - Young Engineers Committee, 1975-77
Member - President's Committee on Board of Directors Organization, 1977
Member - Registration and Qualification for Practice Committee, 1979-81
Chairman - Registration and Qualification for Practice Committee, 1982-84
Member - Participating Organizations Liaison Committee to NCEE, 1982-84
Idaho Society of Professional Engineers
President, 1978
President, Magic Valley Chapter, 1970-71
Member - State Ethical Practices Committee, 1966, 1977
Member - State Intersociety Relations Committee, 1968
Member - State Nominating Committee, 1975-76

Offices Held, cont'd.

Member - Board of Directors, 1972-73
Member - Board of Directors, Past President Chairman - Nominating Committee, 1979
State Director - Representative for Idaho to NSPE, 1982-83

Nominating Committee for Idaho Board of Professional Engineers & Land Surveyors member.

American Society of Civil Engineers
Member - Operation and Maintenance of Distribution Systems Committee - Irrigation and Drainage Division, 1975-81
Chairman - Irrigation and Drainage Division, Operations and Maintenance Committee, 1977-79
Member - Water Quality Committee, Irrigation and Drainage Division, 1980-84
Chairman - Water Quality Committee, Irrigation and Drainage Division, 1982-84
Member - Task Committee on Water Measurement, 1980-83
Chairman - Task Committee on Guidelines for Erosion and Sediment Control in Irrigated Agriculture, 1984 - Present
Member - Publications Committee, 1985 - Present
Corresponding Member - ASCE Irrigation and Drainage Division Committee on Operation and Maintenance of Irrigation Systems
Reviewer - ASCE Irrigation and Drainage Division Committee on Publications

Idaho Board of Professional Engineers and Land Surveyors
Member, 1981 -
Vice Chairman, 1983-1984
Chairman, 1984 - 1986, 1990 - 1992

National Council of Engineering Examiners
Assistant Vice President, Western Zone
Member, Professional Examinations Advisory Committee
Member, Committee on Uniform Procedures and Legislative Guidelines, 1984
Member, Communications and Publications Committee, 1983
Member, Uniform Examinations and Qualifications Committee, 1984 - Present
Member, Committee on Examination Policies and Procedures, 1987 - Present
Member, Advisory Committee on Council Activities, 1986 - 1987
Assistant Vice President - Western Zone, 1986 - 1987
Member, Fundamentals Examination Review Committee, 1986 - Present

Scholarly and creative activity:

Research:

Development of systems analysis procedures for optimization of irrigation system designs with environmental, physical, and social constraints.

Evaluation of crop consumptive use, irrigation requirements, and methods of determining basin depletion from agricultural development.

Systems analysis of water use to develop mathematical methods for studying complex groundwater-surface water systems - mathematical modeling of aquifers.

Ground water quality and river system water quality evaluations for nutrient load determination and river system modeling.

Development of guidelines for design of sediment removal facilities for on-farm and irrigation distribution system wasteways.

Evaluation of attainable impacts on water quality of irrigation return flows due to implementation of best management practices for sediment and nutrient control.

Evaluation of alternate energy sources for irrigation and municipal needs in Idaho.

Analysis of operation and maintenance costs of water distribution systems and determination of the relationship of costs to known physical and organizational parameters and water use efficiency.

Evaluation of the economic potential for use of geothermal hot water and steam in Idaho.

Study of the movement of water from canals to local water tables under saturated and partially saturated conditions.

Studies of the mechanisms of microbial action, sedimentation and soil-water-chemical interactions involved in natural sealing phenomenon in canals and reservoirs.

Evaluation of irrigation management practices for sustained land disposal of geothermal fluids.

Evaluation of practices and systems for controlling sediment and other pollutant losses from irrigated lands.

Investigation of the response of aquifer systems to changes in recharge or withdrawal due to change in land use.

Evaluation of procedures for estimating crop water requirements.

Development of cost effective procedures and equipment for measurement of irrigation diversions and power use in open and closed systems.

Community services and other relevant activities:

Member - Intermountain District Church of the Nazarene; Camps Board - 1976 - 1984; Board of Church Properties - 1976-79

Member - Twin Falls City Planning and Zoning Commission 12/78-9/79

Member - College of Southern Idaho Geothermal Energy Commission

Member - Governor's Committee on Energy Use - 1980-81

Member - Idaho Technical Advisory Committee for Sediment in Surface Water
Chairman - Snake River Technical Advisory Committee - Idaho Legislative Council, 1983-85
Advisor - Governor's Snake River Advisory Committee - 1985
Member - Water Resources Foundation Board of Directors - 1985
Chairman - Idaho Technical Committee on Hydrology
Member - Idaho Department of Health & Welfare Sediment Citeria Committee
Member - Snake Plain Advisory Committee of Idaho Department of Health & Welfare
Member - Idaho Water Users Water Quality Committee - 1980-
Member - INEL Dose Evaluation and Risk Assesment Committee
Member - Columbia River System Operations Review
Member - Mid Snake River Nutrient Management Advisory Committee
Member - Mid Snake River Irrigation Water Quality Coordination Committee
Technical Advisor - Middle Snake River Committee
Member - Liaison Committee, U.S. Geological Survey National Water Quality Assessment Program, Snake River Basin.
Member - Snake River Studies Committee, Idaho Department of Water Resources
Member - City of Twin Falls Wellhead Protection Committee

Publications:

Brockway, C.E. 1964. Progress Report - Investigation of a Seepage Meter Designed by the Agricultural Research Service -- Lower Cost Canal Lining Program. Bureau of Reclamation Hydraulic Branch HYD-529.

Brockway, C.E. 1964. Flow Resistance Coefficients of Three Sizes of Cast-in-Place Concrete Pipe. Bureau of Reclamation Hydraulic Branch, HYD-533, 1964.

Brockway, C.E. 1965. Investigation of the Effect of Turnout Geometry on the Registration Accuracy of a Propeller-Type Open Flowmeter. Bureau of Reclamation, HYD-545, 1965.

Brockway, C.E. 1966. Groundwater Investigations and Canal Seepage Studies. Engineering Experiment Station, University of Idaho, Progress Report No. 1, 1966.

Schuster, J.C. and C.E. Brockway. 1967. Investigation of a 4-Inch Magnetic Flowmeter. Bureau of Reclamation, HYD-574.

Worstell, R.V. and C.E. Brockway. 1967. Estimating Seasonal Changes in Irrigation Canal Seepage. Presented at Spokane, Washington, October 20, 1967.

Worstell, R.V. and C.E. Brockway. 1967. Groundwater Investigations and Canal Seepage Studies. Engineering Experiment Station, University of Idaho, Progress Report No. 2.

Bloomsburg, G.L. and C.E. Brockway. 1968. Movement of Water from Canals to Groundwater Tables. Research Technical Completion Report, Idaho Water Resources Institute.

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John W. Jr. & Deloris Jones

PATRICK D. BROWN, P.C.
Law Offices
Patrick D. Brown, ISB #4413
109 South Adams
Jerome, ID 83338
Telephone: (208) 644-1967
Facsimile: (208) 633-1970

RECEIVED
JUL 28 2000
Department of Water Resources

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

In Re SRBA	)	**A. Subcase 36-00068**
	)	
Case No. 39576	)	**STANDARD FORM 2**
	)	**RESPONSE TO OBJECTION**
	)	
	)	

B. NAME AND ADDRESS OF PERSON RESPONDING

RECEIVED
SEP 01 2000
Department of Water Resources
Southern Region

Name: John W. Jones, Jr.
Deloris D. Jones
Address: P.O. Box 265
Hagerman, ID 83332-0265

Daytime Phone: (208) 837-4580

Name & Address of attorney, if any:

Patrick D. Brown, P.C.
109 S. Adams St.
Jerome, Idaho 83338
ph: (208) 644-1967

C. NAME AND ADDRESS OF PERSON WHO FILED THE OBJECTION TO WHICH YOU ARE RESPONDING:

Name: Doug Grant
Represented by Michael C. Creamer
Address: Givens Pursley, LLP
277 North Sixth, Suite 200
Boise, ID 83701

D. I am responding to the objections to the following elements. (Please check the appropriate box(es)).

1.		Name and Address
2.		Source
3.	X	Quantity
4.		Priority Date
5.		Point(s) of Diversion
6.		Instream Flow Description
7.		Purpose(s) of Use
8.		Period of Year
9.	X	Place of Use
11.		**Recommendation**
		This water right should not exist.
		This water right was not recommended, but should be recommended with the elements described above.

E. COMMENTS.

This water right should be decreed as recommended by IDWR in its Amended Director's Report dated June 23, 2000.

F. **VERIFICATION** (Must be Completed)

STATE OF IDAHO)
:ss.
County of Jerome)

Patrick D. Brown, duly sworn, upon oath, deposes and says:

That I am the party/claimant filing this response, as defined by I.C. 42-1401A(1) and (6) or that I am the attorney for the party/claimant responding and that I have read this response, know its contents and believe that the statements are true to the best of my knowledge.

PATRICIA J. FAHRENHOLZ NOTARY PUBLIC STATE OF IDAHO

(Signature of person filing response)

(Attorney signing in representative capacity)

Subscribed and sworn to before me on: 7/27/00

Patricia J. Fahrenholz
Notary Public for Idaho
Residing at: Twin Falls
My Commission Expires: 11-09-2004

INSTRUCTIONS FOR MAILING

You must mail the response to the Clerk of the Court. **FAX filings will not be accepted.** You must also send a copy to all the parties listed below in the Certificate of Mailing.

G. CERTIFICATE OF MAILING

I certify that on July 27, 2000, I mailed the original and copies of this response, including all attachments, to the following persons:

1. Original to:

Clerk of the District Court
Snake River Basin Adjudication
253 Third Avenue North
PO Box 2707
Twin Falls, ID 83303-2707

2. One copy to the claimant of the water right at the following address:

Name: John W. Jones, Jr.
Deloris D. Jones
Address: P.O. Box 265
Hagerman, ID 83332-0265

3. One copy to the party who filed the objection at the following address:

Name: Doug Grant
Represented by Michael C. Creamer
Address: Givens Pursley, LLP
277 North Sixth, Suite 200
Boise, ID 83701

4. Copies to:

IDWR Document Depository
PO Box 83720
Boise, ID 83720-0098

United States Department of Justice
Environment and Natural Resource Division
5550 West Fort Street, MSC 033
Boise, ID 83724

Chief, Natural Resources Division
Office of the Attorney General
State of Idaho
PO Box 44449
Boise, ID 83711-4449

Dana Hofstetter
Beeman & Hofstetter
608 West Franklin Street
P.O. Box 1427
Boise, ID 83701-1427



Your signature or signature of attorney mailing on your behalf

John W. Jr. & Deloris Jones

PATRICK D. BROWN, P.C.
Law Offices
Patrick D. Brown, ISB #4413
109 South Adams
Jerome, ID 83338
Telephone: (208) 644-1967
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RECEIVED
JUL 28 2000
Department of Water Resources

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

In Re SRBA	)	**A. Subcase 36-00068**
	)	
Case No. 39576	)	**STANDARD FORM 2**
	)	**RESPONSE TO OBJECTION**
	)	
_____	)	

B. NAME AND ADDRESS OF PERSON RESPONDING

RECEIVED
SEP 01 2000
Department of Water Resources
Southern Region

Name: John W. Jones, Jr.
Deloris D. Jones
Address: P.O. Box 265
Hagerman, ID 83332-0265

Daytime Phone: (208) 837-4580

Name & Address of attorney, if any:

Patrick D. Brown, P.C.
109 S. Adams St.
Jerome, Idaho 83338
ph: (208) 644-1967

C. NAME AND ADDRESS OF PERSON WHO FILED THE OBJECTION TO WHICH YOU ARE RESPONDING:

Name: Cranney Bros.
Represented by Michael C. Creamer
Address: Givens Pursley, LLP
277 North Sixth, Suite 200
Boise, ID 83701

D. I am responding to the objections to the following elements. (Please check the appropriate box(es)).

1.		Name and Address
2.		Source
3.	X	Quantity
4.		Priority Date
5.		Point(s) of Diversion
6.		Instream Flow Description
7.		Purpose(s) of Use
8.		Period of Year
9.	X	Place of Use
11.		**Recommendation**
		This water right should not exist.
		This water right was not recommended, but should be recommended with the elements described above.

E. COMMENTS.

This water right should be decreed as recommended by IDWR in its Amended Director's Report dated June 23, 2000.

F. VERIFICATION (Must be Completed)

STATE OF IDAHO)
:ss.
County of Jerome)

Patrick D. Brown, duly sworn, upon oath, deposes and says:

That I am the party/claimant filing this response, as defined by I.C. 42-1401A(1) and (6) or that I am the attorney for the party/claimant responding and that I have read this response, know its contents and believe that the statements are true to the best of my knowledge.

PATRICIA J. FAHRENHOLZ NOTARY PUBLIC STATE OF IDAHO

(Signature of person filing response)

(Attorney signing in representative capacity)

Subscribed and sworn to before me on: 7/27/00

Notary Public for Idaho
Residing at: Twin Falls
My Commission Expires: 11-09-2004

INSTRUCTIONS FOR MAILING

You must mail the response to the Clerk of the Court. **FAX filings will not be accepted.** You must also send a copy to all the parties listed below in the Certificate of Mailing.

G. CERTIFICATE OF MAILING

I certify that on July 27, 2000, I mailed the original and copies of this response, including all attachments, to the following persons:

1. Original to:

   Clerk of the District Court
   Snake River Basin Adjudication
   253 Third Avenue North
   PO Box 2707
   Twin Falls, ID 83303-2707

2. One copy to the claimant of the water right at the following address:

   Name: John W. Jones, Jr.
   Deloris D. Jones
   Address: P.O. Box 265
   Hagerman, ID 83332-0265

3. One copy to the party who filed the objection at the following address:

   Name: Cranney Bros.
   Represented by Michael C. Creamer
   Address: Givens Pursley, LLP
   277 North Sixth, Suite 200
   Boise, ID 83701

4. Copies to:

   IDWR Document Depository
   PO Box 83720
   Boise, ID 83720-0098

   United States Department of Justice
   Environment and Natural Resource Division
   5550 West Fort Street, MSC 033
   Boise, ID 83724

   Chief, Natural Resources Division
   Office of the Attorney General
   State of Idaho
   PO Box 44449
   Boise, ID 83711-4449

   Dana Hofstetter
   Beeman & Hofstetter
   608 West Franklin Street
   P.O. Box 1427
   Boise, ID 83701-1427

Your signature or signature of attorney mailing on your behalf

John W. Jr. & Deloris Jones

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RECEIVED
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IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

In Re SRBA	)	**A. Subcase** 36-00068
	)	
Case No. 39576	)	**STANDARD FORM 2**
	)	**RESPONSE TO OBJECTION**
	)	
	)	
	)	

B. NAME AND ADDRESS OF PERSON RESPONDING

RECEIVED
SEP 01 2000
Department of Water Resources
Southern Region

Name: John W. Jones, Jr.
Deloris D. Jones
Address: P.O. Box 265
Hagerman, ID 83332-0265

Daytime Phone: (208) 837-4580

Name & Address of attorney, if any:

Patrick D. Brown, P.C.
109 S. Adams St.
Jerome, Idaho 83338
ph: (208) 644-1967

C. NAME AND ADDRESS OF PERSON WHO FILED THE OBJECTION TO WHICH YOU ARE RESPONDING:

Name: North Snake Ground Water District
Represented by Dana Hofstetter
Address: Beeman & Hofstetter, P.C.
608 West Franklin Street
P.O. Box 1427
Boise, ID 83701-1427

D. I am responding to the objections to the following elements. (Please check the appropriate box(es)).

1.		Name and Address
2.		Source
3.	X	Quantity
4.		Priority Date
5.		Point(s) of Diversion
6.		Instream Flow Description
7.		Purpose(s) of Use
8.		Period of Year
9.	X	Place of Use
11.		**Recommendation**
		This water right should not exist.
		This water right was not recommended, but should be recommended with the elements described above.

E. **COMMENTS**

This water right should be decreed as recommended by IDWR in its Amended Director's Report dated June 23, 2000.

F. **VERIFICATION** (Must be Completed)

STATE OF IDAHO)
: ss.
County of Jerome)

Patrick D. Brown, duly sworn, upon oath, deposes and says:

That I am the party/claimant filing this response, as defined by I.C. 42-1401A(1) and (6) or that I am the attorney for the party/claimant responding and that I have read this response, know its contents and believe that the statements are true to the best of my knowledge.

(Signature of person filing response)

(Attorney signing in representative capacity)

Subscribed and sworn to before me on: 1/27/04

PATRICIA J. FAHRENHOLZ NOTARY PUBLIC IDAHO

Notary Public for Idaho
Residing at: Twin Falls
My Commission Expires: 11-09-2004

INSTRUCTIONS FOR MAILING

You must mail the response to the Clerk of the Court. **FAX filings will not be accepted.** You must also send a copy to all the parties listed below in the Certificate of Mailing.

F. CERTIFICATE OF MAILING

I certify that on July 27, 2000, I mailed the original and copies of this response, including all attachments, to the following persons:

1. Original to:

Clerk of the District Court
Snake River Basin Adjudication
253 Third Avenue North
PO Box 2707
Twin Falls, ID 83303-2707

2. One copy to the claimant of the water right at the following address:

Name: John W. Jones, Jr.
Deloris D. Jones
Address: P.O. Box 265
Hagerman, ID 83332-0265

3. One copy to the party who filed the objection at the following address:

Name: North Snake Ground Water District
Represented by Dana Hofstetter
Address: Beeman & Hofstetter, P.C.
608 West Franklin Street
P.O. Box 1427
Boise, ID 83701-1427

4. Copies to:

IDWR Document Depository
PO Box 83720
Boise, ID 83720-0098

United States Department of Justice
Environment and Natural Resource Division
5550 West Fort Street, MSC 033
Boise, ID 83724

Chief, Natural Resources Division
Office of the Attorney General
State of Idaho
PO Box 44449
Boise, ID 83711-4449

Michael Creamer
Givens Pursley, LLP
277 North Sixth, Suite 200
Boise, ID 83701

Your signature or signature of attorney mailing on your behalf

John W. Jr. & Deloris Jones

PATRICK D. BROWN, P.C.
Law Offices
Patrick D. Brown, ISB #4413
109 South Adams
Jerome, ID 83338
Telephone: (208) 644-1967
Facsimile: (208) 633-1970

RECEIVED
JUL 28 2000
Department of Water Resources

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

In Re SRBA	)	**A. Subcase 36-00068**
	)	
Case No. 39576	)	**STANDARD FORM 2**
	)	**RESPONSE TO OBJECTION**
	)	
	)	

B. NAME AND ADDRESS OF PERSON RESPONDING

Name: John W. Jones, Jr.
Deloris D. Jones
Address: P.O. Box 265
Hagerman, ID 83332-0265

RECEIVED
SEP 01 2000
Department of Water Resources
Southern Region

Daytime Phone: (208) 837-4580

Name & Address of attorney, if any:

Patrick D. Brown, P.C.
109 S. Adams St.
Jerome, Idaho 83338
ph: (208) 644-1967

C. NAME AND ADDRESS OF PERSON WHO FILED THE OBJECTION TO WHICH YOU ARE RESPONDING:

Name: Kevin Michaelson
Represented by Michael C. Creamer
Address: Givens Pursley, LLP
277 North Sixth, Suite 200
Boise, ID 83701

D. I am responding to the objections to the following elements. (Please check the appropriate box(es)).

1.		Name and Address
2.		Source
3.	X	Quantity
4.		Priority Date
5.		Point(s) of Diversion
6.		Instream Flow Description
7.		Purpose(s) of Use
8.		Period of Year
9.	X	Place of Use
11.		**Recommendation**
		This water right should not exist.
		This water right was not recommended, but should be recommended with the elements described above.

E. COMMENTS.

This water right should be decreed as recommended by IDWR in its Amended Director's Report dated June 23, 2000.

F. VERIFICATION (Must be Completed)

STATE OF IDAHO)
:ss.
County of Jerome)

Patrick D. Brown, duly sworn, upon oath, deposes and says:

That I am the party/claimant filing this response, as defined by I.C. 42-1401A(1) and (6) or that I am the attorney for the party/claimant responding and that I have read this response, know its contents and believe that the statements are true to the best of my knowledge.

(Signature of person filing response)

(Attorney signing in representative capacity)

Subscribed and sworn to before me on: 7/27/00

PATRICIA J. FAHRENHOLZ NOTARY PUBLIC STATE OF IDAHO

Notary Public for Idaho
Residing at: Twin Falls
My Commission Expires: 11-09-2004

INSTRUCTIONS FOR MAILING

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G. CERTIFICATE OF MAILING

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PO Box 2707
Twin Falls, ID 83303-2707

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Name: John W. Jones, Jr.
Deloris D. Jones
Address: P.O. Box 265
Hagerman, ID 83332-0265

3. One copy to the party who filed the objection at the following address:

Name: Kevin Michaelson.
Represented by Michael C. Creamer
Address: Givens Pursley, LLP
277 North Sixth, Suite 200
Boise, ID 83701

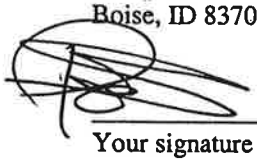
4. Copies to:

IDWR Document Depository
PO Box 83720
Boise, ID 83720-0098

United States Department of Justice
Environment and Natural Resource Division
5550 West Fort Street, MSC 033
Boise, ID 83724

Chief, Natural Resources Division
Office of the Attorney General
State of Idaho
PO Box 44449
Boise, ID 83711-4449

Dana Hofstetter
Beeman & Hofstetter
608 West Franklin Street
P.O. Box 1427
Boise, ID 83701-1427



Your signature or signature of attorney mailing on your behalf

RECEIVED
JUL 18 2000
Department of Water Resources

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE

STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

In Re SRBA Case No. 39576	A. Subcase 36-00068 **STANDARD FORM 1 OBJECTION**

RECEIVED
SEP 21 2000
Department of Water Resources
Southern Region

Please **print or type** the following information:

B. **NAME AND ADDRESS OF PERSON OBJECTING**

Name: Kevin Michaelson

Address: 2590 Quigley Road

American Falls, ID 83211

Daytime Phone: 208-226-7203

Name & Address of Attorney, if any:

Jeffrey C. Fereday
Michael C. Creamer
John M. Marshall
Givens Pursley, LLP
277 N. Sixth, Suite 200
Boise, ID 83701
Phone (208) 388-1200
Fax (208) 388-1300

C. **CLAIMANT OF WATER RIGHT AS LISTED IN DIRECTOR'S REPORT**

Name: John W. Jones, Jr. and Deloris D. Jones

Address: P.O. Box 265

Hagerman, ID 83332

D. I object to the following elements. (Please check the appropriate box(es)).

1. ☐ **Name and Address**

   Should be _____

2. ☐ **Source**

   Should be _____

3. ☒ **Quantity**

   Should be 7.8 cfs

4. ☐ **Priority Date**

   Should be _____

5. ☐ **Point(s) of Diversion**

   Should be _____

6. ☐ **Instream Flow Description**

   Should be _____

7. ☐ **Purpose(s) of Use**

   Should be _____

8. ☐ **Period of Year**

   Should be _____

9. ☒ **Place of Use**

   Should be 312.5 acres

11. **Recommendation**

   ☐ This water right should not exist.

   ☐ This water right was not recommended, but should be recommended with the elements described above.

E. **REASONS SUPPORTING OBJECTION(S):**

That portion of the recommended quantity in excess of 7.8 cfs has been forfeited or abandoned. The place of use recommended contains approximately 100 enlargement acres.

F. **VERIFICATION** (Must be Completed)

State of Idaho)
)ss.
County of Ada)

Michael C. Creamer, duly sworn, upon oath deposes and says:
(Name of person filing response)

That I am the party/claimant filing this response as defined by I.C. §§ 42-1401A(1) and (6) or that I am the attorney for the party/claimant responding and that I have read this response, know its contents and believe that the statements are true to the best of my knowledge.

(Signature of person filing response)

Michael C. Creamer, of Givens Pursley, LLP
(Attorney signing in representative capacity)

Subscribed and sworn to before me on: July 17, 2002

Notary Public for Idaho
Residing at: Boise
My Commission Expires: 1-21-06

ELIZABETH T HAUBR-KILIAN
NOTARY PUBLIC
STATE OF IDAHO

CERTIFICATE OF MAILING

I certify that on July 17, 2000 I mailed copies of this response, including all attachments, to the following persons:

1. One copy to the claimant of the water right at the following address:

John W. Jones, Jr. and Deloris D. Jones
P.O. Box 265
Hagerman, ID 83332

2. Copies to:

IDWR Document Depository
P.O. Box 83720
Boise, ID 83720-0098

Chief, Natural Resources Division
Office of the Attorney General
State of Idaho
P.O. Box 44449
Boise, ID 83711-4449

United States Department of Justice
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550 West Fort Street, MSC 033
Boise, ID 83724

Patrick Brown
109 S. Adams St.
Jerome, ID 83338

Dana Hofstetter
Beeman & Hofstetter
P.O. Box 1427
Boise, ID 83701-1427

Peter Ampe
Deputy Attorney General
State of Idaho
P.O. Box 44449
Boise, ID 83711-4449

Michael C. Creamer

RECEIVED
JUL 18 20
Department of Water Resources

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

In Re SRBA

Case No. 39576

A. Subcase 36-00068

STANDARD FORM 1 OBJECTION

Please **print or type** the following information:

B. **NAME AND ADDRESS OF PERSON OBJECTING**

RECEIVED
SEP 01 2000
Department of Water Resources
Southern Region

Name: Cranney Bros.

Address: c/o Mike Cranney
Box 44A
Oakley, ID 83346

Daytime Phone: 208-862-3480

Name & Address of Attorney, if any:

Jeffrey C. Fereday
Michael C. Creamer
John M. Marshall
Givens Pursley, LLP
277 N. Sixth, Suite 200
Boise, ID 83701
Phone (208) 388-1200
Fax (208) 388-1300

C. **CLAIMANT OF WATER RIGHT AS LISTED IN DIRECTOR'S REPORT**

Name: John W. Jones, Jr. and Deloris D. Jones

Address: P.O. Box 265
Hagerman, ID 83332

D. I object to the following elements. (Please check the appropriate box(es)).

1. ☐ **Name and Address**

   Should be _____

2. ☐ **Source**

   Should be _____

3. ☒ **Quantity**

   Should be 7.8 cfs

4. ☐ **Priority Date**

   Should be _____

5. ☐ **Point(s) of Diversion**

   Should be _____

6. ☐ **Instream Flow Description**

   Should be _____

7. ☐ **Purpose(s) of Use**

   Should be _____

8. ☐ **Period of Year**

   Should be _____

9. ☒ **Place of Use**

   Should be 312.5 acres

11. **Recommendation**

   ☐ This water right should not exist.

   ☐ This water right was not recommended, but should be recommended with the elements described above.

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F. **VERIFICATION** (Must be Completed)

State of Idaho)
)ss.
County of Ada)

Michael C. Creamer, duly sworn, upon oath deposes and says:
(Name of person filing response)

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(Signature of person filing response)

Michael C. Creamer, of Givens Pursley, LLP
(Attorney signing in representative capacity)

Subscribed and sworn to before me on: July 17, 2000

Notary Public for Idaho
Residing at: Boise
My Commission Expires: 1-21-06

ELIZABETH T HAUER-KILIAN NOTARY PUBLIC STATE OF IDAHO

CERTIFICATE OF MAILING

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P.O. Box 265
Hagerman, ID 83332

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Office of the Attorney General
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Patrick Brown
109 S. Adams St.
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Dana Hofstetter
Beeman & Hofstetter
P.O. Box 1427
Boise, ID 83701-1427

Peter Ampe
Deputy Attorney General
State of Idaho
P.O. Box 44449
Boise, ID 83711-4449

Michael C. Creamer

RECEIVED

JUL 18 2000

Department of Water Resources

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE

STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

In Re SRBA	A. Subcase 36-00068
Case No. 39576	**STANDARD FORM 1 OBJECTION**

Please **print or type** the following information:

B. **NAME AND ADDRESS OF PERSON OBJECTING**

RECEIVED

SEP 01 2000

Department of Water Resources
Southern Region

Name: Doug Grant

Address: 600 N. 707 E.

Rupert, ID 83350

Daytime Phone: 208-531-5149

Name & Address of Attorney, if any:

Jeffrey C. Fereday
Michael C. Creamer
John M. Marshall
Givens Pursley, LLP
277 N. Sixth, Suite 200
Boise, ID 83701
Phone (208) 388-1200
Fax (208) 388-1300

C. **CLAIMANT OF WATER RIGHT AS LISTED IN DIRECTOR'S REPORT**

Name: John W. Jones, Jr. and Deloris D. Jones

Address: P.O. Box 265

Hagerman, ID 83332

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   Should be _____

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3. ☒ **Quantity**

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   Should be _____

5. ☐ **Point(s) of Diversion**

   Should be _____

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7. ☐ **Purpose(s) of Use**

   Should be _____

8. ☐ **Period of Year**

   Should be _____

9. ☒ **Place of Use**

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)ss.
County of Ada)

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(Name of person filing response)

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(Signature of person filing response)

Michael C. Creamer, of Givens Pursley, LLP
(Attorney signing in representative capacity)

Subscribed and sworn to before me on: July 17, 2000

Notary Public for Idaho
Residing at: Boise
My Commission Expires: 1-21-06

ELIZABETH T HAUBR-KILLIAN NOTARY PUBLIC STATE OF IDAHO

CERTIFICATE OF MAILING

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1. One copy to the claimant of the water right at the following address:

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P.O. Box 265
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United States Department of Justice
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550 West Fort Street, MSC 033
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Patrick Brown
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Jerome, ID 83338

Dana Hofstetter
Beeman & Hofstetter
P.O. Box 1427
Boise, ID 83701-1427

Peter Ampe
Deputy Attorney General
State of Idaho
P.O. Box 44449
Boise, ID 83711-4449

Michael C. Creamer

COPY

SECOND AMENDED DIRECTOR'S REPORT

Subcase Nos. 36-00068 and 36-00069

In Re SRBA
Twin Falls County Civil Case No. 39576

RECEIVED
JUN 26 2000
Department of Water Resources
Southern Region

Report to the SRBA District Court

Prepared by the Idaho Department of Water Resources
Karl J. Dreher, Director
David R. Tuthill, Jr., Adjudication Bureau Chief

June 23, 2000

DESCRIPTIVE SUMMARY

This is a Second Amended Director's Report submitted by the Director of the Idaho Department of Water Resources.

DISCUSSION

Pursuant to Special Master Cushman's *2nd Amended Trial Scheduling Order* of June 12, 2000, the Director submits for filing with the Court, a Second Amended Director's Report for the aforementioned subcases.

Respectfully submitted this 23rd day of June, 2000.

David R. Tuthill, Jr.

DAVID R. TUTHILL, JR.
Adjudication Bureau Chief

RIGHTS FROM: SOURCE: WEATHERBY SPRINGS TRIBUTARY: BILLINGSLEY CREEK

RIGHT NUMBER: 36-00068

NAME AND ADDRESS: JOHN W JONES JR
DELORIS D JONES
PO BOX 265
HAGERMAN ID 83332

SOURCE: WEATHERBY SPRINGS TRIBUTARY: BILLINGSLEY CREEK

QUANTITY: 10.74 CFS
8/23 CFS

THE QUANTITY FOR NON/IRRIGATION USE IS LIMITED TO THE AMOUNT BENEFICIALLY USED FOR/ DOMESTIC/ 5 HOMES/ STOCKWATER/ 300 RANGE

THE APPROPRIATOR IS ENTITLED TO THE QUANTITY OF WATER DESCRIBED FOR STOCK WATER PURPOSES AT A POINT OF MEASUREMENT WHERE THE DELIVERY DITCH ENTERS THE PLACE OF USE DESCRIBED, SO LONG AS THE QUANTITY DIVERTED AT THE POINT OF DIVERSION DOES NOT CONSTITUTE UNREASONABLE WASTE.

THE APPROPRIATOR IS ENTITLED TO THE AMOUNT OF WATER DESCRIBED FOR DOMESTIC PURPOSES AT A POINT OF MEASUREMENT WHERE THE DELIVERY DITCH ENTERS THE PLACE OF USE DESCRIBED, SO LONG AS THE QUANTITY DIVERTED AT THE POINT OF DIVERSION DOES NOT CONSTITUTE UNREASONABLE WASTE.

THE QUANTITY OF WATER UNDER THIS RIGHT FOR DOMESTIC AND STOCKWATER USES SHALL NOT EXCEED 13,000 GALLONS PER DAY.

USE OF THIS RIGHT WITH RIGHT NO. 36-00069 IS LIMITED TO A TOTAL COMBINED DIVERSION RATE OF 10.74 CFS.

PRIORITY DATE: 02/01/1888

POINT OF DIVERSION: T07S R14E S30 SENESW Within GOODING County

PURPOSE AND PERIOD OF USE:

PURPOSE OF USE	PERIOD OF USE		QUANTITY	
IRRIGATION	02-15	11-30	10.51	CFS
	03/15	11/15	8/02	CFS
STOCKWATER	01-01	12-31	0.12	CFS
DOMESTIC 5 HOMES	01-01	12-31	0.11	CFS

PLACE OF USE: IRRIGATION Within GOODING County

T07S R13E S25	NENE 40	NWNE 40	SWNE 40	SENE 40

36-00068 (CONT.)

	NESE 38 NESE 37	NWSE 38	SWSE 30 SWSE 29	SESE 36 SESE 38
R14E S30	Lot 1 (NWNW)18 Lot 1 (NWNW)19	Lot 2 (SWNW)25 Lot 2 (SWNW)27	NESW 5 NESW 4	Lot 3 (NWSW)26 Lot 3 (NWSW)23
	Lot 4 (SWSW)27	SESW 11 SESW 12		

414 ACRES TOTAL
401 ACRES TOTAL

USE OF THIS RIGHT WITH RIGHT NO. 36-00069 IS LIMITED TO TO THE IRRIGATION OF A COMBINED TOTAL OF 414 ACRES IN A SINGLE IRRIGATION SEASON.

STOCKWATER — Within GOODING County
T07S R14E S25 NESE
S30 Lot 3 (NWSW)

DOMESTIC — Within GOODING County
T07S R14E S25 NESE

OTHER PROVISIONS NECESSARY FOR DEFINITION OR ADMINISTRATION OF THIS WATER RIGHT:

THE QUANTITY OF WATER DECREED FOR THIS WATER RIGHT FOR DOMESTIC USE AND STOCKWATER USE IS NOT A DETERMINATION OF HISTORICAL BENEFICIAL USE.

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.

USE OF THIS RIGHT WITH RIGHT NO. 36-00069 IS LIMITED TO A TOTAL COMBINED DIVERSION RATE OF 8.23 CFS, A TOTAL COMBINED ANNUAL CONSUMPTIVE USE VOLUME OF 1203 AF, AND TO THE IRRIGATION OF A COMBINED TOTAL OF 401 ACRES IN A SINGLE IRRIGATION SEASON.

EXPLANATORY MATERIAL: BASIS OF CLAIM - DECREE

RIGHTS FROM: SOURCE: HOAGLAND TUNNEL TRIBUTARY: BILLINGSLEY CREEK

RIGHT NUMBER: 36-00069

NAME AND ADDRESS:
DELORIS D JONES
JOHN W JONES JR
PO BOX 265
HAGERMAN ID 83332

SOURCE: HOAGLAND TUNNEL TRIBUTARY: BILLINGSLEY CREEK

QUANTITY: 1.00 CFS

THE APPROPRIATOR IS ENTITLED TO THE QUANTITY OF WATER DESCRIBED FOR STOCK WATER PURPOSES AT A POINT OF MEASUREMENT WHERE THE DELIVERY DITCH ENTERS THE PLACE OF USE DESCRIBED, SO LONG AS THE QUANTITY DIVERTED AT THE POINT OF DIVERSION DOES NOT CONSTITUTE UNREASONABLE WASTE.

THE QUANTITY OF WATER UNDER THIS RIGHT FOR STOCKWATER USE SHALL NOT EXCEED 13,000 GALLONS PER DAY.

USE OF THIS RIGHT WITH RIGHT NO. 36-00068 IS LIMITED TO A TOTAL COMBINED DIVERSION RATE OF 10.74 CFS.

PRIORITY DATE: 02/01/1888

POINT OF DIVERSION: T07S R14E S30 SENESW Within GOODING County

PURPOSE AND PERIOD OF USE:

PURPOSE OF USE	PERIOD OF USE		QUANTITY	
IRRIGATION	02-15	11-30	1.00	CFS
	03/15	11/15		
STOCKWATER	01-01	12-31	0.12	CFS

PLACE OF USE: IRRIGATION Within GOODING County

T07S R13E S25
NENE 40 NWNE 40 SWNE 40 SENE 40
NESE 38 NWSE 38 SWSE 30 SESE 36
NESE 37 SWSE 29 SESE 38

R14E S30
Lot 1 (NWNW)18 Lot 2 (SWNW)25 NESW 5 Lot 3 (NWSW)26
Lot 1 (NWNW)19 Lot 2 (SWNW)21 NESW 4 Lot 3 (NWSW)23
Lot 4 (SWSW)27 SESW 11
SESW 12

414 ACRES TOTAL
401 ACRES TOTAL

USE OF THIS RIGHT WITH RIGHT NO. 36-00068 IS LIMITED TO THE IRRIGATION OF A COMBINED TOTAL OF 414 ACRES IN A SINGLE

36-00069 (CONT.)

IRRIGATION SEASON.

STOCKWATER		Within GOODING County
T07S R13E S25		NESE
R14E S30	Lot 3 (NWSW)	

OTHER PROVISIONS NECESSARY FOR DEFINITION OR ADMINISTRATION OF THIS WATER RIGHT:

THE QUANTITY OF WATER DECREED FOR THIS WATER RIGHT FOR STOCKWATER USE IS NOT A DETERMINATION OF HISTORICAL BENEFICIAL USE.

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.

USE OF THIS RIGHT WITH RIGHT NO/ 36/00068 IS LIMITED TO A TOTAL COMBINED DIVERSION RATE OF 8/23 CFS/ A TOTAL COMBINED ANNUAL CONSUMPTIVE USE VOLUME OF 7203 AF/ AND TO THE IRRIGATION OF A COMBINED TOTAL OF 401 ACRES IN A SINGLE IRRIGATION SEASON/

EXPLANATORY MATERIAL: BASIS OF CLAIM - DECREE

CERTIFICATE OF MAILING

I certify that on 6-23, 2000, I mailed and/or delivered the original and copies of this form, including all attachments, to the following interested parties, in the manner indicated:

1. Original to:

Clerk of the District Court
Snake River Basin Adjudication
253 Third Avenue North
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Sandy Egbert
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Memorandum

To: Nick Spencer

From: Marci Pape

Date: 6/16/00

Re: Irrigation Diversion Rate Analysis – Water Rights 36-00068 & 36-00069

I have completed the irrigation diversion rate analysis for the water rights listed above. Below is a summary of the information on which I based my calculations, any assumptions that were made, and the results of the analysis.

CALCULATIONS

The individual field boundaries were determined by using the same 1969 SCS photo that Chuck Brockway used in his April 25, 1999 expert witness report for these rights. My estimation of the total acreage being irrigated at the time of that photo (which was before the conversion to sprinklers) was **304.4 acres**. Brockway's report lists two different acreage totals. He gave a total of **326.5 acres** within the text of the report, but the acreage total listed in the attachments was **312.5 acres**. Brockway has since acknowledged that there was an error in the report that, if corrected, would reduce the total by 10 acres. Terry Scanlan also produced a report for these water rights, in which he estimated the total acreage to be **338 acres** at the time of the 1969 photo.

Slopes and furrow lengths were determined using ArcView and digital topographic maps. I used the same furrow directions as those shown on the map attached to Brockway's report. However, the flow direction was not clear on the photo for a few fields. For those fields, I assumed the direction of flow. Three of the fields, Fields B, C, and O, were split for the purpose of the analysis. Each of those fields had furrow lengths that varied significantly throughout the field. Therefore, the fields were split with each portion then being evaluated separately. I assumed furrow spacings of 2 ft for pasture and grain, 2.5 ft for alfalfa hay, and 3 ft for corn. The corn spacing is based on information given in Figure A-6 of the Hubble Report, and the other spacings are based on standards given in Jeff Peppersack's "Report Regarding Evaluation of Irrigation Diversion Rates" (January 14, 1999).

I requested a crop history for each individual field, but did not receive that. Instead, Chuck Brockway supplied crop distributions for the property as a whole. He supplied two different distributions, the first of which is the one used in his 1999 report: 50% alfalfa, 20% corn, 15% pasture, and 15% grain. I spoke with Brockway on June 2, 2000, at which time he gave me a new distribution provided to him by the claimant: 51% alfalfa, 5% corn, 34% pasture, and 10% grain. With this limited information, it was necessary to choose which fields I would analyze using which crops. Starting with pasture, I studied the aerial photos and chose those fields that looked as if they had always contained pasture (ex. - more uneven appearance, steep slopes, unusual field shapes). I then distributed the different crops between the other fields, matching acreage distributions as closely

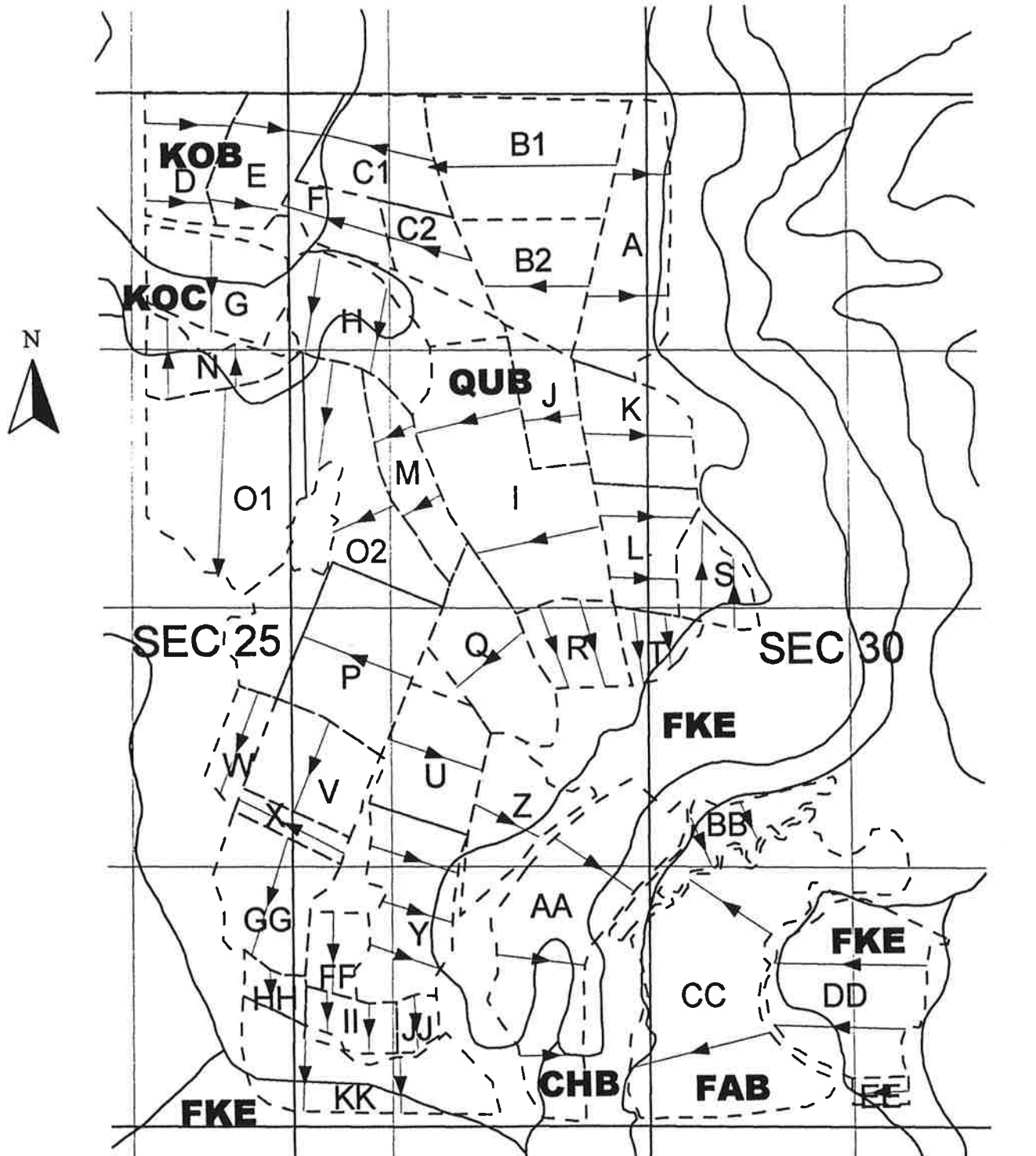
as possible. I attempted to distribute crops so that there would be a variety of slopes, furrow lengths, and acreages for each crop type to account for the lack of exact cropping information.

Because I was given two different crop distributions, it was necessary to analyze some fields using two different crops. Only seven of the fields were affected by the change in crop distribution. Those fields are: GG, II, A, H, I, K, and L. I have attached a detailed description of which fields were analyzed using each of the four crops.

RESULTS

Using the original crop distribution given in Brockway's report, I calculated a total diversion rate of **9.53 cfs** for 304.4 acres, or **0.031 cfs per acre**. Using the new crop distribution, the total diversion rate was slightly higher: **10.51 cfs** for 304.4 acres, or **0.035 cfs per acre**. Assuming that both distributions have historically been used on the property, I suggest that we amend our recommendation to 10.51 cfs for 304.4 acres or to 0.035 cfs per acre for whatever acres have been agreed upon by the parties involved.

Water Right Nos. 36-00068 & 36-00069



2 Field Number
Field Boundary
HB Soil Type
Soil Boundary
Quarter-Quarter Lines
Section Lines
Furrow Direction

FIELD IRRIGATION REQUIREMENT

initials: MP Claimant = Jones - Fields AA-JJ using Brockway's latest crop distribution

date: 06/11/00 Weather Station = Bliss/Hagerman

field no.	crop	acres	irrig. system	eff. (%)	Monthly ET (mm/day) mar	apr	may	jun	jul	aug	sep	oct	AVE IR season (mm/yr)	net irrig. app. (in)	ET ratio	irrig. freq. (days)	Gross Irrigation Application (peak period ET/eff. in mm/day) mar	apr	may	jun	jul	aug	sep	oct	season (mm/yr)
AA	alfh	18.6	cor	69		6.14	7.68	9.33	9.22	7.87	6.32	4.36		2.85	1.09	7.1		6.00	9.35	11.33	11.20	9.56	7.71	5.32	
BB	sgrn	4.8	cor	33		1.92	5.78	9.31	7.61	1.61				2.28	1.10	5.7		6.40	19.27	31.03	25.37	5.37			
CC	alfh	25.5	cor	67		6.14	7.68	9.33	9.22	7.87	6.32	4.36		2.85	1.09	7.1		9.99	12.49	15.18	15.00	12.80	10.28	7.09	
DD	alfh	13.4	cor	66		6.14	7.68	9.33	9.22	7.87	6.32	4.36		2.85	1.09	7.1		10.14	12.68	15.41	15.23	13.00	10.44	7.20	
EE	past	0.9	cor	30		3.8	5.92	7.17	7.09	6.05	4.88	3.37		1.71	1.12	5.4		14.19	22.10	26.77	26.47	22.59	18.22	12.58	
FF	alfh	2.7	cor	65		6.14	7.68	9.33	9.22	7.87	6.32	4.36		3.00	1.09	7.5		10.30	12.88	15.65	15.46	13.20	10.60	7.31	
GG	past	7.6	cor	34		3.8	5.92	7.17	7.09	6.05	4.88	3.37		1.80	1.12	5.7		12.52	19.50	23.62	23.36	19.93	16.08	11.10	
HH	alfh	1.6	cor	43		6.14	7.68	9.33	9.22	7.87	6.32	4.36		3.00	1.09	7.5		15.56	19.47	23.65	23.37	19.95	16.02	11.05	
II	alfh	2.6	cor	54		6.14	7.68	9.33	9.22	7.87	6.32	4.36		3.00	1.09	7.5		12.39	15.50	18.83	18.61	15.89	12.76	8.80	
JJ	alfh	1.2	cor	65		6.14	7.68	9.33	9.22	7.87	6.32	4.36		3.00	1.09	7.5		10.30	12.88	15.65	15.46	13.20	10.60	7.31	
	Summary	78.9																9.36	13.24	16.53	16.02	12.68	9.94	6.86	

Peak Gross Irrigation Application (mm/day) =	16.53
On-Farm Irrigation Requirement (cfs/acre) =	0.027
Total On-Farm Irrigation Requirement (cfs) =	2.16
Irrigation Diversion Volume (ft/yr) =	0.00
Total Irrigation Diversion Volume (ac-ft/yr) =	0

Total On-Farm Irrigation Requirement = (2.16 + 3.32 + 3.56 + 1.47) cfs

= 10.51 cfs

Total acres = (78.9 + 92.8 + 81.2 + 51.5) ac

= 304.4 ac.

FIELD IRRIGATION REQUIREMENT

initials: MP Claimant = Jones - Fields KK-I using Brockway's latest crop distribution

date: 06/11/00 Weather Station = Bliss/Hagerman

field no.	crop	acres	irrig. system	eff. (%)	Monthly ET (mm/day) mar	apr	may	jun	jul	aug	sep	oct	AVE IR season (mm/yr)	net irrig. app. (in)	ET ratio	irrig. freq. (days)	Gross Irrigation Application (peak period ET/eff. in mm/day) mar	apr	may	jun	jul	aug	sep	oct	season (mm/yr)
KK	alfh	10.1	cor	62		6.14	7.68	9.33	9.22	7.87	6.32	4.36		2.85	1.09	7.1		10.79	13.50	16.40	16.21	13.84	11.11	7.67	
A	past	10.9	cor	31		3.8	5.92	7.17	7.09	6.05	4.88	3.37		1.80	1.12	5.7		13.73	21.39	25.90	25.62	21.86	17.63	12.18	
B1	sgrn	13.3	cor	37		1.92	5.78	9.31	7.61	1.61				2.40	1.10	6.0		5.71	17.18	27.68	22.62	4.79			
B2	sgrn	8	cor	38		1.92	5.78	9.31	7.61	1.61				2.40	1.10	6.0		5.56	16.73	26.95	22.03	4.66			
D	alfh	5.9	cor	70		6.14	7.68	9.33	9.22	7.87	6.32	4.36		2.89	1.09	7.2		9.56	11.96	14.53	14.36	12.25	9.84	6.79	
E	alfh	6.9	cor	70		6.14	7.68	9.33	9.22	7.87	6.32	4.36		2.89	1.09	7.2		9.56	11.96	14.53	14.36	12.25	9.84	6.79	
F	alfh	3.5	cor	65		6.14	7.68	9.33	9.22	7.87	6.32	4.36		3.00	1.09	7.5		10.30	12.88	15.65	15.46	13.20	10.60	7.31	
G	corn	7.5	fur	48			2.31	4.06	8.3	7.26	4.73	1.22		2.44	1.10	6.8			5.29	9.30	19.02	16.64	10.84	2.80	
H	past	8.3	cor	35		3.8	5.92	7.17	7.09	6.05	4.88	3.37		1.80	1.12	5.7		12.16	18.94	22.94	22.69	19.36	15.62	10.78	
I	past	18.4	cor	31		3.8	5.92	7.17	7.09	6.05	4.88	3.37		1.80	1.12	5.7		13.73	21.39	25.90	25.62	21.86	17.63	12.18	
	Summary	92.8																9.60	16.39	21.65	21.12	14.76	10.81	7.08	

Peak Gross Irrigation Application (mm/day) =	21.65
On-Farm Irrigation Requirement (cfs/acre) =	0.036
Total On-Farm Irrigation Requirement (cfs) =	3.32
Irrigation Diversion Volume (ft/yr) =	0.00
Total Irrigation Diversion Volume (ac-ft/yr) =	0

FIELD IRRIGATION REQUIREMENT

initials: MP Claimant = Jones - Fields J-R using Brockway's latest crop distribution

date: 06/13/00 Weather Station = Bliss/Hagerman

field no.	crop	acres	irrig. system	eff. (%)	Monthly ET (mm/day) mar	apr	may	jun	jul	aug	sep	oct	AVE IR season (mm/yr)	net irrig. app. (in)	ET ratio	irrig. freq. (days)	Gross Irrigation Application (peak period ET/eff. in mm/day) mar	apr	may	jun	jul	aug	sep	oct	season (mm/yr)
J	alfh	4.5	cor	65		6.14	7.68	9.33	9.22	7.87	6.32	4.36		3.00	1.09	7.5		6.37	9.93	12.02	11.89	10.15	8.18	5.65	
K	past	6.9	cor	31		3.8	5.92	7.17	7.09	6.05	4.88	3.37		1.80	1.12	5.7		13.73	21.39	25.90	25.62	21.86	17.63	12.18	
L	past	6	cor	31		3.8	5.92	7.17	7.09	6.05	4.88	3.37		1.80	1.12	5.7		13.73	21.39	25.90	25.62	21.86	17.63	12.18	
M	alfh	5	cor	54		6.14	7.68	9.33	9.22	7.87	6.32	4.36		3.00	1.09	7.5		12.39	15.50	18.83	18.61	15.89	12.76	8.80	
N	past	4	cor	31		3.8	5.92	7.17	7.09	6.05	4.88	3.37		1.80	1.12	5.7		13.73	21.39	25.90	25.62	21.86	17.63	12.18	
O1	past	16.4	cor	16		3.8	5.92	7.17	7.09	6.05	4.88	3.37		1.80	1.12	5.7		26.60	41.44	50.19	49.63	42.35	34.16	23.59	
O2	past	14.6	cor	31		3.8	5.92	7.17	7.09	6.05	4.88	3.37		1.80	1.12	5.7		13.73	21.39	25.90	25.62	21.86	17.63	12.18	
P	alfh	10.8	cor	65		6.14	7.68	9.33	9.22	7.87	6.32	4.36		3.00	1.09	7.5		10.30	12.88	15.65	15.46	13.20	10.60	7.31	
Q	alfh	8.3	cor	70		6.14	7.68	9.33	9.22	7.87	6.32	4.36		3.00	1.09	7.5		9.56	11.96	14.53	14.36	12.25	9.84	6.79	
R	alfh	4.7	cor	65		6.14	7.68	9.33	9.22	7.87	6.32	4.36		3.00	1.09	7.5		10.30	12.88	15.65	15.46	13.20	10.60	7.31	
	Summary	81.2																14.76	21.85	26.48	26.18	22.35	18.01	12.43	

Peak Gross Irrigation Application (mm/day) =	26.48
On-Farm Irrigation Requirement (cfs/acre) =	0.044
Total On-Farm Irrigation Requirement (cfs) =	3.56
Irrigation Diversion Volume (ft/yr) =	0.00
Total Irrigation Diversion Volume (ac-ft/yr) =	0

FIELD IRRIGATION REQUIREMENT

initials: MP Claimant = Jones - Fields S-Z & C using crop distribution in Brockway's 4/99 report

date: 06/07/00 Weather Station = Bliss/Hagerman

← None of the fields listed here changed with the new distribution, so a new FIR sheet wasn't necessary.

d no.	crop	acres	irrig. system	eff. (%)	Monthly ET (mm/day) mar	apr	may	jun	jul	aug	sep	oct	AVE IR season (mm/yr)	net irrig. app. (in)	ET ratio	irrig. freq. (days)	Gross Irrigation Application (peak period ET/eff. in mm/day) mar	apr	may	jun	jul	aug	sep	oct	season (mm/yr)
S	sgm	3.8	cor	39		1.92	5.78	9.31	7.61	1.61				2.28	1.10	5.7		10.72	16.70	20.22	20.00	17.06	13.76	9.51	
T	alfh	2.6	cor	70		6.14	7.68	9.33	9.22	7.87	6.32	4.36		2.85	1.09	7.1		9.56	11.96	14.53	14.36	12.25	9.84	6.79	
U	alfh	7.1	cor	65		6.14	7.68	9.33	9.22	7.87	6.32	4.36		3.00	1.09	7.5		10.30	12.88	15.65	15.46	13.20	10.60	7.31	
V	corn	6.7	fur	62			2.31	4.06	8.3	7.26	4.73	1.22		2.40	1.10	6.7			4.10	7.20	14.73	12.88	8.39	2.16	
W	past	2.6	cor	31		3.8	5.92	7.17	7.09	6.05	4.88	3.37		1.80	1.12	5.7		13.73	21.39	25.90	25.62	21.86	17.63	12.18	
X	corn	1.9	fur	68			2.31	4.06	8.3	7.26	4.73	1.22		2.40	1.10	6.7			3.74	6.57	13.43	11.74	7.65	1.97	
Y	alfh	9.1	cor	62		6.14	7.68	9.33	9.22	7.87	6.32	4.36		2.85	1.09	7.1		10.79	13.50	16.40	16.21	13.84	11.11	7.67	
Z	past	6.4	cor	35		3.8	5.92	7.17	7.09	6.05	4.88	3.37		1.71	1.12	5.4		12.16	18.94	22.94	22.69	19.36	15.62	10.78	
C1	alfh	7.4	cor	65		6.14	7.68	9.33	9.22	7.87	6.32	4.36		3.00	1.09	7.5		10.30	12.88	15.65	15.46	13.20	10.60	7.31	
C2	alfh	3.9	cor	58		6.14	7.68	9.33	9.22	7.87	6.32	4.36		3.00	1.09	7.5		11.54	14.43	17.53	17.33	14.79	11.88	8.19	
	Summary	51.5																9.16	13.05	16.20	17.25	14.78	11.56	7.39	

Peak Gross Irrigation Application (mm/day) =	17.25
On-Farm Irrigation Requirement (cfs/acre) =	0.029
Total On-Farm Irrigation Requirement (cfs) =	1.47
Irrigation Diversion Volume (ft/yr) =	0.00
Total Irrigation Diversion Volume (ac-ft/yr) =	0

FIELD IRRIGATION REQUIREMENT

initials: MP Claimant = Jones - Fields AA-JJ using crop distribution in Brockway's 4/99 report

date: 06/07/00 Weather Station = Bliss/Hagerman

field no.	crop	acres	Irrig. system	eff. (%)	Monthly ET (mm/day) mar	apr	may	jun	jul	aug	sep	oct	AVE IR season (mm/yr)	net irrig. app. (in)	ET ratio	irrig. freq. (days)	Gross Irrigation Application (peak period ET/eff. in mm/day) mar	apr	may	jun	jul	aug	sep	oct	season (mm/yr)
AA	alfh	18.6	cor	69		6.14	7.68	9.33	9.22	7.87	6.32	4.36		2.85	1.09	7.1		6.00	9.35	11.33	11.20	9.56	7.71	5.32	
BB	sgrn	4.8	cor	33		1.92	5.78	9.31	7.61	1.61				2.28	1.10	5.7		6.40	19.27	31.03	25.37	5.37			
CC	alfh	25.5	cor	67		6.14	7.68	9.33	9.22	7.87	6.32	4.36		2.85	1.09	7.1		9.99	12.49	15.18	15.00	12.80	10.28	7.09	
DD	alfh	13.4	cor	66		6.14	7.68	9.33	9.22	7.87	6.32	4.36		2.85	1.09	7.1		10.14	12.68	15.41	15.23	13.00	10.44	7.20	
EE	past	0.9	cor	30		3.8	5.92	7.17	7.09	6.05	4.88	3.37		1.71	1.12	5.4		14.19	22.10	26.77	26.47	22.59	18.22	12.58	
FF	alfh	2.7	cor	65		6.14	7.68	9.33	9.22	7.87	6.32	4.36		3.00	1.09	7.5		10.30	12.88	15.65	15.46	13.20	10.60	7.31	
GG	corn	7.6	fur	62			2.31	4.06	8.3	7.26	4.73	1.22		2.40	1.10	6.7			4.10	7.20	14.73	12.88	8.39	2.16	
HH	alfh	1.6	cor	43		6.14	7.68	9.33	9.22	7.87	6.32	4.36		3.00	1.09	7.5		15.56	19.47	23.65	23.37	19.95	16.02	11.05	
II	sgrn	2.6	cor	35		1.92	5.78	9.31	7.61	1.61				2.40	1.10	6.0		6.03	18.17	29.26	23.92	5.06			
JJ	alfh	1.2	cor	65		6.14	7.68	9.33	9.22	7.87	6.32	4.36		3.00	1.09	7.5		10.30	12.88	15.65	15.46	13.20	10.60	7.31	
	Summary	78.9																7.94	11.85	15.30	15.36	11.65	8.78	5.71	

Peak Gross Irrigation Application (mm/day) =	15.36
On-Farm Irrigation Requirement (cfs/acre) =	0.025
Total On-Farm Irrigation Requirement (cfs) =	2.00
Irrigation Diversion Volume (ft/yr) =	0.00
Total Irrigation Diversion Volume (ac-ft/yr) =	0

Total On-Farm Irrigation Requirement = (2.00 + 2.54 + 3.52 + 1.47) cfs

= 9.53 cfs

Total Acres = (78.9 + 92.8 + 81.2 + 51.5) ac

= 304.4 ac.

FIELD IRRIGATION REQUIREMENT

initials: MP Claimant = Jones - Fields KK-I using crop distribution in Brockway's 4/99 report

date: 06/07/00 Weather Station = Bliss/Hagerman

crop	acres	irrig. system	eff. (%)	Monthly ET (mm/day) mar	apr	may	jun	jul	aug	sep	oct	AVE IR season (mm/yr)	net irrig. app. (in)	ET ratio	irrig freq. (days)	Gross Irrigation Application (peak period ET/eff. in mm/day) mar	apr	may	jun	jul	aug	sep	oct	season (mm/yr)
alfh	10.1	cor	62		6.14	7.68	9.33	9.22	7.87	6.32	4.36		2.85	1.09	7.1		10.79	13.50	16.40	16.21	13.84	11.11	7.67	
corn	10.9	fur	70			2.31	4.06	8.3	7.26	4.73	1.22		2.40	1.10	6.7			3.63	6.38	13.04	11.41	7.43	1.92	
sgrn	13.3	cor	37		1.92	5.78	9.31	7.61	1.61				2.40	1.10	6.0		5.71	17.18	27.68	22.62	4.79			
sgrn	8	cor	38		1.92	5.78	9.31	7.61	1.61				2.40	1.10	6.0		5.56	16.73	26.95	22.03	4.66			
alfh	5.9	cor	70		6.14	7.68	9.33	9.22	7.87	6.32	4.36		2.89	1.09	7.2		9.56	11.96	14.53	14.36	12.25	9.84	6.79	
alfh	6.9	cor	70		6.14	7.68	9.33	9.22	7.87	6.32	4.36		2.89	1.09	7.2		9.56	11.96	14.53	14.36	12.25	9.84	6.79	
alfh	3.5	cor	65		6.14	7.68	9.33	9.22	7.87	6.32	4.36		3.00	1.09	7.5		10.30	12.88	15.65	15.46	13.20	10.60	7.31	
corn	7.5	fur	48			2.31	4.06	8.3	7.26	4.73	1.22		2.44	1.10	6.8			5.29	9.30	19.02	16.64	10.84	2.80	
corn	8.3	fur	57			2.31	4.06	8.3	7.26	4.73	1.22		2.44	1.10	6.8			4.46	7.84	16.02	14.01	9.13	2.35	
corn	18.4	fur	70			2.31	4.06	8.3	7.26	4.73	1.22		2.40	1.10	6.7			3.63	6.38	13.04	11.41	7.43	1.92	
Summary	92.8																4.18	9.48	14.14	16.56	10.98	7.01	3.09	

Peak Gross Irrigation Application (mm/day) =	16.56
On-Farm Irrigation Requirement (cfs/acre) =	0.027
Total On-Farm Irrigation Requirement (cfs) =	2.54
Irrigation Diversion Volume (ft/yr) =	0.00
Total Irrigation Diversion Volume (ac-ft/yr) =	0

FIELD IRRIGATION REQUIREMENT

initials: MP Claimant = Jones - Fields J-R using crop distribution in Brockway's 4/99 report

date: 06/13/00 Weather Station = Bliss/Hagerman

id no.	crop	acres	irrig. system	eff. (%)	Monthly ET (mm/day) mar	apr	may	jun	jul	aug	sep	oct	AVE IR season (mm/yr)	net irrig. app. (in)	ET ratio	irrig. freq. (days)	Gross Irrigation Application (peak period ET/eff. in mm/day) mar	apr	may	jun	jul	aug	sep	oct	season (mm/yr)
JKLMZOPQR	alfh	4.5	cor	65		6.14	7.68	9.33	9.22	7.87	6.32	4.36		3.00	1.09	7.5		6.37	9.93	12.02	11.89	10.15	8.18	5.65	
	sgrn	6.9	cor	42		1.92	5.78	9.31	7.61	1.61				2.40	1.10	6.0		5.03	15.14	24.38	19.93	4.22			
	sgrn	6	cor	42		1.92	5.78	9.31	7.61	1.61				2.40	1.10	6.0		5.03	15.14	24.38	19.93	4.22			
	alfh	5	cor	54		6.14	7.68	9.33	9.22	7.87	6.32	4.36		3.00	1.09	7.5		12.39	15.50	18.83	18.61	15.89	12.76	8.80	
	past	4	cor	31		3.8	5.92	7.17	7.09	6.05	4.88	3.37		1.80	1.12	5.7		13.73	21.39	25.90	25.62	21.86	17.63	12.18	
	past	16.4	cor	16		3.8	5.92	7.17	7.09	6.05	4.88	3.37		1.80	1.12	5.7		26.60	41.44	50.19	49.63	42.35	34.16	23.59	
	past	14.6	cor	31		3.8	5.92	7.17	7.09	6.05	4.88	3.37		1.80	1.12	5.7		13.73	21.39	25.90	25.62	21.86	17.63	12.18	
	alfh	10.8	cor	65		6.14	7.68	9.33	9.22	7.87	6.32	4.36		3.00	1.09	7.5		10.30	12.88	15.65	15.46	13.20	10.60	7.31	
	alfh	8.3	cor	70		6.14	7.68	9.33	9.22	7.87	6.32	4.36		3.00	1.09	7.5		9.56	11.96	14.53	14.36	12.25	9.84	6.79	
	alfh	4.7	cor	65		6.14	7.68	9.33	9.22	7.87	6.32	4.36		3.00	1.09	7.5		10.30	12.88	15.65	15.46	13.20	10.60	7.31	
	Summary	81.2																13.38	20.86	26.24	25.28	19.54	15.21	10.50	

Peak Gross Irrigation Application (mm/day) =	26.24
On-Farm Irrigation Requirement (cfs/acre) =	0.043
Total On-Farm Irrigation Requirement (cfs) =	3.52
Irrigation Diversion Volume (ft/yr) =	0.00
Total Irrigation Diversion Volume (ac-ft/yr) =	0

FIELD IRRIGATION REQUIREMENT

initials: MP Claimant = Jones - Fields S-Z & C using crop distribution in Brockway's 4/99 report

date: 06/07/00 Weather Station = Bliss/Hagerman

field no.	crop	acres	irrig. system	eff. (%)	Monthly ET (mm/day) mar	apr	may	jun	jul	aug	sep	oct	AVE IR season (mm/yr)	net irrig. app. (in)	ET ratio	irrig. freq. (days)	Gross Irrigation Application (peak period ET/eff. in mm/day) mar	apr	may	jun	jul	aug	sep	oct	season (mm/yr)
S	sgm	3.8	cor	39		1.92	5.78	9.31	7.61	1.61				2.28	1.10	5.7		10.72	16.70	20.22	20.00	17.06	13.76	9.51	
T	alfh	2.6	cor	70		6.14	7.68	9.33	9.22	7.87	6.32	4.36		2.85	1.09	7.1		9.56	11.96	14.53	14.36	12.25	9.84	6.79	
U	alfh	7.1	cor	65		6.14	7.68	9.33	9.22	7.87	6.32	4.36		3.00	1.09	7.5		10.30	12.88	15.65	15.46	13.20	10.60	7.31	
V	corn	6.7	fur	62			2.31	4.06	8.3	7.26	4.73	1.22		2.40	1.10	6.7			4.10	7.20	14.73	12.88	8.39	2.16	
W	past	2.6	cor	31		3.8	5.92	7.17	7.09	6.05	4.88	3.37		1.80	1.12	5.7		13.73	21.39	25.90	25.62	21.86	17.63	12.18	
X	corn	1.9	fur	68			2.31	4.06	8.3	7.26	4.73	1.22		2.40	1.10	6.7			3.74	6.57	13.43	11.74	7.65	1.97	
Y	alfh	9.1	cor	62		6.14	7.68	9.33	9.22	7.87	6.32	4.36		2.85	1.09	7.1		10.79	13.50	16.40	16.21	13.84	11.11	7.67	
Z	past	6.4	cor	35		3.8	5.92	7.17	7.09	6.05	4.88	3.37		1.71	1.12	5.4		12.16	18.94	22.94	22.69	19.36	15.62	10.78	
C1	alfh	7.4	cor	65		6.14	7.68	9.33	9.22	7.87	6.32	4.36		3.00	1.09	7.5		10.30	12.88	15.65	15.46	13.20	10.60	7.31	
C2	alfh	3.9	cor	58		6.14	7.68	9.33	9.22	7.87	6.32	4.36		3.00	1.09	7.5		11.54	14.43	17.53	17.33	14.79	11.88	8.19	
	Summary	51.5																9.16	13.05	16.20	17.25	14.78	11.56	7.39	

Peak Gross Irrigation Application (mm/day) =	17.25
On-Farm Irrigation Requirement (cfs/acre) =	0.029
Total On-Farm Irrigation Requirement (cfs) =	1.47
Irrigation Diversion Volume (ft/yr) =	0.00
Total Irrigation Diversion Volume (ac-ft/yr) =	0

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW R/ Gp	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	IRRIGATION APPLICATION Inches	IRRIGATION APPLICATION In	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.85	4.10	.021	2.50	450	10.0	12	27.8	10.27	5.68	4.49	1.68	39.94
0.85	4.10	.021	2.50	450	5.0	12	48.4	5.13	4.92	0.05	0.99	~~79.87~~ use ???
0.85	4.10	.021	2.50	450	10.0	24	27.8	20.53	9.77	10.68	5.75	19.97
0.85	4.10	.021	2.50	450	4.5	24	54.8	9.24	8.38	0.69	4.45	44.37
0.70	2.85	.021	2.50	450	10.0	12	26.7	10.27	4.76	5.43	1.99	27.76
0.70	2.85	.021	2.50	450	4.0	12	54.9	4.11	3.95	0.00	1.25	69.40
0.70	2.85	.021	2.50	450	10.0	24	26.7	20.53	8.10	12.37	5.32	13.88
0.70	2.85	.021	2.50	450	3.5	24	65.2	7.19	6.65	0.38	3.96	39.66

$Q_{max} = 10$ gpm

$Q_{min} = 3$ gpm

Field AA - using alfalfa hay

IRRIGATION DIVERSION RATE ANALYSIS

CLAIM NO(S): 36-00068 & 36-00069
FIELD ID NO: AA
TOTAL ACRES: 18.6 AC
FIELD SLOPE: 2.1 %
FURROW LENGTH: 450 FT

ANALYSIS COMPLETED BY: MARCI PAPE
DATE OF ANALYSIS: 6/7/00

Qmax PER FURROW:
For corrugates: 10.0 gpm
For furrows: 4.8 gpm

Qmin PER FURROW:
For both: 3.0 gpm

SOIL TYPE	ACRES	% OF TOTAL AC	INTAKE FAMILY	CROP = alfalfa MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY
CHB	4.8	26	0.85	4.1	~~80%~~ 70%								
FKE	10.9	59	0.7	2.85	(69%)								
~~QUB~~	~~2.9~~	~~16~~	~~0.7~~	~~3~~									
TOTAL AC	TOTAL %	CFS/AC FOR EACH CROP:											
18.6	100												

TOTAL CFS FOR FIELD :

FIELD ID NO: BB
TOTAL ACRES: 4.8 AC
FIELD SLOPE: 3.4 %
FURROW LENGTH: 250 FT

DATE OF ANALYSIS: 6/7/00

Qmax PER FURROW:
For corrugates: 10.0 gpm
For furrows: 2.9 gpm

Qmin PER FURROW:
For both: 3.0 gpm

SOIL TYPE	ACRES	% OF TOTAL AC	INTAKE FAMILY	CROP = grain MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY
CHB	1.0	21	0.85	3.29	47%								
FAB	3.8	79	0.7	2.28	(33%)								
TOTAL AC	TOTAL %	CFS/AC FOR EACH CROP:											
4.8	100												

TOTAL CFS FOR FIELD :

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	I W RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRI ON APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.85	3.29	.034	2.00	250	10.0	12	11.3	23.10	6.91	16.14	3.67	14.24
0.85	3.29	.034	2.00	250	3.0	12	19.9	6.93	5.68	1.17	2.47	47.48
0.85	3.29	.034	2.00	250	10.0	24	11.3	46.20	11.78	34.38	8.53	7.12
0.85	3.29	.034	2.00	250	3.0	24	19.9	13.86	9.73	4.06	6.51	23.74
0.70	2.28	.034	2.00	250	10.0	12	11.3	23.10	5.78	17.28	3.54	9.87
0.70	2.28	.034	2.00	250	3.0	12	18.4	6.93	4.76	2.11	2.54	32.90
0.70	2.28	.034	2.00	250	10.0	24	11.3	46.20	9.76	36.40	7.51	4.94
0.70	2.28	.034	2.00	250	3.0	24	18.4	13.86	8.07	5.74	5.84	16.45

Qmax = 10 gpm

Qmin = 3 gpm

Field BB - using grain

FIELD ID NO: CC
TOTAL ACRES: 25.5 AC
FIELD SLOPE: 4.8 %
FURROW LENGTH: 650 FT

DATE OF ANALYSIS: 6/7/00

Qmax PER FURROW:
For corrugates: 8.3 gpm
For furrows: 2.1 gpm

Qmin PER FURROW:
For both: 3.0 gpm

SOIL TYPE	ACRES	% OF TOTAL AC	INTAKE FAMILY	CROP = MAD	alfalfa EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY
FAB	24.8	97	0.7	2.85	60%								
CHB	0.7	3	0.85	4.1	"		"		"		"		"
TOTAL AC	TOTAL %	CFS/AC FOR EACH CROP:											
25.5	100												

TOTAL CFS FOR FIELD :

FIELD ID NO: DD
TOTAL ACRES: 13.4 AC
FIELD SLOPE: 5.2 %
FURROW LENGTH: 700 FT

DATE OF ANALYSIS: 6/7/00

Qmax PER FURROW:
For corrugates: 7.7 gpm
For furrows: 1.9 gpm

Qmin PER FURROW:
For both: 3.0 gpm

SOIL TYPE	ACRES	% OF TOTAL AC	INTAKE FAMILY	CROP = MAD	alfalfa EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY
FKE	11.3	84	0.7	2.85	60%								
~~FAB~~	~~2.1~~	~~16~~	~~0.7~~	~~2.85~~									
TOTAL AC	TOTAL %	CFS/AC FOR EACH CROP:											
13.4	100												

TOTAL CFS FOR FIELD :

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	...OW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	IRR...TION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.70	2.85	.048	2.50	650	8.5	12	40.9	6.04	4.23	1.70	1.49	47.18
0.70	2.85	.048	2.50	650	6.0	12	51.2	4.26	3.96	0.17	1.24	66.83
0.70	2.85	.048	2.50	650	8.5	24	40.9	12.08	7.26	4.73	4.50	23.59
0.70	2.85	.048	2.50	650	5.0	24	59.7	7.11	6.62	0.36	3.90	40.10

$Q_{max} = 8.5$ gpm

$Q_{min} = 3$ gpm

Field CC - using alfalfa hay

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.70	2.85	.052	2.50	700	7.5	12	48.3	4.95	4.08	0.74	1.36	57.58
0.70	2.85	.052	2.50	700	6.5	12	53.3	4.29	3.97	0.18	1.26	66.44
0.70	2.85	.052	2.50	700	7.5	24	48.3	9.90	7.04	2.76	4.29	28.79
0.70	2.85	.052	2.50	700	5.5	24	60.9	7.26	6.67	0.46	3.95	39.26

$Q_{max} = 7.5$ gpm

$Q_{min} = 3$ gpm

Field DD - using alfalfa hay

FIELD ID NO: EE
TOTAL ACRES: 0.9 AC
FIELD SLOPE: 7.8 %
FURROW LENGTH: 300 FT

DATE OF ANALYSIS: 6/7/00

Qmax PER FURROW:
For corrugates: 5.1 gpm
For furrows: 1.3 gpm

Qmin PER FURROW:
For both: 3.0 gpm

SOIL TYPE	ACRES	% OF TOTAL AC	INTAKE FAMILY	CROP = MAD	pasture EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY
FAB	0.1	11	0.7	1.71	30 %								
FKE	0.8	89	0.7	1.71									
TOTAL AC	TOTAL %	CFS/AC FOR EACH CROP:											
0.9	100												

TOTAL CFS FOR FIELD :

FIELD ID NO: FF
TOTAL ACRES: 2.7 AC
FIELD SLOPE: 1.2 %
FURROW LENGTH: 400 FT

DATE OF ANALYSIS: 6/7/00

Qmax PER FURROW:
For corrugates: 10.0 gpm
For furrows: 8.3 gpm

Qmin PER FURROW:
For both: 3.0 gpm

SOIL TYPE	ACRES	% OF TOTAL AC	INTAKE FAMILY	CROP = MAD	alfalfa EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY
QUB	2.7	100	0.7	3	65%								
TOTAL AC	TOTAL %	CFS/AC FOR EACH CROP:											
2.7	100												

TOTAL CFS FOR FIELD :

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.70	1.71	.078	2.00	300	5.0	12	15.3	9.62	4.84	4.74	3.17	17.77
0.70	1.71	.078	2.00	300	3.0	12	19.1	5.77	4.52	1.20	2.87	29.61
0.70	1.71	.078	2.00	300	5.0	24	15.3	19.25	8.19	11.02	6.52	8.88
0.70	1.71	.078	2.00	300	3.0	24	19.1	11.55	7.67	3.83	6.01	14.81

Qmax = 5 gpm

Qmin = 3 gpm

Field EE - using pasture

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	Net IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.70	3.00	.012	2.50	400	10.0	12	25.8	11.55	5.03	6.43	2.11	25.98
0.70	3.00	.012	2.50	400	4.0	12	60.3	4.62	4.10	0.34	1.28	64.94
0.70	3.00	.012	2.50	400	10.0	24	25.8	23.10	8.57	14.47	5.63	12.99
0.70	3.00	.012	2.50	400	3.0	24	96.6	6.93	6.66	0.02	3.91	43.29

Qmax = 10gpm

Qmin = 3gpm

Field FF - using alfalfa hay

FIELD ID NO: GG
TOTAL ACRES: 7.6 AC
FIELD SLOPE: 3.8 %
FURROW LENGTH: ~~600 FT~~ For Corn Can't do! Split in half!

DATE OF ANALYSIS: 6/7/00

Qmax PER FURROW:
For corrugates: 10.0 gpm
For furrows: 2.6 gpm → use 3.0

Qmin PER FURROW:
For both: 3.0 gpm

SOIL TYPE	ACRES	% OF TOTAL AC	INTAKE FAMILY	CROP = MAD	com EFFICIENCY	CROP = MAD	pasture EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY
QUB	7.6	100	0.7	2.4	10270 (300ft6)	1.8	3490						
TOTAL AC	TOTAL %	CFS/AC FOR EACH CROP:											
7.6	100												

TOTAL CFS FOR FIELD :

FIELD ID NO: HH
TOTAL ACRES: 1.6 AC
FIELD SLOPE: 1.8 %
FURROW LENGTH: 200 FT

DATE OF ANALYSIS: 6/7/00

Qmax PER FURROW:
For corrugates: 10.0 gpm
For furrows: 5.6 gpm

Qmin PER FURROW:
For both: 3.0 gpm

SOIL TYPE	ACRES	% OF TOTAL AC	INTAKE FAMILY	CROP = MAD	alfalfa EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY
QUB	1.6	100	0.7	3	439o								
TOTAL AC	TOTAL %	CFS/AC FOR EACH CROP:											
1.6	100												

TOTAL CFS FOR FIELD :

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.70	2.40	.038	3.00	600	3.0	72	107.8	11.55	10.97	0.44	8.71	20.78
0.70	2.40	.038	3.00	300	3.0	12	24.3	3.85	2.83	0.98	0.47	62.34
0.70	2.40	.038	3.00	300	3.0	24	24.3	7.70	4.81	2.85	2.45	31.17

$Q_{max} = Q_{min} = 3$ gpm

Field GG - using corn

72 hr. inflow time is not practical, so field was split to 300 ft lengths

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.70	1.80	.038	2.00	600	10.0	12	35.4	9.62	5.58	3.92	3.90	18.70
0.70	1.80	.038	2.00	600	5.5	12	52.3	5.29	4.96	0.15	3.34	34.00
0.70	1.80	.038	2.00	600	10.0	24	35.4	19.25	9.54	9.60	7.85	9.35
0.70	1.80	.038	2.00	600	4.5	24	63.4	8.66	8.27	0.21	6.65	20.78

$Q_{max} = 10$ gpm

$Q_{min} = 3$ gpm

Field GG - using pasture

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.70	3.00	.018	2.50	200	10.0	12	9.2	23.10	4.92	18.15	1.95	12.99
0.70	3.00	.018	2.50	200	3.0	12	15.8	6.93	3.99	2.90	1.03	43.29
0.70	3.00	.018	2.50	200	10.0	24	9.2	46.20	8.30	37.88	5.32	6.49
0.70	3.00	.018	2.50	200	3.0	24	15.8	13.86	6.75	7.07	3.79	21.65

Qmax = 10 gpm

Qmin = 3 gpm

Field HH - using alfalfa hay

FIELD ID NO: II
TOTAL ACRES: 2.8 AC
FIELD SLOPE: 1.5 %
FURROW LENGTH: 250 FT

DATE OF ANALYSIS: 6/7/00

Qmax PER FURROW:
For corrugates: 10.0 gpm
For furrows: 6.7 gpm

Qmin PER FURROW:
For both: 3.0 gpm

SOIL TYPE	ACRES	% OF TOTAL AC	INTAKE FAMILY	CROP = MAD	grain EFFICIENCY	CROP = MAD	alfalfa EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY
QUB	2.8	100	0.7	2.4	35%	3	54%						
TOTAL AC	TOTAL %	CFS/AC FOR EACH CROP:											
2.8	100												

TOTAL CFS FOR FIELD :

FIELD ID NO: JJ
TOTAL ACRES: 1.2 AC
FIELD SLOPE: 1.3 %
FURROW LENGTH: 300 FT

DATE OF ANALYSIS: 6/7/00

Qmax PER FURROW:
For corrugates: 10.0 gpm
For furrows: 7.7 gpm

Qmin PER FURROW:
For both: 3.0 gpm

SOIL TYPE	ACRES	% OF TOTAL AC	INTAKE FAMILY	CROP = MAD	alfalfa EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY
QUB	1.2	100	0.7	3	65%								
TOTAL AC	TOTAL %	CFS/AC FOR EACH CROP:											
1.2	100												

TOTAL CFS FOR FIELD :

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.70	2.40	.015	2.00	250	10.0	12	12.6	23.10	6.24	16.81	3.89	10.39
0.70	2.40	.015	2.00	250	3.0	12	26.3	6.93	5.00	1.84	2.69	34.63
0.70	2.40	.015	2.00	250	10.0	24	12.6	46.20	10.54	35.62	8.18	5.20
0.70	2.40	.015	2.00	250	3.0	24	26.3	13.86	8.51	5.28	6.18	17.32

Qmax = 10 gpm
Qmin = 3 gpm

Field II - using grain

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.70	3.00	.015	2.50	250	10.0	12	12.6	18.48	4.99	13.45	2.03	16.23
0.70	3.00	.015	2.50	250	3.0	12	26.3	5.54	4.00	1.47	1.07	54.11
0.70	3.00	.015	2.50	250	10.0	24	12.6	36.96	8.43	28.49	5.47	8.12
0.70	3.00	.015	2.50	250	3.0	24	26.3	11.09	6.81	4.22	3.87	27.06

$Q_{max} = 10$ gpm

$Q_{min} = 3$ gpm

Field II - using alfalfa hay

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.70	3.00	.013	2.50	300	10.0	12	16.5	15.40	5.04	10.31	2.09	19.48
0.70	3.00	.013	2.50	300	3.0	12	42.8	4.62	3.97	0.53	1.09	64.94
0.70	3.00	.013	2.50	300	10.0	24	16.5	30.80	8.54	22.22	5.58	9.74
0.70	3.00	.013	2.50	300	3.0	24	42.8	9.24	6.82	2.32	3.92	32.47

Qmax = 10 gpm
Qmin = 3 gpm

Field JJ - using alfalfa hay

FIELD ID NO: KK
TOTAL ACRES: 10.1 AC
FIELD SLOPE: 1.3 %
FURROW LENGTH: 350 FT

DATE OF ANALYSIS: 6/7/00

Qmax PER FURROW:
For corrugates: 10.0 gpm
For furrows: 7.7 gpm

Qmin PER FURROW:
For both: 3.0 gpm

SOIL TYPE	ACRES	% OF TOTAL AC	INTAKE FAMILY	CROP = alfalfa MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY
FKE	2.7	27	0.7	2.85	60%								
~~QUB~~	~~7.4~~	~~73~~	~~0.7~~	~~3~~									

TOTAL AC 10.1 TOTAL % 100

CFS/AC FOR EACH CROP: _____ _____ _____ _____ _____

TOTAL CFS FOR FIELD : _____

FIELD ID NO: A
TOTAL ACRES: 10.9 AC
FIELD SLOPE: 0.7 %
FURROW LENGTH: 350 FT

DATE OF ANALYSIS: 6/7/00

Qmax PER FURROW:
For corrugates: 10.0 gpm
For furrows: 14.3 gpm

Qmin PER FURROW:
For both: 3.0 gpm

SOIL TYPE	ACRES	% OF TOTAL AC	INTAKE FAMILY	CROP = corn MAD	EFFICIENCY	CROP = pasture MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY
QUB	9.9	91	0.7	2.4	~~73%~~ 70%	1.8	31%						
FKE	1.0	9	0.7	2.28	"	1.71	"		"		"		"

TOTAL AC 10.9 TOTAL % 100

CFS/AC FOR EACH CROP: _____ _____ _____ _____ _____

TOTAL CFS FOR FIELD : _____

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.70	2.85	.013	2.50	350	10.0	12	20.6	13.20	5.02	8.12	2.23	21.59
0.70	2.85	.013	2.50	350	3.5	12	49.9	4.62	4.03	0.44	1.33	61.69
0.70	2.85	.013	2.50	350	10.0	24	20.6	26.40	8.52	17.83	5.72	10.80
0.70	2.85	.013	2.50	350	3.0	24	62.6	7.92	6.75	1.02	4.05	35.99

$Q_{max} = 10$ gpm

$Q_{min} = 3$ gpm

Field KK - using alfalfa hay

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.70	2.40	.007	3.00	350	14.5	12	20.0	15.95	4.00	11.90	1.65	15.05
0.70	2.40	.007	3.00	350	3.0	12	111.3	3.30	2.81	0.21	0.69	~~72.73~~ → use 75%
0.70	2.40	.007	3.00	350	14.5	24	20.0	31.90	6.78	25.08	4.42	7.52
0.70	2.40	.007	3.00	350	3.0	24	111.3	6.60	5.03	1.34	2.86	36.37

$Q_{max} = 14.5$ gpm

$Q_{min} = 3$ gpm

Field A - using corn

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.70	1.80	.007	2.00	350	10.0	12	24.5	16.50	6.67	9.73	4.97	10.91
0.70	1.80	.007	2.00	350	3.5	12	81.7	5.77	5.11	0.32	3.65	31.17
0.70	1.80	.007	2.00	350	10.0	24	24.5	33.00	11.34	21.57	9.62	5.45
0.70	1.80	.007	2.00	350	3.0	24	111.3	9.90	8.61	0.90	7.20	18.18

Qmax = 10gpm

Q min = 3gpm

Field A - using pasture

FIELD ID NO: B1
TOTAL ACRES: 13.3 AC
FIELD SLOPE: 0.8 %
FURROW LENGTH: 900 FT

DATE OF ANALYSIS: 6/7/00

Qmax PER FURROW:
For corrugates: 10.0 gpm
For furrows: 12.5 gpm

Qmin PER FURROW:
For both: 3.0 gpm

SOIL TYPE	ACRES	% OF TOTAL AC	INTAKE FAMILY	CROP = MAD	grain EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY
QUB	13.3	100	0.7	2.4	37%								

TOTAL AC 13.3 | TOTAL % 100 | CFS/AC FOR EACH CROP: _____ _____ _____ _____ _____

TOTAL CFS FOR FIELD : _____

FIELD ID NO: B2
TOTAL ACRES: 8.0 AC
FIELD SLOPE: 0.7 %
FURROW LENGTH: 550 FT

DATE OF ANALYSIS: 6/7/00

Qmax PER FURROW:
For corrugates: 10.0 gpm
For furrows: 14.3 gpm

Qmin PER FURROW:
For both: 3.0 gpm

SOIL TYPE	ACRES	% OF TOTAL AC	INTAKE FAMILY	CROP = MAD	grain EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY
QUB	8.0	100	0.7	2.4	38%								

TOTAL AC 8.0 | TOTAL % 100 | CFS/AC FOR EACH CROP: _____ _____ _____ _____ _____

TOTAL CFS FOR FIELD : _____

See Fields C1 + C2 after Field 2

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.70	2.40	.008	2.00	900	10.0	12	156.8	6.42	5.62	0.02	4.00	37.40
0.70	2.40	.008	2.00	900	10.0	24	156.8	12.83	10.38	1.81	8.63	18.70
0.70	2.40	.008	2.00	900	8.5	24	206.5	10.91	9.74	0.31	8.19	22.00

Q_{max} = 10gpm

Q_{min} = 3gpm

Field B1 - using grain

9.5 gpm doesn't work at 12 hr. set time, so $Q_{max} = Q_{min}$ at 12 hr. set time.

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.70	2.40	.007	2.00	550	10.0	12	55.8	10.50	6.44	3.80	4.30	22.86
0.70	2.40	.007	2.00	550	6.0	12	110.1	6.30	5.45	0.35	3.55	38.10
0.70	2.40	.007	2.00	550	10.0	24	55.8	21.00	11.15	9.64	8.96	11.43
0.70	2.40	.007	2.00	550	5.0	24	154.6	10.50	9.18	0.73	7.37	22.86

Q_{max} = 10 gpm

Q_{min} = 3 gpm

Field B2 - using grain

FIELD ID NO: D
TOTAL ACRES: 5.9 AC
FIELD SLOPE: 0.7 %
FURROW LENGTH: 400 FT

DATE OF ANALYSIS: 6/7/00

Qmax PER FURROW:
For corrugates: 10.0 gpm
For furrows: 14.3 gpm

Qmin PER FURROW:
For both: 3.0 gpm

SOIL TYPE	ACRES	% OF TOTAL AC	INTAKE FAMILY	CROP = alfalfa MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY
KOB	5.9	100	0.55	2.89	~~83%~~ 85%	70%							
TOTAL AC	TOTAL %	CFS/AC FOR EACH CROP:											
5.9	100												

TOTAL CFS FOR FIELD :

FIELD ID NO: E
TOTAL ACRES: 6.9 AC
FIELD SLOPE: 0.7 %
FURROW LENGTH: 400 FT

DATE OF ANALYSIS: 6/7/00

Qmax PER FURROW:
For corrugates: 10.0 gpm
For furrows: 14.3 gpm

Qmin PER FURROW:
For both: 3.0 gpm

SOIL TYPE	ACRES	% OF TOTAL AC	INTAKE FAMILY	CROP = alfalfa MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY
KOB	6.9	100	0.55	2.89	~~83%~~ 85%	70%							
TOTAL AC	TOTAL %	CFS/AC FOR EACH CROP:											
6.9	100												

TOTAL CFS FOR FIELD :

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.55	2.89	.007	2.50	400	10.0	12	28.4	11.55	4.29	7.18	1.48	25.02
0.55	2.89	.007	2.50	400	3.0	12	122.8	3.46	3.08	0.07	0.51	~~83.41~~ → use 25.02
0.55	2.89	.007	2.50	400	10.0	24	28.4	23.10	7.22	15.81	4.40	12.51
0.55	2.89	.007	2.50	400	3.0	24	122.8	6.93	5.47	1.19	2.85	41.70

Q_{max} = 10gpm
Q_{min} = 3gpm

Field D - using alfalfa hay

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.55	2.89	.007	2.50	400	10.0	12	28.4	11.55	4.29	7.18	1.48	25.02
0.55	2.89	.007	2.50	400	3.0	12	122.8	3.46	3.08	0.07	0.51	~~83.41~~ → use 70 =
0.55	2.89	.007	2.50	400	10.0	24	28.4	23.10	7.22	15.81	4.40	12.51
0.55	2.89	.007	2.50	400	3.0	24	122.8	6.93	5.47	1.19	2.85	41.70

Qmax = 10gpm

Qmin = 3gpm

Field E - using alfalfa hay

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.55	2.89	.013	2.50	550	10.0	12	39.2	8.40	3.98	4.32	1.18	34.41
0.55	2.89	.013	2.50	550	4.5	12	85.1	3.78	3.27	0.31	0.58	~~76.46~~ use 70%
0.55	2.89	.013	2.50	550	10.0	24	39.2	16.80	6.73	9.98	3.92	17.20
0.55	2.89	.013	2.50	550	3.5	24	127.2	5.88	5.32	0.29	2.70	49.15
0.70	3.00	.013	2.50	550	10.0	12	42.5	8.40	4.90	3.36	2.04	35.72
0.70	3.00	.013	2.50	550	5.5	12	78.4	4.62	4.21	0.16	1.46	64.94
0.70	3.00	.013	2.50	550	10.0	24	42.5	16.80	8.42	8.26	5.54	17.86
0.70	3.00	.013	2.50	550	4.5	24	106.1	7.56	7.02	0.25	4.31	39.68

Qmax = 10gpm

Qmin = 3gpm

Field F - using alfalfa hay

FIELD ID NO: F
TOTAL ACRES: 3.5 AC
FIELD SLOPE: 1.3 %
FURROW LENGTH: 550 FT

DATE OF ANALYSIS: 6/7/00

Qmax PER FURROW:
For corrugates: 10.0 gpm
For furrows: 7.7 gpm

Qmin PER FURROW:
For both: 3.0 gpm

SOIL TYPE	ACRES	% OF TOTAL AC	INTAKE FAMILY	CROP = MAD	alfalfa EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY
KOB	1.1	31	0.55	2.89	~~70%~~	70%							
QUB	2.4	69	0.7	3	105%								

TOTAL AC: 3.5 TOTAL %: 100 CFS/AC FOR EACH CROP: _____ _____ _____ _____ _____

TOTAL CFS FOR FIELD : _____

FIELD ID NO: G
TOTAL ACRES: 7.5 AC
FIELD SLOPE: 3.4 %
FURROW LENGTH: 450 FT

DATE OF ANALYSIS: 6/7/00

Qmax PER FURROW:
For corrugates: 10.0 gpm
For furrows: 2.9 gpm

Qmin PER FURROW:
For both: 3.0 gpm

SOIL TYPE	ACRES	% OF TOTAL AC	INTAKE FAMILY	CROP = MAD	corn EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY
KOB/KOC	7.5	100	0.55	2.44	48%								

TOTAL AC: 7.5 TOTAL %: 100 CFS/AC FOR EACH CROP: _____ _____ _____ _____ _____

TOTAL CFS FOR FIELD : _____

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.55	2.44	.034	3.00	450	3.0	24	49.6	5.13	3.81	1.26	1.43	47.53
0.55	2:44	.034	3.00	450	3.0	36	49.6	7.70	5.18	2.46	2.80	31.69

Qmax = Qmin = 3gpm

Field 6 - using corn

Inflow time of 12 hrs. doesn't work with 3gpm inflow rate ⇒ use 24 hrs. or greater!

FIELD ID NO: H
TOTAL ACRES: 8.3 AC
FIELD SLOPE: 2.1 %
FURROW LENGTH: 450 FT

DATE OF ANALYSIS: 6/7/00

Qmax PER FURROW:
For corrugates: 10.0 gpm
For furrows: 4.8 gpm

Qmin PER FURROW:
For both: 3.0 gpm

SOIL TYPE	ACRES	% OF TOTAL AC	INTAKE FAMILY	CROP = MAD	com EFFICIENCY	CROP = MAD	pasture EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY
KOB/KOC	4.7	57	0.55	2.44	52%	1.99	44%						
QUB	3.6	43	0.7	2.4	~~80%~~ → 70%	1.8	35%						

TOTAL AC 8.3 | TOTAL % 100 | CFS/AC FOR EACH CROP: _____ _____ _____ _____ _____

TOTAL CFS FOR FIELD : _____

FIELD ID NO: I
TOTAL ACRES: 18.4 AC
FIELD SLOPE: 2.1 %
FURROW LENGTH: 600 FT

DATE OF ANALYSIS: 6/7/00

Qmax PER FURROW:
For corrugates: 10.0 gpm
For furrows: 4.8 gpm

Qmin PER FURROW:
For both: 3.0 gpm

SOIL TYPE	ACRES	% OF TOTAL AC	INTAKE FAMILY	CROP = MAD	com EFFICIENCY	CROP = MAD	pasture EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY
QUB	18.4	100	0.7	2.4	~~75%~~ → 70%	1.8	31%						

TOTAL AC 18.4 | TOTAL % 100 | CFS/AC FOR EACH CROP: _____ _____ _____ _____ _____

TOTAL CFS FOR FIELD : _____

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.55	2.44	.021	3.00	450	5.0	12	38.5	4.28	2.46	1.76	0.08	57.04
0.55	2.44	.021	3.00	450	5.0	24	38.5	8.56	4.16	4.34	1.77	28.52
0.55	2.44	.021	3.00	450	3.0	24	66.3	5.13	3.87	1.17	1.52	47.53
0.70	2.40	.021	3.00	450	5.0	12	43.2	4.28	3.03	1.16	0.72	56.11
0.70	2.40	.021	3.00	450	3.5	12	65.2	2.99	2.83	0.02	0.57	~~80.15~~ use 28%
0.70	2.40	.021	3.00	450	5.0	24	43.2	8.56	5.20	3.28	2.88	28.05
0.70	2.40	.021	3.00	450	3.0	24	82.0	5.13	4.80	0.18	2.55	46.76

$Q_{max} = 5.0$ gpm

$Q_{min} = 3$ gpm

Field H - using corn

For soil KOB/KOC at 12 hr. set time, 5.0 gpm is lowest inflow rate that will work, so $Q_{max} = Q_{min}$ for 12 hr. set time.

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.55	1.99	.021	2.00	450	10.0	12	25.6	12.83	4.81	7.95	2.89	15.51
0.55	1.99	.021	2.00	450	3.5	12	54.6	4.49	3.91	0.43	2.07	44.31
0.55	1.99	.021	2.00	450	10.0	24	25.6	25.67	8.09	17.52	6.16	7.75
0.55	1.99	.021	2.00	450	3.0	24	66.3	7.70	6.49	1.06	4.65	25.85
0.70	1.80	.021	2.00	450	10.0	12	26.7	12.83	5.95	6.79	4.25	14.03
0.70	1.80	.021	2.00	450	4.0	12	54.9	5.13	4.93	0.01	3.33	35.07
0.70	1.80	.021	2.00	450	10.0	24	26.7	25.67	10.13	15.46	8.41	7.01
0.70	1.80	.021	2.00	450	3.5	24	65.2	8.98	8.31	0.47	6.71	20.04

Qmax = 10 gpm

Qmin = 3 gpm

Field 4 - using pasture

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.70	1.80	.011	2.00	550	10.0	12	45.4	10.50	6.22	4.10	4.60	17.14
0.70	1.80	.011	2.00	550	5.5	12	88.3	5.77	5.28	0.13	3.84	31.17
0.70	1.80	.011	2.00	550	10.0	24	45.4	21.00	10.69	10.15	9.05	8.57
0.70	1.80	.011	2.00	550	4.5	24	122.6	9.45	8.82	0.20	7.45	19.05

Qmax = 10 gpm

Qmin = 3 gpm

Field K - using pasture

FIELD ID NO:, L
TOTAL ACRES: 6.0 AC
FIELD SLOPE: 1.8 %
FURROW LENGTH: 400 FT

DATE OF ANALYSIS: 6/7/00

Qmax PER FURROW:
For corrugates: 10.0 gpm
For furrows: 5.6 gpm

Qmin PER FURROW:
For both: 3.0 gpm

SOIL TYPE	ACRES	% OF TOTAL AC	INTAKE FAMILY	CROP = MAD	grain EFFICIENCY	CROP = MAD	pasture EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY
QUB	6.0	100	0.7	2.4	42%	1.8	31%						

TOTAL AC 6.0 | TOTAL % 100 | CFS/AC FOR EACH CROP: _____ _____ _____ _____ _____

TOTAL CFS FOR FIELD : _____

FIELD ID NO: M
TOTAL ACRES: 5.0 AC
FIELD SLOPE: 3.2 %
FURROW LENGTH: 250 FT

DATE OF ANALYSIS: 6/7/00

Qmax PER FURROW:
For corrugates: 10.0 gpm
For furrows: 3.1 gpm

Qmin PER FURROW:
For both: 3.0 gpm

SOIL TYPE	ACRES	% OF TOTAL AC	INTAKE FAMILY	CROP = MAD	alfalfa EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY
QUB	5.0	100	0.7	3	54%								

TOTAL AC 5.0 | TOTAL % 100 | CFS/AC FOR EACH CROP: _____ _____ _____ _____ _____

TOTAL CFS FOR FIELD : _____

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.70	2.40	.018	2.00	400	10.0	12	23.3	14.44	6.06	8.29	3.75	16.62
0.70	2.40	.018	2.00	400	4.0	12	46.5	5.77	5.04	0.57	2.80	41.56
0.70	2.40	.018	2.00	400	10.0	24	23.3	28.87	10.30	18.50	7.97	8.31
0.70	2.40	.018	2.00	400	3.0	24	68.3	8.66	8.21	0.25	6.02	27.71

Qmax = 10 gpm
Qmin = 3 gpm

Field L - using grain

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.70	1.80	.018	2.00	400	10.0	12	23.3	14.44	6.06	8.29	4.35	12.47
0.70	1.80	.018	2.00	400	4.0	12	46.5	5.77	5.04	0.57	3.40	31.17
0.70	1.80	.018	2.00	400	10.0	24	23.3	28.87	10.30	18.50	8.57	6.23
0.70	1.80	.018	2.00	400	3.0	24	68.3	8.66	8.21	0.25	6.62	20.78

$Q_{max} = 10$ gpm

$Q_{min} = 3$ gpm

Field L - using pasture

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.70	3.00	.032	2.50	250	10.0	12	11.4	18.48	4.65	13.80	1.68	16.23
0.70	3.00	.032	2.50	250	3.0	12	18.8	5.54	3.82	1.67	0.87	54.11
0.70	3.00	.032	2.50	250	10.0	24	11.4	36.96	7.85	29.08	4.88	8.12
0.70	3.00	.032	2.50	250	3.0	24	18.8	11.09	6.48	4.57	3.52	27.06

$Q_{max} = 10$ gpm

$Q_{min} = 3$ gpm

Field M - using alfalfa hay

FIELD ID NO: N
TOTAL ACRES: 4.0 AC
FIELD SLOPE: 0.6 %
FURROW LENGTH: 300 FT

DATE OF ANALYSIS: 6/15/00

Qmax PER FURROW:
For corrugates: 10.0 gpm
For furrows: 16.7 gpm

Qmin PER FURROW:
For both: 3.0 gpm

SOIL TYPE	ACRES	% OF TOTAL AC	INTAKE FAMILY	CROP = MAD	pasture EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY
QUB	1.9	48	0.7	1.8	31%								
~~KOC~~	~~2.1~~	~~53~~	~~0.55~~	~~1.99~~									

TOTAL AC 4.0 | TOTAL % 100 | CFS/AC FOR EACH CROP: _____ _____ _____ _____ _____

TOTAL CFS FOR FIELD : _____

FIELD ID NO: O1
TOTAL ACRES: 16.4 AC
FIELD SLOPE: 1.0 %
FURROW LENGTH: 950 FT

DATE OF ANALYSIS: 6/15/00

Qmax PER FURROW:
For corrugates: 10.0 gpm
For furrows: 10.0 gpm

Qmin PER FURROW:
For both: 3.0 gpm

SOIL TYPE	ACRES	% OF TOTAL AC	INTAKE FAMILY	CROP = MAD	pasture EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY
KOC	0.9	5	0.55	1.99	---		---		---		---		---
QUB	15.5	95	0.7	1.8	11%								

TOTAL AC 16.4 | TOTAL % 100 | CFS/AC FOR EACH CROP: _____ _____ _____ _____ _____

TOTAL CFS FOR FIELD : _____

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.70	1.80	.006	2.00	300	10.0	12	20.0	19.25	6.81	12.35	5.10	9.35
0.70	1.80	.006	2.00	300	3.0	12	81.3	5.77	5.05	0.39	3.59	31.17
0.70	1.80	.006	2.00	300	10.0	24	20.0	38.50	11.56	26.87	9.83	4.68
0.70	1.80	.006	2.00	300	3.0	24	81.3	11.55	8.87	2.40	7.35	15.59

$Q_{max} = 10$ gpm

$Q_{min} = 3$ gpm

Field N - using pasture

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.70	1.80	.010	2.00	950	10.0	24	151.7	12.16	10.17	1.38	8.97	14.81
0.70	1.80	.010	2.00	950	9.0	24	178.6	10.94	9.80	0.43	8.71	16.45
0.70	1.80	.010	2.00	950	10.0	36	151.7	18.24	14.21	3.48	12.95	9.87
0.70	1.80	.010	2.00	950	8.0	36	219.2	14.59	13.23	0.57	12.22	12.34

$Q_{max} = 10$gpm

$Q_{min} = 3$gpm

Field 01 - using pasture

Inflow time of 12hrs. doesn't work with 10gpm inflow rate ⇒ use 24hrs. or greater!

FIELD ID NO: O2
TOTAL ACRES: 14.6 AC
FIELD SLOPE: 1.0 %
FURROW LENGTH: 450 FT

DATE OF ANALYSIS: 6/15/00

Qmax PER FURROW:
For corrugates: 10.0 gpm
For furrows: 10.0 gpm

Qmin PER FURROW:
For both: 3.0 gpm

SOIL TYPE	ACRES	% OF TOTAL AC	INTAKE FAMILY	CROP = MAD	pasture EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY
KOC	0.2	1	0.55	1.99	***		***		***		***		***
QUB	14.4	99	0.7	1.8	31%								
	TOTAL AC	TOTAL %	CFS/AC FOR										
	14.6	100	EACH CROP:										

TOTAL CFS FOR FIELD :

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.70	1.80	.010	2.00	450	10.0	12	33.1	12.83	6.36	6.34	4.70	14.03
0.70	1.80	.010	2.00	450	4.5	12	77.6	5.77	5.20	0.26	3.72	31.17
0.70	1.80	.010	2.00	450	10.0	24	33.1	25.67	10.87	14.68	9.18	7.01
0.70	1.80	.010	2.00	450	3.5	24	120.9	8.98	8.53	0.03	7.15	20.04

Q max = 10 gpm
Q min = 3 gpm

Field 02 - using pasture

FIELD ID NO: P
TOTAL ACRES: 10.8 AC
FIELD SLOPE: 1.1 %
FURROW LENGTH: 600 FT

DATE OF ANALYSIS: 6/7/00

Qmax PER FURROW:
For corrugates: 10.0 gpm
For furrows: 9.1 gpm

Qmin PER FURROW:
For both: 3.0 gpm

SOIL TYPE	ACRES	% OF TOTAL AC	INTAKE FAMILY	CROP = alfalfa MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY
QUB	10.8	100	0.7	3	65%								
TOTAL AC	TOTAL %	CFS/AC FOR EACH CROP:											
10.8	100												

TOTAL CFS FOR FIELD :

FIELD ID NO: Q
TOTAL ACRES: 8.3 AC
FIELD SLOPE: 2.4 %
FURROW LENGTH: 450 FT

DATE OF ANALYSIS: 6/7/00

Qmax PER FURROW:
For corrugates: 10.0 gpm
For furrows: 4.2 gpm

Qmin PER FURROW:
For both: 3.0 gpm

SOIL TYPE	ACRES	% OF TOTAL AC	INTAKE FAMILY	CROP = alfalfa MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY
QUB	8.3	100	0.7	3	~~73%~~	70%							
TOTAL AC	TOTAL %	CFS/AC FOR EACH CROP:											
8.3	100												

TOTAL CFS FOR FIELD :

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.70	3.00	.011	2.50	600	10.0	12	53.3	7.70	4.93	2.59	2.11	38.96
0.70	3.00	.011	2.50	600	6.0	12	96.3	4.62	4.25	0.05	1.57	64.94
0.70	3.00	.011	2.50	600	10.0	24	53.3	15.40	8.52	6.73	5.67	19.48
0.70	3.00	.011	2.50	600	5.0	24	129.4	7.70	7.15	0.18	4.52	38.96

Qmax = 10gpm

Qmin = 3gpm

Field P-using alfalfa hay

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.70	3.00	.024	2.50	450	10.0	12	25.8	10.27	4.70	5.49	1.78	29.22
0.70	3.00	.024	2.50	450	4.0	12	50.8	4.11	3.92	0.04	1.07	~~73.05~~
0.70	3.00	.024	2.50	450	10.0	24	25.8	20.53	8.00	12.47	5.07	14.61
0.70	3.00	.024	2.50	450	3.5	24	59.6	7.19	6.61	0.44	3.75	41.75

Qmax = 10 gpm
Qmin = 3 gpm

Field Q - using alfalfa hay

FIELD ID NO: R
TOTAL ACRES: 4.7 AC
FIELD SLOPE: 0.8 %
FURROW LENGTH: 450 FT

(assumed flow dir.)

DATE OF ANALYSIS: 6/7/00

Qmax PER FURROW:
For corrugates: 10.0 gpm
For furrows: 12.5 gpm

Qmin PER FURROW:
For both: 3.0 gpm

SOIL TYPE	ACRES	% OF TOTAL AC	INTAKE FAMILY	CROP = MAD	alfalfa EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY
QUB	4.7	100	0.7	3	65%								

TOTAL AC: 4.7 TOTAL %: 100

CFS/AC FOR EACH CROP: _____ _____ _____ _____ _____

TOTAL CFS FOR FIELD : _____

FIELD ID NO: S
TOTAL ACRES: 3.8 AC
FIELD SLOPE: 1.0 %
FURROW LENGTH: 450 FT

DATE OF ANALYSIS: 6/7/00

Qmax PER FURROW:
For corrugates: 10.0 gpm
For furrows: 10.0 gpm

Qmin PER FURROW:
For both: 3.0 gpm

SOIL TYPE	ACRES	% OF TOTAL AC	INTAKE FAMILY	CROP = MAD	grain EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY
FKE	0.7	18	0.7	2.28	39%								
~~QUB~~	~~3.1~~	~~82~~	~~0.7~~	~~2.4~~									

TOTAL AC: 3.8 TOTAL %: 100

CFS/AC FOR EACH CROP: _____ _____ _____ _____ _____

TOTAL CFS FOR FIELD : _____

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.70	3.00	.008	2.50	450	10.0	12	35.9	10.27	5.19	4.95	2.32	29.22
0.70	3.00	.008	2.50	450	4.5	12	93.2	4.62	4.17	0.14	1.48	64.94
0.70	3.00	.008	2.50	450	10.0	24	35.9	20.53	8.89	11.54	5.99	14.61
0.70	3.00	.008	2.50	450	4.0	24	115.8	8.21	7.13	0.75	4.46	36.53

$Q_{max} = 10$ gpm

$Q_{min} = 3$ gpm

Field R - using alfalfa hay

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.70	2.28	.010	2.00	450	10.0	12	33.1	12.83	6.36	6.34	4.22	17.77
0.70	2.28	.010	2.00	450	4.5	12	77.6	5.77	5.20	0.26	3.24	39.48
0.70	2.28	.010	2.00	450	10.0	24	33.1	25.67	10.87	14.68	8.70	8.88
0.70	2.28	.010	2.00	450	3.5	24	120.9	8.98	8.53	0.03	6.67	25.38

Q_{max} = 10 gpm

Q_{min} = 3 gpm

Field S - using grain

FIELD ID NO: T
TOTAL ACRES: 2.6 AC
FIELD SLOPE: 2.2 %
FURROW LENGTH: 350 FT

DATE OF ANALYSIS: 6/7/00

Qmax PER FURROW:
For corrugates: 10.0 gpm
For furrows: 4.5 gpm

Qmin PER FURROW:
For both: 3.0 gpm

SOIL TYPE	ACRES	% OF TOTAL AC	INTAKE FAMILY	CROP = MAD	alfalfa EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY
FKE	0.5	19	0.7	2.85	~~75 %~~	70 %							
~~QUB~~	~~2.1~~	~~81~~	~~0.7~~	~~3~~									

TOTAL AC 2.6 | TOTAL % 100 | CFS/AC FOR EACH CROP: _____ _____ _____ _____ _____

TOTAL CFS FOR FIELD : _____

FIELD ID NO: U
TOTAL ACRES: 7.1 AC
FIELD SLOPE: 0.8 %
FURROW LENGTH: 500 FT

DATE OF ANALYSIS: 6/7/00

Qmax PER FURROW:
For corrugates: 10.0 gpm
For furrows: 12.5 gpm

Qmin PER FURROW:
For both: 3.0 gpm

SOIL TYPE	ACRES	% OF TOTAL AC	INTAKE FAMILY	CROP = MAD	alfalfa EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY
QUB	7.1	100	0.7	3	65 %								

TOTAL AC 7.1 | TOTAL % 100 | CFS/AC FOR EACH CROP: _____ _____ _____ _____ _____

TOTAL CFS FOR FIELD : _____

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.70	2.85	.022	2.50	350	10.0	12	18.5	13.20	4.78	8.37	1.98	21.59
0.70	2.85	.022	2.50	350	3.0	12	43.4	3.96	3.82	0.02	1.09	~~71.97~~
0.70	2.85	.022	2.50	350	10.0	24	18.5	26.40	8.10	18.25	5.30	10.80
0.70	2.85	.022	2.50	350	3.0	24	43.4	7.92	6.56	1.26	3.81	35.99

Qmax = 10 gpm
Qmin = 3 gpm

Field T - using alfalfa hay

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.70	3.00	.008	2.50	500	10.0	12	43.5	9.24	5.15	3.94	2.30	32.47
0.70	3.00	.008	2.50	500	5.0	12	103.6	4.62	4.19	0.07	1.55	64.94
0.70	3.00	.008	2.50	500	10.0	24	43.5	18.48	8.85	9.50	5.98	16.23
0.70	3.00	.008	2.50	500	4.5	24	125.6	8.32	7.24	0.71	4.61	36.08

$Q_{max} = 10$ gpm

$Q_{min} = 3$ gpm

Field U - using alfalfa hay

FIELD ID NO: V
TOTAL ACRES: 6.7 AC
FIELD SLOPE: 0.3 %
FURROW LENGTH: 500 FT

DATE OF ANALYSIS: 6/7/00

Qmax PER FURROW:
For corrugates: 10.0 gpm
For furrows: 33.3 gpm

Qmin PER FURROW:
For both: 3.0 gpm

SOIL TYPE	ACRES	% OF TOTAL AC	INTAKE FAMILY	CROP = MAD	corn EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY
QUB	6.7	100	0.7	2.4	62%								

TOTAL AC 6.7 | TOTAL % 100 | CFS/AC FOR EACH CROP: _____ _____ _____ _____ _____

TOTAL CFS FOR FIELD : _____

FIELD ID NO: W
TOTAL ACRES: 2.6 AC
FIELD SLOPE: 1.1 %
FURROW LENGTH: 550 FT

DATE OF ANALYSIS: 6/7/00

Qmax PER FURROW:
For corrugates: 10.0 gpm
For furrows: 9.1 gpm

Qmin PER FURROW:
For both: 3.0 gpm

SOIL TYPE	ACRES	% OF TOTAL AC	INTAKE FAMILY	CROP = MAD	pasture EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY
QUB	2.6	100	0.7	1.8	31%								

TOTAL AC 2.6 | TOTAL % 100 | CFS/AC FOR EACH CROP: _____ _____ _____ _____ _____

TOTAL CFS FOR FIELD : _____

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.70	2.40	.003	3.00	500	33.5	12	27.9	25.79	5.23	20.48	2.92	9.30
0.70	2.40	.003	3.00	500	5.0	12	310.3	3.85	2.41	0.48	0.97	62.34
0.70	2.40	.003	3.00	500	33.5	24	27.9	51.59	8.91	42.61	6.58	4.65
0.70	2.40	.003	3.00	500	4.0	24	629.7	6.16	3.84	0.66	3.10	38.96

$Q_{max} = 33.5$ gpm

$Q_{min} = 3$ gpm

Field V - using corn

INTAKE FAMILY	DESIGN APPLIC. Inches,	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.70	1.80	.011	2.00	550	10.0	12	45.4	10.50	6.22	4.10	4.60	17.14
0.70	1.80	.011	2.00	550	5.5	12	88.3	5.77	5.28	0.13	3.84	31.17
0.70	1.80	.011	2.00	550	10.0	24	45.4	21.00	10.69	10.15	9.05	8.57
0.70	1.80	.011	2.00	550	4.5	24	122.6	9.45	8.82	0.20	7.45	19.05

Qmax = 10 gpm
Qmin = 3 gpm

Field W - using pasture

FIELD ID NO: X
TOTAL ACRES: 1.9 AC
FIELD SLOPE: 0.5 %
FURROW LENGTH: 600 FT

DATE OF ANALYSIS: 6/7/00

Qmax PER FURROW:
For corrugates: 10.0 gpm
For furrows: 20.0 gpm

Qmin PER FURROW:
For both: 3.0 gpm

SOIL TYPE	ACRES	% OF TOTAL AC	INTAKE FAMILY	CROP = MAD	corn EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY
QUB	1.9	100	0.7	2.4	82%				2.4				

TOTAL AC 1.9 | TOTAL % 100 | CFS/AC FOR EACH CROP: _____ _____ _____ _____ _____

TOTAL CFS FOR FIELD : _____

FIELD ID NO: Y
TOTAL ACRES: 9.1 AC
FIELD SLOPE: 1.7 %
FURROW LENGTH: 400 FT

DATE OF ANALYSIS: 6/7/00

Qmax PER FURROW:
For corrugates: 10.0 gpm
For furrows: 5.9 gpm

Qmin PER FURROW:
For both: 3.0 gpm

SOIL TYPE	ACRES	% OF TOTAL AC	INTAKE FAMILY	CROP = MAD	alfalfa EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY
~~QUB~~	~~8.1~~	~~89~~	~~0.7~~	~~3~~	~~—~~								
FKE	1.0	11	0.7	2.85	82%								

TOTAL AC 9.1 | TOTAL % 100 | CFS/AC FOR EACH CROP: _____ _____ _____ _____ _____

TOTAL CFS FOR FIELD : _____

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.70	2.40	.005	3.00	600	20.0	12	42.4	12.83	4.31	8.41	2.03	18.70
0.70	2.40	.005	3.00	600	5.5	12	240.1	3.53	2.63	0.21	0.92	68.01
0.70	2.40	.005	3.00	600	20.0	24	42.4	25.67	7.40	18.17	5.10	9.35
0.70	2.40	.005	3.00	600	4.5	24	408.6	5.77	4.50	0.28	3.10	41.56

$Q_{max} = 20$ gpm

$Q_{min} = 3$ gpm

Field X - using corn

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.70	2.85	.017	2.50	400	10.0	12	23.6	11.55	4.87	6.61	2.09	24.68
0.70	2.85	.017	2.50	400	4.0	12	48.1	4.62	4.04	0.44	1.33	61.69
0.70	2.85	.017	2.50	400	10.0	24	23.6	23.10	8.28	14.76	5.49	12.34
0.70	2.85	.017	2.50	400	3.0	24	71.5	6.93	6.58	0.17	3.91	41.13

$Q_{max} = 10$ gpm

$Q_{min} = 3$ gpm

Field Y - using alfalfa hay

FIELD ID NO: Z
TOTAL ACRES: 6.4 AC
FIELD SLOPE: 8.2 %
FURROW LENGTH: 350 FT

DATE OF ANALYSIS: 6/7/00

Qmax PER FURROW:
For corrugates: 4.9 gpm
For furrows: 1.2 gpm

Qmin PER FURROW:
For both: 3.0 gpm

SOIL TYPE	ACRES	% OF TOTAL AC	INTAKE FAMILY	CROP = MAD	pasture EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY
~~QUB~~	~~3.9~~	~~61~~	~~0.7~~	~~1.8~~									
FKE	2.5	39	0.7	1.71	35%								
TOTAL AC	TOTAL %	CFS/AC FOR EACH CROP:											
6.4	100												

TOTAL CFS FOR FIELD :

FIELD ID NO: C1
TOTAL ACRES: 7.4 AC
FIELD SLOPE: 1.4 %
FURROW LENGTH: 600 FT

DATE OF ANALYSIS: 6/7/00

Qmax PER FURROW:
For corrugates: 10.0 gpm
For furrows: 7.1 gpm

Qmin PER FURROW:
For both: 3.0 gpm

SOIL TYPE	ACRES	% OF TOTAL AC	INTAKE FAMILY	CROP = MAD	alfalfa EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY
QUB	6.8	92	0.7	3	65%								
KOB	0.6	8	0.55	2.89	***		***		***		***		***
TOTAL AC	TOTAL %	CFS/AC FOR EACH CROP:											
7.4	100												

TOTAL CFS FOR FIELD :

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.70	1.71	.082	2.00	350	5.0	12	18.7	8.25	4.81	3.39	3.15	20.73
0.70	1.71	.082	2.00	350	3.0	12	24.1	4.95	4.49	0.39	2.85	34.55
0.70	1.71	.082	2.00	350	5.0	24	18.7	16.50	8.15	8.31	6.48	10.36
0.70	1.71	.082	2.00	350	3.0	24	24.1	9.90	7.63	2.21	5.98	17.27

Qmax = 5gpm

Qmin = 3gpm

Field 2 - using pasture

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.70	3.00	.014	2.50	600	10.0	12	48.2	7.70	4.84	2.71	1.99	38.96
0.70	3.00	.014	2.50	600	6.0	12	81.4	4.62	4.23	0.13	1.49	64.94
0.70	3.00	.014	2.50	600	10.0	24	48.2	15.40	8.33	6.93	5.46	19.48
0.70	3.00	.014	2.50	600	5.0	24	105.8	7.70	7.10	0.31	4.39	38.96

Qmax = 10 gpm

Q min = 3 gpm

Field C1 - using alfalfa hay

FIELD ID NO: C2
TOTAL ACRES: 3.9 AC
FIELD SLOPE: 0.5 %
FURROW LENGTH: 450 FT

DATE OF ANALYSIS: 6/7/00

Qmax PER FURROW:
For corrugates: 10.0 gpm
For furrows: 20.0 gpm

Qmin PER FURROW:
For both: 3.0 gpm

SOIL TYPE	ACRES	% OF TOTAL AC	INTAKE FAMILY	CROP = alfalfa MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY
QUB	3.9	100	0.7	3	58%								

TOTAL AC 3.9 TOTAL % 100

CFS/AC FOR EACH CROP: _____ _____ _____ _____ _____

TOTAL CFS FOR FIELD : _____

FIELD ID NO:
TOTAL ACRES: AC
FIELD SLOPE: %
FURROW LENGTH: FT

DATE OF ANALYSIS: 6/7/00

Qmax PER FURROW:
For corrugates: #VALUE! gpm
For furrows: #VALUE! gpm

Qmin PER FURROW:
For both: 3.0 gpm

SOIL TYPE	ACRES	% OF TOTAL AC	INTAKE FAMILY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY

TOTAL AC 0.0 TOTAL % 0

CFS/AC FOR EACH CROP: _____ _____ _____ _____ _____

TOTAL CFS FOR FIELD : _____

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.70	3.00	.005	2.50	450	10.0	12	44.2	10.27	5.42	4.68	2.58	29.22
0.70	3.00	.005	2.50	450	5.0	12	118.5	5.13	4.30	0.39	1.74	58.44
0.70	3.00	.005	2.50	450	10.0	24	44.2	20.53	9.31	11.08	6.45	14.61
0.70	3.00	.005	2.50	450	4.0	24	194.1	8.21	7.10	0.50	4.71	36.53

Q_{max} = 10gpm

Q_{min} = 3gpm

Field C2 - using alfalfa hay

Crop Distributions

Total acres = 304.4

First Distribution: 50% alfalfa = 152.2 ac.
20% corn = 60.9 ac.
15% pasture = 45.65 ac.
15% grain = 45.65 ac

Based on appearance in photos, slopes, etc., Fields N (4.0), O (36.9), Z (6.4), & EE (0.9) were probably only in pasture.

All soils but one have very similar soil characteristics, & that one soil is only found in two fields ∴, Distribute crops between fields using crop distribution in Brockway's report & choose the worst soil within that field for all fields but the 2 with C+E. For distribution choose fields with wide variety of slopes & length within each crop type.

Pasture: Fields N (4.0), O (36.9), Z (6.4), EE (0.9), & W (2.6) Σ = 44.8 ac.
Slopes → 0.7-8.2% Length → 200-550 ft

Corn: Fields G (2.5), H (8.3), I (18.4), V (6.3), X (1.9), GG (7.6), A (10.9) Σ = 61.3 ac.
Slopes → 0.3-3.8% Length → 300-650 ft

Grain: Fields B (21.3), K (6.9), L (6.0), S (3.8), BB (4.8), II (2.6) Σ = 45.4 ac.
Slopes → 0.7-3.5% Length → 200-300 ft

Alfalfa: Fields C, D, E, F, J, M, P, Q, R, T, U, Y, AA, CC, DD, FF, HH, JJ, KK Σ = 153.8 ac.
Slopes → 0.4-5.8% Length → 200-300 ft

New Distribution: 51% alfalfa = 155.2 ac.
5% corn = 15.2 ac
34% pasture = 103.5 ac
10% grain = 30.4 ac.

Pasture: Fields N, O, Z, EE, W, GG, A, H, I, K, L (4.0, 30.9, 6.4, 0.9, 2.6, 2.6, 10.9, 3.3, 18.4, 6.9, 6.0) Σ = 102.9 ac.
Slopes → 0.7-8.2% Length → 200-600

Corn: Fields G, V, & X (2.5, 6.3, 1.9) Σ = 16.1 ac.
Slopes → 0.3-3.4% Length → 450-600

Grain: Fields B, S, BB (2.3, 22.2, 4.8) Σ = 29.9 ac.
Slopes → 0.7-3.4% Length → 350-900

Alfalfa: Fields C, D, E, F, J, M, P, Q, R, T, U, Y, AA, CC, DD, FF, HH, II, JJ, KK Σ = 155.4 ac.
Slopes → 0.4-5.8% Length → 200-300

80th Percentile values of monthly ET estimated for
the Hagerman Valley adjusted from the Bliss Station
(mm/day)

	MO	ETR	ALFH.	BEANS	F.CRN	SILGE	S.CRN	PEAS	POTAT	SBEET	SGRAN	WGRAI	PAST.	VEGES
AVE ET	4	5.28	3.30					1.60	1.58	1.58	1.65	4.82	3.27	
TMP ADJ	4	5.68	3.55					1.72	1.70	1.70	1.77	5.18	3.52	
ALT ADJ	4	5.75	3.59					1.74	1.72	1.72	1.80	5.25	3.56	
STDD ET	4	0.47	0.29					0.14	0.14	0.14	0.15	0.43	0.29	
80PCT ET	4	6.14	3.84					1.86	1.84	1.84	1.92	5.61	3.80	
AVE ET	5	6.79	6.29	2.04	2.04	2.04	2.04	3.85	2.19	2.04	5.11	6.79	5.23	2.07
TMP ADJ	5	7.18	6.65	2.16	2.16	2.16	2.16	4.07	2.31	2.16	5.40	7.18	5.53	2.19
ALT ADJ	5	7.27	6.73	2.18	2.18	2.18	2.18	4.12	2.34	2.18	5.47	7.27	5.60	2.21
STDD ET	5	0.49	0.46	0.15	0.15	0.15	0.15	0.28	0.16	0.15	0.37	0.49	0.38	0.15
80PCT ET	5	7.68	7.12	2.31	2.31	2.31	2.31	4.36	2.48	2.31	5.78	7.68	5.92	2.34
AVE ET	6	8.41	7.32	3.26	3.66	3.66	3.53	6.82	5.77	3.91	8.39	8.41	6.47	4.40
TMP ADJ	6	8.82	7.68	3.42	3.84	3.84	3.70	7.15	6.05	4.10	8.80	8.82	6.79	4.62
ALT ADJ	6	8.93	7.77	3.46	3.89	3.89	3.75	7.24	6.13	4.15	8.91	8.93	6.87	4.67
STDD ET	6	0.47	0.41	0.18	0.21	0.21	0.20	0.38	0.32	0.22	0.47	0.47	0.36	0.25
80PCT ET	6	9.33	8.12	3.61	4.06	4.06	3.92	7.56	6.40	4.34	9.31	9.33	7.17	4.88
AVE ET	7	8.54	6.94	7.37	7.68	7.68	7.47	2.99	7.17	8.14	7.05	6.80	6.57	6.57
TMP ADJ	7	8.89	7.22	7.67	7.99	7.99	7.78	3.11	7.46	8.47	7.34	7.08	6.84	6.84
ALT ADJ	7	9.00	7.31	7.77	8.09	8.09	7.87	3.15	7.56	8.58	7.43	7.17	6.92	6.92
STDD ET	7	0.26	0.21	0.23	0.24	0.24	0.23	0.09	0.22	0.25	0.22	0.21	0.20	0.20
80PCT ET	7	9.22	7.49	7.96	8.30	8.30	8.07	3.23	7.74	8.79	7.61	7.34	7.09	7.09
AVE ET	8	7.18	5.41	4.97	6.63	6.63	6.38		5.57	7.06	1.47	1.32	5.53	5.72
TMP ADJ	8	7.50	5.65	5.19	6.92	6.92	6.66		5.82	7.37	1.53	1.38	5.77	5.97
ALT ADJ	8	7.59	5.72	5.25	7.01	7.01	6.74		5.89	7.46	1.55	1.40	5.84	6.05
STDD ET	8	0.33	0.25	0.23	0.30	0.30	0.29		0.26	0.32	0.07	0.06	0.25	0.26
80PCT ET	8	7.87	5.93	5.45	7.26	7.26	6.99		6.11	7.73	1.61	1.45	6.05	6.26
AVE ET	9	5.60	3.67	0.77	4.19	4.19			3.29	4.86			4.32	3.83
TMP ADJ	9	5.90	3.87	0.81	4.42	4.42			3.47	5.12			4.55	4.04
ALT ADJ	9	5.97	3.92	0.82	4.47	4.47			3.51	5.19			4.61	4.09
STDD ET	9	0.41	0.27	0.06	0.31	0.31			0.24	0.36			0.32	0.28
80PCT ET	9	6.32	4.14	0.87	4.73	4.73			3.71	5.49			4.88	4.32
AVE ET	10	3.73	1.26		1.04					2.48			2.88	
TMP ADJ	10	4.02	1.36		1.12					2.67			3.10	
ALT ADJ	10	4.07	1.37		1.13					2.70			3.14	
STDD ET	10	0.35	0.12		0.10					0.24			0.27	
80PCT ET	10	4.36	1.47		1.22					2.91			3.37	

ET and standard deviation data (AVE ET and STDD ET) for Bliss weather station taken from Appendix E (unpublished) of Brockway, C.E., and R.G. Allen, 1983, Estimating Consumptive Irrigation Requirements for Crops in Idaho, Idaho Water and Energy Resources Research Institute.

Temperature adjustment (TMP ADJ) based on temperature differences between Bliss and Hagerman and temperature sensitivity of ET estimates given in Brockway, C.E., G.S. Johnson, J.L. Wright, and A.L. Coiner, 1985, Remote Sensing for Irrigated Crop Water Use - Phase 1, Water Resources Research Institute, pp. 101-107.

Altitude adjustment (ALT ADJ) based on Doorenbos, J., and W.O. Pruitt, 1977, Crop Water Requirements, Food and Agriculture Organization of the United Nations, p. 59.

80th percentile ET values (80PCT ET) calculated based on Walpole, R.E., and R.H. Meyers, 1985, third edition, PROBABILITY AND STATISTICS FOR ENGINEERS AND SCIENTISTS, New York: Macmillan Publishing Company, pp. 132-144 and 574.

SOIL CHARACTERISTICS initials: mp date: 12/20/99

Soil Type = CHB
Source of Soils Data = NRCS - Gooding

soil depth (inches)		AWC (in/in)		PH		organic (%)		soil depth (ft)	AWC (inches)	intake family	
lower	upper	lower	upper	lower	upper	lower	upper			flood	furrow
0	7	0.14	0.16	6.6	7.3	20	30	1	1.73	4	0.85
7	60	0.1	0.17					2	3.35		
								3	4.97		
								4	6.58	alternate method	
								5	8.20		
										#N/A	#N/A

Management Allowed Deficit (MAD)

crop	root depth (ft)	stress point	MAD (inches)
alfalfa (hay or seed)	5	0.5	4.10
corn (field or silage)	4	0.5	3.29
grain (winter or spring)	4	0.5	3.29
pasture (or grass hay)	3	0.5	2.48
other (enter below)			
turf grass	2	0.5	1.67
melons	5	0.5	4.10
potatoes	3	0.35	1.74
beans	2	0.4	1.34

SOIL CHARACTERISTICS initials: mp date: 12/20/99

Soil Type = FAB
Source of Soils Data = NRCS - Gooding

soil depth (inches)		AWC (in/in)		PH		organic (%)		soil depth (ft)	AWC (inches)	intake family	
lower	upper	lower	upper	lower	upper	lower	upper			flood	furrow
0	7	0.09	0.1	7.9	8.4	0.6	0.9	1	1.14	3	0.7
7	61	0.09	0.1					2	2.28		
								3	3.42		
								4	4.56	alternate method	
								5	5.70		
										3	0.7

Management Allowed Deficit (MAD)

crop	root depth (ft)	stress point	MAD (inches)
alfalfa (hay or seed)	5	0.5	2.85
corn (field or silage)	4	0.5	2.28
grain (winter or spring)	4	0.5	2.28
pasture (or grass hay)	3	0.5	1.71
other (enter below)			
turf grass	2	0.5	1.14
melons	5	0.5	2.85
potatoes	3	0.35	1.20
beans	2	0.4	0.91

SOIL CHARACTERISTICS initials: mp date: 11/17/99

Soil Type = FKE
Source of Soils Data = NRCS - Gooding

soil depth (inches)		AWC (in/in)		PH		organic (%)	
lower	upper	lower	upper	lower	upper	lower	upper
0	7	0.09	0.1	7.9	8.4	0.6	0.9
7	61	0.09	0.1				

soil depth (ft)	AWC (inches)
1	1.14
2	2.28
3	3.42
4	4.56
5	5.70

intake family	
flood	furrow
3	0.7

alternate method	
3	0.7

Management Allowed Deficit (MAD)

crop	root depth (ft)	stress point	MAD (inches)
alfalfa (hay or seed)	5	0.5	2.85
corn (field or silage)	4	0.5	2.28
grain (winter or spring)	4	0.5	2.28
pasture (or grass hay)	3	0.5	1.71
other (enter below)			
turf grass	2	0.5	1.14

SOIL CHARACTERISTICS initials: mp date: 11/17/99

Soil Type = KOB/KOC
Source of Soils Data = NRCS - Gooding

soil depth (inches)		AWC (in/in)		PH		organic (%)		soil depth (ft)	AWC (inches)	intake family	
lower	upper	lower	upper	lower	upper	lower	upper			flood	furrow
0	9	0.12	0.14	7.4	8.4	1	2	1	1.59	2	0.55
9	21	0.13	0.15					2	3.08		
21	60	0.03	0.12					3	3.98		
								4	4.88	alternate method	
								5	5.78		
										2	0.55

Management Allowed Deficit (MAD)

crop	root depth (ft)	stress point	MAD (inches)
alfalfa (hay or seed)	5	0.5	2.89
corn (field or silage)	4	0.5	2.44
grain (winter or spring)	4	0.5	2.44
pasture (or grass hay)	3	0.5	1.99
other (enter below)			
turf grass	2	0.5	1.54
onions	1	0.35	0.56
tomatoes	5	0.5	2.89
beans	2	0.4	1.23

SOIL CHARACTERISTICS initials: mp date: 11/17/99

Soil Type = QUB
Source of Soils Data = NRCS - Gooding

soil depth (inches)		AWC (in/in)		PH		organic (%)		soil depth (ft)	AWC (inches)	intake family	
lower	upper	lower	upper	lower	upper	lower	upper			flood	furrow
0	2	0.08	0.11	6.1	8.4	0.5	1	1	1.19	3	0.7
2	61	0.08	0.12					2	2.39		
								3	3.59		
								4	4.79	alternate method	
								5	5.99		
										#N/A	#N/A

Management Allowed Deficit (MAD)

crop	root depth (ft)	stress point	MAD (inches)
alfalfa (hay or seed)	5	0.5	3.00
corn (field or silage)	4	0.5	2.40
grain (winter or spring)	4	0.5	2.40
pasture (or grass hay)	3	0.5	1.80
other (enter below)			
turf grass	2	0.5	1.20
potatoes	3	0.35	1.26
beans	2	0.4	0.96

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.70	2.40	.021	3.00	600	5.0	12	79.3	3.21	2.91	0.13	0.68	~~74.81~~ → use 37.4
0.70	2.40	.021	3.00	600	5.0	24	79.3	6.42	5.10	1.17	2.85	37.40
0.70	2.40	.021	3.00	600	4.0	24	109.3	5.13	4.88	0.04	2.69	46.76

$Q_{max} = 5$ gpm

$Q_{min} = 3$ gpm

Field I - using corn

ft 12 hr set time, 5.0 gpm is lowest inflow rate that will work, so Q_{max} for 12 hr set time.

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.70	1.80	.021	2.00	600	10.0	12	41.7	9.62	5.85	3.61	4.21	18.70
0.70	1.80	.021	2.00	600	6.0	12	64.0	5.77	5.21	0.33	3.65	31.17
0.70	1.80	.021	2.00	600	10.0	24	41.7	19.25	10.05	9.07	8.38	9.35
0.70	1.80	.021	2.00	600	5.0	24	79.3	9.62	8.71	0.66	7.16	18.70

$Q_{max} = 10$ gpm

$Q_{min} = 3$ gpm

Field I - using pasture

FIELD ID NO: J
TOTAL ACRES: 4.5 AC
FIELD SLOPE: 1.1 %
FURROW LENGTH: 300 FT

DATE OF ANALYSIS: 6/7/00

Qmax PER FURROW:
For corrugates: 10.0 gpm
For furrows: 9.1 gpm

Qmin PER FURROW:
For both: 3.0 gpm

SOIL TYPE	ACRES	% OF TOTAL AC	INTAKE FAMILY	CROP = alfalfa MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY
QUB	4.5	100	0.7	3	65%								

TOTAL AC 4.5 TOTAL % 100

CFS/AC FOR EACH CROP: _____ _____ _____ _____ _____

TOTAL CFS FOR FIELD : _____

FIELD ID NO: K
TOTAL ACRES: 6.9 AC
FIELD SLOPE: 1.1 %
FURROW LENGTH: 550 FT

DATE OF ANALYSIS: 6/7/00

Qmax PER FURROW:
For corrugates: 10.0 gpm
For furrows: 9.1 gpm

Qmin PER FURROW:
For both: 3.0 gpm

SOIL TYPE	ACRES	% OF TOTAL AC	INTAKE FAMILY	CROP = grain MAD	EFFICIENCY	CROP = pasture MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY	CROP = MAD	EFFICIENCY
QUB	6.9	100	0.7	2.4	42%	1.8	31%						

TOTAL AC 6.9 TOTAL % 100

CFS/AC FOR EACH CROP: _____ _____ _____ _____ _____

TOTAL CFS FOR FIELD : _____

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.70	3.00	.011	2.50	300	10.0	12	17.1	15.40	5.13	10.22	2.18	19.48
0.70	3.00	.011	2.50	300	3.0	12	48.2	4.62	4.00	0.48	1.14	64.94
0.70	3.00	.011	2.50	300	10.0	24	17.1	30.80	8.68	22.07	5.73	9.74
0.70	3.00	.011	2.50	300	3.0	24	48.2	9.24	6.88	2.23	4.01	32.47

Qmax = 10 gpm

Qmin = 3 gpm

Field J - using alfalfa hay

INTAKE FAMILY	DESIGN APPLIC. Inches	FURROW SLOPE Ft/Ft	FURROW SPACING Feet	FURROW LENGTH Feet	INFLOW RATE Gpm	APPROXIMATE INFLOW TIME Hours	ADVANCE TIME Minutes	GROSS IRRIGATION APPLICATION Inches	NET IRRIGATION APPLICATION Inches	RUNOFF Inches	DEEP PERC. In.	IRRIGATION EFFICIENCY %
0.70	2.40	.011	2.00	550	10.0	12	45.4	10.50	6.22	4.10	4.00	22.86
0.70	2.40	.011	2.00	550	5.5	12	88.3	5.77	5.28	0.13	3.24	41.56
0.70	2.40	.011	2.00	550	10.0	24	45.4	21.00	10.69	10.15	8.45	11.43
0.70	2.40	.011	2.00	550	4.5	24	122.6	9.45	8.82	0.20	6.85	25.40

$Q_{max} = 10$ gpm

$Q_{min} = 3$ gpm

Field K - using grain

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DEC 28 2000
Department of Water Resources
1999 MAR -3 PM 3:49
DISTRICT COURT-SRBA
TWIN FALLS CO., IDAHO
FILED

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT
OF THE STATE OF IDAHO, IN AND FOR TWIN FALLS COUNTY

In Re SRBA Case No. 39576	Subcase Nos. 36-00006, 36-00007, 36-00008, 36-00022, 36-00023, 36-00047, 36-00068, 36-00069, 36-00099, 36-00100, and 36-00106 **ORDER GRANTING IDAHO DEPARTMENT OF FISH & GAME'S MOTION TO SHORTEN TIME**

On February 12, 1999, the Court heard the *Idaho Department of Fish & Game's Motion to Shorten Time*. For good cause shown, IT IS ORDERED that the *Motion to Shorten Time* is hereby GRANTED.

IT IS FURTHER ORDERED that the following schedule shall apply to all pending Motions for Summary Judgment filed in the above-referenced subcases prior to February 12, 1999 and any Motions for Summary Judgment adopting these pending motions.

(1) **February 17, 1999, 5 p.m.** – Deadline to file motions adopting Motions for Summary Judgment pending as of February 12, 1999.

(2) **February 22, 1999, 5 p.m.** – Deadline for service of Respondents' Response Briefs. Respondents must serve their Response Briefs on the Claimants by

overnight mail delivery to ensure receipt by the Claimants no later than **5 p.m. on February 23, 1999.**

(3) **February 23, 1999, 5 p.m.** – Deadline for service of Claimants' Response Briefs. Claimants must serve their Response Briefs on all Respondents by overnight mail delivery to ensure receipt by the Respondents no later than **5 p.m. on February 24, 1999.**

(4) **March 1, 1999, 5 p.m.** – Deadline for service of all Reply Briefs.

(5) **March 8, 1999, 10 a.m.** – Hearing at the Snake River Basin Adjudication Courthouse in Twin Falls, Idaho on all summary judgment motions covered by this order.

ENTERED this 3 day of ~~February~~ March, 1999.

Special Master Fritz X. Haemmerle

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MAR 0 9 1999
Department of Water Resources

William Strange, Big Springs Water Users Assoc., C-CAN Partners, John W. Jones, Jr., Hagerman Gun Club (Porter & Surbaugh), River Grove Farms, Inc.

PARKER, WARR & BROWN, LLP
Patrick D. Brown
812 Shoshone Street East
Twin Falls, ID 83301
Telephone: (208)735-8812

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

* * * * * * * * * * *

In Re SRBA	)	Subcase Nos. 36-00006, 36-00007, 36-00008, 36-00022, 36-00023, 36-00047, 36-00068, 36-00069, 36-00099, 36-00100, 36-00106,
Case No. 39576	)	**MOTION TO COMPEL AND FOR SANCTIONS**

* * * * * * * * * * *

COME NOW, the Claimants in the above listed Subcases, and move the Court under I.R.C.P. 37(a) for Order Compelling Responses to Interrogatories and Requests for Production against each Respondent. The Claimants also move the Court for entry of an Order sanctioning the attorneys who signed the Interrogatory and Request for Production Responses pursuant to I.R.C.P. 11(a) and I.R.C.P. 37(a).

This Motion is supported by the Brief and the Affidavit of Counsel with the Interrogatory and Request for Production Responses being filed contemporaneously with this Motion.

COPY

Oral argument is requested.

Dated this 4th day of March, 1999.

PARKER, WARR & BROWN, LLP



By: _____
Patrick D. Brown

CERTIFICATE OF SERVICE

The undersigned, a resident attorney of the State of Idaho, with offices at 812 Shoshone St. East, Twin Falls, Idaho 83301, and one of the attorneys for the claimants in this matter, certifies that on the 5th day of March, 1999, he served a true and correct copy of the foregoing document by the method indicated below, and addressed to the following:

Chief, Natural Resources Office of the Attorney General State of Idaho P. O. Box 44449 Boise, ID 83711-4449	✓ U.S. Mail ___ Hand Delivered ___ Overnight Mail ___ Telecopy (Fax)
Director of IDWR P. O. Box 83720 Boise, ID 83701-2139	✓ U.S. Mail ___ Hand Delivered ___ Overnight Mail ___ Telecopy (Fax)
Jeffrey Fereday Givens Pursley, LLP 277 N. 6th St, Ste. 200 P. O. Box 2720 Boise, ID 83701-2720	✓ U.S. Mail ___ Hand Delivered ___ Overnight Mail ___ Telecopy (Fax)
Josephine P. Beeman Dana L. Hofstetter Beeman & Hofstetter, P.C. P.O. Box 1427 Boise, ID 83701-1427	✓ U.S. Mail ___ Hand Delivered ___ Overnight Mail ___ Telecopy (Fax)

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Southern Region

RECEIVED
AUG 26 1998
Department of Water Resources

36-00068 SOUTH

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1998 AUG 24 PM 01:43
DISTRICT COURT - SRBA
TWIN FALLS CO., IDAHO
FILED

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

In Re SRBA

Case No. 39576

) NOTICE SETTING SUBCASE
) FOR SCHEDULING CONFERENCE
)
) SUBCASE NOS: SEE ATTACHED EXHIBIT A

The Scheduling Conference for this subcase will be held as follows:

MONDAY, SEPTEMBER 21, 1998 at 10:00 AM
SRBA
DISTRICT COURT
253 3RD AVENUE NORTH
TWIN FALLS, ID

Parties and their attorneys, if any, shall attend the Scheduling Conference and shall be prepared to discuss the following matters:

1. Claimant representation and alignment of the parties;
2. Identification of the issues;
3. Admissions of facts and documents;
4. Amendment of pleadings, if required;
5. Discovery and discovery cut-off dates;
6. Expert witnesses, if planned;
7. Pre-trial conference dates;
8. Motions;
9. Settlement/alternative dispute resolution; and
10. Firm trial date.

DIRECTOR OF IDWR
PO BOX 83720
BOISE, ID 83720-0098

CERTIFICATE OF MAILING

I Certify that a true and correct copy of the NOTICE SETTING SUBCASE FOR SCHEDULING CONFERENCE was mailed on AUGUST 24, 1998, with sufficient first-class postage to the following:

IDAHO DEPT OF FISH & GAME
Represented by:
AMPE, PETER J
DEPUTY ATTORNEY GENERAL
PO BOX 44449
BOISE, ID 83711-4449
Phone: 208-334-2400

STATE OF IDAHO
Represented by:
CLIVE STRONG
OFFICE OF ATTORNEY GENERAL
STATE OF IDAHO
PO BOX 44449
BOISE, ID 83711-4449
Phone: 208-334-2400

NORTH SNAKE GROUND WATER DIST
Represented by:
DANA L. HOFSTETTER
BEEMAN & HOFSTETTER
608 WEST FRANKLIN STREET
PO BOX 1427
BOISE, ID 83701-1427
Phone: 208-388-8900

CRANNEY BROS
CRANNEY BROS.
DOUG GRANT
KEVIN MICHAELSON
Represented by:
JEFFREY C. FEREDAY
PO BOX 2720
BOISE, ID 83701
Phone: 208-342-6571

NORTH SNAKE GROUND WATER DIST
Represented by:
JOSEPHINE P. BEEMAN
BEEMAN & HOFSTETTER
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PO BOX 1427
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BANBURY PIPE CO., INC.
BIG SPRINGS WATER USERS ASSN
BIG SPRINGS WATER USERS ASSOC.
BOB PORTER
BOB PORTER, FRED SURBAUGH,
C-CAN CORPORATION
C-CAN PARTNERS
JOHN W. & DELORIS D. JONES
JOHN W. JR. JONES
JOINT HAGERMAN SCHOOL DIST 233
JOINT HAGERMAN SCHOOL DIST.
PAUL E. WATKINS
PAUL WATKINS
WILLIAM E. NORRIS
WILLIAM STRANGE
Represented by:
PATRICK D. BROWN
812 SHOSHONE ST. EAST
TWIN FALLS, ID 83303
Phone: 208-735-8812

A & B IRRIGATION DISTRICT
Represented by:
ROGER D LING
PO BOX 396
RUPERT, ID 83350
Phone: 208-436-4717

DALE E. BOYER
BOYER, ELAINE M.
PO BOX 232
HAGERMAN, ID 83332
Phone: 208-352-1152

JOHN W. JR. JONES
JONES, DELORIS
PO BOX 265
HAGERMAN, ID 83332

WALTER II & JUDY BONNING
PO BOX 360
HAGERMAN, ID 83332
Phone: 208-837-4578

DIRECTOR OF IDWR
PO BOX 83720
BOISE, ID 83720-0098

Exhibit A

Subcase Nos:

36-00006
36-00007
36-00008
36-00022
36-00023
36-00047
36-00068
36-00069
36-00070
36-00079
36-00099
36-00100
36-00106
36-00108B
36-02038
36-08099
36-15463

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Southern Region

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AUG 26 1998
Department of Water Resources

36-00068 SOUTH
DJ

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DISTRICT COURT - SRBA
TWIN FALLS CO., IDAHO
FILED

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

In Re SRBA	) NOTICE SETTING SUBCASE
Case No. 39576	) FOR SCHEDULING CONFERENCE
	)
	) SUBCASE NOS: SEE ATTACHED EXHIBIT A

The Scheduling Conference for this subcase will be held as follows:

MONDAY, SEPTEMBER 21, 1998 at 10:00 AM
SRBA
DISTRICT COURT
253 3RD AVENUE NORTH
TWIN FALLS, ID

Parties and their attorneys, if any, shall attend the Scheduling Conference and shall be prepared to discuss the following matters:

1. Claimant representation and alignment of the parties;
2. Identification of the issues;
3. Admissions of facts and documents;
4. Amendment of pleadings, if required;
5. Discovery and discovery cut-off dates;
6. Expert witnesses, if planned;
7. Pre-trial conference dates;
8. Motions;
9. Settlement/alternative dispute resolution; and
10. Firm trial date.

DIRECTOR OF IDWR
PO BOX 83720
BOISE, ID 83720-0098

(continued)

The date for the scheduling conference will not be changed unless a Stipulation to Reset is received by the court fourteen (14) days before the date of the scheduling conference. Parties who wish to change the date of the scheduling conference must do the following:

1. Contact the clerk of the SRBA Court and obtain alternative dates and times (208-736-3011).

2. Contact each party to the subcase(s) or their attorney, if any, and reach an agreement on the alternative date(s) and time(s) provided by the clerk.

3. Prepare a Stipulation to Reset the hearing. The hearing must be reset on one of the dates and times provided by the clerk. The stipulation must specify the date(s) and time(s) agreed to and must contain a statement that you have contacted each party or their attorney and that all have agreed on the alternative date(s) and time(s). The court will send a notice resetting the hearing.

4. If the parties cannot agree on one of the alternative dates and times provided by the clerk, the party wishing to change the date and time must file an Expedited Motion to Reset with the court at least 21 days prior to the scheduled hearing.

Dated: AUGUST 24, 1998

/S/ DEBBIE LASH
Deputy Clerk
Snake River Basin Adjudication

CERTIFICATE OF MAILING

I Certify that a true and correct copy of the NOTICE SETTING SUBCASE FOR SCHEDULING CONFERENCE was mailed on AUGUST 24, 1998, with sufficient first-class postage to the following:

IDAHO DEPT OF FISH & GAME
Represented by:
AMPE, PETER J
DEPUTY ATTORNEY GENERAL
PO BOX 44449
BOISE, ID 83711-4449
Phone: 208-334-2400

STATE OF IDAHO
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JONES, DELORIS
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HAGERMAN, ID 83332

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PO BOX 360
HAGERMAN, ID 83332
Phone: 208-837-4578

DIRECTOR OF IDWR
PO BOX 83720
BOISE, ID 83720-0098

(Certificate of mailing continued)

ALMA BLASTOCK
ROUTE 1, BOX 442
HAGERMAN, ID 83332

/S/ DEBBIE LASH
Deputy Clerk

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Department of Water Resources
Southern Region

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

In Re SRBA

Case No. 39576

A. Subcase 36-00068
(Insert water right number From the Objection Form)

STANDARD FORM 2 RESPONSE TO AMENDED OBJECTION

Please **print or type** the following information:

B. **NAME AND ADDRESS OF PERSON RESPONDING**

Name: Kevin Michaelson

Address: 2590 Quigley Road

American Falls, ID 83211



Daytime Phone: 208-226-7203

Name & Address of Attorney, if any:

Jeffrey C. Fereday
Michael C. Creamer
Karl T. Klein
Givens Pursley, LLP
277 N. Sixth, Suite 200
Boise, ID 83701
Phone (208) 388-1200
Fax (208) 388-1201

C. **NAME AND ADDRESS OF PERSON WHO FILED THE OBJECTION TO WHICH YOU ARE RESPONDING**

Name: John W. Jones, Jr. and Deloris D. Jones

Address: P.O. Box 265

Hagerman, ID 83332

D. I am responding to the objections to the following elements. (Please check the appropriate box(es)).

1.	☐	**Name and Address**
2.	☐	**Source**
3.	☒	**Quantity**
4.	☐	**Priority Date**
5.	☒	**Point(s) of Diversion**
6.	☐	**Instream Flow Description**
7.	☒	**Purpose(s) of Use**
8.	☒	**Period of Year**
9.	☒	**Place of Use**

Other Basis for Response
Claimant failed to state any supporting reasons for objection as required by S.F.1 (E) and A01, Rule 4(c) ("The Court will not accept incorrect or incomplete forms"). Claimant has, therefore, waived any right to object and claimant's water right should be decreed as stated in the Director's Report.

11. **Recommendation**

☐ This water right should not exist.

☒ This water right was not recommended, but should be recommended with the elements described above. (That is, this right's elements should be recommended, if at all, as identified by the IDWR.)

E. **VERIFICATION** (Must be Completed)

State of Idaho)
)ss.
County of Ada)

Karl T. Klein, duly sworn, upon oath deposes and says:
(Name of person filing response)

That I am the party/claimant filing this response as defined by I.C. §§ 42-1401A(1) and (6) or that I am the attorney for the party/claimant responding and that I have read this response, know its contents and believe that the statements are true to the best of my knowledge.

(Signature of person filing response)

Karl T. Klein, of Givens Pursley, LLP
(Attorney signing in representative capacity)

Subscribed and sworn to before me on: February 19, 1999

Notary Public for Idaho
Residing at: Meridian Idaho
My Commission Expires: 11/27/2003

CARRINE A. WILSON NOTARY PUBLIC STATE OF IDAHO

CERTIFICATE OF MAILING

I certify that on February 19, 1999 I mailed the original and copies of this response, including all attachments, to the following persons:

1. Original to:

Clerk of the District Court
Snake River Basin Adjudication
253 Third Avenue North
P.O. Box 2707
Twin Falls, ID 83303-2707

2. One copy to the claimant of the water right at the following address:

John W. Jones, Jr. and Deloris D. Jones
P.O. Box 265
Hagerman, ID 83332

3. Copies to:

IDWR Document Depository
P.O. Box 83720
Boise, ID 83720-0098

Chief, Natural Resources Division
Office of the Attorney General
State of Idaho
P.O. Box 44449
Boise, ID 83711-4449

United States Department of Justice
Environment and Natural Resource Division
550 West Fort Street, MSC 033
Boise, ID 83724

Patrick Brown
Parker, Warr & Brown LLP
812 Shoshone Street East
Twin Falls, ID 83301

Karl T. Klein

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MAR 2 2 1999
Department of Water Resources
Southern Region

RECEIVED
FEB 2 2 1999
Department of Water Resources

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE

STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

In Re SRBA

Case No. 39576

A. Subcase 36-00068
(Insert water right number From the Objection Form)

STANDARD FORM 2
RESPONSE TO AMENDED OBJECTION

Please **print or type** the following information:

B. **NAME AND ADDRESS OF PERSON RESPONDING**

Name: Doug Grant

Address: 600 N. 707 E.

Rupert, ID 83350

Daytime Phone: 208-531-5149

Name & Address of Attorney, if any:

Jeffrey C. Fereday
Michael C. Creamer
Karl T. Klein
Givens Pursley, LLP
277 N. Sixth, Suite 200
Boise, ID 83701
Phone (208) 388-1200
Fax (208) 388-1201

C. **NAME AND ADDRESS OF PERSON WHO FILED THE OBJECTION TO WHICH YOU ARE RESPONDING**

Name: John W. Jones, Jr. and Deloris D. Jones

Address: P.O. Box 265

Hagerman, ID 83332

D. I am responding to the objections to the following elements. (Please check the appropriate box(es)).

1.	☐	**Name and Address**	
2.	☐	**Source**	
3.	☒	**Quantity**	Other Basis for Response Claimant failed to state any supporting reasons for objection as required by S.F.1 (E) and A01, Rule 4(c) ("The Court will not accept incorrect or incomplete forms"). Claimant has, therefore, waived any right to object and claimant's water right should be decreed as stated in the Director's Report.
4.	☐	**Priority Date**	
5.	☒	**Point(s) of Diversion**	
6.	☐	**Instream Flow Description**	
7.	☒	**Purpose(s) of Use**	
8.	☒	**Period of Year**	
9.	☒	**Place of Use**	
11.		**Recommendation**	

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)ss.
County of Ada)

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(Signature of person filing response)

Karl T. Klein, of Givens Pursley, LLP
(Attorney signing in representative capacity)

Subscribed and sworn to before me on: February 17, 1999

Notary Public for Idaho
Residing at: Meridian, Idaho
My Commission Expires: 11/27/2003

CARRINE A. WILSON NOTARY PUBLIC STATE OF IDAHO

CERTIFICATE OF MAILING

I certify that on February 19, 1999, I mailed the original and copies of this response, including all attachments, to the following persons:

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Boise, ID 83711-4449

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550 West Fort Street, MSC 033
Boise, ID 83724

Patrick Brown
Parker, Warr & Brown LLP
812 Shoshone Street East
Twin Falls, ID 83301

Karl T. Klein

RECEIVED

MAR 2 2 1999

Department of Water Resources
Southern Region

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

In Re SRBA

Case No. 39576

A. Subcase 36-00068
(Insert water right number From the Objection Form)

STANDARD FORM 2 RESPONSE TO AMENDED OBJECTION

Please **print or type** the following information:

B. **NAME AND ADDRESS OF PERSON RESPONDING**

Name: Cranney Bros.

Address: c/o Mike Cranney
Box 44A
Oakley, ID 83346

MAIL
23678

Daytime Phone: 208-862-3480

Name & Address of Attorney, if any:
Jeffrey C. Fereday
Michael C. Creamer
Karl T. Klein
Givens Pursley, LLP
277 N. Sixth, Suite 200
Boise, ID 83701
Phone (208) 388-1200
Fax (208) 388-1201

C. **NAME AND ADDRESS OF PERSON WHO FILED THE OBJECTION TO WHICH YOU ARE RESPONDING**

Name: John W. Jones, Jr. and Deloris D. Jones

Address: P.O. Box 265

Hagerman, ID 83332

D. I am responding to the objections to the following elements. (Please check the appropriate box(es)).

1.	☐	**Name and Address**	
2.	☐	**Source**	
3.	☒	**Quantity**	Other Basis for Response Claimant failed to state any supporting reasons for objection as required by S.F.1 (E) and A01, Rule 4(c) ("The Court will not accept incorrect or incomplete forms"). Claimant has, therefore, waived any right to object and claimant's water right should be decreed as stated in the Director's Report.
4.	☐	**Priority Date**	
5.	☒	**Point(s) of Diversion**	
6.	☐	**Instream Flow Description**	
7.	☒	**Purpose(s) of Use**	
8.	☒	**Period of Year**	
9.	☒	**Place of Use**	
	11.	**Recommendation**	

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)ss.
County of Ada)

Karl T. Klein, duly sworn, upon oath deposes and says:
(Name of person filing response)

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(Signature of person filing response)

Karl T. Klein

Karl T. Klein, of Givens Pursley, LLP
(Attorney signing in representative capacity)

Subscribed and sworn to before me on: February 19, 1999

Carrine A. Wilson
Notary Public for Idaho
Residing at: Meridian, Idaho
My Commission Expires: 11/27/2003

CARRINE A. WILSON
NOTARY PUBLIC
STATE OF IDAHO

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   State of Idaho
   P.O. Box 44449
   Boise, ID 83711-4449

   United States Department of Justice
   Environment and Natural Resource Division
   550 West Fort Street, MSC 033
   Boise, ID 83724

   Patrick Brown
   Parker, Warr & Brown LLP
   812 Shoshone Street East
   Twin Falls, ID 83301

Karl T. Klein

RECEIVED
FEB 2 6 1999
Department of Water Resources
Southern Region

RECEIVED
FEB 04
Department of Water Resources

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

In Re SRBA

Case No. 39576

A. Subcase 36-00068
(Insert water right number From the Objection Form)

STANDARD FORM 2
RESPONSE TO AMENDED OBJECTION

Please **print or type** the following information:

B. NAME AND ADDRESS OF PERSON RESPONDING

Name: North Snake Ground Water District, on behalf of its members, and May Farms Ltd. and Faulkner Land & Livestock Company
Address: 2092 East 3600 South
Wendell, Idaho 83355
Daytime Phone: (208) 536-6553

Name & Address of Attorney, if any:

Josephine P. Beeman
Dana L. Hofstetter
Beeman & Hofstetter, P.C.
608 West Franklin Street
P. O. Box 1427
Boise, Idaho 83701-1427
(208) 388-8900 / Fax - (208) 388-8400

C. NAME AND ADDRESS OF PERSON WHO FILED THE OBJECTION TO WHICH YOU ARE RESPONDING

Name: John W. Jones, Jr. and Deloris D. Jones
Address: P. O. Box 265
Hagerman, ID 83332
Daytime Phone: (208) 837-4580

D. I am responding to the objections to the following elements. (Please check the appropriate box(es)).

1. ☐ **Name and Address**
2. ☐ **Source**
3. ✖ **Quantity**
4. ☐ **Priority Date**
5. ☐ **Point(s) of Diversion**
6. ☐ **Instream Flow Description**
7. ✖ **Purpose(s) of Use**
8. ✖ **Period of Year**
9. ✖ **Place of Use**
11. **Recommendation**

☐ This water right should not exist.

☐ This water right was not recommended, but should be recommended with the elements described above.

E. **VERIFICATION** (Must be Completed)

State of Idaho)
) ss:
County of Ada)

North Snake Ground Water District, on behalf of its members, and May Farms, Ltd. and Faulkner Land & Livestock Company, duly sworn, upon oath, deposes and says:

That I am the party/claimant filing this response as defined by I.C. § 42-1401A(1) and (6) or that I am the attorney for the party/claimant responding and that I have read this response, know its contents and believe that the statements are true to the best of my knowledge.

(Signature of person filing response)

(Attorney signing in representative capacity)

Subscribed and sworn before me on: February 2, 1999

JOYCE E. ANGELL NOTARY PUBLIC STATE OF IDAHO

Notary Public for the State of Idaho
Residing at: Boise, Idaho
My Commission. Expires: 07-24-02

IN. .RUCTIONS FOR MAILING

You must mail the response, including all attachments, to the Clerk of the Court. **FAX filings will not be accepted.** You must also send a copy to all the patties listed below in the Certificate of Mailing.

F.

CERTIFICATE OF MAILING

I certify that on February 2, 1999, I mailed the original and copies of this response, including all attachments, to the following persons:

1. Original to:

   Clerk of the District Court
   Snake River Basin Adjudication
   253 Third Avenue North
   P. O. Box 2707
   Twin Falls, ID 83303-2707

2. One copy to the claimant of the water right at the following address:

   Name: John W. Jones, Jr. and Deloris D. Jones
   Address: P. O. Box 265
   Hagerman, ID 83332

3. One copy to the party who filed the objection at the following address:

   Name: Patrick D. Brown
   Parker, Warr & Brown
   Address: 812 Shoshone Street East
   Twin Falls, Idaho 83301

4. Copies to:

   IDWR Document Depository
   P. O. Box 83720
   Boise, ID 83720-0098

   Chief, Natural Resources Division
   Office of the Attorney General.
   State of Idaho
   P. O. Box 44449
   Boise, ID 83711-4449

   United States Department of Justice
   Environment & Natural Resource Div
   550 West Fort Street, MSC 033
   Boise, ID 83724

   Michael C. Creamer
   Givens Pursley LLP
   P. O. Box 2720
   Boise, ID 83701-2720

   Peter Ampe
   John Marshall
   Attorney General's Office
   P. O. Box 83720
   Boise, ID 83720-0010

Your signature or signature of attorney mailing on your behalf

COPY

RECEIVED
APR 16 1998
Department of Water Resources

John W. Jones, Jr.

PARKER, WARR & BROWN, LLP
Patrick D. Brown
812 Shoshone St. East
Twin Falls, ID 83301
Telephone: (208)735-8812

RECEIVED
MAY 01 1998
Department of Water Resource
Southern Region

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

'R' v blank prefix records modified 4-24-98.

In Re SRBA	Subcase Nos. 36-00068, 36-00069 and 36-00070
Case No. 39576	NOTICE OF SUBSTITUTION OF COUNSEL

TO: The above-entitled court and to the parties and their counsel:

YOU ARE HEREBY NOTIFIED that pursuant to the Rule 11(b)(1), I.R.C.P., Parker, Warr & Brown, LLP, 812 Shoshone Street East, Twin Falls, ID 83301, are hereby substituted as counsel for Claimants, John W. Jones and Doris Jones, in place of the firm of Hepworth, Lezamiz & Hohnhorst, Chtd.

Dated this 13 day of April, 1998.

PARKER, WARR & BROWN, LLP

By: _____
Patrick D. Brown
Attorneys for claimant

CERTIFICATE OF SERVICE

The undersigned, a resident attorney of the State of Idaho, with offices at 812 Shoshone St. East, Twin Falls, Idaho 83301, and one of the attorneys for the claimant in this matter, certifies that on the 13 day of April, 1998, he served a true and correct copy of the foregoing document by the method indicated below, and addressed to the following:

U.S. Dept. of Justice
Environment & Natural
Resources Division
550 W. Fort, MSC 033
Boise, ID 83724

X U.S. Mail
__ Hand Delivered
__ Overnight Mail
__ Telecopy (Fax)

Chief, Natural Resources Div.
Office of the Attorney General
State of Idaho
P. O. Box 44449
Boise, ID 83711-4449

X U.S. Mail
__ Hand Delivered
__ Overnight Mail
__ Telecopy (Fax)

Director of IDWR
P. O. Box 83720
Boise, ID 83701-2139

X U.S. Mail
__ Hand Delivered
__ Overnight Mail
__ Telecopy (Fax)

_____
Patrick D. Brown

(water\jjonessubcounsel)

1ST
DRAFT

DRAFT
SUPPLEMENTAL REPORT REGARDING CLAIM TO WATER RIGHT NO. 36-00068

In Re SRBA
Twin Falls County Civil Case No. 39576
Sub-Case No. 36-00068

Report to the SRBA District Court

Prepared by the Idaho Department of Water Resources
Karl J. Dreher, Director
David R. Tuthill Jr., Adjudication Bureau Chief

December 8, 1997

1ST
DRAFT

The Director of the Idaho Department of Water Resources (IDWR) submits this supplemental report regarding claim to water right no. 36-00068 in response to the Special Master's bench order of November 17, 1997 and in accordance with Administrative Order 1. This supplemental report was prepared under the supervision of Karl J. Dreher, Director, and David R. Tuthill Jr., Adjudication Bureau Chief for IDWR. The following persons assisted in the preparation of the following portions of this report:

David R. Tuthill Jr., Acting Adjudication Bureau Chief reviewed this Supplemental Report Regarding Claim to Water Right No. 36-00068. The Affidavit of David R. Tuthill Jr., describes Mr. Tuthill's education and work experience.

Steve Clelland, Senior Water Resource Agent, investigated and prepared the preliminary recommendation for claim no. 36-00068. The Affidavit of Steve Clelland describes Mr. Clelland's education, work experience, a general description of his investigation of claims in the Hagerman area, and his investigation and recommendation of this water right.

Charles L. Honsinger, Deputy Attorney General, assisted by providing legal advice and advice as to the form of this report and the affidavits to which it is attached.

WATER RIGHT NO. 36-00068

This report addresses those elements of water right no. 36-00068 that are in dispute. IDWR understands those elements to be Quantity, Place of Use (Irrigated Acreage), and Remarks. The claimant was ordered by the Special Master at the November 17, 1997 initial hearing to make any amendments to the claim by December 1, 1997. To IDWR's knowledge, the claimant has not amended his claim. Should the claim be amended, the conclusions reached in this report may change.

LEGAL PRINCIPLES UNDERLYING RECOMMENDATION OF WATER RIGHT NUMBERS 36-00068, 36-00069, AND 36-00070

IDWR"s recommendations of water right numbers 36-00068, 36-00069, and 36-00070 are based upon IDWR's factual understanding of the following legal principles. These principles are not described for purposes of legal argument, but simply for the purpose of describing the basis of IDWR's recommendations for these water rights. If these principles are erroneous or inaccurate, the conclusions reached in this report may change.

1. *Beneficial use is the basis, measure and extent of any water right.*

2. *The description of the beneficial use is the description of the water right.*

3. Different beneficial uses are described in different ways.

4. The description of a water right should be adequate for the Department of Water Resources to administer it vis a vis other water rights.

5. The beneficial use of water pursuant to a water right cannot be changed or enlarged in such a way that other water right holders on a source will be injured.

6. Previous decrees are evidence of the elements of a water right; however, they are not the only evidence.

7. A water right holder involved in a water rights adjudication must claim in that adjudication all water rights purported to be appurtenant to the land involved; otherwise, he is forever barred from bringing those claims in subsequent adjudications.

8. A water right holder is bound by a prior determination of the elements of his water right by a court with jurisdiction that determines those elements in an adjudication resulting in a decree.

9. A court with jurisdiction conducting an adjudication cannot increase the elements of a water right previously determined by a court with jurisdiction in a prior adjudication resulting in a decree. Such an increase would result in injury to other water right holders.

10. If a decreed water right does not describe all of the elements of a water right required in section 42-1409, Idaho Code, the director shall include in the Director's Report recommendations fo those elements not defined by the prior decree based upon the extent of beneficial use of the water right as of the date of the commencement of an adjudication.

FOF

I. FACTUAL FINDINGS

A. Decrees

1. Water right numbers 36-00068, 36-00069 and 36-00070 were decreed to Daniel Jones in the New International Mortgage decree, entered in 1932.[1] A certified copy of the New International Mortgage decree is attached as Exhibit A.

---

[1] *New International Mortgage Bank v. Idaho Power Co., et al.*, Equity No. 1602 (D.S. Id. 1932), at p. 12.

In that decree, a total of 14.0 cfs pursuant to the Water Rights was decreed to Daniel Jones on the described property. Water right numbers 36-00068 was decreed with a priority date of February 1, 1888, and a source described as Weatherby Springs. Water right number 36-00069 was decreed with a priority date of February 1, 1888 and a source described as Weatherby Springs (Hoagland Tunnel). Water right number 36-00070 was decreed with a priority date of April 1, 1905 and a source described as Unnamed Spring.

2. Water right number 36-0176 was decreed to Daniel Jones in the Jones and Lemmon decree, entered in 1911.[2] A certified copy of the Jones and Lemmon decree is attached as Exhibit B. In that decree, a total of 536 inches, or 10.72 cfs pursuant to water right number 36-0176 was decreed to the exact same place of use as that decreed pursuant to the Water Rights in the New International Mortgage decree, with the exception of a 9.5 acre parcel included in the Jones and Lemmon decree that was specifically excluded from the place of use described for the Water Rights in the New International Mortgage decree. where?

3. The New International Mortgage decree does not define certain elements of the water rights decreed therein; specifically, it does not define the number of irrigated acres within the place of use to which the water rights determined in that decree were decreed as appurtenant. Thus, this element must be determined based upon the extent of beneficial use of the water right as of the date of the commencement of the Snake River Basin Adjudication.

4. The New International Mortgage decree increased the quantity of water previously decreed with a priority date of February 1, 1888 to the same place of use, except for the inclusion of a 9.5 acre tract not included in the New International Mortgage decree, from 10.72 cfs to 13.5 cfs also with a priority date of February 1, 1888.

5. Pursuant to the place of use described for water right numbers 36-00068 and 36-00069, the New International Mortgage decree decreed a quantity of .50 cfs with a April 1, 1905 priority date not previously decreed to that place of use in the Jones and Lemmon decree, entered in 1911.

6. Because of the errors in the decree, and because of the absence in the decree of an essential element of a water right, the number of irrigated acres, the New International Mortgage decree is not good evidence to be weighed in the determination of the elements of water right numbers 36-00068, 36-00069, and 36-00070.

---

[2] *Jones and Lemmon v. Cook, et al. and Jacobsen v. Durfee, et al.*, (Idaho 4th Dist., May 25, 1911)

2. Investigation of Water Right Nos. 36-00068, 36-00069, 36-00070

B. Place of Use (Irrigated Acreage)

1. Exhibit A, attached hereto, is a copy of a Geographic Information Systems Shape File. It will be referred to in this section as Exhibit A.

2. Referring to Exhibit A, the blue line in the middle of the photograph depicted on Exhibit A delineates the dividing line between Section 25 of T 7S, R 13E and Section 30 of T 7S, R 14E. The blue lines along the top and bottom of the photograph delineate the northern and southern boundaries of each section. There are sixteen 1/4 1/4 sections within each section, delineated by the narrow black lines running north and south, and east and west on the photograph.

3. The claimant claimed the same place of use totalling 517 acres for right numbers 36-00068, 36-00069, and 36-00070. The place of use claimed is the same as that in the New International Mortgage decree describing the place of use to which the Water Rights were decreed appurtenant.

4. The acres claimed as irrigated by the claimant, and the place of use described by the New International Mortgage decree is generally described as follows:

a. The entire east ½ of section 25 T 7S, R 13E, a total of 8 1/4 1/4 sections, excepting a triangular shaped tract of approximately 11 acres in the southwest corner of the SESW 1/4 1/4. The claimed acreage within this described area totals 309 acres.

b. The entirety of the westernmost 1/4 1/4 sections of section 30, T 7S, R 14E. These 1/4 1/4 sections are further described as lots 1, 2, 3, and 4 on the claim and in the director's report and comprise 32 acres each for a total of 128 acres claimed as irrigated within this described area. While these sections were claimed as 32 acres each, a subsequent Geographical Information Systems measurement by IDWR Adjudication Supervisor Doug Jones on December 4, 1997 found them to comprise approximately 31 acres each for a total of 124 acres.

c. The entirety of the eastern ½ of the SW 1/4 of Section 30, T 7S, R 14E for a total of 80 acres claimed as irrigated within this described area.

5. In the Director's Report, IDWR recommended 401 acres within the claimed place of use as irrigated. Referring to Exhibit A, the areas within the claimed place of use recommended as irrigated are outlined in yellow. Those areas not recommended as irrigated, and IDWR's reasons for not so recommending them are

as follows:

a. The approximately "Y shaped" area in the southeasternmost portion of Section 25, T 7S, R 13E (herinafter Section 25) and stretching eastward into the SW 1/4 of Section 30, T 7S, R 14E (hereinafter Section 30) contains a road leading northward from the southern boundary of Section 25 which subsequently forks; one fork leading in a westerly direction and the other leading in an easterly direction. The road is unirrigable. The narrow southern portion of the area described contains a steep unirrigable sideslope alongside the road. The northern portion of the area described contains farm buildings, stockyards, and graveled areas, all of which are not irrigated. IDWR Adjudication Supervisor Doug Jones used Geographical Information Systems on December 4, 1997 to determine that the approximate size of this area is 15 acres. ***HISTORICAL?***

b. The narrow area running east and west along the southern boundary SESE and SESW 1/4 1/4 sections of Section 30 contains ***an unirrigable sidehill?*** *IDWR Adjudication Supervisor Doug Jones used Geographical Information Systems on December 4, 1997 to determine that the approximate size of this area is 3 acres.*

c. The area primarily in the eastern ½ of the SE 1/4 of Section 30, and almost completely surrounded by areas outlined in yellow contains fish propagation ponds and access areas for those ponds. The area cannot be irrigated without taking out the fish ponds. ***HISTORICAL?*** *IDWR Adjudication Supervisor Doug Jones used Geographical Information Systems on December 4, 1997 to determine that the approximate size of this area is 9 acres.*

d. The area in the center of the NESE 1/4 1/4 of Section 30 contains a barn and ***????????*** *It is not irrigated.* ***HISTORICAL?*** *IDWR Adjudication Supervisor Doug Jones used Geographical Information Systems on December 4, 1997 to determine that the approximate size of this area is 3 acres.*

e. The area bounded on the north by the northern boundary of the NWNW 1/4 1/4 of Section 30, on the east by Billingsley Creek (the irregular, dark line running in a northerly direction across the center of the NWNW 1/4 1/4 of Section 30), and containing a small portion of the NWSW 1/4 1/4 of Section 30 is a very steep hill. It is not irrigated and is unirrigable. IDWR Adjudication Supervisor Doug Jones used Geographical Information Systems on December 4, 1997 to determine that the approximate size of this area is 15 acres.

f. The easternmost areas of the SWNE and SWSE 1/4 1/4 sections of

Section 30 contain canyon walls, rimrock, and plateau areas above the canyon walls. The canyon walls and rimrock are unirrigable. The plateau areas have no delivery system in place, show no evidence of cultivation, and were not historically irrigable by gravity methods because the springs claimed as the source for the Water Rights are below the plateau. IDWR Adjudication Supervisor Doug Jones used Geographical Information Systems on December 4, 1997 to determine that the approximate size of this area is 53 acres.

g. The easternmost areas of the NWNW and NWSW 1/4 1/4 sections of Section 30 contain canyon walls, rimrock, and plateau areas above the canyon walls and a small area bounded on the east by Billingsley Creek and on the North by the section line that appears as red on the aerial photograph. The canyon walls and rimrock are unirrigable. The plateau areas have no delivery system in place, show no evidence of cultivation, and were not historically irrigable by gravity methods because the springs claimed as the source for the Water Rights are below the plateau. The area appearing as red in color is an area with riparian vegetation that is not irrigated. IDWR Adjudication Supervisor Doug Jones used Geographical Information Systems to determine that the approximate total size of this area is 11 acres.

6. On August 21, 1990, IDWR Senior Water Resource Agent Steve Clelland visited the claimed place of use, conducted a field examination and confirmed as unirrigated by personal observation the aforementioned descriptions of those areas not recommended as irrigated in the Director's Report.

A. Quantity of Water Used

1. The quantity of water claimed pursuant to water right number 36-00068 was 12.50 cfs; pursuant to water right number 36-00069 was 1.00 cfs; and pursuant to water right number 36-00070 was .50 cfs for a total claimed quantity of 14.00 cfs appurtenant to the claimed place of use.

2. The total quantity of water recommended by IDWR pursuant to these claims was 8.25 cfs. Of that total quantity, 8.02 cfs was recommended for irrigation purposes, .11 cfs for domestic purposes, and .12 cfs for stockwater purposes.

3. The quantity for irrigation purposes recommended by IDWR pursuant to the Water Rights was determined as follows:

a. During the August 21, 1990 field examination, IDWR Senior Water Resource Agent Steve Clelland determined that the 401 acres later

recommended as irrigated were irrigated by sprinkler. At the time of its recommendation, it was IDWR's experience that the on-farm requirement for sprinkler systems is rarely greater than .02 cfs per acre.

b. Because water is delivered to the place of use through a concrete ditch and pipeline, there was no information indicating significant conveyance losses between the point of diversion and place of use.

c. Referring to Exhibit A, the points of diversion and sources claimed and recommended pursuant to water right numbers 36-00068 and 36-00069 are represented by the two small yellow circles on the dividing boundary line between the SWNE and SWSE 1/4 1/4 sections of Section 30.

d. The Hoagland Tunnel (point of diversion and source claimed and recommended pursuant to right number 36-00069) sits amongst the Weatherby Springs complex (point of diversion and source claimed and recommended pursuant to right number 36-00068). Water from the Hoagland Tunnel spills into a large retaining pond below the canyon wall that also sits among the Weatherby Spring complex.

c. The large retaining pond mentioned above also collects water emerging from the upper Weatherby Springs complex. Water from springs in the complex below the large retaining pond is collected in a smaller retaining pond and pumped up to the large retaining pond. Water from this larger retaining pond is delivered to a fish propagation facility below the spring complex through a 30 inch concrete pipe. pursuant License 36-07071 ?

d. After passing through the fish propagation facility, water is diverted into a retaining pond below the facility. Three pumps placed in this retaining pond divert the water delivered pursuant to the Water Rights into a single mainline.

e. On August 22, 1990, Mr. Clelland and IDWR Senior Water Resource Agent Helen Harrington conducted a polysonic flowmeter measurement of the mainline leading from the pumps to the irrigation distribution system. The irrigation system was operating at capacity when the measurements were made. Mr. Clelland and Ms. Harrington measured a quantity of 7.02 cfs being diverted through the mainline.

f. Based on this measurement, Mr. Clelland proposed to recommend a quantity of 7.02 cfs pursuant to the Water Rights.

g. In a telephone discussion with Mr. Clelland on or about October 23, 1992, the claimant indicated that the pumps used to deliver water pursuant to

the Water Rights were 15 years old, very worn, and that when they were new, they likely could have delivered a quantity of 8.02 cfs to the place of use. Mr. Clelland reported this information to IDWR Senior Water Resource Agent Roxanne McCarthy (Brown) who subsequently recorded it in the claim file.

5. The quantity recommended for stockwater purposes pursuant to the Water Rights was determined as follows:

a. The claimant claimed .12 cfs for stockwater purposes for 500 head of cattle. IDWR recommended .12 cfs based on both the claim and IDWR's stockwater quantity guidelines. .12 cfs is the standard for 500 head of cattle. Mr. Clelland's investigation and August 21, 1990 field examination supported IDWR's recommendation of the claimed quantity for stockwater purposes.

6. The quantity recommended for domestic purposes pursuant to the Water Rights was determined as follows:

a. The claimant claimed .11 cfs for domestic purposes for five homes. IDWR recommended .11 cfs based on the claim and its domestic quantity guidelines. .11 cfs is the standard for five homes. Mr. Clelland's investigation and August 21, 1990 field examination supported IDWR's recommendation of the claimed quantity for domestic purposes.

C. Remarks

The recommendation of this right in the director's report includes the following remarks:

THE APPROPRIATOR IS ENTITLED TO THE AMOUNT OF WATER DESCRIBED ABOVE FOR STOCKWATER PURPOSES AT A POINT OF MEASUREMENT WHERE THE DELIVERY DITCH ENTERS THE PLACE OF USE DESCRIBED ABOVE.

THE PORTION OF THIS RIGHT FOR STOCKWATER PURPOSES MAY BE DIVERTED SO LONG AS THE AMOUNT OF WATER DIVERTED AT THE POINT OF DIVERSION FOR STOCKWATER PURPOSES DOES NOT CONSTITUTE UNREASONABLE WASTE AND DOES NOT CONFLICT WITH THE PUBLIC

INTEREST, AS DETERMINED BY THE DIRECTOR.

USE OF THIS RIGHT WITH RIGHT NO. 36-00069 IS LIMITED TO A TOTAL COMBINED DIVERSION RATE OF 8.25 CFS, AND TO THE IRRIGATION OF A COMBINED TOTAL OF 401 ACRES IN A SINGLE IRRIGATION SEASON.

1. Stockwater Delivery (First Sentence)

IDWR does not oppose the deletion of this remark from the description of this water right.

2. Stockwater Diversions (Second Sentence)

IDWR does not oppose the deletion of this remark form the description of this water right.

3. Combined Use (Third Sentence)

The court and IDWR are in the practice of moving remarks to a position under the description of the individual water right element to which they apply. The combined use remark listed above should be rephrased and relocated as follows:

The following language should be included under the description of the place of use:

USE OF THIS RIGHT WITH RIGHT NO. 36-00069 IS LIMITED TO THE IRRIGATION OF A COMBINED TOTAL OF 401 ACRES IN A SINGLE IRRIGATION SEASON

The following language should be included under the description of the quantity element:

USE OF THIS RIGHT WITH RIGHT NO. 36-00069 IS LIMITED TO A TOTAL COMBINED DIVERSION RATE OF 8.25 CFS

Both remarks are appropriate and necessary to define and administer the water right as explained further below:

a. Irrigated Acres

The description of the place of use of both right no. 36-00068 and 36-00069 lists the irrigated acres as 401 acres. The additional language recommended to be included in the description of the place of use establishes that the two rights are used for the irrigation of the same 401 acres. The remark accurately describes the actual use. It also avoids the possible misconception that the appropriator is entitled to use water on two separate 401 acre tracts. Such a misconception would double the quantity used by the appropriator, would constitute an enlargement, and would presumptively cause injury to other rights by increasing the total consumptive use under the two rights.

b. Diversion Rate

STATE OF IDAHO)
) *ss.*
County of Ada)

David R. Tuthill, Jr., being first duly sworn, upon oath, deposes and says:

That I am the Acting Adjudication Bureau Chief for IDWR, that I have read the foregoing report, know its contents, and that the statements contained therein are true to the best of my knowledge and belief.

_____
David R. Tuthill, Jr.

SUBSCRIBED AND SWORN to before me this _____ day of July, 1996.

Notary Public for the State of Idaho
Residing

*at:*_____

My commission expires: _____

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on the _____ day of July, 1996 I caused to be served by First Class U.S. Mail, a true and correct copy of the foregoing document on the following person(s):

Patrick D. Brown
P.O. Box 389
Twin Falls, ID 83303-0389

_____

Person Mailing Documents

From: DWR60::DJONES 6-DEC-1997 16:34:54.32
To: DWR03::CHONSING
CC: DJONES
Subj: 68.rpt

Yo, Charlie!

I pulled the thing over and printed it out. Looks good! I see where you have the areas bolded & cap'ed which need Steve's input & I'll pursue those. What kind of input are looking for on the HISTORICAL?

On an editorial note, realizing that this is a first draft, I have the following observations:

pg 3, item 10: ...recommendations FOR...

pg 4, item 2: Do we need to describe the general location of the 9.5 ac parcel? I'm confused about it and the significance of it.

pg 5, B4b: I looked into the size of the tracts more specifically and found them to average 31.5 ac each (ranging from 31.24 to 31.92 ac), totalling 126.3 ac.

pg 5, B4c: The remaining two tracts in S30 are 39.48 and 39.27 ac for a total of 78.8 ac. In fact, none of the tracts anywhere in the place of use are a full 40 ac, though they are close enough that for all practical purposes they would be 40's.

pg 6 & 7, all items: My acreage determinations were made using a planimeter on the Exhibit A. The procedure for using GIS to back calculate the outages is difficult and I did not take the time to iron out my problems in applying it.

pg 7: "Quantity of Water Used" should be indexed as C not A?

pg 8, item c: I suggest clarifying 30" concrete pipe diversion to the fish facility as being pursuant to license 36-07071 (even though it is not directly related to this subcase group).

pg 9, item 4g: Indent/tab "Agent Roxanne..."

pg 9: "Remarks" should be indexed as D not C. There are also a number of lines between heading and first sentence.

pg 9: Second to last line should read DIVERSION not diversino.

What are we doing with 36-00070? It was originally planned to be allowed from Three Springs, but then disallowed by Roxanne on heresay word that original claimed source (unnamed spring) was not used. Has there been any settlement discussion on this?

Good Work, Charlie, thanks a million.

Doug
pg 10, item 2: Should read FROM not form.

RECEIVED
JAN 25 1999
Department of Water Resources
Southern Region

RECEIVED
JAN 19 1998
Department of Water Resources
Adjudication Bureau

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE

STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

In Re SRBA)
)
Case No. 39576)
)
)
)
)
)
)

A. Subcase: 36-00068

STANDARD FORM 2
RESPONSE TO OBJECTION

Please **print or type** the following information:

B. NAME AND ADDRESS OF PERSON RESPONDING

Name: Idaho Department of Fish and Game
Address: 600 S. Walnut St.
Boise, Idaho 83707
Phone: (208) 334-3700

Name & Address of Attorney if any

Attorney Name: ALAN G. LANCE
Attorney General
CLIVE J. STRONG
Deputy Attorney General
Chief, Natural Resources Division
JOHN M. MARSHALL
Deputy Attorney General
Attorney Address: Office of the Attorney General
700 W. Jefferson, Room 210
P.O. Box 44449
Boise, ID 83711-4449
Attorney Phone No. (208) 334-2400

C. NAME AND ADDRESS OF PERSON WHO FILED THE OBJECTION TO WHICH YOU ARE RESPONDING

Name: John W. Jones, Jr. and Deloris D. Jones
Address: P.O. Box 265
Hagerman, Idaho 83332

D. I am responding to the objections to the following elements. (Please check the appropriate box(es))

1. ☐ **Name and Address**
2. ☐ **Source**
3. ☐ **Quantity**
4. ☐ **Priority Date**
5. ☐ **Points of Diversion**
6. ☐ **Instream Flow**
7. ☑ **Purpose(s) of Use**
8. ☑ **Period of Year**
9. ☑ **Place of Use**
10. ☐ **Other Provisions Necessary for Definition or Administration of this Water Right**
11. **Recommendation**

    ☐ This water right should not exist

    ☐ This water right was not recommended, but should be recommended with the elements described above.

E. VERIFICATION (Must be Completed)

State of Idaho)
)ss.
County of Ada)

John M. Marshall, duly sworn, upon oath, deposes and says:

That I am the party/claimant filing this response as defined by I.C. § 42-1401A(1) and (6)or that I am the attorney for the party/claimant in this proceeding, and I have read this response, know its contents and that the statements are true to the best of my knowledge and belief.

By Attorney signing in representative capacity

Subscribed and sworn to before me on: 1/15/99
(Insert Date)

Notary Public for IDAHO
Residing at: BOISE. ID
My commission expires: 5/29/2003

INSTRUCTIONS FOR MAILING

You must mail the response, including all attachments, to the Clerk of the Court. **FAX filings will not be accepted.** You must also send a copy to all the parties listed below in the Certificate of Mailing.

F.

CERTIFICATE OF MAILING

I certify that on January 15 1999, I mailed the original and copies of the foregoing response, including all attachments, to the following persons, by mailing the original and/or copies, postage prepaid and addressed as follows:

1. Original to:

   Clerk of the District Court
   Snake River Basin Adjudication
   253 Third Avenue North
   P.O. Box 2707
   Twin Falls, Idaho 83303-2707

2. One copy to the claimant of the water right at the following address:

   Patrick D. Brown
   Parker, Warr & Brown, LLP
   812 Shoshone St. E.
   Twin Falls, ID 83301

3. One copy to the party who filed the objection at the following address:

   Same as above.

4. Copies to:

   IDWR Document Depository
   PO Box 83720
   Boise, ID 83720-0098

   Chief of Natural Resource Division
   Office of the Attorney General
   State of Idaho
   P.O. Box 44449
   Boise, Idaho 83711-4449

(not applicable)

United States Department of Justice
Environment and Natural Resource Division
550 West Fort Street, MSC 033
Boise, Idaho 83724

Michael C. Creamer
Givens Pursley LLP
P.O. Box 2720
Boise, Idaho 83701-2720

Dana Hofstetter
Beeman & Hofstetter
P.O. Box 1427
Boise, Idaho 83701-1427

Signature of Respondent or attorney
mailing on Respondent's behalf

AJ0749NP
No. R36-00068

IDAHO DEPARTMENT OF WATER RESOURCES
ADJUDICATION CLAIM PROFILE REPORT
(REGIONAL)

DATE: 01/29/98
PAGE: 1

OWNER CODE	NAME & ADDRESS	PRIORITY DATE	WATER USE	USE PERIOD FROM	USE PERIOD TO	DIVERSION RATE	DIVERSION VOLUME
C	JOHN W JONES JR	02/01/1888	IRRIGATION	03-15	11-15	8.25 CFS	
C	DELORIS D JONES		STOCKWATER	01-01	12-31	0.12 CFS	
	PO BOX 265		DOMESTIC	01-01	12-31	0.11 CFS	
	HAGERMAN ID 83332						
	(208) 837-4580				TOTAL DIVERSION:	8.48 CFS	

Water Source: WEATHERBY SPRINGS Tributary to: BILLINGSLEY CREEK Stage: DECREED

Point(s) of Diversion: T07S R14E S30 SENESW GOODING County

Place of use Legal Description for: IRRIGATION

	NE				NW				SW				SE				
	NENE	NWNE	SWNE	SENE	NENW	NWNW	SWNW	SENW	NESW	NWSW	SWSW	SESW	NESE	NWSE	SWSE	SESE	
T R S	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	SUM
07S 13E 25	40	40	40	40									38	38	30	36	302.0
07S 14E 30					01-18	02-25			05	03-26	04-27	11					112.0
																TOTAL ACRES	414.0

Place of use Legal Description for: STOCKWATER

	NE				NW				SW				SE				
	NENE	NWNE	SWNE	SENE	NENW	NWNW	SWNW	SENW	NESW	NWSW	SWSW	SESW	NESE	NWSE	SWSE	SESE	
T R S	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	
07S 14E 25													S				
07S 14E 30									03-S								

Place of use Legal Description for: DOMESTIC

	NE				NW				SW				SE				
	NENE	NWNE	SWNE	SENE	NENW	NWNW	SWNW	SENW	NESW	NWSW	SWSW	SESW	NESE	NWSE	SWSE	SESE	
T R S	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	
07S 14E 25													D				

POU County: GOODING

Non-Irrigation Uses: 5 HOMES

Other Rights: 36-00069

Conditions of Approval:

N01 - THE APPROPRIATOR IS ENTITLED TO THE QUANTITY OF WATER
- DESCRIBED FOR STOCK WATER PURPOSES AT A POINT OF MEASUREMENT
- WHERE THE DELIVERY DITCH ENTERS THE PLACE OF USE DESCRIBED, SO
- LONG AS THE QUANTITY DIVERTED AT THE POINT OF DIVERSION DOES NOT
- CONSTITUTE UNREASONABLE WASTE.

N03 - THE APPROPRIATOR IS ENTITLED TO THE AMOUNT OF WATER DESCRIBED
- FOR DOMESTIC PURPOSES AT A POINT OF MEASUREMENT WHERE THE

Conditions of Approval:

- DELIVERY DITCH ENTERS THE PLACE OF USE DESCRIBED, SO LONG AS THE
- QUANTITY DIVERTED AT THE POINT OF DIVERSION DOES NOT CONSTITUTE
- UNREASONABLE WASTE.

N09 - THE QUANTITY OF WATER DECREED FOR THIS WATER RIGHT FOR
- DOMESTIC USE AND STOCKWATER USE IS NOT A DETERMINATION OF
- HISTORICAL BENEFICIAL USE.

N14 - THE QUANTITY OF WATER UNDER THIS RIGHT FOR DOMESTIC AND
- STOCKWATER USES SHALL NOT EXCEED 13,000 GALLONS PER DAY.

Remarks: QNT USE OF THIS RIGHT WITH RIGHT NO. 36-00069 IS LIMITED TO A TOTAL COMBINED DIVERSION RATE OF 8.48 CFS.

POU1 USE OF THIS RIGHT WITH RIGHT NO. 36-00069 IS LIMITED TO TO THE IRRIGATION OF A COMBINED TOTAL OF 414 ACRES IN A SINGLE IRRIGATION SEASON.

Dates: Exam Made Date: Verified Date: Objection Filed Date:

Misc: Water District Number: 36A Field Inspection Flag:
Presumption Flag:

SRBA FIELD EXAM REPORT

SRBA CLAIM: A36-00068, 36-00069 & 36-00070
EXAM DATE: JANUARY 16, 1998
IDWR AGENT: STEVE CLELLAND
ACCOMPANIED BY CLAIMANT: BILL JONES

PURPOSE: This examination was made to investigate the amendments for additional uses filed by Pat Brown for the above named claimant and SRBA Claims.

OBSERVATIONS & FINDINGS: I met with Mr. Bill Jones at the ranch site; we originally had planned to meet at his home but I thought that was the home on the ranch. He drove out to meet me at about 5 pm. We traveled in Mr. Jones' pickup to a place out overlooking Billingsley Creek in the northeast corner of the ranch. From here he pointed out the location of the spring listed in 36-00070. He pointed to the canyon side to indicate where the ditch carried water from this spring to the pasture in the most northeastern corner of the farm. (11.0 acre piece as shown on the GIS map.) He told me he wished to re-affirm his claim to this unnamed spring. He said it has started to flow again after several years of being dried up. I told him the drought could account for the reduced flow. I may be able to recommend it as claimed since he had stated he didn't use it and now he does. Place of use would only be the small area across Billingsley Creek, the 11.0 acres mentioned above.

Mr. Jones and I met in the office about 10:30 am Friday, 16th, and discussed the need to investigate the amended portions of his claims. He had not heard of this from Pat Brown so I told him what I had been doing for other rights similarly amended. He told me he had not made claims for the same uses as the others and so no examination should be needed. We reviewed the amended uses and I agreed.

I asked Mr. Jones what was meant by the claim for Irrigation Maintenance. He did not know why that was included, he said Pat Brown insisted it be part of the amendment. Mr. Jones was told he needed this amount of water to insure he could get water to his house and stockwater through the Weatherby Springs pipeline if all the other users on the system were to stop using their rights. Mr. Jones said this would never happen. I told him we recommended the Domestic and Stockwater uses and we can add a remark that allows a flow rate necessary to deliver the water as recommended in the right. I gave him a copy of the N01 code remark to which I referred. We both agreed there was no need for Irrigation Maintenance for the irrigation use since the system is shut off during the non-irrigation season.

The Fish Propagation use was amended to this claim also. Mr. Jones said the water goes through the fish hatchery anyway. I stated that use is covered by the license 36-07071. I explained IDWR's position on the fish uses from decreed water rights; they did not exist at the time and are not being recommended.

He wanted to know why we had given an 1880's priority date for

the fish right to Donnie McFadden. I told him we tried to prevent that from happening and show a more realistic priority date, but, he and McFadden signed a stipulation agreeing to that description of the right and the SRBA court affirmed it. I told him he gave that to McFadden not IDWR. He does not like the outcome now.

We discussed the acreage as I had recommended. I told him this was as much as could be documented, in fact, the earlier maps show the area where the sheep pens used to be as not being irrigated before 1980. He told me ASCS had mapped out 404 acres, he offered to get me a copy of that map, which he did. I agreed to review what they had found and I would add in the areas in the northeast corner where he had shown some acres needed to be included. Original GIS acres were 402 and the revised shape file gives 414 acres. Initial recommendation was 401 acres. This acreage has expanded since the days of using a gravity system. In fact, many areas of what is currently irrigated cannot be irrigated without the use of sprinklers; this is due to steep slopes and erodible land along the creek. I do not have sufficient information to determine whether an enlargement is necessary for portions of the irrigated lands now being irrigated.

SUMMARY & RECOMMENDATIONS: Based upon these observations, discussions with Mr. Jones, and documentation previously stated in the SRBA claim file for this right, here are the proposed recommendations.

SRBA CLAIMS 36-00068 & 36-00069

IRRIGATION: Flow rate to remain at the estimated capacity of the pumping system, that of 8.25 cfs. The actual measured capacity was 7.25 cfs but we agreed with the aging of the pumps to allow 8.25 as suggested by the claimant. If allowance is made to give a pre-sprinkler rate for this right it should be based on the actual gravity irrigated acreage and not the acreage found here of 414 acres. The actual gravity system acres has not been determined. Allow acres at the current systems operation of 414 acres, unless it is found that some acres are to be part of an enlargement right.

IRRIGATION MAINTENANCE: There is no need for this in the Irrigation use. Any system maintenance needed for the D & S uses will be covered by the N01 and N02 type codes.

DOMESTIC & STOCKWATER: No change from previous report. Domestic rate is 0.11 cfs and Stockwater rate is 0.12 cfs.

FISH PROPAGATION: Not recommended. Use is covered by license 36-07071. No evidence that fish use was present in 1932 at time of decree. Current facility was not constructed until about 1970.

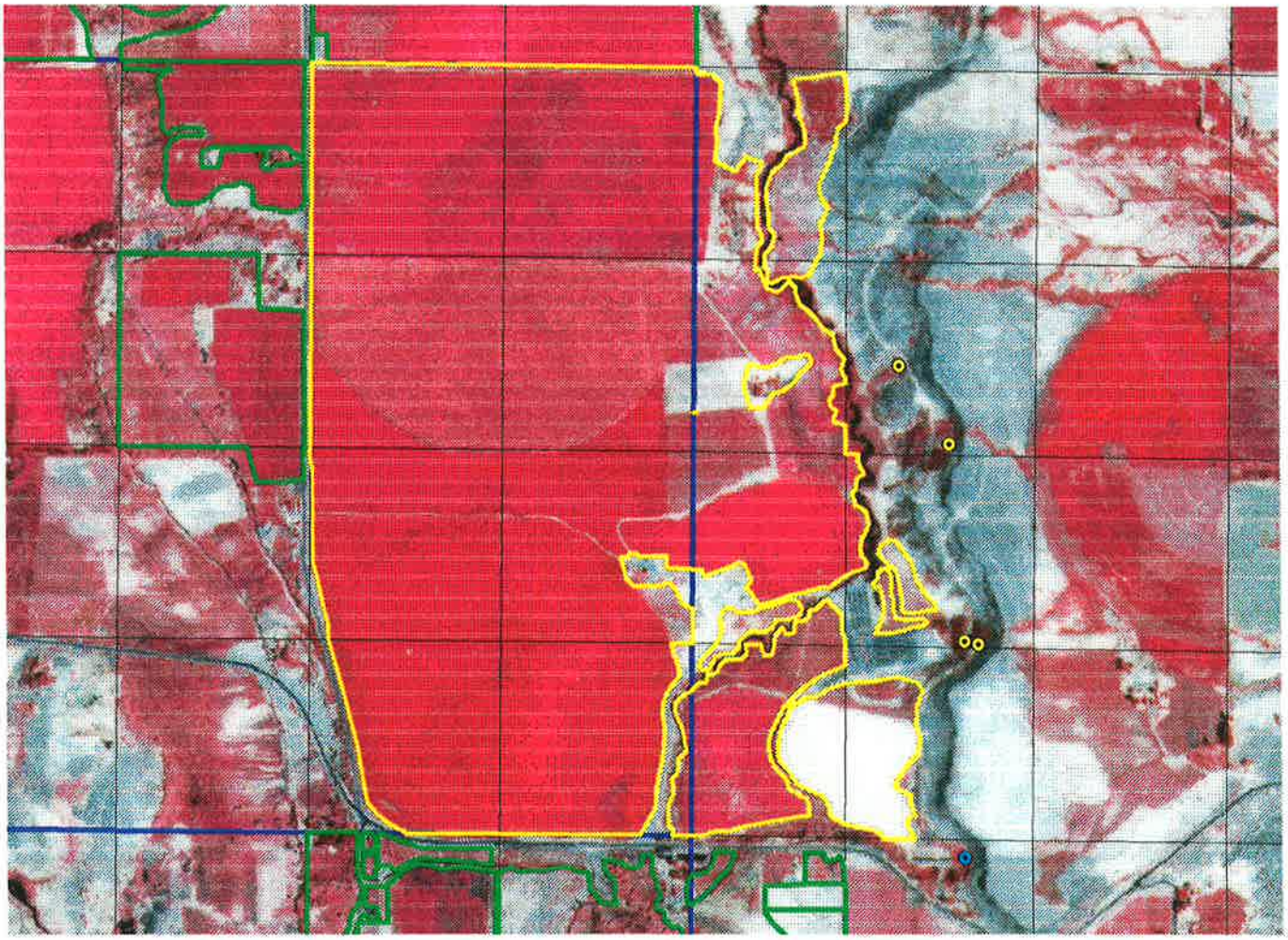
TOTAL QUANTITY: Suggest total diversion be additive, therefore, 8.25 + 0.11 + 0.12 = 8.48 cfs total.

Final recommendations will be described in the database record prepared after full legal review of my proposal is complete.

PREPARED BY SCC
ON 1/27/98
FILE(cvr:jones-exam-report.wp)

IDAHO DEPARTMENT OF WATER RESOURCES

36-00068, 36-00069, 36-00070
Bill Jones



660 0 660 Feet

TNS 7S, RNG 13E & R14E
SECS 25 & 30

N
W E
S

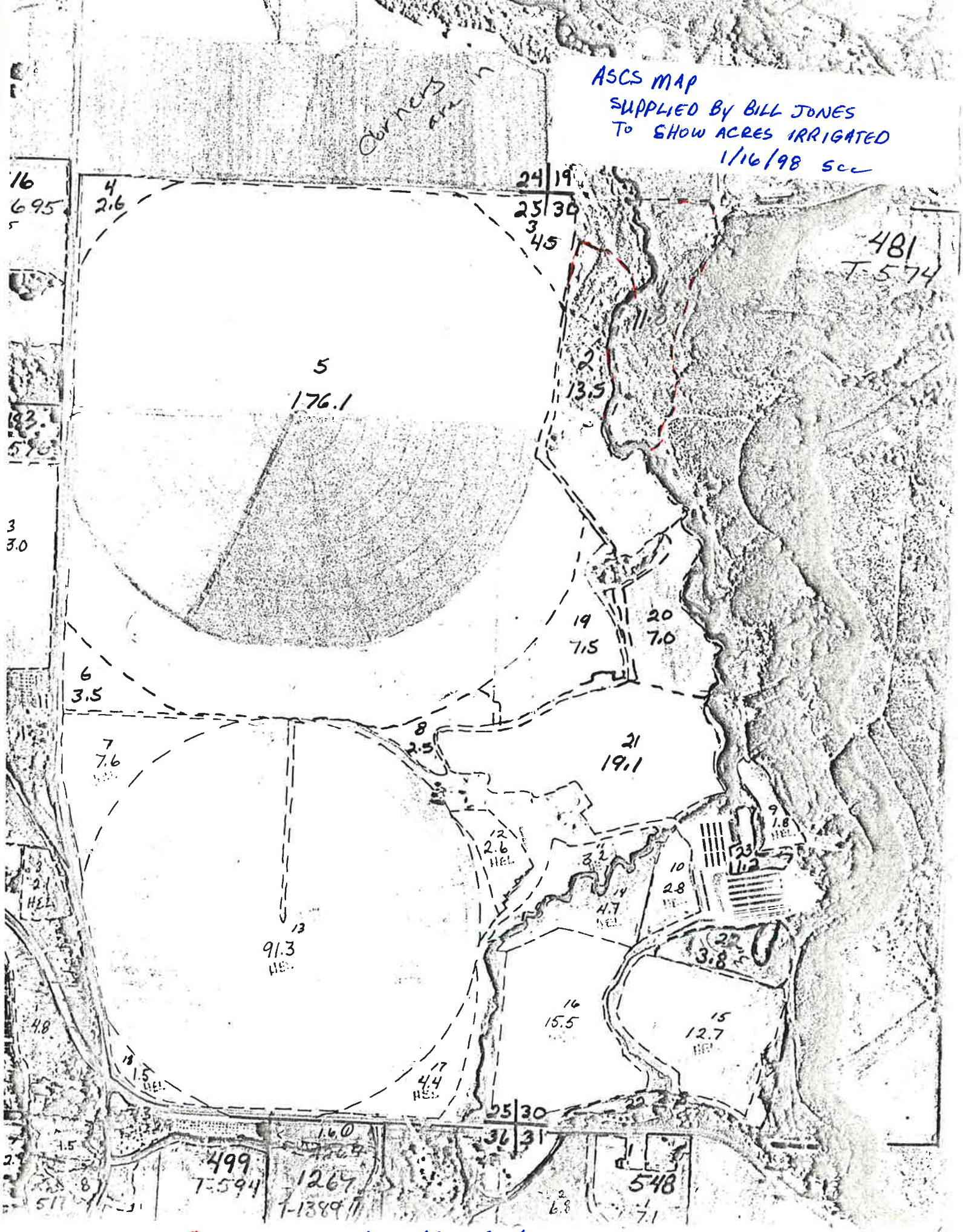
⊙ Recommended Point of Diversion

RECOMMENDED Place of use

Section lines

Quarter/Quarter Lines

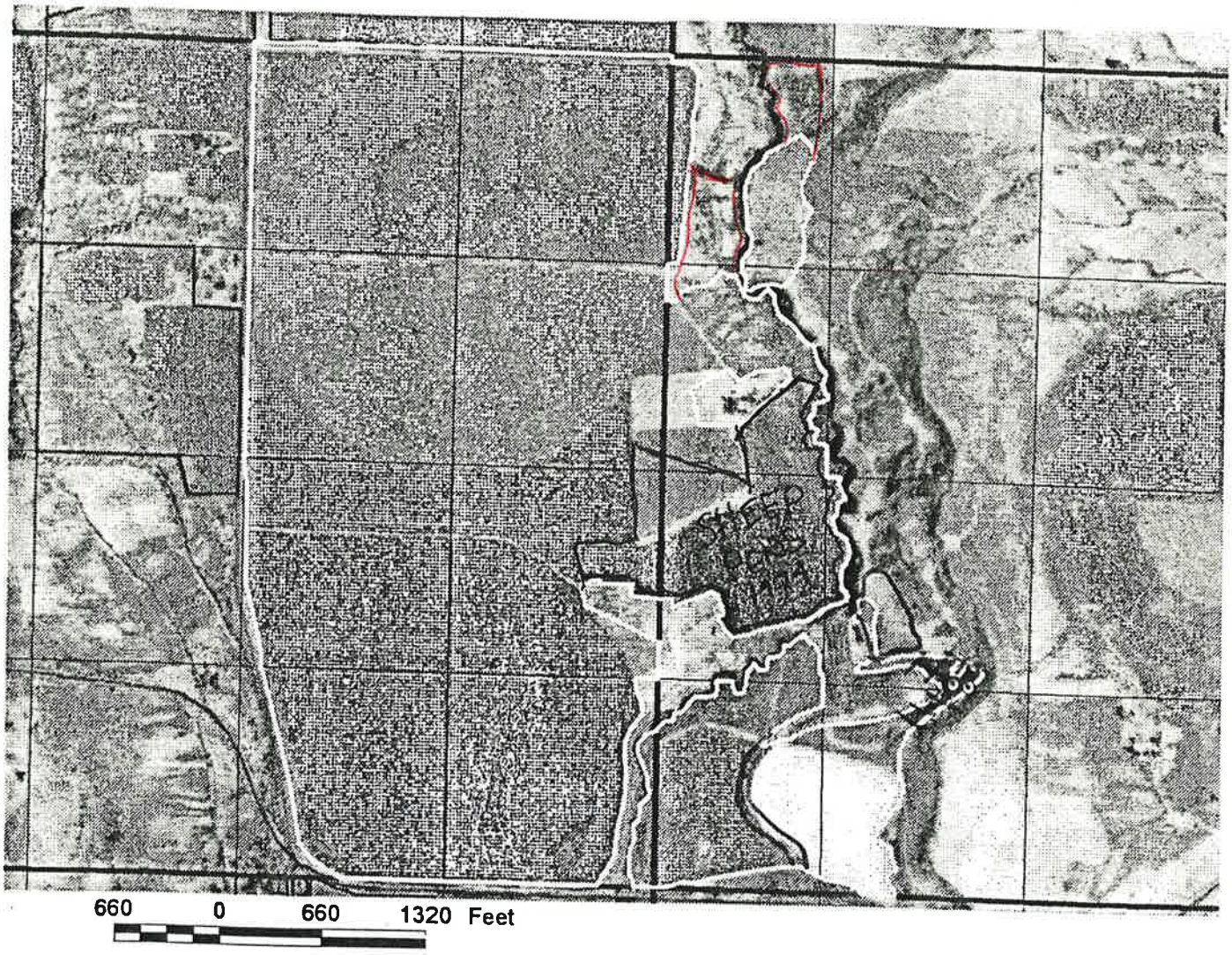
GIS PLACE OF USE PRESENTATION
1987 and/or 1988 NAPP PHOTOGRAPHY
DATE: JANUARY 23, 1998
BY: STEVE CLELLAND



Jones A36-00068, 69, 70

IDAHO DEPARTMENT OF WATER RESOURCES

36-00068 & 36-00069
JOHN & DELORES JONES



TNS 7S, RNG 13E, SEC 25
TNS 7S, RNG 14E, SEC 30

N
W E
S

⊙ RECOMMENDED POINT OF DIVERSION

RECOMMENDED PLACE OF USE

SECTION LINES

QUARTER/QUARTER LINES

Bill Jones gave me this copy showing, in Red, acres he thought we should include in the irrigated acres

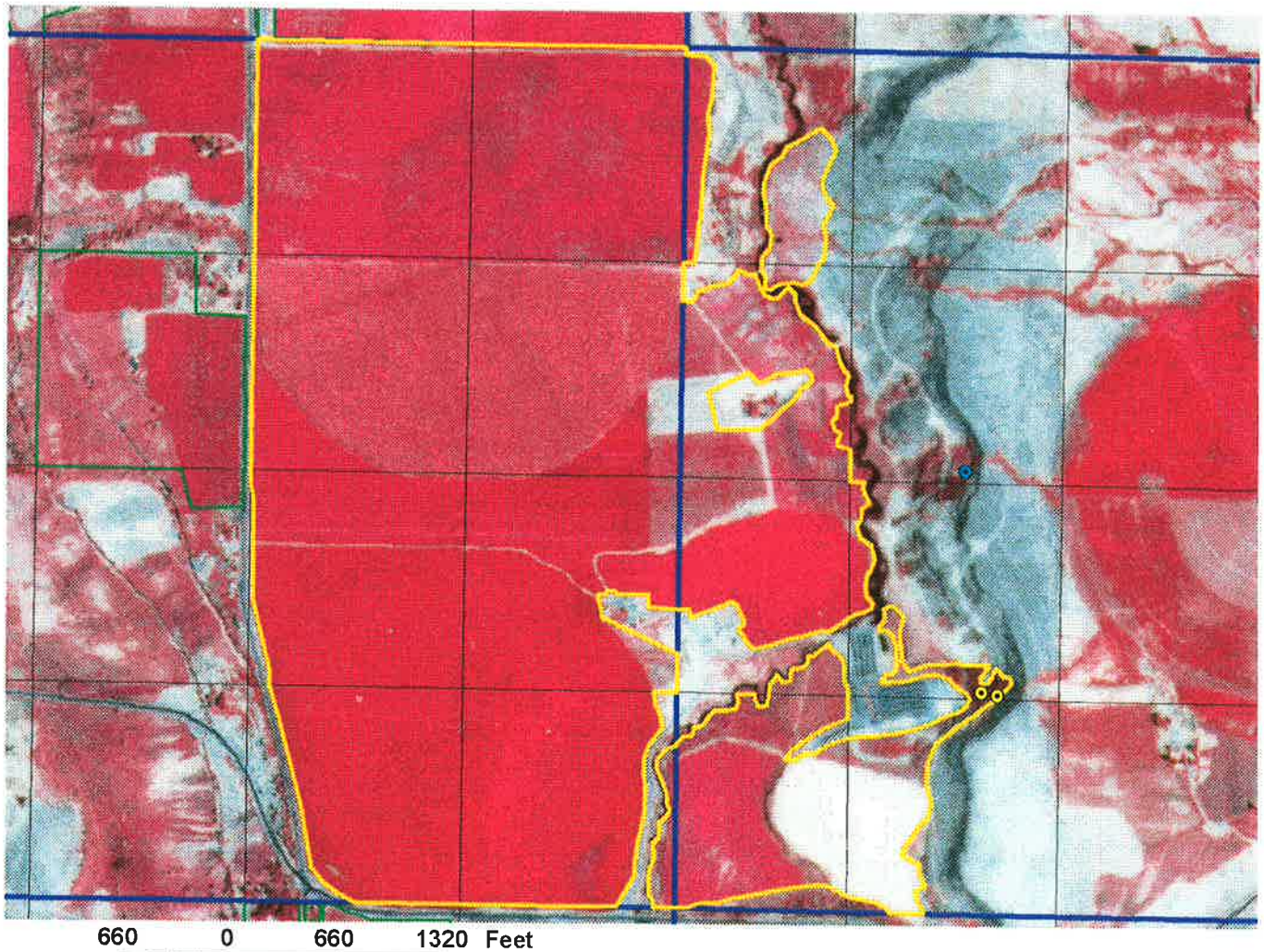
1/16/98 SA

GIS PLACE OF USE PRESENTATION
1987 and/or 1988 NAPP PHOTOGRAPHY
DATA ENTRY OCTOBER 1997
BY JEANIE ROBERTSON

IDAHO DEPARTMENT OF WATER RESOURCES

Revised 1/23/98 SM

36-00068 & 36-00069
JOHN & DELORES JONES



660 0 660 1320 Feet

TNS 7S, RNG 13E, SEC 25
TNS 7S, RNG 14E, SEC 30

N
W E
S

⊙ RECOMMENDED POINT OF DIVERSION

RECOMMENDED PLACE OF USE

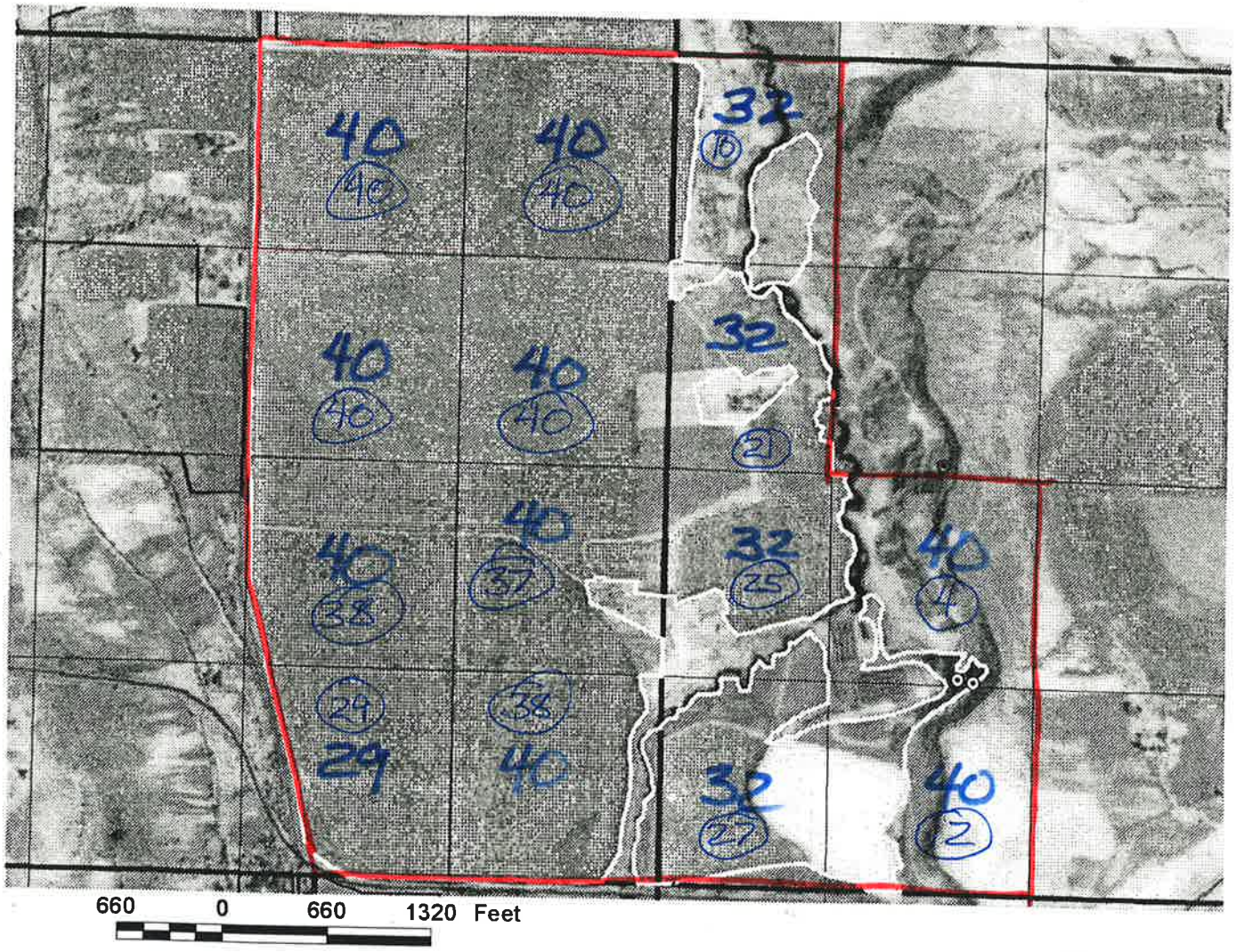
SECTION LINES

QUARTER/QUARTER LINES

GIS PLACE OF USE PRESENTATION
1987 and/or 1988 NAPP PHOTOGRAPHY
DATA ENTRY OCTOBER 1997
BY JEANIE ROBERTSON

IDAHO DEPARTMENT OF WATER RESOURCES

36-00068 & 36-00069
JOHN & DELORES JONES



□ = Decreed PoU = Claimed PoU

= Claimed acres

(#) = Recommended acres

TNS 7S, RNG 13E, SEC 25
TNS 7S, RNG 14E, SEC 30

N
W E
S

⊙ RECOMMENDED POINT OF DIVERSION

RECOMMENDED PLACE OF USE

SECTION LINES

QUARTER/QUARTER LINES

GIS PLACE OF USE PRESENTATION
1987 and/or 1988 NAPP PHOTOGRAPHY
DATA ENTRY OCTOBER 1997
BY JEANIE ROBERTSON

1483794
1493492
1474096

40

1483794

40 ac tract calibration

1163760
1154062
1173458

x

1163760

x = 31.37 ac

√'s w/ GIS tabled data

Gov't Lot 2

Area 1
So. end sliver

106678
116376
106680

109911

x = 2.96 ac

3 ac

Area 2
Access & Farmstead

552786
562484
543088

552786

x = 14.9

15 ac

Area 3
Fish Facility

320034
310336
329732

320034

x = 8.6

9 ac

Area 4
East side
Billingsley
(SW¼)

1958996
1988090
1978392

1975159

x = 53.2

53 ac

Area 5
"Donut hole"

126074
126074
126074

x = 3.4

3 ac

Pg ½

36-00068; 00069

12/4

Area 6 960102
North end, both sides of Billingsley 979498 969800 969800 X = 26.1 26

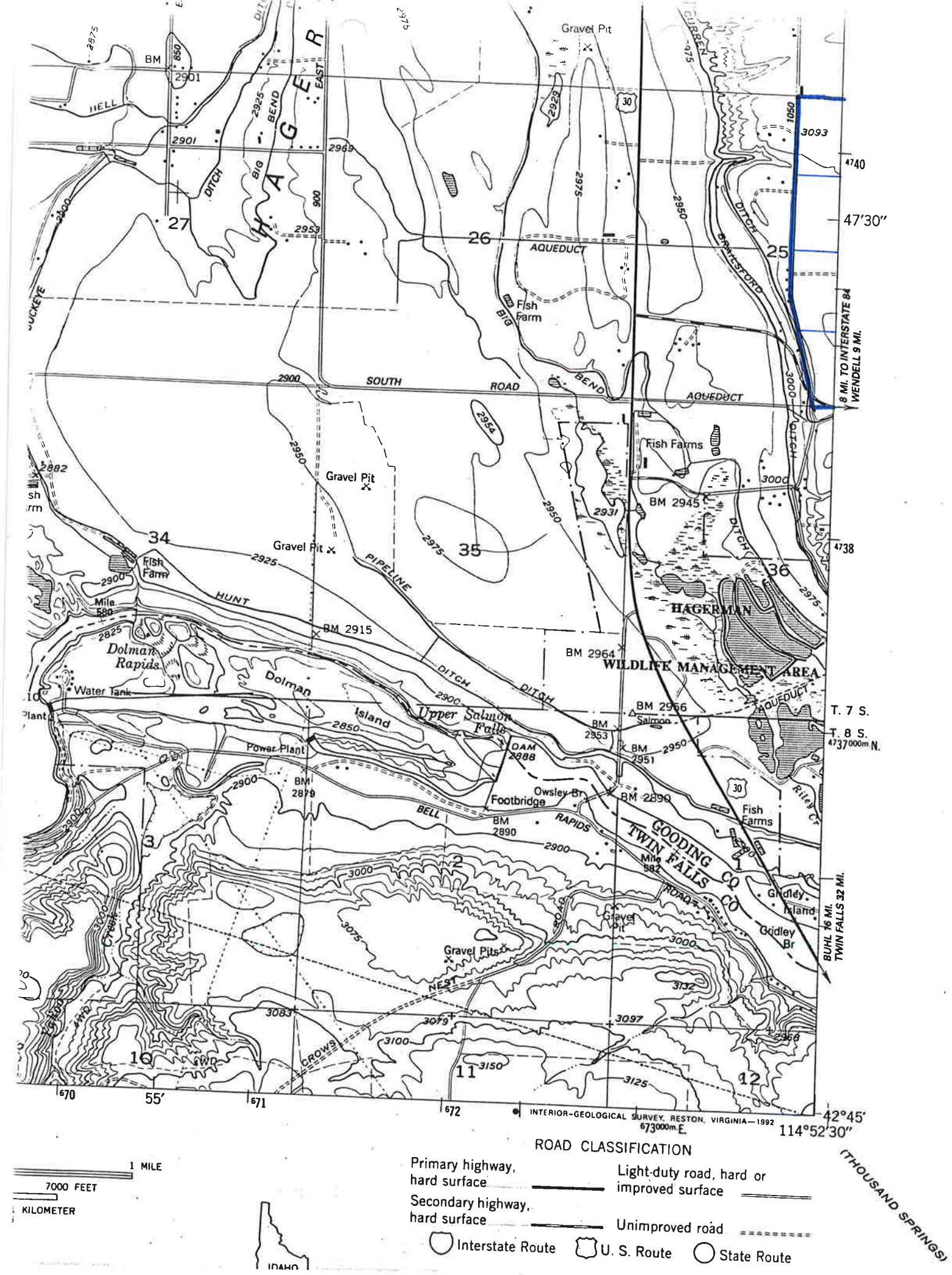
Area 6A west side of Billingsley
548088
552786 549553
552786 X = 14.8 15

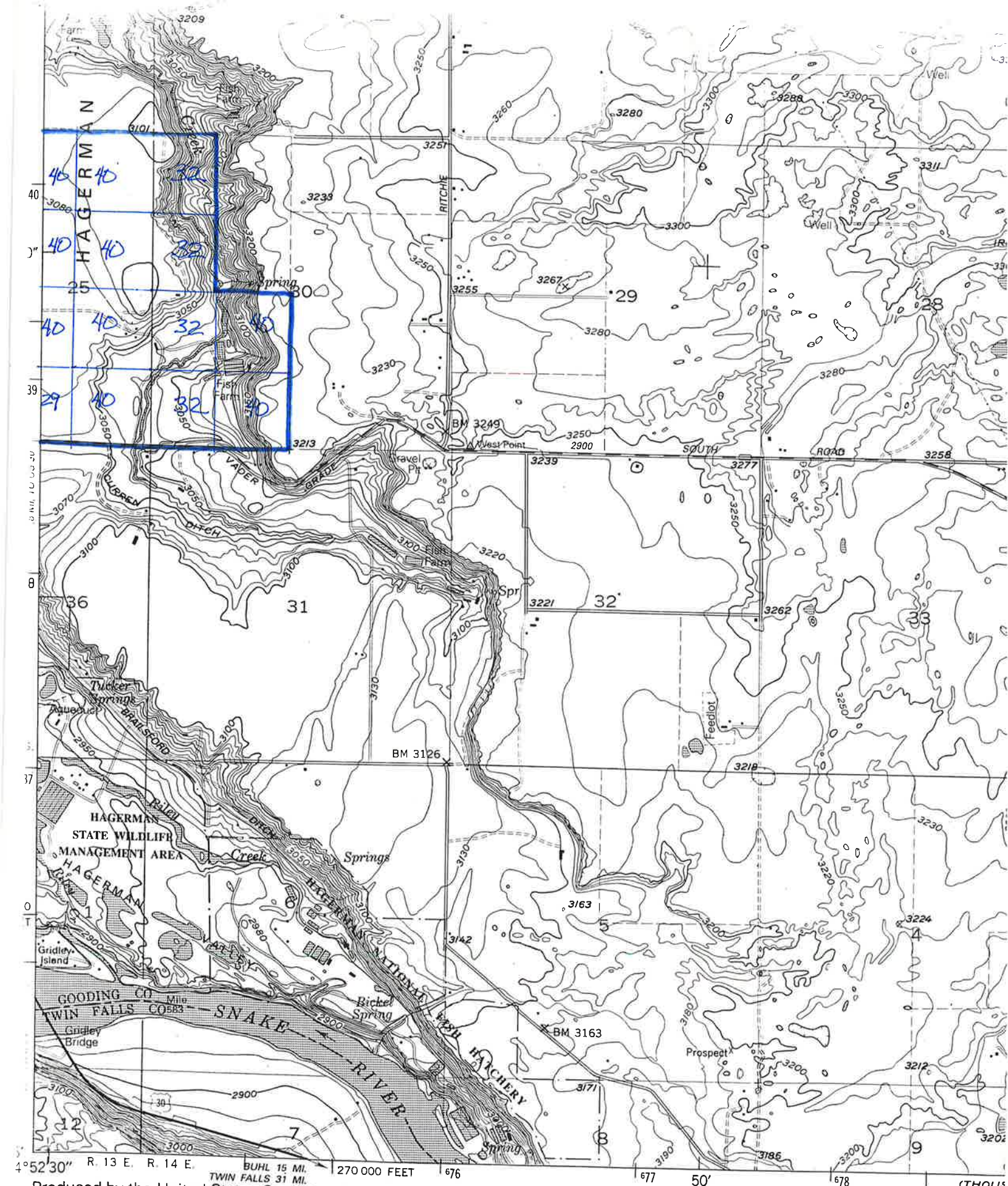
Recheck calibration
1483794 Checks w/ initial

Govt Lots 1-4 are < 32 ac
GIS indicates = 31

E = 401 + outages = 510 ac
Claimed = 517 w/ Lots = 32
Claimed = 513 w/ Lots = 31

PG 2/2 12/4 DJ


HAGERMAN
EAST
BIG BEND DITCH
BELL
BUCKEYE
DITCH
SOUTH ROAD
AQUEDUCT
BRATTSFORD DITCH
Gravel Pit
Fish Farm
Fish Farms
PIPELINE
HUNT
Mile 580
Dolman Rapids
Dolman Island
Upper Salmon Falls
DAM 2888
Power Plant
Water Tank
Footbridge
Owsley Br
BM 2945
BM 2915
BM 2964
BM 2956
BM 2890
BM 2879
BM 2853
BM 2951
WILDLIFE MANAGEMENT AREA
HAGERMAN
RAPIDS
BELL
GOODING CO
TWIN FALLS CO
ROADS
Mile 582
Gridley Island
Gridley Br
Riley Cr
Gravel Pits
NEST
CROWS
Cedar Creek
8 MI. TO INTERSTATE 84
WENDELL 9 MI.
BUHL 16 MI.
TWIN FALLS 32 MI.
(THOUSAND SPRINGS)
T. 7 S.
T. 8 S.
4737000m N.
673000m E.
42°45'
114°52'30"
47'30"
55'
670
671
672
INTERIOR-GEOLOGICAL SURVEY, RESTON, VIRGINIA—1992
1 MILE
7000 FEET
1 KILOMETER
IDAHO
ROAD CLASSIFICATION
Primary highway, hard surface
Secondary highway, hard surface
Light-duty road, hard or improved surface
Unimproved road
Interstate Route
U. S. Route
State Route



Produced by the United States Geological Survey
in cooperation with the Army Corps of Engineers

Control by USGS and NOS/NOAA

Compiled from aerial photographs taken 1946. Information shown in purple has been updated from aerial photographs taken 1987-88 and field checked. Map edited 1992. Conflicts may exist between

GN MN 15½°

SCA

1000 0 1000 2000

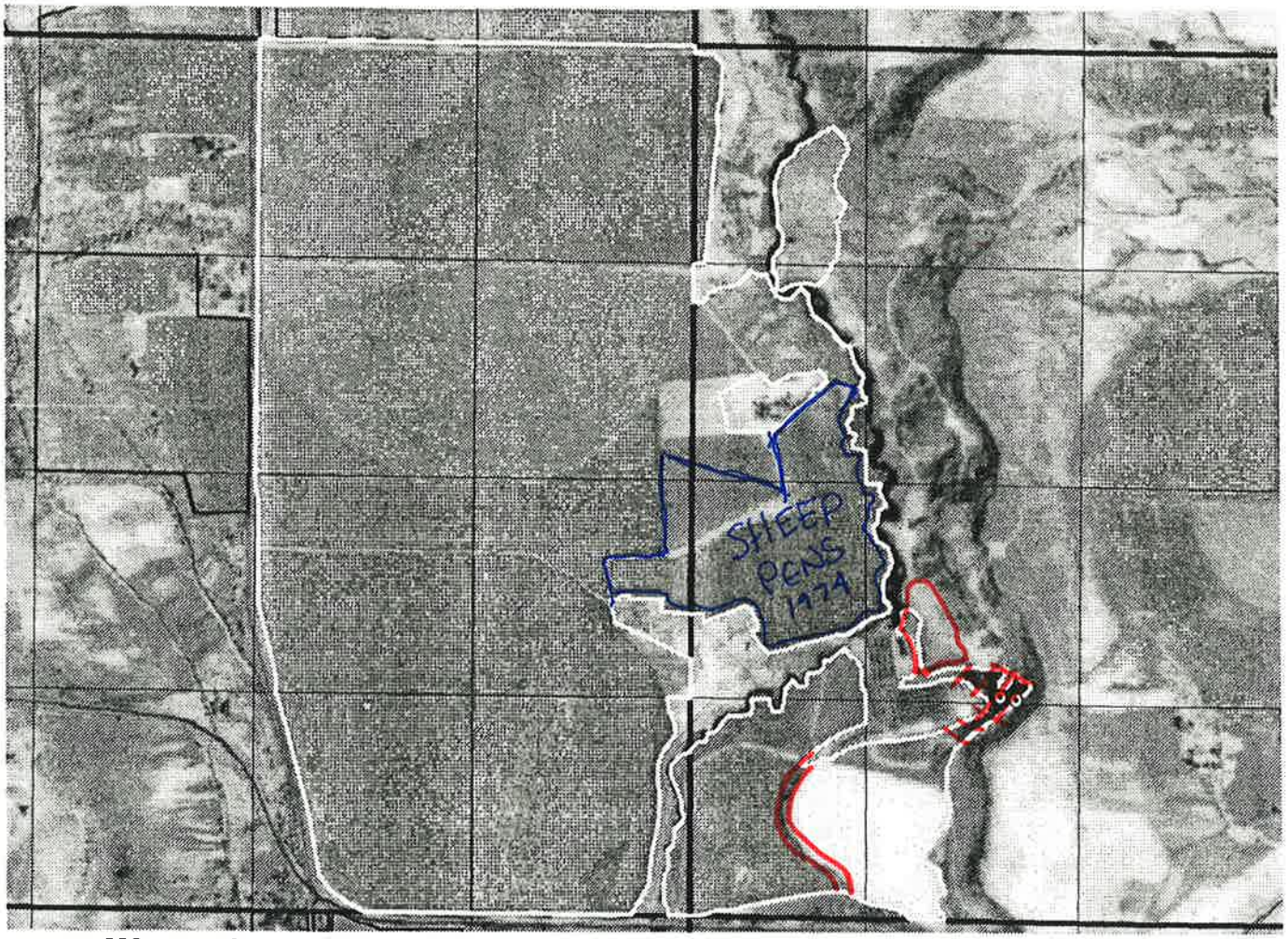
OPQ : AA69 August 4th 1974
* AA70

Slide : ASCS SLIDE 1980 #87
C154 F-14-1

GIS : needs revision in shapefile

IDAHO DEPARTMENT OF WATER RESOURCES

36-00068 & 36-00069
JOHN & DELORES JONES



660 0 660 1320 Feet

Sheep pens were not irrigated prior to 1980 per ASCS slide & 1974 opq map.

TNS 7S, RNG 13E, SEC 25
TNS 7S, RNG 14E, SEC 30

N
W E
S

⊙ RECOMMENDED POINT OF DIVERSION

RECOMMENDED PLACE OF USE

SECTION LINES

QUARTER/QUARTER LINES

Revisions needed to GIS shape file. 1/2/98 sm

GIS PLACE OF USE PRESENTATION
1987 and/or 1988 NAPP PHOTOGRAPHY
DATA ENTRY OCTOBER 1997
BY JEANIE ROBERTSON

6/9/94

COMMUNICATION DOCUMENTATION

Claim No. SEE BELOW

This form is to be used to document public record information requests regarding any SRBA claim or claims. The form may also be used to document IDWR communications requesting information regarding any SRBA claim or claims when the request is not made in writing or the claim verification report is not readily available to document the request. This form is to be filed in all relevant claim files or a central office file.

IDWR Employee/Agent Steve Clelland

January 12, 1998 11:45am

NAME:
PAT BROWN **CALLIN**

RE:
EXAMS FOR AMENDMENTS

HE RETURNED CHARLIE'S CALL TO ME AND GAVE ME THE PHONE NUMBERS TO REACH HIS CLIENTS FOR SETTING THE EXAM TIMES THIS WEEK.

FOR 36-00006, 7, 8:
CALL PENNY TURNER AT 837-4767. PAT MENTIONED HE WAS CONCERNED ABOUT THE AMOUNT OF ACRES WE FOUND AT THE STRANGE POU AND SAID IT MAY HAVE BEEN THE YEAR MR. STRANGE WAS SICK AND DID NOT FARM.

FOR 36-00106, -08099:
CALL PAUL WATKINS AT 837-6283. WE DISCUSSED THE POWER AMENDMENT AND IT WAS INTENDED TO PROVIDE FLOW TO DELIVER THE 1.92 CFS TO THE PENSTOCK AS MEASURED IN THE LICENSE EXAM. I SUGGESTED WE ADD THE REMARK ABOUT NECESSARY FLOW TO DELIVER THE RIGHT TO POU WITHOUT WASTE AS WE HAVE ADDED TO SOME STOCK USES DOWN IN HAGERMAN. WE ALSO DISCUSSED THE SUBORDINATION REMARKS IN THE POWER LIC. HE INDICATED THE PERMIT PRE-DATED ALL THE DATES WHICH SET THE SUBORD. LANGUAGE INTO A PERMIT. WILL REFER THIS TO CHARLIE.
SET UP APPT FOR EXAM FOR 1/14/98, WED. 9 AM AT WATKINS HOME.

FOR 36-00047:
CALL DAVE CROPPER AT 788-4903. PAT SAID THE PLACE IS LOCKED UP DUE TO VANDALS. SET APPT WITH MR. CROPPER FOR 1/16/98 FRIDAY 2 PM AT THE FIELD.

FOR 36-00068, 69, 70:
PAT STILL HAS YET TO CONTACT MR. BILL JONES.

6/9/94

COMMUNICATION DOCUMENTATION

Claim No. A36-07071

This form is to be used to document public record information requests regarding any SRBA claim or claims. The form may also be used to document IDWR communications requesting information regarding any SRBA claim or claims when the request is not made in writing or the claim verification report is not readily available to document the request. This form is to be filed in all relevant claim files or a central office file.

IDWR Employee/Agent Steve Clelland

◇◇

December 10, 1997 11:40am

NAME: **BILL JONES** **CAMEIN**

RE: **OVERLAPPING RIGHTS**

HE WAS GATHERING INFORMATION ON THE RIGHTS THAT COME FROM THE BAR S DITCH AND FROM WEATHERBY, HOAGLAND AND THREE SPRINGS. I PROVIDED A CURRENT COPY OF A SPLIT REVIEW OF 36-00033. I IDENTIFIED THE RIGHTS I KNEW HAD BEEN PARTIALLY DECREED AND THOSE WHICH HAD SIGNED SF5 AGREEMENTS.

WE DISCUSSED BRIEFLY THE AMOUNTS RECOMMENDED FROM THE BAR S DITCH AND WHY THE RIGHTS TOTALLED MORE THAN THE DITCH WAS ABLE TO CARRY PER THE KRAMER DECISION. I ADMITTED I THOUGHT GIVING THE BUCKEYE RANCH 6.5 CFS WAS INCORRECT SINCE IT INVITES A CONTINUED DISPUTE AMONG USERS INSTEAD OF RESOLVING DISPUTES.

CLAIM: 36-07071

COPY

1998 JAN -5 PM 2:19

DISTRICT COURT - SRBA
TWIN FALLS CO., IDAHO

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

In Re SRBA	)	**Water Rights: 36-00068, 36-00069**
	)	
Case No. 39576	)	
	)	**NOTICE OF ADMINISTRATIVE PROCEEDING**
	)	

IDWR has received an application for an Administrative Proceeding for the above water right(s).

The Administrative Proceeding contemplates a change in the water right(s) as indicated below:

[] Substitution of Party (waiting for documentation)

[] Substitution of Party/Split Water Right

[X] Amended Claim:

[]	point of diversion	[]	place of use
[X]	period of use	[X]	nature of use

IDWR projects the Administrative Proceeding shall be completed no later than: April 1, 1998.

DATED: 1/2/98

Douglas Grant
Signature of IDWR Representative

CERTIFICATE OF MAILING

I certify that on 1-5, 1998, I mailed the original and copies of this form to the following persons, postage prepaid and addressed as follows:

1. Original to:
   Clerk of the District Court
   Snake River Basin Adjudication
   PO Box 2707
   Twin Falls ID 83303-2707

2. One copy to:
   Claimant or attorney of record:
   Patrick D. Brown
   Hepworth Lezamiz & Hohnhorst
   PO Box 389
   Twin Falls ID 83303-0389

3. One copy each to:
   Chief Natural Resources Division
   Office of the Attorney General
   PO Box 44449
   Boise ID 83711-4449

4. One Copy to:
   United States Dept of Justice
   Environment & Natural Resource Div
   550 West Fort Street MSC 033
   Boise ID 83724

Signature of person or attorney mailing the form

State of Idaho
DEPARTMENT OF WATER RESOURCES
1341 Fillmore Street, Suite 200, Twin Falls, ID 83301-3380
Phone: (208) 736-3033 FAX: (208) 736-3037

January 5, 1998

PHILIP E. BATT
GOVERNOR

KARL J. DREHER
DIRECTOR

PATRICK D BROWN
HEPWORTH LEZAMIZ AND HOHNHORST
PO BOX 389
TWIN FALLS ID 83303-0389

RE: SRBA Claim(s) 36-00006, 36-00007, 36-00008, 36-00022, 36-00023, 36-00047, 36-00068, 36-00069, 36-00106, 36-08099, 36-15463

Dear Mr. Brown:

Please find the enclosed copies of the Notices of Completed Administrative Proceeding which the department has filed with the SRBA Court regarding the above referenced claims. You have received this notice pursuant to SRBA Court Administrative Order 11 requiring IDWR to report to the court and interested parties any pending changes to adjudication claims in basins for which a Director's Report has been filed with the court.

Please contact this office if you have any questions about the notice or the administrative process.

Sincerely,

Trish Fawcett

Trish Fawcett
Technical Records Specialist

/tf

cc: U.S. Dept. of Justice
Idaho Attorney General

LAW OFFICES

Hepworth, Lezamiz & Hohnhorst

- Established 1952 -

December 5, 1997

TWIN FALLS OFFICE

John C. Hepworth
John T. Lezamiz
John C. Hohnhorst
Jeffrey J. Hepworth
Penelope Parker**
Eileen A. McDevitt*
Patrick D. Brown

Wm. L. Nungester
of Counsel

BOISE OFFICE

J. Charles Hepworth*
John J. Janis

*Member CA Bar
**Member UT Bar

Idaho Department of Water Resources
1341 Fillmore, Suite 200
Twin Falls, ID 83301-3380

RE: Amended Notices of Claims

Gentlemen:

Enclosed please find this firm's check in the amount of $6,410.00 in payment of fees assessed on the following claims:

Paul and Inez Watkins, Claim No. 36-00106	$1,175.00
C-CAN Partners, Claim No. 36-00047	590.00
William Strange, Claim No. 36-00006	1,750.00
William Strange, Claim No. 36-00007	540.00
William Strange, Claim No. 36-00008	1,000.00
John W. and Deloris Jones, Claim No. 36-00068	1,045.00
John W. and Deloris Jones, Claim No. 36-00069	310.00
Total fees	$6,410.00

While I do not interpret Idaho Code § 49-1414 to allow us to be assessed for additional uses of the same volume of water, we are hereby submitting these payments under protest because you will not allow filing of the amended claims without the fees. We reserve all rights to challenge your interpretation and to recover excess amounts being paid, and reserve right to show have you has miscalculated the amounts.

Very truly yours,

HEPWORTH, LEZAMIZ & HOHNHORST,
CHARTERED

By: _____
Patrick D. Brown

PDB/llm
Enclosure
/1205IDWR.llm

HL&H
Chartered

TWIN FALLS OFFICE
208-734-7510
Blick Building
133 Shoshone St. N.
P.O. Box 389
Twin Falls, ID 83303-0389
FAX-208-734-4115

Boise Office
208-343-7510
537 West Bannock
P.O. Box 2582
Boise, ID 83701-2582
FAX: 208-342-2927

SUBCASE NO. 36-00068

	CLAIM (8/19/88)	AMENDED CLAIM	RECOMMENDATION	OBJECTION
NAME	John & Deloris Jones, Jr.	N/A	John & Deloris Jones, Jr.	John & Deloris Jones,Jr.
BASIS OF CLAIM	Decree		Decree	
SOURCE	Weatherby Springs		Weatherby Springs	
QUANTITY	12.50 cfs		8.25 cfs	XX as decreed
PRIORITY DATE	2/1/1888		2/1/1888	
PURPOSE OF USE	Irrigation Domestic Stockwater		Irrigation Domestic Stockwater	
PERIOD OF USE	Irr.: 3/15 - 11/15 Dom.: 1/1 - 12/31 S.W.: 1/1 - 12/31		Irr.: 3/15 - 11/15 Dom.: 1/1 - 12/31 S.W.: 1/1 - 12/31	XX year round for all uses
POINT OF DIVERSION	T07S R14E S30		T07S R14E S30	
PLACE OF USE	T07S R13E S25 T07S R14E S30 517.0 acres		T07S R13E S25 T07S R13E S30 401.0 acres	XX requests 517.0 acres as claimed

Lt 1 31.24 Sec 30 7S 14E
2 31.46 NESW
3 31.69 39.48
4 31.92 39.27
SESW

CLASS 2

remarks	"Water used for irrigation, fish propagation, stockwater, & domestic. Uses water from 4 different water rights for a total of 87.05 cfs."		"The appropriator is entitled to the water described above for stockwater purposes at a point of measurement where the delivery ditch enters the place of use described above. The portion of this right for stockwater purposes may be diverted so long as the amount of water diverted at the point of diversion for stockwater purposes does not constitute unreasonable waste and does not conflict with the public interest, as determined by the director. Use of this right with right no. 36-00069 is limited to a total combined diversion rate of 8.25 cfs, a total combined annual consumptive use volume of 1203 af, and to the irrigation of a combined total of 401 acres in a single irrigation season."	XX strike all remarks.

CLAIM NUMBERS 36-00068 36-00069 DATE 10/9/97
36-00070 AGENT

TRANSFER NUMBER
OBJECTION FILED ✓
TOTAL ACRES FROM RECOMMENDATION 401
GEOGRAPHIC INFO SYSTEM 402

RIGHT NO	TNS	RNG	SEC	NE NE	NE NW	NE SW	NE SE	NW NE	NW NW	NW SW	NW SE	SW NE	SW NW	SW SW	SW SE	SE NE	SE NW	SE SW	SE SE	
RECOM	07S	13E	25	40	40	40	40									37	38	29	38	302
GIS				39.81	39.92	39.92	39.9									37.45	38.45	30.21	33.9 2.42	302
																		+1	36.32 -2	
RECOM	07S	14E	30						10	21		4	25	27	12					99
GIS									3.57 6.32	21.6 .88		1.97 2.48	21.62 2.08	27.7	12.17					99.98
									9.89	22.48		4.45	23.7							
RECOM										+1			.1							
GIS																				
	Revised		25	40	40	40	40									38	38	30	36	302
RECOM	Acres																			~~120~~
GIS	1/23/98	30							18	25		5	26	27	11					112
	SCC																			

UPDATED

POLYGON # new Total UPDATED ~~422~~ (414)

POLYGON CREATED ON 604 ( )

B36-DBPOU.DBF 557, 558, 559

ATTRIBUTES OF B36-POU.SHP (557, 558, 559

B36-DBPOD.DBF 463 → 36-00068 ✓
469 → 36-00069 ✓

ATTRIBUTES OF B36-POD.SHP (463) SENESW-30
(469) SENESW-30

1/23/98 SCC

Revised Pou.DBF per discussion w/ Mr. Jones & ASCS MAP

36-00068 (Weatherford Springs)

36-00069 (Hoagland Tunnel)

356 AC = MAIN FARM = polygon # 557 = 348.37 Ac.

10 AC = Overlap Pou #70 spring = polygon # 558 = 7.19 Ac.

47 AC = fishpond AREA = polygon # 559 = 46.43 Ac.

413 AC (414 due to Rounding above) total = 402 AC

#36-00070 - disallowed - no GIS record ... Per Exam w/ Claimant

(~~three Springs~~) this Claim will be disallowed on #558 POU

POD# 684 unnamed SPRING → Remains Disallowed 1/29/98 SCC

P/U CONFLICT yes ( ) no (✓)

P/D CONFLICT yes ( ) no (✓)

READY FOR DECREE yes ( ) no ( )

SENT FOR DECREE yes ( ) no ( )

NOTICE OF ERROR FORM

AUG-24-1992

RECEIVED
SEP 23 1992
Department of Water Resources

Please type or print clearly, fill out completely, and return to:

Idaho Department of Water Resources
Statehouse Mail
Boise, Idaho 83720-9000

The notice of error must be received at IDWR by the **deadline date** printed below with your proposed recommendation.

YOUR DEADLINE FOR FILING A NOTICE OF ERROR IS: SEP-24-1992

1. Water right number: 36-00068

RECEIVED
SEP 28 1992
Department of Water Resources
Southern Region Office

2. Name: John W Jones Jr.
Delores D Jones

Address: Box 265
Hagerman, Idaho 83332

Weekday Telephone Number: 208-837-4580

MICROFILMED
JAN 21 1993

TEAR AT PERFORATIONS AND COMPLETE FORM ON OTHER SIDE

(Instead of filling in items 3 and 4 below you may include a copy of your proposed ommendation with the changes ma d on the copy.)

3. Describe the portion of proposed recommendation with which you disagree:

Period of use
Decrease of volume of water

4. Describe the changes you wish to have made in the proposed recommendation:

set at 2 inches per acre
Period of use include Feb, March & November.

5. Describe why you disagree with the proposed recommendation:

Some years necessary to irrigate in February, March and November.
Hagerman has a warmer climate.
This farm has sandy soil

6. Date: September 22, 1992

SIGNATURE John W. Jones Jr.
Delores Jones

AJ0729NP
No. R36-00068

IDAHO DEPARTMENT OF WATER RESOURCES
ADJUDICATION CLAIM PROFILE REPORT

DATE: 10/23/92
PAGE: 1

MICROFILMED
JAN 21 1993

OWNER CODE	NAME & ADDRESS	PRIORITY DATE	WATER USE	USE PERIOD FROM	USE PERIOD TO	DIVERSION RATE	DIVERSION VOLUME
C	DELORIS D JONES	02/01/1888	IRRIGATION	03-15	11-15	7.02 CFS	
C	JOHN W JONES JR		STOCKWATER	01-01	12-31	0.12 CFS	
	PO BOX 265		DOMESTIC	01-01	12-31	0.11 CFS	
	HAGERMAN ID 83332					7.25 CFS	
	(208) 837-4580				TOTAL DIVERSION:		

Water Source: WEATHERBY SPRINGS Tributary to: BILLINGSLEY CREEK Stage: DECREED

Point(s) of Diversion: T07S R14E S30 SENESW GOODING County

Place of use Legal Description for: IRRIGATION

	NE				NW				SW				SE				
	NENE	NWNE	SWNE	SENE	NENW	NWNW	SWNW	SENW	NESW	NWSW	SWSW	SESW	NESE	NWSE	SWSE	SESE	
T R S	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	SUM
07S 13E 25	40	40	40	40									37	38	29	38	302.0
07S 14E 30					01-10	02-21			04	03-25	04-27	12					99.0
																TOTAL ACRES	401.0

Place of use Legal Description for: STOCKWATER

	NE				NW				SW				SE				
	NENE	NWNE	SWNE	SENE	NENW	NWNW	SWNW	SENW	NESW	NWSW	SWSW	SESW	NESE	NWSE	SWSE	SESE	
T R S	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	
07S 14E 25													S				
07S 14E 30									03-S								

Place of use Legal Description for: DOMESTIC

	NE				NW				SW				SE				
	NENE	NWNE	SWNE	SENE	NENW	NWNW	SWNW	SENW	NESW	NWSW	SWSW	SESW	NESE	NWSE	SWSE	SESE	
T R S	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	Lt Ac	
07S 14E 25													D				

POU County: GOODING

Non-Irrigation Uses: DOMESTIC, 5 HOMES; STOCKWATER, 500 RANGE

Other Rights: 36-00070

Conditions of Approval:

N01 - THE APPROPRIATOR IS ENTITLED TO THE AMOUNT OF WATER DESCRIBED
- ABOVE FOR STOCKWATER PURPOSES AT A POINT OF MEASUREMENT WHERE THE
- DELIVERY DITCH ENTERS THE PLACE OF USE DESCRIBED ABOVE.

N02 - THE PORTION OF THIS RIGHT FOR STOCKWATER PURPOSES MAY BE
- DIVERTED SO LONG AS THE AMOUNT OF WATER DIVERTED AT THE POINT OF
- DIVERSION FOR STOCKWATER PURPOSES DOES NOT CONSTITUTE
- UNREASONABLE WASTE AND DOES NOT CONFLICT WITH THE PUBLIC
- INTEREST, AS DETERMINED BY THE DIRECTOR.

MICROFILMED
JAN 21 1993

Remarks: USE OF THIS RIGHT WITH RIGHT NO. 36-00070 IS LIMITED TO A TOTAL COMBINED DIVERSION RATE OF 7.25 CFS, A TOTAL COMBINED ANNUAL CONSUMPTIVE USE VOLUME OF 1203 AF, AND TO THE IRRIGATION OF A COMBINED TOTAL OF 401 ACRES IN A SINGLE IRRIGATION SEASON.

Dates: Exam Made Date: Verified Date: 10/20/1992

Misc: Water District Number: 36A Field Inspection Flag:
Presumption Flag:

Comments: Date: 03/08/1991 User-ID: BEDKE Subject: SCC-STAFF REVIEW

Date: 08/07/1992 User-ID: CHRISTEN Subject: COPIED FROM REMARKS
WATER USED FOR IRRIG, FISH PROP., STOCK, & DOMESTIC. USES WATER
FROM 4 DIFERENT WATER RIGHTS FOR A TOTAL OF 87.05 CFS.

Date: 09/24/1992 User-ID: SCHULTZ Subject: NOTICE OF ERROR (NOE)
NOE RECEIVED 9/23/92. CHANGED NOE FLAG FROM BLANK TO A.
CLAIM VERIFIED 8/18/92. DID NOT REVERIFY ANY PART OF CLAIM.

Date: 10/14/1992 User-ID: CHRISTEN Subject: RESPONSE TO NOE
RESPONSE WAS A MAILING TO INFORM CLAIMANT THAT THE PERIOD OF USE
FOR HAGERMAN VALLEY HAS BEEN CHANGED BUT BASED UPON CURRENT INFO
THE RATE FOR THIS CLAIM WILL NOT CHANGE NOR WILL 36-00069 BE
REINSTATED. KKC. 10-14-92.

Date: 10/20/1992 User-ID: CHRISTEN Subject: CHANGE TO CLAIM 10-20-92.
ADDED COND CODES N01 & N02. KKC.

Audit: 03/08/91 BEDKE 07/10/92 CWU-PROD 07/18/92 POST-STD 08/07/92 CHRISTEN
08/11/92 THORNTON 08/18/92 THORNTON 08/28/92 PR-PRODM 09/24/92 SCHULTZ
10/14/92 CHRISTEN 10/15/92 CWU-SHAF 10/20/92 CHRISTEN

State of Idaho
DEPARTMENT OF WATER RESOURCES
Southern Region, 222 Shoshone St. East, Twin Falls, Idaho 83301 (208) 736-3033

CECIL D. ANDRUS
Governor

R. KEITH HIGGINSON
Director

14-Oct-1992

JOHN W JONES JR
BOX 265
HAGERMAN ID 83332

RE: RESPONSE TO NOTICE OF ERRORS FOR CLAIMS 36-00068, 36-00069, 36-00070, AND 36-07071.

Dear Mr Jones

ISSUE = PERIOD OF USE FOR ALL CLAIMS

Your NOE(s) indicate that you would like the recommendation to show a longer season of use for irrigation. The Director has approved extending the period of use for the Hagerman valley to 3/15 to 11/15.

The proposed recommendation is based on irrigation season of use standards adopted by the Director for the various regions throughout the state. These standards are based on the period of the year in which there is less than a 75% chance of a 24 degree F. frost.

In addition, since there are some years in which water can be beneficially used for irrigation outside the irrigation season, the proposed Director's Report includes a general provision which provides for irrigation outside the irrigation season under certain conditions. The conditions are that the water is beneficially used, as determined by the director; that all water rights with a period of use outside the irrigation season, regardless of priority, are satisfied; and that the use does not conflict with the public interest as determined by the director. This proposed general provision will be included in the Director's Report.

RESPONSE TO NOE FOR 36-00068 AND 36-00069

Your NOE questions the basis for recommending disallowal of a claim to a previously decreed water right.

MICROFILMED
JAN 2 1 1993

Under Idaho law, water rights are limited to the amount of water beneficially used for the purposes for which the water rights were established. The amount of water beneficially used is limited to the amount that is actually used and is reasonably required. For irrigation purposes, a reasonable amount is the amount required using irrigation methods that are reasonably efficient under current circumstances. If the water right shown in a decree is no longer beneficially used, then the water right is forfeited.

In your case, you filed multiple overlapping claims. IDWR determined the amount of water reasonably required for the recommended uses, based on available data and current methods of analysis, and proposed to recommend the most senior claims that were within this total. To support recommendation of the notice of claims listed above, you will need to submit evidence of beneficial use of an amount of water greater than the total of the rights proposed to be recommended.

RESPONSE TO NOE FOR 36-07071

The recommendation for 82 raceways was based upon the field examiner's findings of raceways in use as of 1987. Expansion of the system beyond the original licensed system will require an application for permit even though the development has already occurred as the development has occurred since the May 20, 1971 mandatory permit statute for developments from surface water.

The 325 inches referenced in remarks was included within your claim based upon the court findings in Case No. 16676 which stated that the 325 inches was to be discharged into the Bar S ditch.

The Department does recognize that the "33" rights are only from Weatherby Springs although it does not clearly state that in the remarks section of your right. Within the "33" rights, only Weatherby Springs is listed.

Based upon currently available information, the period of use has been changed as stated above but the other points in your NOE(s) will remain the same.

MICROFILMED
JAN 21 1993

If you still disagree with IDWR's recommendations, you will have an opportunity to file an objection to the Director's Report with the court. When the Director's Report is filed with the court, you will be mailed a notice that will contain more information about the objection process. As part of the objection process, IDWR will work with the claimants to resolve disputed issues, including efforts to obtain additional data which will be made available to the water users.

Sincerely

Kelly K. Christensen
Sr. Water Resource Agent

MICROFILMED
JAN 2 1 1993

JONES

DELORIS D

1 -
2 -
3 -
City- HAGERMAN
Phone - 208-837-4580
1 - PO BOX 265
2 -
3 -
City- HAGERMAN
Phone - 208-837-4580

State- ID Zip- 83332

State- ID Zip- 83332

Priority Date: 02/01/1888

Region: 17 SOUTHERN

Stage: D - DECREED

Status

Source: WEATHERBY SPRINGS

Tributary: BILLINGSLEY CREEK

Point of Diversion

Twn	Rng	Sec	Tract	Lot	RFlg	County
07S	14E	30	SE NE SW			(47) GOODING

Water Use

Code	Description	Period From	Period To	Diversion Rate	Diversion Volume
01	IRRIGATION	04/01	10/31	7.020	
43	DOMESTIC	01/01	12/31	0.110	
04	STOCKWATER	01/01	12/31	0.120	

Total Div. Rate: 7.250

Total Div. Volume:

Total Consumptive Use: 0.0

KW Usage:

Place of Use

Twn	Rng	Sec	Tract	Lot	Acres	Code	Description	County
07S	13E	25	NE NE		40.0	01	IRRIGATION	(47) GOODING
07S	13E	25	NW NE		40.0	01	IRRIGATION	(47) GOODING
07S	13E	25	SW NE		40.0	01	IRRIGATION	(47) GOODING
07S	13E	25	SE NE		40.0	01	IRRIGATION	(47) GOODING
07S	13E	25	NE SE		37.0	01	IRRIGATION	(47) GOODING
07S	13E	25	NW SE		38.0	01	IRRIGATION	(47) GOODING
07S	13E	25	SW SE		29.0	01	IRRIGATION	(47) GOODING
07S	13E	25	SE SE		38.0	01	IRRIGATION	(47) GOODING
07S	14E	30	NW NW	1	10.0	01	IRRIGATION	(47) GOODING
07S	14E	30	SW NW	2	21.0	01	IRRIGATION	(47) GOODING
07S	14E	30	NE SW		4.0	01	IRRIGATION	(47) GOODING
07S	14E	30	NW SW	3	25.0	01	IRRIGATION	(47) GOODING
07S	14E	30	SW SW	4	27.0	01	IRRIGATION	(47) GOODING
07S	14E	30	SE SW		12.0	01	IRRIGATION	(47) GOODING

R PROOF

CVR

MAPS

PHOTOS

MISC











MICROFILMED

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
ADJUDICATION CLAIM VERIFICATION REPORT

12:55:45
06/29/90

PAGE: 13
QUICKLOOK INFORMATION

CLAIM NUMBER: A36-00068

WR ELEMENT	FIELD EXAM Y/N	CORRESPONDENCE SENT/RECEIVED BY WHOM/DATE	FIELD EXAM BY WHOM/DATE	CHANGE CLAIM Y/N	VERIFIED BY CODE	COMPLETED REVIEW WHOM/DATE	COMPLETED DATA ENTRY WHOM/DATE	VERIFIED DATE WHOM/DATE
PRIORITY DATE			8-21-90 SCC/HHT	N		HHT 8/6/92	CB	KKC 8-9-92
POINT OF DIV	N			(Y)	1,5		D	
SOURCE	Y N							
PLACE OF USE	N			N				
DIV. AMOUNT CFS/VOLUME	Y (Y)			(Y)	1,4,5			
CONSUMPTIVE USE	Y N			(Y)	6. decree			
PURPOSES	- N			(Y)				
PERIOD OF USE	Y N			N				
BASIS OF CLAIM	Y N			N (Y)				
REMARKS	N			N				
	Y N			(Y)	6.			

lw 7/18/90

"VERIFIED BY" CODES

TOPO MAP/ORTHO-PQ = 1
ASCS MAP = 2
WATERMASTER RECORDS = 3
NAPP PHOTOS = 4
FIELD EXAM = 5
OTHER (SEE REMARKS) = 6

THESE CODES ARE USED TO INDICATE HOW THE FIELD EXAMINER VERIFIED THE INFORMATION USED FOR THIS FIELD EXAMINATION. INDICATED ARE ALL CODES WHICH APPLY.

Master Review file for Rts:
A36-00069
A36-00070

MICROFILMED
JAN 21 1993

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
ADJUDICATION CLAIM VERIFICATION REPORT

12:55:45
06/29/90

PAGE: 1
GENERAL INFORMATION

CLAIM NUMBER: A36-00068

MICROFILMED
JAN 21 1993

LAST: JONES, JR. FIRST: JOHN_W.
ADDRESS: P.O. BOX 265
CITY: HAGERMAN STATE: ID ZIP: 83332
PHONE NUMBER: 208-837-4580

OWNER CODE: C

LAST: JONES FIRST: DELORIS D.
ADDRESS: P.O. BOX 265
CITY: HAGERMAN STATE: ID ZIP: 83332
PHONE NUMBER: 208-837-4580

OWNER CODE: C

	DATABASE	FIELD EXAMINER
FIELD EXAM REQUIRED?		
VERIFICATION REQUIRED DUE TO REMARKS?	Y	

CLAIM REMARKS: WATER USED FOR IRRIG, FISH PROP., STOCK, & DOMESTIC. USES WATER FROM 4 DIFERENT WATER RIGHTS FOR A TOTAL OF 87.05 CFS.

FIELD EXAMINATION INFORMATION

CLAIM NUMBER: A36-00068

CONTACT PERSON: Bill Jones

PHONE NUMBER: (___) ___-_____

DATE OF FIELD EXAM: 8/21/90

APPOINTMENT MADE: Y(__) N(__)

TIME: ___:___ A(__) P(__)

ACCOMPANIED BY: _____

PHONE NUMBER: (___) ___-_____

RELATIONSHIP TO CLAIMANT: _____

DIRECTIONS TO PROPERTY / REMARKS:

MICROFILMED
JAN 21 1993

PRIORITY DATE REVIEW PAGE

CLAIM NUMBER: A36-00068

A. AJ CLAIM: # A36-00068 PRIORITY DATE: 02-01-1888 STAGE: D

B. WR RECORD: # 36-00068 PRIORITY DATE: 02-01-1888 STAGE: D

C. FIELD EXAM REQUIRED?

	DATABASE	FIELD EXAMINER
DUE TO PRIORITY DATE DISCREPANCY? (Y/N)	N	N

ARE THERE OBVIOUS REASONS TO QUESTION THE PRIORITY DATE CLAIMED? Y(__) N(✓)
IF YES EXPLAIN.

REMARKS:

RECOMMENDED PRIORITY DATE:
02-01-1888

REVIEWED BY LW DATE 7/18/90

MICROFILMED
JAN 21 1993

POINT OF DIVERSION REVIEW SHEET

CLAIM NUMBER: A36-00068

MICROFILMED
JAN 21 1993

A. AJ CLAIM POINT OF DIVERSION AND SOURCE:

RIGHT	TWP.	RGE.	SEC.	1/4	1/4	1/4	LOT	CNTY
A36-00068	07S	14E	30		NE	SW		GOODING

OTHER AJ CLAIMS WITH SAME AJ POD

A PREFIX	R PREFIX
A36-00009	NONE

WR RECORDS IN SAME 40 ACRE TRACT

36-00009
36-00010
36-00011
36-00015
36-00016
36-00017
36-00033
36-00041
36-00042
36-00044
36-00045
36-00060
36-00061
36-00062
36-00063
36-00069
36-00086A
36-00086B
36-00105
36-00116
36-00118
36-00119
36-00120
36-02029
36-07071
36-07740

SOURCE: WEATHERBY SPRINGS

TRIB: BILLINGSLEY CREEK

B. WR POINT OF DIVERSION AND SOURCE:

RIGHT	TWP.	RGE.	SEC.	1/4	1/4	1/4	LOT	CNTY
36-00068	07S	14E	30		NE	SW		GOODING

OTHER WR RECORDS WITH SAME WR POD

36-00009
36-00010
36-00011
36-00015
36-00016
36-00017
36-00033

AJ CLAIMS IN SAME 40 ACRE TRACT

A PREFIX	R PREFIX
A36-00009	NONE
A36-00033C	
A36-00060	
A36-00086G	
A36-00119	
A36-00033D	
A36-00063	

36-00041
36-00042
36-00044
36-00045
36-00060
36-00061
36-00062
36-00063
36-00069
36-00086A
36-00086B
36-00105
36-00116
36-00118
36-00119
36-00120
36-02029
36-07071
36-07740

A36-00116
A36-00086F
A36-00086H
A36-00011B
A36-00011A
A36-00011C
A36-00105
A36-00120
A36-00061
A36-00062

MICROFILMED
JAN 21 1993

SOURCE: WEATHERBY SPRINGS TRIB: BILLINGSLEY CREEK

C. FIELD EXAM REQUIRED?

	DATABASE	FIELD EXAMINER
DUE TO POD DISCREPANCY? (Y/N)	Y	N
DUE TO SOURCE DISCREPANCY? (Y/N)	N	N

REMARKS: Confirmed by OPQ + field exam.

RECOMMENDED POINT(S) OF DIVERSION AND SOURCE:

TWP.	RGE.	SEC.	1/4	1/4	1/4	LOT	COUNTY
7S	14E	30	SE	NE	SW		47

change claim

SOURCE: WEATHERBY SPRINGS TRIB: BILLINGSLEY CREEK

REVIEWED BY: LW DATE: 7/18/90

VIA WEATHERBY SPRINGS

PLACE OF USE REVIEW SHEET

CLAIM NUMBER: A36-00068

A. ROOT WATER RIGHT NUMBERS: A36-00068

B. POU LISTING

TWP	RNG	SEC	1/4	1/4	LOT	NAME	AJ #/ACRES	WR #/ACRES	LANDSAT DATA	FIELD EXAM.	RECOMM. ACRES
07S	13E	25	NE	NE		JONES, JR. , JOHN W.	A36-00068 /40.0	36-00068 /	40.0	40	40
						JONES, JR. , JOHN W.	A36-00069 /40.0	36-00069 /			
						JONES, JR. , JOHN W.	A36-00070 /40.0	36-00070 /			
07S	13E	25	NW	NE		JONES, JR. , JOHN W.	A36-00068 /40.0	36-00068 /	40.0	40	40
						JONES, JR. , JOHN W.	A36-00069 /40.0	36-00069 /			
						JONES, JR. , JOHN W.	A36-00070 /40.0	36-00070 /			
07S	13E	25	SW	NE		JONES, JR. , JOHN W.	A36-00068 /40.0	36-00068 /	39.0	40	40
						JONES, JR. , JOHN W.	A36-00069 /40.0	36-00069 /			
						JONES, JR. , JOHN W.	A36-00070 /40.0	36-00070 /			
07S	13E	25	NW	SE		JONES, JR. , JOHN W.	A36-00068 /40.0	36-00068 /	39.0	38	38
						JONES, JR. , JOHN W.	A36-00069 /40.0	36-00069 / Stock & Domestic			
						JONES, JR. , JOHN W.	A36-00070 /40.0	36-00070 /			
07S	13E	25	SW	SE		JONES, JR. , JOHN W.	A36-00068 /29.0	36-00068 /	40.0	29	29
						OMOHUNDRO , NEVADA B.	A36-00044 / 2.0	36-00044 /			
						JONES, JR. , JOHN W.	A36-00069 /29.0	36-00069 /			
						JONES, JR. , JOHN W.	A36-00070 /29.0	36-00070 /			
						OMOHUNDRO , NEVADA B.	A36-00041B /	- /			
						ELIASON , JACOB		36-00043 /			
07S	14E	30	NW	NW	1	JONES, JR. , JOHN W.	A36-00068 /32.0	36-00068 /		10	10 (exp.)
						JONES, JR. , JOHN W.	A36-00069 /32.0	36-00069 /			
						JONES, JR. , JOHN W.	A36-00070 /32.0	36-00070 /			
07S	14E	30	SW	NW	2	JONES, JR. , JOHN W.	A36-00068 /32.0	36-00068 /		21	21 (exp.)
						JONES, JR. , JOHN W.	A36-00069 /32.0	36-00069 /			
						JONES, JR. , JOHN W.	A36-00070 /32.0	36-00070 /			
07S	14E	30	NE	SW		JONES, JR. , JOHN W.	A36-00068 /40.0	36-00068 /	23.0	4	4
						JONES, JR. , JOHN W.	A36-07071 /	36-07071 /			
						JONES, JR. , JOHN W.	A36-00069 /40.0	36-00069 /			
						JONES, JR. , JOHN W.	A36-00070 /40.0	36-00070 /			
07S	14E	30	NW	SW	3	JONES, JR. , JOHN W.	A36-00068 /32.0	36-00068 /		25	25 (exp)
						JONES, JR. , JOHN W.	A36-00069 /32.0	36-00069 /			
						JONES, JR. , JOHN W.	A36-00070 /32.0	36-00070 / Stock			
07S	14E	30	SW	SW	4	JONES, JR. , JOHN W.	A36-00068 /32.0	36-00068 /		27	27 (exp)
						JONES, JR. , JOHN W.	A36-00069 /32.0	36-00069 /			
						JONES, JR. , JOHN W.	A36-00070 /32.0	36-00070 /			
07S	14E	30	SE	SW		JONES, JR. , JOHN W.	A36-00068 /40.0	36-00068 /	26.0	12	12
						JONES, JR. , JOHN W.	A36-00069 /40.0	36-00069 /			
						JONES, JR. , JOHN W.	A36-00070 /40.0	36-00070 /			
07S	13E	25	NE	SE		JONES, JR. , JOHN W.	A36-00068 /40.0	36-00068 /	37.0	37	37

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				JONES, JR. , JOHN W.	A36-00069	/40.0	36-00069	/				
				JONES, JR. , JOHN W.	A36-00070	/40.0	36-00070	/				
07S	13E	25	SE	SE	JONES, JR. , JOHN W.	A36-00068	/40.0	36-00068	/	40.0		
					JONES, JR. , JOHN W.	A36-00069	/40.0	36-00069	/		38	38
					JONES, JR. , JOHN W.	A36-00070	/40.0	36-00070	/			
07S	13E	25	SE	NE	JONES, JR. , JOHN W.	A36-00068	/40.0	36-00068	/	38.0		
					JONES, JR. , JOHN W.	A36-00069	/40.0	36-00069	/		40	40
					JONES, JR. , JOHN W.	A36-00070	/40.0	36-00070	/			
				TOTAL ACRES	A36-00068		517.00			362.00	401	401

ARE IRRIGATED ACRES FOUND IN TRACTS OTHER THAN INDICATED ABOVE, Y( ) N(X)
IF YES SEE ATTACHED SHEET:

C. FIELD EXAM REQUIRED?

	DATABASE	FIELD EXAMINER
DUE TO POU DISCREPANCY? (Y/N)	Y	Yes

PRESUMPTION FLAG:

REMARKS:

Napp shows crop in section 30 - ASCS map does not have actual acres marked. Landsat shows descrepancy - confirm section 30 acres Confirmed by field Exam and NAPP photos.

==========

RECOMMENDATIONS:

TOTAL ACRES: 401

REVIEWED BY: Scc DATE: 9-7-90

==========

MICROFILMED
JAN 21 1993

PURPOSES REVIEW SHEET

CLAIM NUMBER: A36-00068

A. AJ CLAIMED USES:

	PURPOSES	MONTH/DAY	DIVERSION QUANTITY
A36-00068	IRRIGATION	FROM ~~03-15 TO 11-15~~ 4/1 - 10.31	12.500 CFS
A36-00068	DOMESTIC	FROM 01-01 TO 12-31	.110 CFS
A36-00068	STOCKWATER	FROM 01-01 TO 12-31	.120 CFS
	TOTAL DIVERSION RATE/VOLUME CLAIMED		12.500 CFS

B. WR RECORDED USES:

	PURPOSES		MONTH/DAY	DIVERSION QUANTITY
36-00068	IRRIGATION	FROM	TO	12.500 CFS
	TOTAL DIVERSION RATE/VOLUME CLAIMED			12.500 CFS

PRESUMPTION FLAG:

C. FIELD EXAM REQUIRED?

	DATABASE	FIELD EXAMINER
DUE TO WATER-USE DISCREPANCY? (Y/N)	Y	N
DUE TO DIVERSION RATE DISCREPANCY? (Y/N)	Y	N
DUE TO PERIOD FROM/TO DISCREPANCY? (Y/N)	Y	N

D. PERIOD OF USE:

RECOMMEND AS CLAIMED? Y(/) N(__)

RECOMMEND TO WR STANDARDS OR OTHER? Y(__) N(__) Explain in remarks, below.

REMARKS:

MICROFILMED
JAN 21 1993

DIVERSION AMOUNT REVIEW SHEET

CLAIM NUMBER: A36-00068

A. DOES DIVERSION RATE CLAIMED AGREE WITH EXISTING RECORDS? Y(✓) N(___)

AJ TOTAL CLAIMED DIVERSION RATE: 12.500 CFS
WR ROOT RIGHT TOTAL DIVERSION RATE: 12.500 CFS

*** IF NO or IF STATUTORY CLAIM or BENEFICIAL USE then flow measurement required. ***
** If an amount smaller than the original diversion rate is **
** claimed and an exam is NOT required, explain in remarks. **

FLOW MEASUREMENT REQUIRED?

	DATABASE	FIELD EXAMINER
DUE TO STAGE OR DIVERSION RATE DISCREPANCY? (Y/N)	Y	N

B. FLOW MEASUREMENT

MEASUREMENT METHOD _____, SEE ATTACHED CALCULATIONS.

C. ARE OTHER WATER RIGHTS USED? Y(Y) N(__) IF YES COMPLETE OVERLAP REVIEW.

OTHER RIGHTS LISTED IN CLAIM: ~~A36-07071~~, A36-00069, A36-00070 ← DROP OUT FISH RT.

LIST ALL RIGHTS WITH A SAME POU AND IRRIGATION USAGE:

CLAIM	SOURCE	NAME	DIV. RATE	DIV. RATE/ACRE	DIV. VOL.	DIV. VOL./ACRE
A36-00068	WEATHERBY SPRINGS	JONES, JR. , JOHN_W.	12.500	0.024		
A36-00069	WEATHERBY SPRINGS	JONES, JR. , JOHN W.	1.000	0.001		
-00070			0.500			

LIST ALL RIGHTS WITH SAME POU BUT NOT USED FOR IRRIGATION.

CLAIM NO.	PURPOSES	NAME	MONTH/DAY		RATE	VOLUME
A36-00068	DOMESTIC	JONES, JR. , JOHN_W.	FROM 01-01	TO 12-31	.110 CFS	
A36-00068	STOCKWATER	JONES, JR. , JOHN_W.	FROM 01-01	TO 12-31	.120 CFS	
A36-00041B	DOMESTIC	OMOHUNDRO , NEVADA B.	FROM 01-01	TO 12-31	.020 CFS	
A36-07071	FISH PROPAGATION	JONES, JR. , JOHN W.	FROM 01-01	TO 12-31	73.050 CFS	52794.00 AF/A

Combined Rate: $\frac{14.0 \text{ cfs}}{517 \text{ Ac.}} = 0.027 \text{ cfs/Ac.}$

$\frac{14.0 \text{ cfs}}{401} = 0.035 \text{ cfs/Ac.}$

MICROFILMED JAN 21 1993

CLAIM NUMBER: A36-00068

MICROFILMED
JAN 21 1993

D. RATE/VOLUME CALCULATIONS: (IRRIGATION)

1a. IRRIGATION RATE
ACRES 401 x 0.02 CFS/ACRE = 8.02 CFS
(Taken from p/u review)

DOES AMOUNT CLAIMED EXCEED 0.02 CFS/ACRE? Y(X) N(__)

*** IF YES ADDITIONAL WATER USE FORM FILED AND ATTACHED? Y(__) N(X) ***

1b. CALCULATIONS

all sprinkler irrigation

* allow 0.02 cfs/Acre

8.02 cfs

limited to 7.02 cfs by pumps

No conveyance loss.

See below

2. IRRIGATION CONSUMPTIVE USE

CLAIMED CONSUMPTIVE USE = 1551.0 AF/A

ACRES 401 x CONSUMPTIVE VOL. AF/A FOR AREA 3.0 =

TOTAL CONSUMPTIVE USE 1203 AF/A

3. IRRIGATION DIVERSION VOLUME

CLAIMED DIVERSION VOLUME = AF/A

ACRES 401 x DIVERSION VOL. AF/A FOR AREA 4.0 =

TOTAL DIVERSION VOLUME 1604 AF/A

4. CALCULATIONS FOR USES OTHER THAN IRRIGATION:

SEE ATTACHED SHEET? Y(___) N(___)

REMARKS: (Include limitations on CONSUMPTIVE USE for combined rights.)

Pumps Theoretical

$$Q = \frac{300HP(8.8)(0.70)}{5' + (2.3 \times 30PSI)}$$

$Q = 25$ cfs

RMC 10-23-92

polysonic meas. of three irrigation pumps:

$\bar{x} = 3151.6$ GPM

7.02 cfs

SCC 7-27-92

DIVERSION AMOUNT REVIEW SHEET CONTINUED

CLAIM NUMBER: A36-00068

RECOMMENDATIONS:

REC. PURPOSES	REC. PERIOD FROM	TO	REC. DIV RATE CFS DATABASE	REC. DIV RATE CFS EXAMINER	REC. DIV VOL. AF/A DATABASE	REC. DIV VOL. AF/A EXAMINER	REC. CONS. USE DATABASE	REC. CONS. USE EXAMINER
IRRIGATION	~~3-15~~ 4-1	~~11-15~~ 10-31		~~8.02~~	~~7.02~~ 8.02	~~1604~~		1203
STOCK WATER	0-1	12-31		0.12				
DOMESTIC	1-1	12-31		0.11				
TOTAL FOR THIS RIGHT				~~8.02~~ 8.25	~~7.25~~	~~1604~~ N/A		1203

REVIEWED BY: SCu DATE: 9-10-90

SCu 7-27-92

~~WR proportional Rate = 12.5 cfs / 560 Ac = 0.022 cfs/Ac~~

~~(allowed Rate)~~

~~(0.022 x 401 = 8.82 cfs)~~

EOS - ?

Reconsideration 10-23-92: Mr. Jones indicated by telephone to S. Clelland that if the pumps were not 15 yrs. old & worn that they could pump the required 1"/acre (8.02 cfs). Because diversion from Weatherby springs was measured in excess of 8.02 cfs we feel the irr. pump diversion from the holding pond should not limit this right. Theoretical pumping rate for these pumps exceeds 8.02; allow 8.02 cfs RMC

MICROFILMED JAN 21 1993

BASIS OF CLAIM REVIEW SHEET

CLAIM NUMBER: A36-00068

A. CHECK ONLY THE FOLLOWING THAT APPLY:

	ACCEPTED AS CLAIMED	NEEDS REVIEW
OWNERSHIP	(✓)	( )
FORFEIT/ABANDON	(✓)	( )
ADDITIONAL DIV. AMOUNT	(✓)	( )

B. SPLIT WATER RIGHT REVIEW

ROOT WATER RIGHT NUMBER: 36-00068

TOTAL DIVERSION RATE OF WR SPLITS — DATABASE 12.500 — EXAMINER _____ CFS

SPLITS:

OLD RIGHT NUMBERS	CURRENT CLAIM NUMBERS	DIVERSION RATE	CURRENT "R" CLAIM NUM.	"R" DIV. RATE	WR RIGHT NUMBERS	DIVERSION RATE
-	A36-00068	12.500	-		36-00068	12.500
	TOTAL CFS	12.500				12.500

DIVERSION RATE REVIEW

	DATABASE	FIELD EXAMINER
DO THE SUM CFS RATE OF THE SPLITS EQUAL THE ROOT RIGHT CFS RATE? (Y/N)	Y	✓
IF NO, is the written review sheet attached? (Y/N)		

REMARKS:

When combined with other rights A36-00069 & A36-00070 ~~Total~~ diversion cannot exceed Total Consumptive Use of 1203 Ac/ft nor a Total diversion of 1604 Ac/FT/Ann.

==========

AUTHENTICATION:

SIGNATURE: Steve Cellard DATE: 9-10-90

NAME OF FIELD EXAMINER: _____ TITLE: _____

==========

MICROFILMED JAN 2 1 1993

REMARK AND CONDITION CODE WORKSHEET

SYSTEM CLAIM NUMBERS R36 00068 ____ ____

____ ____ ____ ____

____ ____ ____ ____

AGENT INITIALS HHJ

DATE 8/6/92

CLAIM NO. OR ENTRY ORDER	REMARK CODE	ENTRY DATA	CONDITION CODE	STAGE OR STATUS	PRESUMPTION CODE
	E09	36-00070, 7.25 cfs, 1203, 401 acres.			

MICROFILMED

JAN 21 1993


R13E
R14E
T 7 S
Acreage per NAPP and field Exam
SCC 9-7-90
GOODING CO
TWIN FALLS CO
SNAKE RIVER
Mile
MICROFILMED
JAN 2 1 1993
114°52'30"
270 000 FEET


KoB
1288
KoC
FeD
T5E
40MB
6C-1
T7S
R14E
513 uncg
acres
C277
C227
4.4 (733)
C276
(585c)
MICROFILMED
JAN 21 1993

MICROFILMED
JAN 2 1 1993



NORTH END OF
BILL JONES' FARM
@ BILLINGSLEY CREEK

PHOTO: 9-11-90
SC

State of Idaho
DEPARTMENT OF WATER RESOURCES
Southern Region, 222 Shoshone St. East, Twin Falls, Idaho 83301 (208) 734-3578

CECIL D. ANDRUS
Governor

R. KEITH HIGGINSON
Director

```
MODE SELECT
        INPUT

OUTER DIAMETER
16.0346  IN

PIPE MATERIAL
?       CS,SS

WALL THICKNESS
0.2000   IN

INNER LINING
?       NO LING.

KIND OF FLUID
?       WATER

SENSOR MOUNTING
?       V

TYPE OF SENSOR
?       SMALL

DATA CHANGE
?       NO

SPACING
12.861   IN V

08-22 14:4000 *R
+246.736E 1GPM

ZERO MODE
        CLEAR

ZERO MODE
        AUT ZERO

ZERO MODE
        ZERO OPR

08-22 14:4200 *R
+002.40 %  AI2

MODE SELECT
        T0 CHECK

0584.7  MMSEC
100.09  % T0

08-22 14:4200 *R
+234.320E 1GPM

08-22 14:4300 *R
+236.698E 1GPM

08-22 14:5000 *R
+314.364E 1GPM

08-22 14:5100 *R
+317.534E 1GPM

08-22 14:5400 *R
+313.572E 1GPM
```

Bill Jones irrigation water after pump prop.

SCC/HHT

2 pumps 50 & 150 HP running

50, 100, 150 HP 3 pumps on Pivot

← 2 pumps on.

← 3 pumps on.

PUMPS ARE PLACED IN A RETAINING POND BELOW ALL THE FISH PONDS. COMBINE INTO A SINGLE MAINLINE WHERE MEASUREMENT WAS MADE.

SCC/HHT

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$\bar{X}$ = 3151.6 GPM
= 7.02 cfs

State of Idaho
DEPARTMENT OF WATER RESOURCES
Southern Region, 222 Shoshone St. East, Twin Falls, Idaho 83301 (208) 734-3578

CECIL D. ANDRUS
Governor

R. KEITH HIGGINSON
Director

8-22-90

```
MODE SELECT
        INPUT

OUTER DIAMETER
26.1012   IN

PIPE MATERIAL
?       CS,SS

WALL THICKNESS
.28000    IN

INNER LINING
?       NO LING.

KIND OF FLUID
?       WATER

SENSOR MOUNTING
?       V

TYPE OF SENSOR
?       SMALL

DATA CHANGE
?       NO

SPACING
21.654    IN V

08-22 16:0400 *R
+358.745E 1GPM

ZERO MODE
        CLEAR

ZERO MODE
        AUT ZERO

ZERO MODE
        ZERO OPR

08-22 16:0600 *R
+002.40 %  AI2

MODE SELECT
        T0 CHECK

0955.2   MMSEC
100.08   % T0

08-22 16:0600 *R
+312.779E 1GPM

08-22 16:0700 *R
+312.251E 1GPM
```

"325" Ditch (large pipe)

BAR S Ditch

SCC/HHT

```
MODE SELECT
        INPUT

OUTER DIAMETER
16.0744   IN

PIPE MATERIAL
?       CS,SS

WALL THICKNESS
0.1100    IN

INNER LINING
?       NO LING.

KIND OF FLUID
?       WATER

SENSOR MOUNTING
?       V

TYPE OF SENSOR
?       SMALL

DATA CHANGE
?       NO

SPACING
12.752    IN V

08-22 16:1700 *R
+103.027E 1GPM

ZERO MODE
        CLEAR

ZERO MODE
        AUT ZERO

ZERO MODE
        ZERO OPR

08-22 16:1800 *R
+002.60 %  AI2

MODE SELECT
        T0 CHECK

0591.9   MMSEC
099.91   % T0

08-22 16:1800 *R
+ 90.346E 1GPM

08-22 16:2000 *R
+ 89.554E 1GPM
```

"325" Ditch small pipe

BAR S Ditch

SCC/HHT

GAGE READING @ HEAD OF BAR S DITCH = 0.58'

GAGE READING @ HEAD OF BUCKEYE PIPE = 0.56'

GAGE @ CURREN DITCH = 1.0'

ANOTHER GAGE READING WAS MADE ON THE CREST OF THE HEADBOX AT THE PIPELINE OVER BILLINGSLEY CREEK. DEPTH = 1.60'

SCC/HHT

MICROFILMED
JAN 2 1 1993

BAR S DITCH

State of Idaho
DEPARTMENT OF WATER RESOURCES
Southern Region, 222 Shoshone St. East, Twin Falls, Idaho 83301 (208) 734-3578

CECIL D. ANDRUS
Governor

R. KEITH HIGGINSON
Director

```
MODE SELECT
        INPUT

OUTER DIAMETER
20.1169  IN

PIPE MATERIAL
?       CS,SS

WALL THICKNESS
.11500   IN

INNER LINING
?       NO LING.

KIND OF FLUID
?       WATER

SENSOR MOUNTING
?       V

TYPE OF SENSOR
?       SMALL

DATA CHANGE
?       NO

SPACING
16.240   IN V

08-22 13:0500 *R
+449.885E 1GPM

ZERO MODE
        CLEAR

ZERO MODE
        AUT ZERO

ZERO MODE
        ZERO OPR

08-22 13:0700 *R
+003.00 %  AI2

MODE SELECT
        T0 CHECK

0748.5  MMSEC
100.72  % T0

08-22 13:0800 *R
+445.129E 1GPM
```

Weatherby Springs Tunnel
Pipeline siphon

≈ 10.0 cfs

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JAN 2 1 1993

State of Idaho
DEPARTMENT OF WATER RESOURCES
Southern Region, 222 Shoshone St. East, Twin Falls, Idaho 83301 (208) 734-3578

CECIL D. ANDRUS
Governor

R. KEITH HIGGINSON
Director

3 Spgs Pipeline to Bill Jones Fish Prop. Use

8-22-90

```
MODE SELECT
        INPUT

OUTER DIAMETER
24.0323   IN

PIPE MATERIAL
?       CS,SS

WALL THICKNESS
0.1100    IN

INNER LINING
?       NO LING.

KIND OF FLUID
?       WATER

SENSOR MOUNTING
?       U

TYPE OF SENSOR
?       SMALL

DATA CHANGE
?       NO

SPACING
19.602    IN U

08-22 12:3800 *R
+597.028E 1GPM

ZERO MODE
        CLEAR

ZERO MODE
        AUT ZERO

ZERO MODE
        ZERO OPR

MODE SELECT
        T0 CHECK

0897.6   MMSEC
100.88   % T0

08-22 12:4100 *R
+002.90 %  AI2

08-22 12:4100 *R
+712.472E 1GPM

08-22 12:4100 *R
+714.849E 1GPM


08-22 12:4300 *I
+711.151E 1GPM
```

AT THE TIME OF THIS MEASUREMENT, MR. JONES EXPLAINED HE IS USING THE WATER THAT NORMALLY FLOWS TO McFADDEN, FUEL, BOYER + OTHERS FROM THE THREE SPRINGS SOURCE. IN RETURN HE HAS REPLACED THIS WATER WITH HIS RIGHT FROM WEATHERBY SPRINGS VIA THE TUNNEL + PIPELINE.

SCC/HHT

MICROFILMED
JAN 2 1 1999

CONVERSATION MEMORANDUM

NAME OF PARTY EMPLOYEE: BILL JONES

DATE 8-22-90

FILE

RE: WEATHERBY SPRINGS & THREE SPRINGS COMPLEX

Helen Harington and I made Ultrasonic Measurements on the 24" pipe from 3 Springs and the 20" pipe from the Weatherby Springs Tunnel. Mr. Jones explained that water from 3 Springs is exchanged for water from Weatherby Springs. Water Users west of the Jones Farm and Mr. McFadden are in agreement with this system. The other user's are able to use Weatherby Tunnel water for domestic uses which is a closed source. Mr Jones is able to use their 3 springs water and allows for better use of the facilities & water. Due to Fluctuations in water use the water is better controlled under this exchange. The Original water rights can still be used as defined and are not permanently changed or revised.

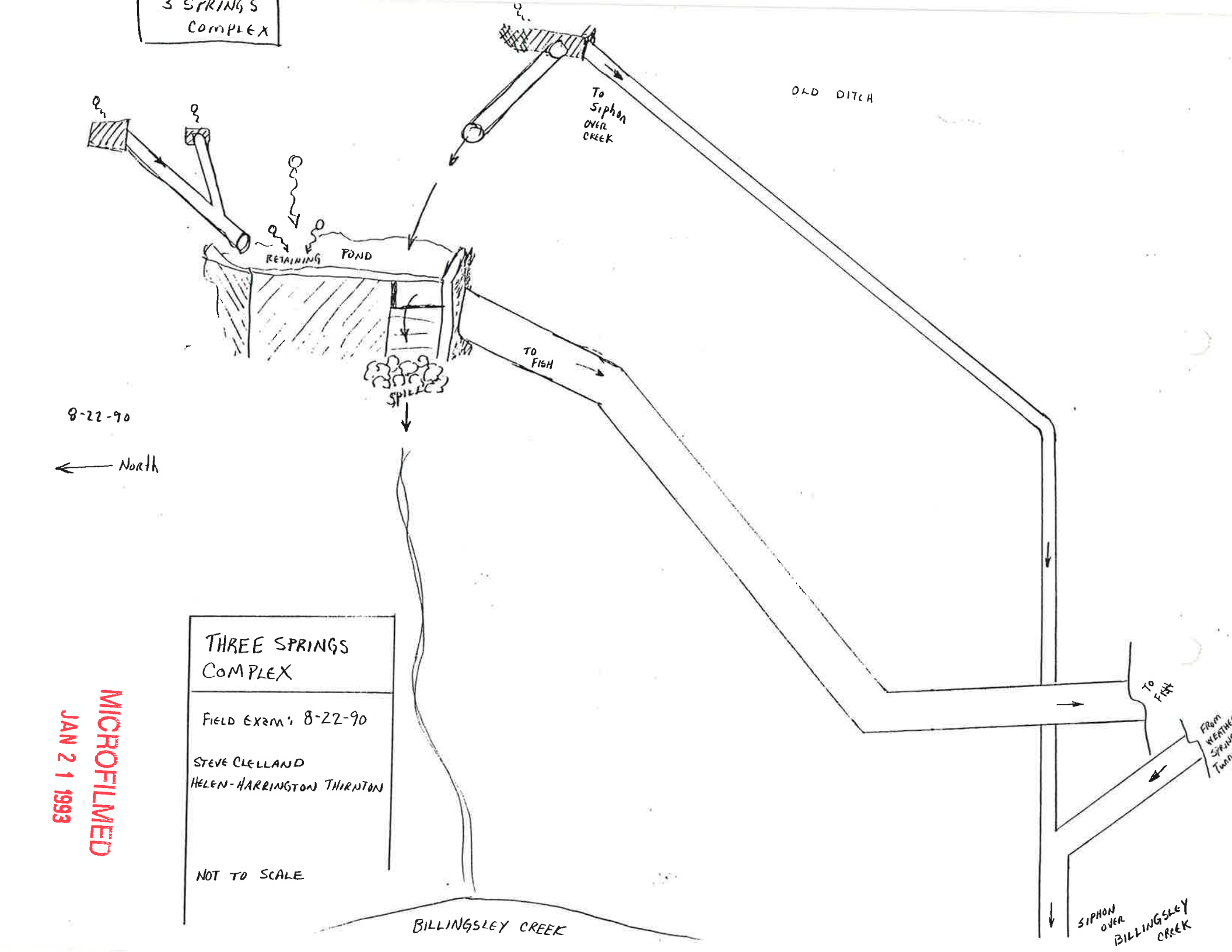
I have made 2 maps of the 2 sources above to help describe the systems.

Steve Chilcott

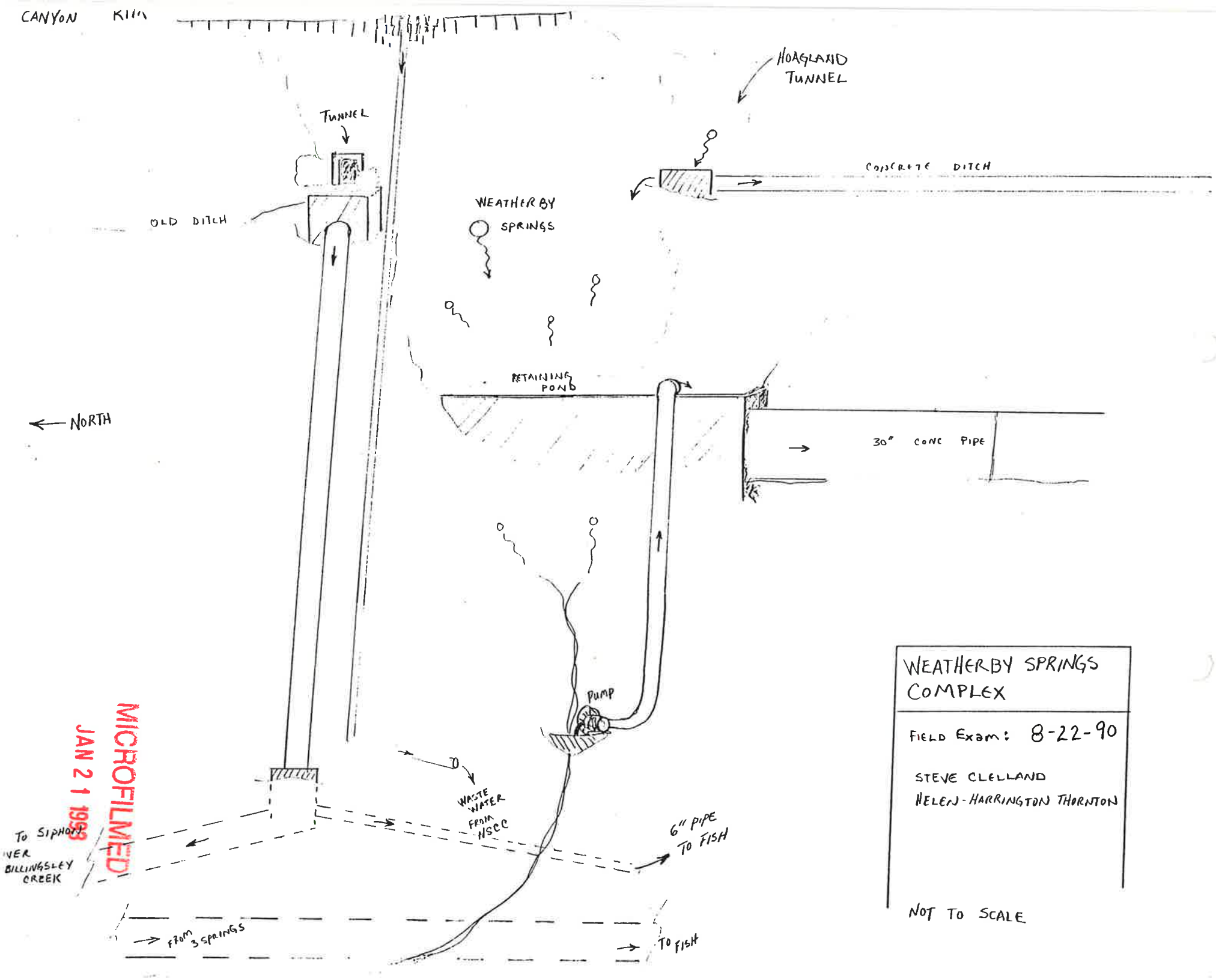
8-23-90

MICROFILMED

JAN 2 1 1993



MICROFILMED
JAN 2 1 1993



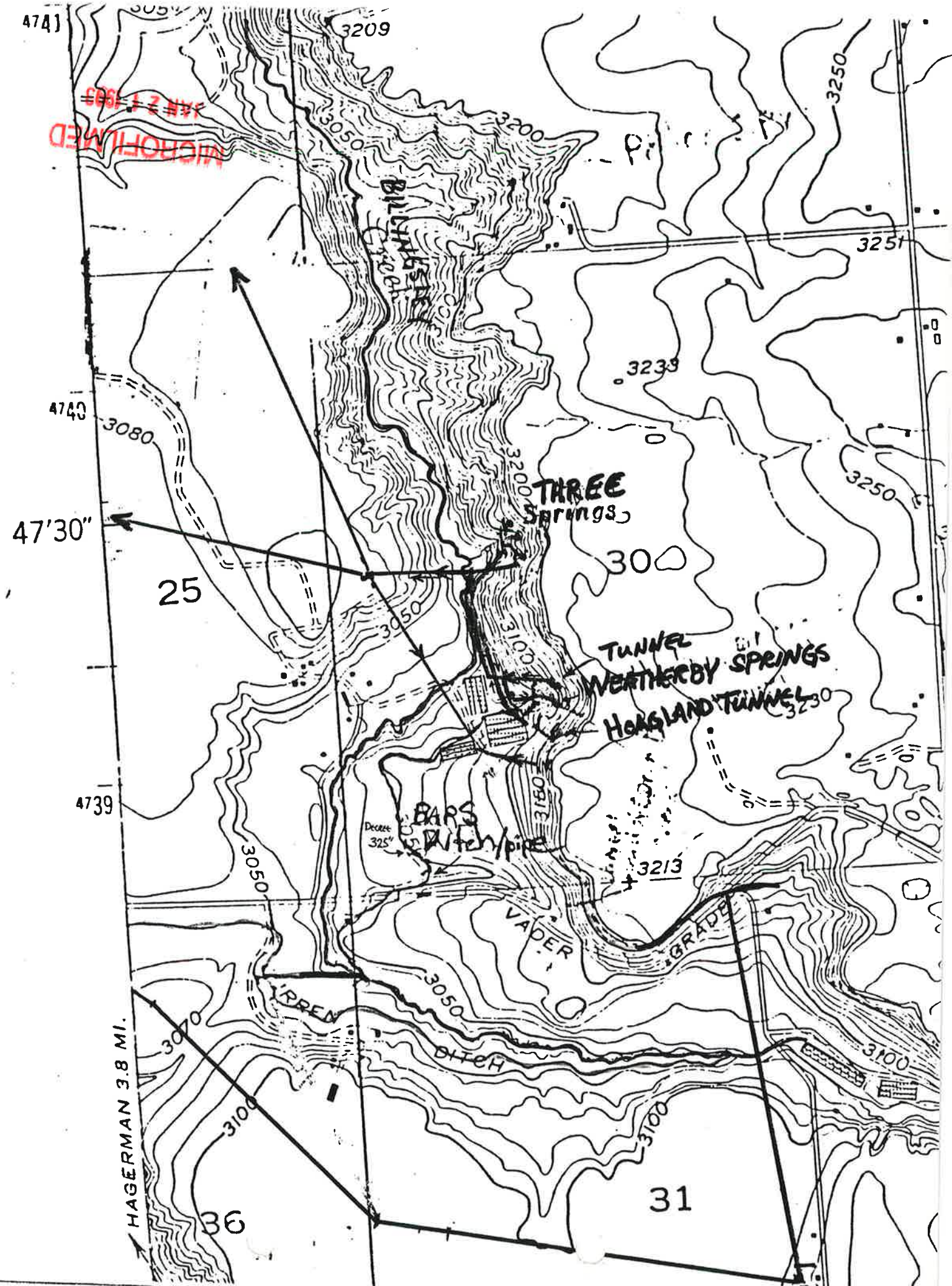
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JAN 21 1993

WEATHERBY SPRINGS COMPLEX

FIELD EXAM: 8-22-90

STEVE CLELLAND
HELEN-HARRINGTON THORNTON

NOT TO SCALE


4741
3209
3250
3200
3050
BULLHEAD CR.
3251
3239
4740
3080
3200
THREE
Springs
47'30"
25
30
3250
3050
3100
TUNNEL
WEATHERBY SPRINGS
HOAGLAND TUNNEL
3230
4739
BARS
Ditch/pipe
3150
3213
3050
VADER
GRADE
IRREN
DITCH
3070
3100
3100
HAGERMAN 3.8 MI.
36
31

IDAHO DEPARTMENT OF WATER RESOURCES
ADJUDICATION CLAIMS PROOF READING REPORT
(REGIONAL)

VERIFIED BY HHT

MICROFILMED
JAN 21 1993

Water Right Number - R36-00068

Prefix Translation: RESEARCH

Old (D) Number -

Last Name	First Name	Address
*** C - CURRENT OWNER *** JONES JR	JOHN W	1 - PO BOX 265 2 - 3 - City- HAGERMAN Phone - 208-837-4580 State- ID Zip- 83332
JONES	DELORIS D	1 - PO BOX 265 2 - 3 - City- HAGERMAN Phone - 208-837-4580 State- ID Zip- 83332

Priority Date: 02/01/1888

Region: 17 SOUTHERN

Stage: D - DECREED

Status:

Source: WEATHERBY SPRINGS

Tributary: BILLINGSLEY CREEK

Point of Diversion

Twn	Rng	Sec	Tract	Lot	RFlg	County
07S	14E	30	SE NE SW			(47) GOODING

Water Use

Code	Description	Period From	Period To	Diversion Rate	Diversion Volume
01	IRRIGATION	04/01	10/31	7.020	
43	DOMESTIC	01/01	12/31	0.110	
04	STOCKWATER	01/01	12/31	0.120	

Total Div. Rate: 7.250

Total Div. Volume:

Total Consumptive Use: 0.0

KW Usage:

Place of Use

Twn	Rng	Sec	Tract	Lot	Acres	Code	Description	County
07S	13E	25	NE NE		40.0	01	IRRIGATION	(47) GOODING
07S	13E	25	NW NE		40.0	01	IRRIGATION	(47) GOODING
07S	13E	25	SW NE		40.0	01	IRRIGATION	(47) GOODING
07S	13E	25	SE NE		40.0	01	IRRIGATION	(47) GOODING
07S	13E	25	NE SE		37.0	01	IRRIGATION	(47) GOODING
07S	13E	25	NW SE		38.0	01	IRRIGATION	(47) GOODING
07S	13E	25	SW SE		29.0	01	IRRIGATION	(47) GOODING
07S	13E	25	SE SE		38.0	01	IRRIGATION	(47) GOODING
07S	14E	30	NW NW	1	10.0	01	IRRIGATION	(47) GOODING
07S	14E	30	SW NW	2	21.0	01	IRRIGATION	(47) GOODING
07S	14E	30	NE SW		4.0	01	IRRIGATION	(47) GOODING
07S	14E	30	NW SW	3	25.0	01	IRRIGATION	(47) GOODING
07S	14E	30	SW SW	4	27.0	01	IRRIGATION	(47) GOODING
07S	14E	30	SE SW		12.0	01	IRRIGATION	(47) GOODING

MICROFILMED
JAN 21 1993

Water right number - R36-00068 Prefix Translation: RESEARCH

Place of Use

Twn	Rng	Sec	Tract	Lot	Acres	Code	Description	County
07S	14E	25	NE SE			04	STOCKWATER	(47) GOODING
07S	14E	30	NW SW	3		04	STOCKWATER	(47) GOODING
07S	14E	25	NE SE			43	DOMESTIC	(47) GOODING

Total Acres: 401.0

Diversion Means - HEADBOX & 36" PIPE FOR IRRIG., 18" PIPE FOR DOMEST, 150HP PUMP

Non-Irrigation Use - DOMESTIC, 5 HOMES; STOCKWATER, 500 RANGE

Other Rights for Same Use - 36-00070

Remarks

USE OF THIS RIGHT WITH RIGHT NO. 36-00070 IS LIMITED TO A TOTAL COMBINED DIVERSION RATE OF 7.25 CFS, A TOTAL COMBINED ANNUAL CONSUMPTIVE USE VOLUME OF 1203 AF, AND TO THE IRRIGATION OF A COMBINED TOTAL OF 401 ACRES IN A SINGLE IRRIGATION SEASON.

Old Water Right Numbers

3600068

Conditions of Approval

No Conditions of Approval found.

Decree Plaintiff	Decree Defendant	Decree Date
NEW INTERNATIONAL MORTGAGE BANK	IDAHO POWER COMPANY	00/00/0000

Comments

Date: 03/08/1991 User Id: BEDKE Subject: SCC-STAFF REVIEW
Date: 08/07/1992 User Id: CHRISTEN Subject: COPIED FROM REMARKS
WATER USED FOR IRRIG, FISH PROP., STOCK, & DOMESTIC. USES WATER FROM 4 DIFERENT WATER RIGHTS FOR A TOTAL OF 87.05 CFS.

Audit Fields
08/18/92 THORNTON

Adjudication Rights Dates and Flags Area

Court Report Filing	- 00/00/0000	Field Inspection Made	- 00/00/0000	Civil Case Number	- 39576
Objection Filed Date	- 00/00/0000	Field Inspection Flag	-	Old Case Number	-
Response Filed Date	- 00/00/0000	Verified Date	- 08/18/1992	Old Judicial District	-
Claim Received Date	- 08/19/1988	Last Amended Date	- 00/00/0000	Temporary Right	- P
		Receipt Number	- S001554	Water District	- 36A
		POU Ownership Flag	- Y	Federal/State Indicator	- S
		Name Connector	- AND/OR	Presumption Flag	-
				Notice of Error Flag	-

R PROOF

CVR

MAPS

PHOTOS

MISC

ED
OCT 12 1994

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

In Re the General Adjudication of the Rights to the Use of Water from the Snake River Basin Water System	Case No. 36-00068 -0001
The State of Idaho, ex rel. R. Keith Higginson in his official capacity as Director of the Idaho Department of Water Resources, Petitioner, vs. The United States; the State of Idaho; and all Claimants to the use of water from the Snake River Basin Water System, Respondents.	**RESPONSE TO OBJECTION**

I. GENERAL INFORMATION

1. Person responding to objection:

Name: R. KEITH HIGGINSON, DIRECTOR

Address: IDAHO DEPARTMENT OF WATER RESOURCES
P.O. BOX 44449
BOISE, ID 83711-4449

Briefly describe your interest in this water right:

IDWR is required to file a response to an objection to part I of the director's report pursuant to I.C. section 42-1412(2).

(Over)

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OCT 12 1994

2. Person who filed objection:

Name: DELORIS & JOHN W JONES JR
Address: PO BOX 265
HAGERMAN ID 83332

3. If this response is filed by an attorney:

Attorney Name(s): NICHOLAS B. SPENCER

Attorney Address: DEPUTY ATTORNEY GENERAL(S)
IDAHO DEPARTMENT OF WATER RESOURCES
P.O. BOX 44449
BOISE, ID 83711-4449

Attorney Phone No.: (208) 327-7900

II. STATEMENT OF THE RESPONSE

3. |X| Quantity: I respond to the objection concerning:

3a. |X| The total quantity of water used in cubic feet per second.

8. |X| Period of Year: I respond to the objection concerning the period of year when water is used or is necessary for the purpose stated.

9. |X| Place of Use: I respond to the objection concerning:

9a. |X| The legal description of the place of use.

10. |X| Consumptive Use: I respond to the objection concerning the annual volume of consumptive use.

11. |X| Remarks: I respond to the objection concerning the "remarks" listed with the water right.

14. |X| Other: I respond to the objection concerning:

ALL MATTERS RAISED IN THE CLAIMANTS' ANSWER, AFFIRMATIVE DEFENSES, AND PRAYER FOR RELIEF.

REASONS SUPPORTING EACH BOX CHECKED

In response to Statement of the Objection items 3 and 3.a, and all allegations of the objection regarding those items, IDWR responds as follows: (1) it recommended the amount of water it determined was being beneficially used; (2) the claimants are not entitled to any amount greater than that which is beneficially used (Idaho Code Secs. 42-104 and 42-1402); (3) the recommendation of the director to the SRBA Court as to how the right should be decreed does not constitute a taking because it is simply a recommendation and not a final determination of the right; and (4) the eventual decree by the SRBA Court of the amount of water beneficially used, even if less than the amount previously decreed, will not constitute a taking because the right is limited to that amount beneficially used.

In response to Statement of the Objection item 8, and all allegations of the objection regarding this item, IDWR responds as follows: The decree asserted by the claimants does not contain a period of use decreed for this water right. Idaho Code 42- 1411(2)(g) requires the director to determine the period of use of each water right acquired under state law that is recommended in the director's report. IDWR has developed irrigation season of use standards for various climatic areas throughout the state based on a 75% chance of a 24 degree fahrenheit frost. The irrigation season of use cannot exceed the period in which water may be beneficially used. The period of the year during which this water right may be used is consistent with the standard irrigation season of use for the area in which the place of use of this water right is located. Water may be used for irrigation outside the standard season of use, subject to the conditions set forth in general provision 12b of the director's report. In further response to this objection item, IDWR responds that for each use claimed it recommended the season of use as claimed.
IDWR further responds to this item that by identifying in the objection a season of use that the claimant did not list on the notice of claim, the claimant improperly seeks to use the objection process to amend the claim. A claimant must obtain leave of the court to amend a claim after a director's report is filed, just as a party must obtain leave of the court to file a late claim after the director's report is filed. Once leave of the court is granted, IDWR can investigate the amended claim and make an appropriate recommendation to the court.

In response to Statement of the Objection 9 and 9.a, and all

(Over)

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OCT 12 1994

allegations of the objection regarding those items, IDWR responds that there is an error in the description of the place of use of the right for domestic and stockwater uses in the director's report. The recommendation should be corrected as shown in the attachment entitled "Recommended Water Rights Acquired Under State Law." In further response to these objection items, IDWR responds that the recommended water right accurately describes the irrigation place of use of the right.

In response to Statement of the Objection item 10 and all allegations of the objection regarding this item, IDWR responds as follows: (1) The decree asserted by the claimants did not set an annual volume of consumptive use for this water right. (2) Idaho Code Sec. 42-1411(2)(i) requires the director to determine the annual volume of consumptive use for each water right acquired under state law and recommended in the director's report. (3) Idaho Code Sec. 42-1401A(2) provides that the quantification of consumptive use "is included as a rebuttable presumption in a decree only for the purpose of transfers pursuant to section 42-222, Idaho Code"; therefore, the consumptive use recommended for this water right is included solely for use in future transfer proceedings. (4) The annual volume of consumptive use recommended for this right is 3 acre feet per acre. This is the maximum volume of water consumed by the most water consumptive crop (pasture) that can be grown in the area during the period of year when water is used for irrigation, as provided for by Idaho Code Sec. 42-1401A(2). (5) The recommendation of the director to the SRBA Court as to how the right should be decreed does not constitute a taking because it is simply a recommendation and not a final determination of the right. (6) The eventual decree by the SRBA Court of the amount of water beneficially used, even if less than the amount previously decreed, will not constitute a taking because the right is limited to that amount beneficially used.

In response to Statement of the Objection item 11, and all allegations of the objection regarding that item, IDWR responds that there is an error in the portion of the remarks describing water used for stockwater purposes. The recommendation should be corrected as shown in the attachment entitled "Recommended Water Rights Acquired Under State Law." IDWR further responds to this objection item that IDWR has authority pursuant to Idaho Code Sec. 42-1411(2)(j) to include in its recommendations of water rights acquired under state law and recommended in the director's report "such other matters as are necessary to define the right." The remark or remarks objected to are necessary to adequately describe and define this water right.

In response to Statement of the Objection item 14, and all allegations of the objection regarding that item, see attached "IDWR's Response to Answer Affirmative Defenses and Prayer for Relief of Claimant".

In response to the sentence listed in Changes to the Director's Report, whereby the claimants attempt to "reserve the right to claim all purposes of use and quantities of use as shown by the evidence at trial," IDWR responds as follows: Insofar as this purported reservation of rights may constitute an attempt to reserve the right to amend at trial the claimants' notice of claim, the claimants improperly seek to use the objection process to amend the claim. A claimant must obtain leave of the court to amend a claim just as a party must obtain leave of the court to file a late claim after the director's report is filed.

CHANGES TO THE DIRECTOR'S REPORT

See attached List of Recommended Water Rights Acquired under State Law.

|X| Check here if you are submitting documents. Please list each document by the title and number of pages. You may use additional pages if necessary:

	No. of Pages
Notice of Claim No. A36-00068	5
IDWR's Response to Answer, Affirmative Defenses and Prayer for Relief of Claimant	4
Recommended Water Rights Acquired Under State Law	1

(Over)

MICROFILMED
OCT 12 1994

VERIFICATION (Must be Completed)

State of IDAHO

County of ADA

David B. Shaw, being first duly sworn, upon oath, deposes and says:

That R. Keith Higginson, in his official capacity as director of the Idaho Department of Water Resources, is a party to this proceeding, as defined by I.C. 42-1401A(1) and (7); that I am the Adjudication Bureau Chief for IDWR and am authorized by R. Keith Higginson, in his official capacity as director of IDWR, to verify this response; and that I have read the foregoing response, know its contents and that the statements contained therein are true to the best of my knowledge and belief.

Signature of person filing response

By: Nick Spencer
(Attorney signing in representative capacity)

Subscribed and sworn to before me this 1st day of September, 1993.

SHELLEY WALTER KEEN NOTARY PUBLIC STATE OF IDAHO

Shelley Walter Keen
Notary Public for Idaho
Residing at: Boise, Idaho
My Commission expires: July 31, 1997

CERTIFICATE OF MAILING

I hereby certify that on the 1st day of September, 1993, I mailed the original and copies of the foregoing response, including all attachments, to the following persons, by mailing the original and/or true and correct copies, postage prepared and addressed as follows:

1. Original to:

   Clerk of the District Court
   Snake River Basin Adjudication
   253 Third Avenue North
   P.O. Box 2707
   Twin Falls, Idaho 83303-2707

2. One copy to the owner of the water right, and you must fill in the following information:

   See No. 3

3. One copy to the party who filed the objection, or if represented by an attorney, to their attorney; and you must fill in the following information:

   Name: HEPWORTH NUNGESTER & LEZAMIZ
   Address: PATRICK D BROWN
   & PENELOPE PARKER
   PO BOX 389
   TWIN FALLS ID 83303

4. One copy to:

   United States Department of Justice
   Environment and Natural Resource Division
   550 West Fort Street, Box 33
   Boise, Idaho 83734

Nick Spencer

Signature of Respondent or attorney mailing on Respondent's behalf

MICROFILMED
OCT 12 1994

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE STATE OF IDAHO,
IN AND FOR THE COUNTY OF TWIN FALLS

IN RE THE GENERAL ADJUDICATION OF RIGHTS TO THE USE OF WATER FROM THE SNAKE RIVER BASIN WATER SYSTEM.

CIVIL CASE NUMBER: 39576

Ident. Number: **A36-00068**
Date Received: 8/19/1988
Receipt No: S001554
Received By: lw

NOTICE OF CLAIM TO A WATER RIGHT ACQUIRED UNDER STATE LAW

1. Name: JOHN JONES, JR. 208-837-4580
   Address: BOX 265
   HAGERMAN, ID 83332
   AND/OR
   Name: DELORIS D. JONES, JR. 208-837-4580
   Address: BOX 265
   HAGERMAN, ID 83332

2. Date of Priority: FEB 01, 1888

3. Source: WEATHERBY SPRINGS Trib. to: BILLINGSLEY CREEK

4. Point of Diversion:

Township	Range	Section	1/4 of 1/4 of 1/4	Lot	County
07S	14E	30	NE SW		GOODING

5. Description of diverting works:
   HEADBOX & 36" PIPE FOR IRRIG., 18" PIPE FOR DOMEST, 150HP PUMP

6. Water is used for the following purposes:

Purpose	From	To	C.F.S (or)	A.F.A.
IRRIGATION	03/15	11/15	12.500	
DOMESTIC	01/01	12/31	0.110	
STOCKWATER	01/01	12/31	0.120	

7. Total Quantity Appropriated is:
   12.500 C.F.S. (and/or) A.F.A.

8. Total consumptive use is Acre Feet Per Annum.

9. Non-irrigation uses:
   D/5 HOUSES, S/500 BEEF CATTLE

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OCT 12 1994

10. Place of Use:

Township	Range	Section	1/4 of 1/4		Lot	Use	Acres
07S	13E	25	NE	NE		IRR	40.0
			NW	NE		IRR	40.0
			SW	NE		IRR	40.0
			SE	NE		IRR	40.0
			NE	SE		IRR	40.0
			NW	SE		IRR	40.0
			SW	SE		IRR	29.0
			SE	SE		IRR	40.0
					Section Acres		309.0
	14E	30	NW	NW	1	IRR	32.0
			SW	NW	2	IRR	32.0
			NE	SW		IRR	40.0
			NW	SW	3	IRR	32.0
			SW	SW	4	IRR	32.0
			SE	SW		IRR	40.0
					Section Acres		208.0
					Total Acres		517.0

11. Place of use in counties: GOODING

12. Do you own the property listed above as place of use? YES

13. Other Water Rights Used:
A36-07071, A36-00069, A36-00070

14. Remarks:
WATER USED FOR IRRIG, FISH PROP., STOCK, & DOMESTIC. USES WATER FROM 4 DIFERENT WATER RIGHTS FOR A TOTAL OF 87.05 CFS.

15. Basis of Claim: DECREED
Case Number:
Court :
Decree date:

NEW INTERNATIONAL MORTGAGE BAN
Decree Plaintiff

vs

IDAHO POWER COMPANY
Decree Defendant

MICROFILMED
OCT 12 1994
JAN 21 1993

16. Signature(s)

(a.) By signing below, I/We acknowledge that I/We have received, read and understand the form entitled "How you will receive notice in the Snake River Basin Adjudication." (b.) I/We do ____ do not ✓ wish to receive and pay a small annual fee for monthly copies of the docket sheet.

Number of attachments: 2

For Individuals:

I/We do solemnly swear or affirm that the statements contained in the foregoing document are true and correct.

Signature of Claimant(s): John W. Jones Jr. Date: Aug 19 1988

Date:

State of Idaho)
) SS.
County of Twin Falls)

Subscribed and sworn (or affirmed) before me this 19th day of August 19 88

Roxanne Storey
Notary Public

Seal

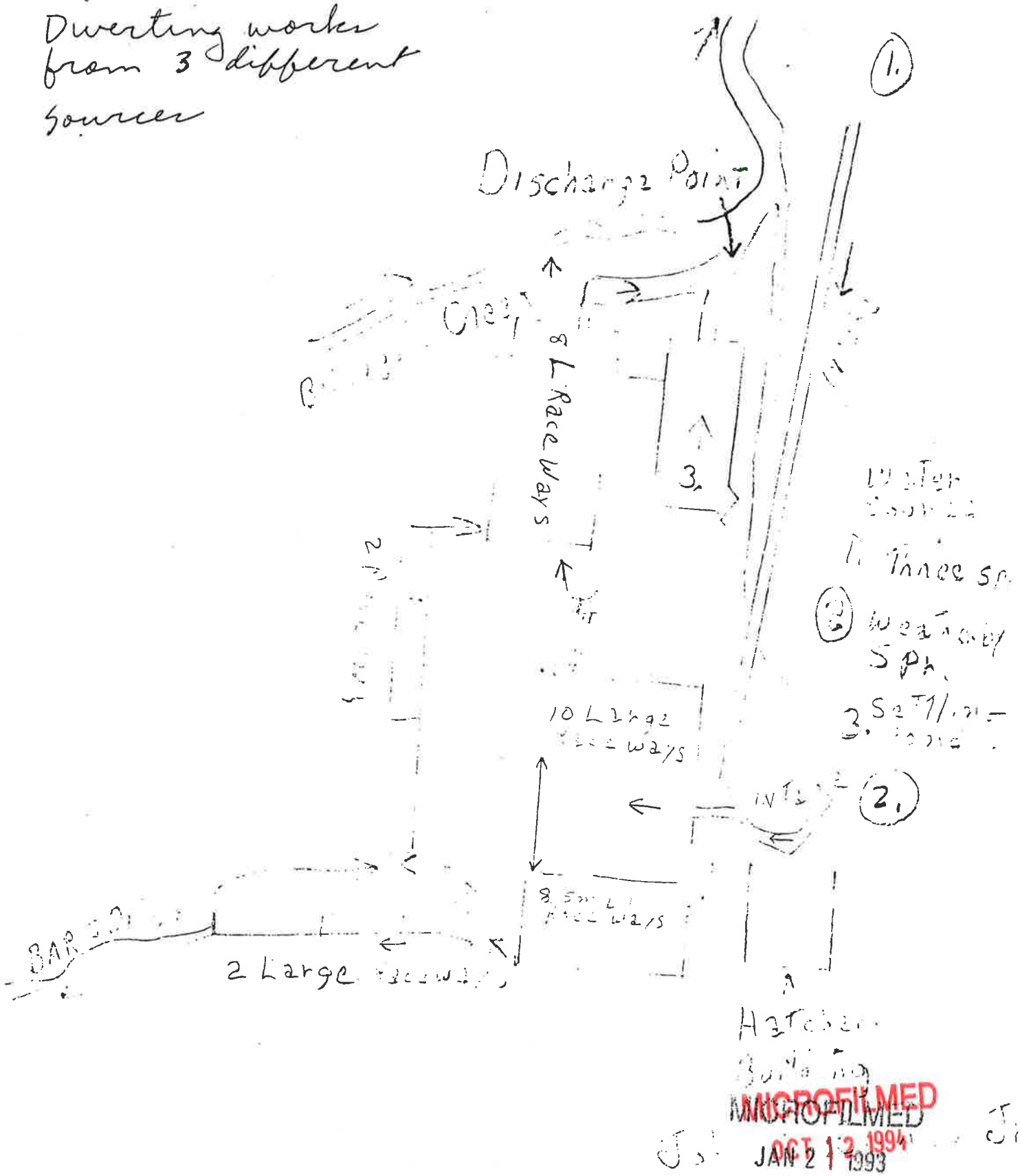
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My Commission Expires 6-30-94

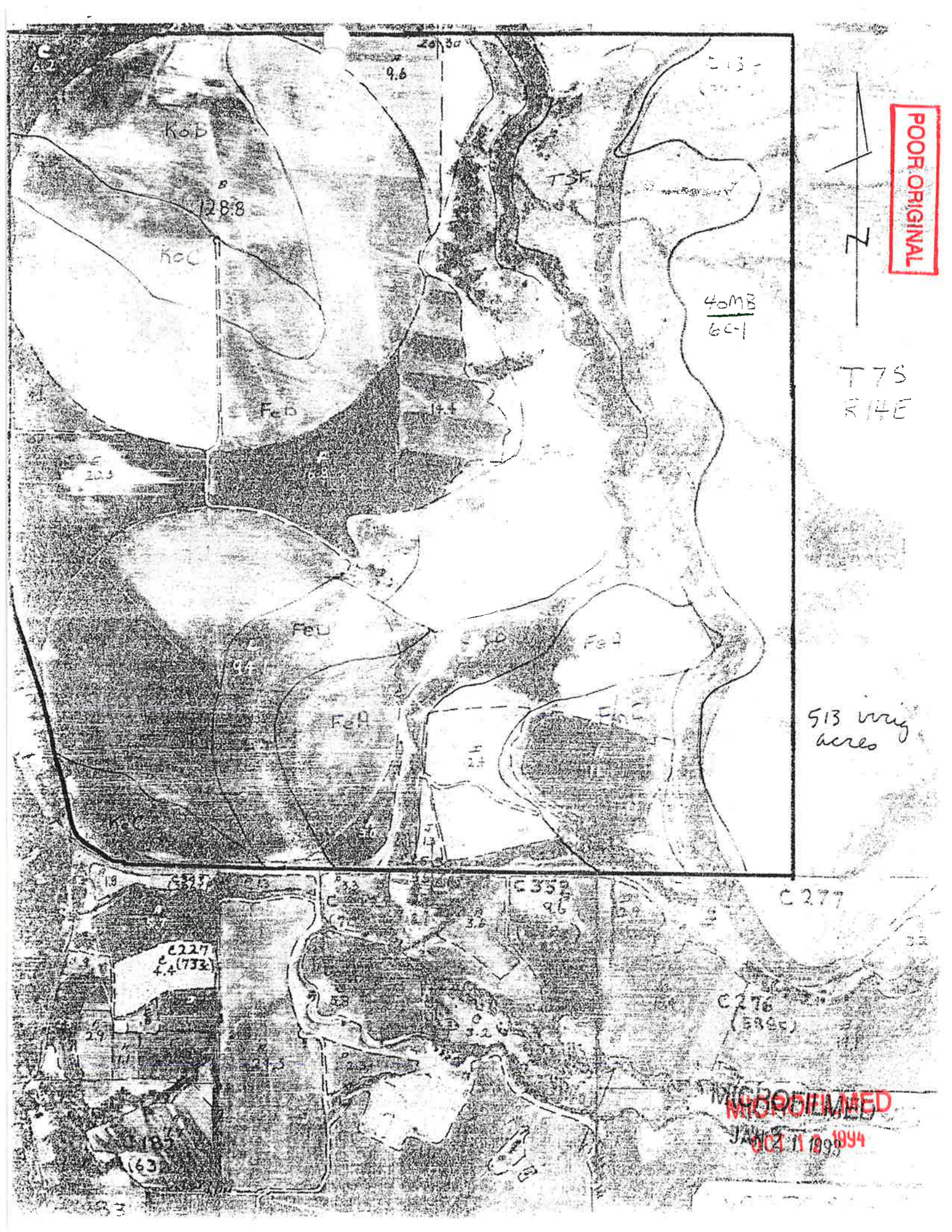
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POOR ORIGINAL

Diverting works from 3 different sources



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IDWR'S RESPONSE TO ANSWER, AFFIRMATIVE DEFENSES AND PRAYER FOR RELIEF OF CLAIMANT

This portion of the response addresses the multi-page attachment to the objection (hereinafter "the attachment"), wherein the claimant admits or denies all sections of Parts I, II, and III of the director's report, asserts 27 affirmative defenses, and alleges a prayer for relief. The attachment contains the following sections, corresponding to the various sections of the director's report:

(1) I. GENERAL RESPONSE
(2) II. DESCRIPTIVE SUMMARY, (first unnumbered page of Part I of the director's report)
(3) III. TABLE OF CONTENTS (second and third unnumbered pages of Part I of the director's report)
(4) IV. 1. **INSTRUCTIONS FOR USING THIS REPORT PART I** (page 1 of Part I of the director's report)
(5) IV. 2. **SCOPE OF THE ADJUDICATION** (pages 1-3 of Part I of the director's report)
(6) IV. 3. **PURPOSE OF THIS REPORT PART I** (pages 3-4 of Part I of the director's report)
(7) V. 1. **BOUNDARIES OF BASIN** (pages 4-6 of Part I of the director's report)
(8) V. 2. **WATER SOURCES** (page 6 of Part I of the director's report)
(9) V. 3. **DEVELOPMENT OF WATER USE** (pages 6-9 of Part I of the director's report)
(10) VI. **GENERAL PROVISIONS 1-8 APPLY TO ALL WATER RIGHTS IN BASIN 36** (page 9 of Part I of the director's report)
(11) VI. General Provision **1. EFFECT OF ADJUDICATION** (page 9 of Part I of the director's report)
(12) VI. General Provision **2. GENERAL ADMINISTRATIVE PROVISIONS** (pages 9-10 of Part I of the director's report)
(13) VI. General Provision **3. CONJUNCTIVE ADMINISTRATION** (page 10 of Part I of the director's report)
(13) VI. General Provision **4. ADMINISTRATION OF GROUND WATER RIGHTS** (page 10 of Part I of the director's report)
(14) VI. General Provision **5. ADMINISTRATION OF BASIN 36 RELATIVE TO THE SNAKE RIVER** (page 10 of Part I of the director's report)
(15) VI. General Provision **6. ADMINISTRATION OF SMALL DOMESTIC AND STOCK WATER RIGHTS** (page 11 of Part I of the director's report)
(16) VI. General Provision **7. MEASURING DEVICES AND CONTROL**

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WORKS (page 11 of Part I of the director's report)

(17) VI. General Provision **8. FIRE FIGHTING PURPOSES** (page 11 of Part I of the director's report)

(18) VI. General Provision **9. CONSUMPTIVE USE** (page 12 of Part I of the director's report)

(19) VI. **GENERAL PROVISION 10 APPLIES TO ALL WATER RIGHTS IN BASIN 36 SHOWN WITH DOMESTIC USE AS A PURPOSE OF USE** (page 12 of Part I of the director's report)

(20) VI. General Provision **10. DOMESTIC USE** (page 12 of Part I of the director's report)

(21) VI. **GENERAL PROVISION 11 APPLIES TO ALL WATER RIGHTS IN BASIN 36 SHOWN WITH STOCK WATER USE AS A PURPOSE OF USE** (page 13 of Part I of the director's report)

(22) VI. General Provision **11. STOCK WATER USE** (page 13 of Part I of the director's report)

(23) VI. **GENERAL PROVISIONS 12-16 APPLY TO ALL WATER RIGHTS IN BASIN 36 SHOWN WITH IRRIGATION AS A PURPOSE OF USE** (page 13 of Part I of the director's report)

(24) VI. General Provision **12. IRRIGATION USE** (pages 13-14 of Part I of the director's report)

(25) VI. General Provision **13. DIVERSION VOLUME FOR IRRIGATION** (page 14 of Part I of the director's report)

(26) VI. General Provision **14. CONSUMPTIVE USE FOR IRRIGATION** (pages 14-15 of Part I of the director's report)

(27) VI. General Provision **15. AMOUNT OF COMBINED WATER RIGHTS FOR IRRIGATION** (page 15 of Part I of the director's report)

(28) VI. General Provision **16. DIVERSION RATES IN EXCESS OF .02 CFS PER ACRE** (pages 15-16 of Part I of the director's report)

(30) VI. **17. INSTRUCTIONS FOR USE OF LIST OF RECOMMENDED WATER RIGHTS** (pages A-i through A-iii of Part I of the director's report)

(31) VI. **18. IDAHO DEPARTMENT OF WATER RESOURCES RECOMMENDED WATER RIGHTS ACQUIRED UNDER STATE LAW** (pages A-1 through B-25 of Part I of the director's report)

(32) **DIRECTOR'S REPORT FOR REPORTING AREA 3 (BASIN 36),** (DIRECTOR'S REPORT PART II)

(33) **DIRECTOR'S REPORT FOR REPORTING AREA 3 (BASIN 36),** (DIRECTOR'S REPORT PART III)

The attachment also contains part VIII, **AFFIRMATIVE DEFENSES** (pp. 20 through 28) and a **PRAYER FOR RELIEF** (untitled, p. 28).

In response to each of the items enumerated above IDWR responds that pursuant to Section 4 a.(2)(c) of SRBA Administrative Order 1, Rules of Procedure, IDWR generally denies each and every allegation, if any, contained in each enumerated portion of the attachment. IDWR affirmatively responds that neither SRBA Administrative Order 1, Rules of Procedure, nor Title 42, Chapter 14, Idaho Code, make provision for IDWR to affirm, amplify, or otherwise respond to the claimant's admissions, or to deny the claimant's denials, and that IDWR therefore does not believe that it is required to do so. Title 42, Chapter 14, Idaho Code solely defines the content and scope of the director's report. It is to contain a description of the water system and is to provide a recommendation as to each water right claimed and as to those matters necessary for administration of those water rights. Therefore, the content and scope of the objection is limited to those same matters. The attachment to the present objection asserts or otherwise raises matters not directly addressing the elements of the water right as recommended, the description of the water system, or the general provisions. Rather, the attachment raises broad issues as to the constitutional, statutory and administrative efficacy of the entire adjudication process. All such issues should be raised by means of motions to designate basinwide issues and similar procedural vehicles specifically designed to provide for basinwide notice and participation. They should not be permitted to divert the focus of any individual subcase away from the issues directly connected to the elements of the water right and the administration thereof. Therefore, because the attachment to the present objection is not within the scope of the statutory purpose of an objection it should be stricken.

However, in the event that the court should determine that all or part of the attachment is properly within the scope of the objection, IDWR further responds as follows:

IDWR affirmatively responds that all statements within the director's report are properly included therein pursuant to Title 42, Chapter 14, Idaho Code, and in particular pursuant to Idaho Code §§ 42-1411 and 42-1412(8); and that the provisions of the Idaho Rules of Civil Procedure regarding pleadings are inapplicable to the extent that they are in conflict with the statutory requirements. Therefore IDWR denies all allegations directed at the contents of the director's report.

As to the enumerated portions of the attachment addressing the listings of recommended water rights, abstracts of federal reserved water right claims, or negotiated agreements, other than the individual recommendation that is the subject of this objection, IDWR responds that such claims or agreements are not brought before this court by this objection.

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Responding to the 27 affirmative defenses asserted in the attachment, IDWR generally denies each and every affirmative defense asserted. IDWR further responds that affirmative defense numbers 1, 2, 4, 5, 10, 11, 12, 18, and 22, asserting various violations of civil or constitutional rights, fail to comply with the requirements I.R.C.P. 9(b) providing that in all averments of violation of civil or constitutional rights the factual circumstances constituting such violation must be stated with particularity. Accordingly, IDWR asserts that those affirmative defenses should be stricken.

In response to that portion of the multi-page attachment to the objection wherein the claimant asserts a prayer for relief, IDWR responds as follows:

1. IDWR denies that the director's report asserts any claims against the claimant; rather, the director's report contains only the recommendation of the director as to how the claimant's water right should be decreed and administered.

2. IDWR denies that the claimant is entitled to have the water right decreed as claimed unless in the director's report the water right has been recommended as claimed.

3. IDWR denies that any acts upon its part constitute the taking of private property for which just compensation should be allowed and awarded.

4. IDWR denies that the claimant is entitled to recover court costs and reasonable attorney fees.

5. IDWR denies that the claimant by this objection has raised any claims against IDWR entitling such claimant to any relief other than the eventual judicial determination and decree of the various elements of the claimant's water right, if any, and of those related matters necessary to describe and administer that water right.

AJ5856NP

IDAHO DEPARTMENT OF WATER RESOURCES
RECOMMENDED WATER RIGHTS ACQUIRED UNDER STATE LAW

DATE: AUG-31-1993
PAGE: A-1

MICROFILED OCT 12 1993

RIGHT NUMBER	NAME & ADDRESS	PRIORITY DATE	PURPOSE OF USE	PERIOD OF USE FROM	TO	MAXIMUM QUANTITY		BASIS OF CLAIM
	SOURCE: WEATHERBY SPRINGS		TRIBUTARY: BILLINGSLEY CREEK					
36-00068	JOHN W JONES JR DELORIS D JONES PO BOX 265 HAGERMAN ID 83332	02/01/1888	IRRIGATION	03-15	11-15	8.02	CFS	DECREED
			DOMESTIC	01-01	12-31	.11	CFS	
			STOCKWATER	01-01	12-31	.12	CFS	
			TOTAL QUANTITY:			8.25	CFS	

NON-IRRIGATION-USES:
DOMESTIC, 5 HOMES; STOCKWATER, 500 RANGE

POINT OF DIVERSION:
T07S R14E S30 SENESW

PLACE OF USE: IRRIGATION

T07S R13E S25		NENE 40.0		NWNE 40.0		SWNE 40.0		SENE 40.0			
		NESE 37.0		NWSE 38.0		SWSE 29.0		SESE 38.0			
R14E S30	Lot 1	(NWNW) 10.0	Lot 2	(SWNW) 21.0		NESW 4.0	Lot 3	(NWSW) 25.0			
	Lot 4	(SWSW) 27.0		SESW 12.0							

401.0 ACRES TOTAL

PLACE OF USE: DOMESTIC
T07S ~~R14E~~ R13E S25 NESE

PLACE OF USE: STOCKWATER

T07S ~~R14E~~ R13E S25 NESE
~~R14E~~ S30 Lot 3 (NWSW)

REMARKS: ~~THE APPROPRIATOR IS ENTITLED TO THE AMOUNT OF WATER DESCRIBED ABOVE FOR STOCKWATER PURPOSES AT A POINT OF MEASUREMENT WHERE THE DELIVERY DITCH ENTERS THE PLACE OF USE DESCRIBED ABOVE.~~

~~THE PORTION OF THIS RIGHT FOR STOCKWATER PURPOSES MAY BE DIVERTED SO LONG AS THE AMOUNT OF WATER DIVERTED AT THE POINT OF DIVERSION FOR STOCKWATER PURPOSES DOES NOT CONSTITUTE UNREASONABLE WASTE AND DOES NOT CONFLICT WITH THE PUBLIC INTEREST, AS DETERMINED BY THE DIRECTOR.~~

USE OF THIS RIGHT WITH RIGHT NO. 36-00069 IS LIMITED TO A TOTAL COMBINED DIVERSION RATE OF 8.25 CFS, A TOTAL COMBINED ANNUAL CONSUMPTIVE USE VOLUME OF 1203 AF, AND TO THE IRRIGATION OF A COMBINED TOTAL OF 401 ACRES IN A SINGLE IRRIGATION SEASON.

State of Idaho
DEPARTMENT OF WATER RESOURCES
Southern Region, 222 Shoshone St. East, Twin Falls, Idaho 83301 (208) 736-3033

CECIL D. ANDRUS
Governor

R. KEITH HIGGINSON
Director

01-Feb-1993

JOHN W JONES JR
BOX 265
HAGERMAN ID 83332

RE: Copy of SRBA File(s): 36-00068, 36-00069, 36-00070, 36-07071

Dear Mr. Jones:

Please find enclosed the copies of documents you recently requested contained in the above referenced SRBA file(s) as of this date. Please note that copies of orthophoto quad maps or NAPP photography or aerial slides which may have been used in the review of your claim(s) have not been included since they are not easily reproduced. These items are however available for your review at our office. Please also note that in some situations some water rights may have other associated files which contain privileged information between IDWR staff and our legal council which has not been copied.

Please remit the following for the cost of the copies and postage:

$12.17

Sincerely,

Jeanie Robertson
Records Clerk

Encl:

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OCT 12 1994

RECEIVED
JAN 27 1993
Department of Water Resources
Southern Region Office

Jan 25, 1993
(Date)

IDAHO DEPARTMENT OF WATER RESOURCES
222 SHOSHONE ST. EAST
TWIN FALLS, IDAHO 83301

Dear Idaho Department of Water Resources:

Please provide me with a copy of all information included in my file as it relates to water right number 36-00068; 36-00069 36-07071; 36-00070.

Please advise me of any documents in my file which you are not releasing to me and why they are not being released.

Please bill me for the copy charge.

Sincerely,

John W. Jones Jr.
John W. Jones Jr.
(Name)

Box 265
(Address)

Hagerman, Idaho 83332
(City, State, Zip Code)

cc: David B. Shaw, Adjudication Bureau Chief
Idaho Department of Water Resources
1301 North Orchard Street
Statenouse Mail
Boise, Idaho 83720-9000

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RECEIVED
APR 30 1993
Department of Water Resources
Adjudication Bureau

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

In Re the General Adjudication of Rights to the Use of Water from the Snake River Basin Water System

The State of Idaho, ex rel. R. Keith Higginson in his official capacity as Director of the Idaho Department of Water Resources,

Petitioner,

vs.

The United States; the State of Idaho; and all Claimants to the use of water from the Snake River Basin Water System,

Respondents.

Case No. A36-00068
(You must insert the water right number you are objecting to)

OBJECTION

36-00068 -0001/
93-04-0072

INSTRUCTIONS

This form must be used to file an objection to any water right recommended in the Director's Report. You may object to one water right per objection form. The water right number you are objecting to must be indicated above in the blank space following "Case No." To object to more than one water right, you must file a separate objection form for each. Forms may be obtained from the Idaho Department of Water Resources (IDWR), or you may copy or reproduce this blank form, as long as it is identical to the court's form. You must file your objection by the deadline shown in the notice that IDWR mailed to you. The objection must be **received** by the court on or before the deadline specified. Instructions for mailing this objection are found at Page 6, and must be strictly followed.

Any party physically filing 25 (twenty-five) or more objections must make an appointment with the Clerk of the Adjudication Court and arrange for an appointment to file multiple objections.

(Over)

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OCT 12 1994

By filing an objection form, you are certifying that the objection is well-grounded in fact; is warranted by existing law or a good-faith argument for the extension, modification or reversal of existing law; and that it is not filed for any improper purpose, such as to harass, cause unnecessary delay or needless increase in the cost of litigation.

I. GENERAL INFORMATION

Please fill in the following information:

1. Person objecting:

   Name: Deloris D. & John W. Jones, Jr.

   Address: P.O. Box 265

   Hagerman, ID 83332

   Briefly describe your interest in this water right:

   Decreed water right pursuant to New International Mortgage Bank v. Idaho Power Company dated March 22, 1932 with priority date of 02/01/1888

2. Owner of the water right:

   Name: Deloris D. & John W. Jones, Jr.

   Address: P.O. Box 265

   Hagerman, ID 83332

3. If this objection is filed by an attorney:

   Attorney Name: Hepworth, Nungester & Lezamiz

   Attorney Address: P. Parker & Patrick D. Brown

   P.O. Box 389, Twin Falls, ID 83303

   Attorney Phone No.: (208)734-7510; Fax: (208)734-4115

If filed by an attorney, notice of pending court proceedings will be sent to the attorney only.

II. STATEMENT OF THE OBJECTION

Please check each "box" which states your objection to the recommendation in the Director's Report.

1. ☐ Name and Address: I object to the name and/or address of the owner of the water right.

2. ☐ Source: I object to the source of water.

3. ☒ Quantity: I object to:

   a. ☒ the total quantity of water used in cubic feet per second; or

   b. ☐ the total quantity of water stored in acre-feet per year; or

   c. ☐ the total quantity of water reserved for each and every purpose, including all present and future uses.

4. ☐ Priority Date: I object to the priority date.

5. ☐ Points of Diversion: I object to the legal description of the point(s) of diversion.

6. ☐ Instream Flow: I object to the legal description of the beginning and ending points of the instream flow.

7. ☐ Purpose(s) of Use: I object to the purpose(s) of use.

8. ☒ Period of Year: I object to the period of year when water is used or is necessary for the purpose stated.

9. ☒ Place of Use: I object to:

   a. ☒ the legal description of the place of use; or

   b. ☐ the number of irrigated acres within each forty (40) acre subdivision.

10. ☒ Consumptive Use: I object to the annual volume of consumptive use.

11. ☒ Remarks: I object to the "remarks" listed with the water right.

(Over)

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12. ☐ Water Right Recommendation: I object to:

a. ☐ this water right being recommended at all; or

b. ☐ this water right not being recommended.

13. ☐ Description of Reservation: I object to the legal description of the reservation.

14. ☒ Other: I object to: See Attached

REASONS SUPPORTING EACH BOX CHECKED

In the space following, you must state the reason(s) by number for each box checked. You may use additional pages if necessary.

See Page 7

CHANGES TO THE DIRECTOR'S REPORT

Specifically describe how you want the Director's Report to be changed. You may use additional pages if necessary.

Period of use: 1/01 - 12/31; Place of use: 517 acres;

Maximum quantity: as decreed with corresponding chage in

consumptive use; Remarks: strike all remarks

Please note: You should attach copies of documents which support your objection. Note on each document the "box number" it supports.

[X] Check here if you are submitting documents. Please list each document by the title and number of pages. You may use additional pages if necessary. _____

See Hagerman Water Right Owners, Inc.'s Compendium "A"

VERIFICATION (Must be Completed)

State of Idaho

County of Gooding

John W. Jones, Jr., being first duly sworn, upon oath, deposes and says:
(Name of person filing objection)

That I am the person or entity filing this objection, that I am a water claimant or party in this proceeding, as defined by I.C. Sec 42-1401A(1) and (7), and that I have read the foregoing objection, know its contents and that the statements contained therein are true to the best of my knowledge and belief.

John W Jones Jr.
Signature of person filing objection

By: _____
(Attorney signing in representative capacity)

Subscribed and sworn to before me this 19th day of April, 1993.

Notary Public for Idaho
Residing at: Hagerman Idaho
My Commission Expires: 5-10-97

(Over)

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INSTRUCTIONS FOR MAILING

You must mail the objection, including all attachments, to the Clerk of the Court. **FAX filings will not be accepted by the Clerk of the Court.** You must also send a copy to the owner of the water right, if other than yourself; to the Office of the Attorney General, State of Idaho; and to the United States Department of Justice, as set out below in the Certificate of Mailing. Finally, you must sign the Certificate of Mailing to show that you followed these steps.

CERTIFICATE OF MAILING

I hereby certify that on the 20 day of April, 1993, I mailed the original and copies of the foregoing objection, including all attachments, to the following persons, by mailing the original and/or true and correct copies, postage prepaid and addressed as follows:

1. Original to:

   Clerk of the District Court
   Snake River Basin Adjudication
   253 Third Avenue North
   P.O. Box 2707
   Twin Falls, Idaho 83303-2707

2. One copy to the owner of the water right, and you must fill in the following information:

   Owner name: Deloris D. & John W. Jones, Jr.

   Owner's address: P.O. Box 265

   Hagerman, ID 83332

3. One copy to:

   Chief, Natural Resources Division
   Office of the Attorney General
   State of Idaho
   P.O. Box 44449
   Boise, Idaho 83711-4449

4. One copy to:

   United States Department of Justice
   Environment and Natural Resource Division
   550 West Fort Street, Box 33
   Boise, ID 83724

Signature of Objector or attorney mailing on Objector's behalf

REASONS SUPPORTING EACH BOX CHECKED, page 4

Box 3, 3a and 10 - IDWR recommends an amount less than decreed and/or beneficially used. A reduction in water right would constitute a taking.

Box 8 - IDWR recommends a period of use less than decreed and/or beneficially used. A reduction in water right would constitute a taking.

Box 9 - Director's Report fails to accurately state the place of use.

Box 11 - This is beyond the statutory authority vested in the Director.

CHANGES TO DIRECTOR'S REPORT, page 4

Objectors reserve the right to claim all purposes of use and quantities of use as shown by the evidence at trial.

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Question 14., page 4, Other

I.

GENERAL RESPONSE

Except as specifically admitted herein, objectors deny each and every allegation contained in the Director's Report, any related or subsidiary pleadings, and/or any attachments thereto.

II.

DESCRIPTIVE SUMMARY

(DIRECTOR'S REPORT PART I)

(hereinafter DRP-I)

(DRP-I at first unnumbered page)

The objectors admit that Part I of the Director's recommendation contains some claims to water rights appropriated under state law from Reporting Area 3. The objectors deny all other averments because the objectors lack sufficient knowledge or information upon which to form a belief as to the truth of the averments.

III.

TABLE OF CONTENTS

(DRP-I at 2nd and 3rd unnumbered pages)

The objectors admit that the Table of Contents reflects the page numbers of the referenced sections and deny all other averments based upon the objectors' lack of sufficient knowledge or information upon which to form a belief as to the truth of the averments and because any averment, expressed or implied, is so

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indefinite that it prevents the objectors from knowing what would be admitted or denied.

IV.

INTRODUCTION

1. INSTRUCTIONS FOR USING THIS REPORT PART I. (DRP-I at page 1)

The objectors admit that Part I consists of seven sections; that the description of the water system includes a brief description of Reporting Area 3 and an illustration of the boundaries of the reporting area; that the water rights and the list of the recommended rights are grouped alphabetically by source and listed chronologically by priority date; that the rights or claims in the list of claims/rights not recommended are listed numerically by water right number; and that brief instructions are found at the beginning of the applicable sections. The objectors deny that any description or any implication that the description of the water system or the illustrations are true and accurate due to lack of knowledge or information regarding the truth of the averment; deny that the general provisions apply to all water rights or define or limit classes of water rights; and deny that the general provisions "will affect your water right," based upon insufficient knowledge or information upon which to form a belief as to the truth of the averments.

2. SCOPE OF THE ADJUDICATION. (DRP-I at page 1 - 3)

The objectors deny all averments in paragraph a., due to lack of sufficient knowledge or information upon which to form a belief as to the truth of the averments.

Regarding paragraph b., the objectors lack sufficient information or knowledge upon which to form a belief as to whether water rights which are not claimed in the adjudication will or will not exist upon entry of the court's decree and, therefore, deny such averment. The objectors admit that the court entered an order dated January 17, 1989, but presently lack sufficient knowledge to know whether any of the other averments concerning the court's order are true or accurate and, therefore, deny the same. The objectors deny that a right must be adjudicated before water may be distributed by the director. The objectors deny all other averments in paragraph b.

3. PURPOSE OF THIS REPORT PART I. (DRP-I at page 3 - 4)

The objectors admit that portion of the first sentence which states "This report contains the Director's recommendations to the SRBA District Court as to the nature and extent of water rights," but deny that such recommendations "are necessary for administration of water rights in Reporting Area 3," and further deny the Director has authority to "administer" such rights.

Regarding the second paragraph, the objectors admit that all water rights remain subject to the applicable law generally, but deny the remainder of the second paragraph.

Regarding the third paragraph of this section, the objectors deny all averments therein based upon lack of knowledge or information upon which to form a belief as to the truthfulness of the averments.

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V.

DESCRIPTION OF THE WATER SYSTEM: BASIN 36

1. BOUNDARIES OF BASIN. (DRP-I at pages 4 - 6)

Regarding the first paragraph of this section, the objectors deny all averments due to a lack of knowledge or information upon which to admit or deny.

Regarding the second, third and fourth paragraphs of this section, the objectors admit that as broad statements, those paragraphs are generally accurate but the statements are so broad and attenuated from any matter relevant to the objectors' water right that the objectors are unable to know what would be implicitly admitted or denied and therefore, deny the same.

With respect to the fifth paragraph of this section, the objectors lack sufficient knowledge or information upon which to form a belief as to the truth of any matter averred and, therefore, deny the averments.

2. WATER SOURCES. (DRP-I at page 6)

The objectors admit that the Snake River Plain Aquifer is the source of outflows of springs located along the Snake River Canyon Wall in the Hagerman Valley. The objectors presently lack sufficient knowledge or information upon which to form an opinion as to the truth of the other averments set out in this section and, therefore, deny the same.

3. DEVELOPMENT OF WATER USE. (DRP-I at pages 6 - 9)

The objectors admit that numerous factual and historical averments are set out in this section, which may be accurate, but

these objectors have no basis for knowing whether some or all of the averments are intended to relate to the objectors' claims and, thus, are prevented from knowing what would be admitted or denied. Therefore, the averments are denied.

VI.

GENERAL PROVISIONS

GENERAL PROVISIONS 1 - 8 APPLY TO ALL WATER RIGHTS IN BASIN 36. (DRP-I at page 9)

The objectors deny that "General Provisions 1 - 8" apply to all water rights in Basin 36 as the statements are so broad and attenuated from any matter relevant to the objectors' water rights, that the objectors are unable to know what would be explicitly admitted or denied. The objectors also specifically deny that general provisions 1-8 apply to the objectors' right.

1. EFFECT OF ADJUDICATION. (DRP-I at page 9)

With respect to paragraph a., the objectors presently have no knowledge or information upon which to form a belief as to the truth of whether a future decree would supersede prior decrees, or whether unclaimed rights would cease to exist and, therefore, deny the same.

Regarding paragraph b., the objectors deny that the Director has any powers to administer water rights other than those specifically delegated by the Legislature of the State of Idaho, and which do not violate the objectors' state and federal constitutional rights, and therefore the averments are denied.

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2. GENERAL ADMINISTRATIVE PROVISIONS. (DRP-I at pages 9 - 10)

The objectors admit paragraphs a. and b.

3. CONJUNCTIVE ADMINISTRATION (DRP-I at page 10)

The objectors deny the conjunctive administration provisions based upon the objectors' lack of sufficient knowledge or information upon which to form a belief as to the truth of the averments and because any averment expressed or implied is so indefinite that it prevents the objectors from fairly understanding what would be admitted or denied. Additionally, the objectors deny that the Department of Water Resources has any statutory or regulatory authority for the "conjunctive administration" as therein described.

4. ADMINISTRATION OF GROUND WATER RIGHTS (DRP-I at page 10)

The objectors deny the averments within this section.

5. ADMINISTRATION OF BASIN 36 RELATIVE TO THE SNAKE RIVER (DRP-I at page 10)

The objectors admit that the springs are hydrologically interconnected with the Snake River Aquifer, but deny all other averments based upon the objectors' lack of sufficient information or knowledge upon which to form a belief as to the averments herein. The objectors additionally deny any said averments expressed or implied because the averments are so indefinite and generalized as to prevent the objectors from fairly understanding what would be admitted or denied.

6. ADMINISTRATION OF SMALL DOMESTIC AND STOCK WATER RIGHTS (DRP-I at page 11)

The objectors admit that part of the first sentence of subparagraph a. to the effect that "small domestic and stock water rights from surface water are not subject to administration," but deny the balance of said sentence and said paragraph.

The objectors admit the first sentence of paragraph b., and deny the balance of that paragraph because the criteria set forth therein ("if the director determines that administration is necessary") is so ambiguous, indefinite and uncertain that it prevents the objectors from knowing what would be admitted or denied, and by further reason of the fact that no statutory or regulatory authority exists conferring such sweeping and unlimited authority upon the Director or the Department.

The objectors deny the averments in paragraph c. as the averments are inaccurate and because the objectors lack sufficient knowledge or information upon which to form a belief as to the truth of the matters averred.

7. MEASURING DEVICES AND CONTROL WORKS (DRP-I at page 11)

The objectors deny all averments contained herein as such averments are based upon an indeterminate subjective standards which are so ambiguous and indefinite as to prevent the objectors from fairly knowing what would be admitted or denied. Additionally, no statutory or regulatory authority exists conferring such sweeping and unlimited authority upon the Director or the Department as is alleged in this paragraph.

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8. FIRE FIGHTING PURPOSES (DRP-I at page 11)

The objectors admit that subparagraph a. and subparagraph b. are generally accurate statements of present law, but deny the averments are in any way relevant to defining the objectors' right.

9. CONSUMPTIVE USE (DRP-I at page 12)

The objectors lack sufficient knowledge or information upon which to form a belief as to the truth of any matter averred and, therefore, deny the same.

GENERAL PROVISION 10 APPLIES TO ALL WATER RIGHTS IN BASIN 36 SHOWN WITH DOMESTIC USE AS A PURPOSE OF USE (DRP-I at page 12)

The objectors deny that "General Provision 10" applies to all water rights in Basin 36 shown with domestic use as a purpose of use as the statements are so broad and attenuated from any matter relevant to the objectors' water rights, that the objectors are unable to fairly understand what would be explicitly admitted or denied and, therefore, deny the same.

10. DOMESTIC USE (DRP-I at page 12)

The objectors deny that the definition of "domestic use" contained in paragraphs a., b., and c. is consistent or in conformity with the definition of such term for purposes of the Idaho Constitution, or statutory definition contained in I.C. Section 42-111 as now, or as heretofore in effect at relevant times. The objectors further deny that the limitations set forth therein exist, are in force, or apply or serve in any way to limit objectors' rights.

GENERAL PROVISION 11 APPLIES TO ALL WATER RIGHTS IN BASIN 36 SHOWN WITH STOCK WATER USE AS A PURPOSE OF USE. (DRP-I at page 13)

The objectors deny that "General Provision 11" applies to all water rights in Basin 36 shown with stock water use as a purpose of use as the statements are so broad and attenuated from any matter relevant to the objectors' water right, that the objectors are unable to fairly understand what would be admitted or denied and, therefore, deny the same.

11. STOCK WATER USE (DRP-I at page 13)

The objectors deny the averments herein as beyond the scope and applicability of the definition as provided by Idaho law as now, or as heretofore in effect at relevant times. The objectors further deny that the limitations set forth therein limit the objectors' right or are relevant to the right.

GENERAL PROVISIONS 12 - 16 APPLY TO ALL WATER RIGHTS IN BASIN 36 SHOWN WITH IRRIGATION AS A PURPOSE OF USE (DRP-I at page 13)

The objectors deny that "General Provisions 12 - 16" apply to all water rights in Basin 36 shown with irrigation as a purpose of use as the statements are so broad and attenuated from any matter relevant to the objectors' water right that the objectors are unable to fairly understand what would be admitted or denied.

12. IRRIGATION USE. (DRP-I at pages 13 - 14)

The objectors deny all averments based upon the objectors' lack of sufficient knowledge or information upon which to form a belief as to the truth of the averments and because

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prevent the objectors from fairly knowing what would be admitted or denied; because the standard utilized ("as determined by the director") is ambiguous, subjective and indefinite so as to prevent objectors from knowing what would be admitted or denied; and because it is both expressly and implicitly in excess of the power and authority conferred upon the State of Idaho, the Director or the Department by the Constitutions of the United States and State of Idaho, pertinent provisions of the Idaho Code or valid applicable regulations, if any, adopted by the Department in conformity with law. Therefore, the objectors deny the same.

13. DIVERSION VOLUME FOR IRRIGATION. (DRP-I at page 14)

The objectors admit that Figure 1 generally depicts certain lands in Basin 36; however, the objectors deny all other averments including that the amounts set forth are the maximum annual volume of water reasonably required at the field headgate for irrigation, either within Basin 36 in general, or upon objectors' real property in particular. The objectors additionally deny that the maximum annual volumes per acre set forth is that which is "reasonably required for irrigation unless a higher annual diversion volume is reasonably required due to conveyance losses, method of irrigation or field conditions;" because the standard utilized ("as determined by the director") is ambiguous, subjective and indefinite so as to prevent objectors from knowing what would be admitted or denied; and because it is both expressly and implicitly in excess of the power and authority conferred upon the State of Idaho, the Director or the Department

by the Constitutions of the United States and State of Idaho, pertinent provisions of the Idaho Code or valid applicable regulations, if any, adopted by the Department in conformity with law. Therefore, the objectors deny the same.

14. CONSUMPTIVE USE FOR IRRIGATION. (DRP-I at page 14 and 15)

The objectors admit that the recommended water rights contained within the Director's Report show only the irrigation use listed unless otherwise indicated in "Remarks." The objectors deny all other averments contained within this section, including the amount of maximum annual volume of consumptive use per acre in the northern and southern portions of the basin, all of which is beyond the scope of any power or authority vested in the Director or the Department, and contrary to fact; historical use; established, vested, decreed, licensed or permitted rights.

15. AMOUNT OF COMBINED WATER RIGHTS FOR IRRIGATION. (DRP-I at page 15)

The specific averments have no relationship to or basis in fact relating to the individual needs or rights of the objectors, and accordingly, objectors deny this section in its entirety. In addition, no statutory or regulatory authority exists conferring upon the Director, or the Department, the power to limit use and ownership of objectors' private property rights as alleged.

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16. DIVERSION RATES IN EXCESS OF .02 CFS PER ACRE. (DRP-I at page 15 - 16)

The objectors deny the averments contained in this section in its entirety.

17. INSTRUCTIONS FOR USE OF LIST OF RECOMMENDED WATER RIGHTS. (DRP-I at page A-i, A-ii and A-iii)

The objectors admit that each water right in the list of recommended water rights includes a description including right number, name and address, source, maximum quantity, consumptive use, priority date, point of diversion, purpose of use, period of use, place of use, basis of right and others. The objectors lack sufficient knowledge or information upon which to form a belief as to the truth of any matter averred in said descriptions other than that the descriptions allegedly include the Director's or Department's version of the facts as they relate to the matters identified. Objectors deny the accuracy of the substantive allegations or information set forth with regard to the objectors' right.

18. IDAHO DEPARTMENT OF WATER RESOURCES RECOMMENDED WATER RIGHTS ACQUIRED UNDER STATE LAW. (DRP-I, pages A-1 - B-25)

The objectors lack sufficient knowledge or information upon which to form a belief as to the truth of any matter averred in said recommended water rights other than those specific admissions contained in Questions 1 - 12 of the attached individual objection, and therefore deny the same.

DIRECTOR'S REPORT FOR REPORTING AREA 3 (BASIN 36)

(DIRECTOR'S REPORT PART II)

I.

Objectors do not understand the allegations, averments or contents of Part II of the Director's Report for Reporting Area 3 (Basin 36) to pertain or relate to objectors or their claims, and do not believe any response is required. To the extent a response is required, objectors deny the same in its entirety.

DIRECTOR'S REPORT FOR REPORTING AREA 3 (BASIN 36)

(DIRECTOR'S REPORT PART III)

I.

No report denominated as Part III of the Director's Report for Reporting Area 3 (Basin 36) has been filed, and accordingly objectors are unable to admit, deny or otherwise response to the same. Objectors do not understand that the contemplated subject matter of such Part III will relate or pertain to objectors or their claims, and no response is required in any case. To the extent any response is required, objectors deny the same in its entirety.

VIII.

AFFIRMATIVE DEFENSES

Pursuant to I.R.C.P. 8(c), objectors herewith state the following matters of affirmative defense or avoidance:

AFFIRMATIVE DEFENSE NO. 1

The objectors' water right is an incorporeal form of real property (as defined by Idaho Code Sections 7-703, 73-114, 55-101,

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and like statutes) protected by Section 14, Article 1, of the Idaho Constitution, and the Fifth Amendment to the United States Constitution, and allege that the actions of the Director in recommending, limiting and/or regulating said rights is an unconstitutional infringement upon and a taking of private property, without just compensation and violation thereof.

AFFIRMATIVE DEFENSE NO. 2

The adjudication authorization legislation, I.C. Section 42-1401, et seq., on its face and as applied by the Director and the Department constitutes an improper delegation of constitutional power and authority conferred upon the executive, legislative and/or judicial branches of government and as such violate the provisions governing separation of powers set forth in Article 2, Section 1, Idaho Constitution.

AFFIRMATIVE DEFENSE NO. 3

The procedure set forth in the adjudication authorization legislation, statutes, I.C. Section 42-1401, et seq., and any rules, regulations, procedures, policies or standards promulgated by the Director and/or the Department, if any, are vague and so lacking in reasonable specificity so as to render them impossible of reasonable comprehension, or consistent and meaningful application.

AFFIRMATIVE DEFENSE NO. 4

The procedures, rules, regulations, policies or standards, if any, adopted, implemented and applied by the Department and/or the Director violate the equal protection and due

process clauses of the Fourteenth Amendment, United States Constitution, and Article 1, Sections 2 and 13, Idaho Constitution.

AFFIRMATIVE DEFENSE NO. 5

The adjudication authorization legislation, Idaho Code Section 42-1401, et seq., and the actions of the Director and Department in recommending, limiting and/or regulating the objectors' water right constitutes a violation of 42 U.S.C. Section 1983.

AFFIRMATIVE DEFENSE NO. 6

The water right owned by the objectors is the subject of valid existing decrees issued by the Director and Department, which decrees are binding upon the State of Idaho, the Department and the Director. As a result, the State of Idaho, the Department and the Director are precluded by the doctrines of res judicata, collateral estoppel, judicial estoppel and the like from relitigating or questioning the validity, existence or priority of such right, and/or from taking any position in the Director's Report, or otherwise, which is inconsistent with such decrees.

AFFIRMATIVE DEFENSE NO. 7

The Director's recommendations are contrary to decreed rights, historical use and extent licenses and permits issued by the Department. There has been no forfeiture nor abandonment of the objectors' water rights, nor have the objectors' water rights been prescriptively or adversely possessed, nor have such decrees been vacated or such licenses and permits revoked.

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AFFIRMATIVE DEFENSE NO. 8

The Directors' Report fails to state a claim to the extent the same asserts a forfeiture, abandonment, prescriptive or adverse acquisition or loss, or loss resulting from estoppel, of the objectors' water right in the absence of any fact upon which forfeiture, abandonment, prescriptive or adverse acquisition for loss, or loss resulting from estoppel, may be based or asserted.

AFFIRMATIVE DEFENSE NO. 9

The objectors' water right is an incorporeal form of real property, as defined by Idaho Code Sections 7-703, 73-114, 55-101, and like statutes, and, as such, pursuant to Idaho Code Section 7-904, et. seq., the actions of the Director in attempting to limit, reduce and/or regulate such rights, and the assertion of some inconsistent proprietary ownership or right to use or control by the State of Idaho, constitutes an unauthorized and invalid taking of private property without the payment of just compensation, or compliance with statutory requirements, all in violation of Title 7, Chapter 7, Idaho Code.

AFFIRMATIVE DEFENSE NO. 10

The actions of the Director, the Department and their agents, servants and employees in recommending, limiting, reducing and/or regulating objector's water rights, either as alleged in the Director's Report or as in fact applied, violates objectors' rights as secured by Art. 1, Section 1; Art. 15, Sections 3, 4 and/or 5; and/or as otherwise provided in the Constitution of the State of Idaho.

AFFIRMATIVE DEFENSE NO. 11

The various allegations, statements and assertions contained in the Director's Report concerning the Department and/or the Director's position or intentions with regard to the adjudication, as well as the implementation of statutes and/or regulations, as well as the administration of water or management of water rights or claims to the beneficial uses of water, if implemented, constitute a violation of various provisions the United States and Idaho constitutions, and/or a violation of the letter, spirit and/or intent of various statutes enacted by the legislature, and/or constitute an exercise of purported authority or powers either in excess of those conferred by law, or in a manner inconsistent with those conferred by law, or both.

AFFIRMATIVE DEFENSE NO. 12

The individual recommendations relating to the specific water right of the objectors as set forth in the Director's Report are (1) not based upon substantial evidence and/or are not, in fact, the product of any reasonable, complete or accurate investigation as required by law; (2) are the product of arbitrary and capricious action on the part of the Department or the Director; (3) have been made in excess of the constitutional and statutory authority of the Department and the Director; (4) have been made upon an unlawful and invalid procedure; (5) are affected by various and sundry errors of law; and/or (6) are clearly erroneous in view of the reliable, probative and substantial evidence.

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AFFIRMATIVE DEFENSE NO. 13

The Director's Report is a pleading subject to the provisions of the Idaho Rules of Civil Procedure, including, but not limited to the requirement of I.R.C.P. 8(a)(1) that such pleadings contain a clear and plain statement of the facts, demonstrating an entitlement to relief. The Director's Report violates such provision.

AFFIRMATIVE DEFENSE NO. 14

The Director's Report fails to state a claim upon which relief may be granted.

AFFIRMATIVE DEFENSE NO. 15

The Director's Report is subject to, and must comply with, the requirements of Idaho Code Section 42-1411. The Director's Report does not comply with the requirements of the statute.

AFFIRMATIVE DEFENSE NO. 16

In conducting the investigation and compiling the Director's Report, the Department and the Director have not complied with the requirements of Idaho Code Section 42-1410.

AFFIRMATIVE DEFENSE NO. 17

In conducting the investigation and compiling the Director's Report, the Department and the Director have not complied with the requirements of Idaho Code Section 42-1416.

AFFIRMATIVE DEFENSE NO. 18

The procedures specified in the authorizing legislation and procedural rules promulgated in accordance therewith serve to

deny objectors due process of law in violation of Amendment Fourteen to the Constitution of the United States and Art. 1, Section 13, Idaho Constitution.

AFFIRMATIVE DEFENSE NO. 19

The "General Provisions" and "Other Statements" contained in the Director's Report, along with the Claims Investigation Manual, Adjudication Memoranda and other materials of a similar nature used or employed by the Department, the Director and/or their agents, servants and/or employees constitute rules and regulations which were required to be proposed, promulgated, adopted and approved in conformity with the Administrative Procedures Act and other applicable statutory provisions. The Department, Director and their agents, servants and employees have failed to comply with such requirements, and accordingly, the "General Provisions," "Other Statements", Claims Investigation Manual and the like are invalid, void and of no force or effect.

AFFIRMATIVE DEFENSE NO. 20

Neither the "General Conditions," the Claims Adjudication Manual, Adjudication Memoranda or other promulgations, adoptions, policies, or the like have been submitted to or approved by the Legislature as required by Idaho Code Section 67-5217.

AFFIRMATIVE DEFENSE NO. 21

The relief requested by the Department and the Director in the Director's Report are beyond and in excess of the subject matter jurisdiction of the Court.

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AFFIRMATIVE DEFENSE NO. 22

The actions of the Legislature, or the Department and the Director to enact, adopt, implement or enforce statutes, regulations, rules or policies subsequent to November 19, 1987, and to apply or enforce the same for the purpose of, or with the effect of recommending, diminishing or altering objectors' water rights, constitute a violation of Amendment Fourteen, United States Constitution; Art. 1, Section 13, Idaho Constitution; the SRBA authorization legislation; and Idaho Code Sections 73-101 and 73-106.

AFFIRMATIVE DEFENSE NO. 23

These proceedings are subject to the requirements and provisions of Idaho Code Sections 12-117, 12-121, 12-123 and I.R.C.P. 11, and the provisions of the private attorney general doctrine, and other related doctrines, and the Department, Director and State of Idaho are obligated to objectors for the payment and reimbursement of any and all reasonable costs or attorney fees incurred herein.

AFFIRMATIVE DEFENSE NO. 24

The Director's Report asserts what amounts to be a taking of private property by power of eminent domain as governed by Idaho Code Section 7-701 et seq., and as such, venue is therefore improper.

AFFIRMATIVE DEFENSE NO. 25

The Department and the Director are equitably estopped from seeking any reduction in the quantity, quality or priority of

objectors' water rights by virtue of prior statements, representations and actions of the Department, Director or their agents, servants and employees.

AFFIRMATIVE DEFENSE NO. 26

The Department and the Director are barred by laches and the applicable statutes of limitation, including, but not limited to, Idaho Code Sections 5-202, 5-203, 5-204, 5-206, 5-207, 5-208, 5-215, 5-218, 5-219(2), 5-224 and/or 5-241.

AFFIRMATIVE DEFENSE NO. 27

Objectors hereby reserve the right to assert any further affirmative defenses not expressly stated herein, but which subsequently become apparent.

WHEREFORE, the objectors pray for judgment as follows:

1. That the State of Idaho take nothing by reason of its Directors' Report, and that this action, and any claims asserted against objectors, be dismissed.

2. That a decree be entered adjudicating the existence, validity, amount and priority of objectors' water rights in accordance with objectors' claims.

3. That to the extent the acts of the Department or Director constitute a taking of objectors' property for public use, that objectors be allowed and awarded just compensation therefor.

4. That the objectors be allowed all costs of suit and reasonable attorney fees incurred herein.

5. For such further relief to which the Court finds objectors justly entitled.

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(WATER\21530ANS)

NOTICE OF ERROR

RESPONSE

CORRECTED R PROOF

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RESPON[illegible] TO NOTICE OF ERROR
IN THE SNAKE RIVER BASIN ADJUDICATION

IDWR USE ONLY		
	Date	Initials
Date Entered		
Verified		

Water Right No: 36-00068, -00069, -00070 Contact Date: 10-23-92

IDWR Contact Person: (print and initial) Roxanne McCarthy

Claimant Contact Person John and Deloris Jones

Others Present

Contact By (give date) Meeting (location):

Phone Call (no.) Letter (attach letter):

I. Issues identified by claimant: per phone call to Steve Clelland. Unnamed springs (36-00070) are not used. 36-00069 represents the claimant's use of Hoagland Tunnel which should be viewed as a separate source from Weatherby Springs. Pumping rate from pond for irrigation should not be limited by capacity of pumps which are old and therfore less efficient.

II. Reasons provided claimant for original recommendation:

III. Additional information provided by claimant:

IV. Changes to be made in final recommendation (if any): Claim for 36-00070 will be disallowed due to non-use. Irrigation diversion rate on 36-00068 will be shown as 8.02 cfs (one inch per acre). Right 36-00069 will be recommended from Hoagland Tunnel at the claimed rate. Copies of recommendations are attached.

V. Action taken (date): Recommendations changed 10-23-92.

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(Original to IDWR, copy to claimant)

John W. Jones Jr.
Box 265
Hagerman, Idaho 83332

CERTIFIED
P 188 268 003
MAIL

RETURN RECEIPT REQUESTED





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RECEIVED
JAN 27 1993
Department of Water Resources
Southern Region Office

Idaho Department of Water Resources
222 Shoshone St. East
Twin Falls, Idaho 83301

Name
1st Notice
2nd Notice
Return