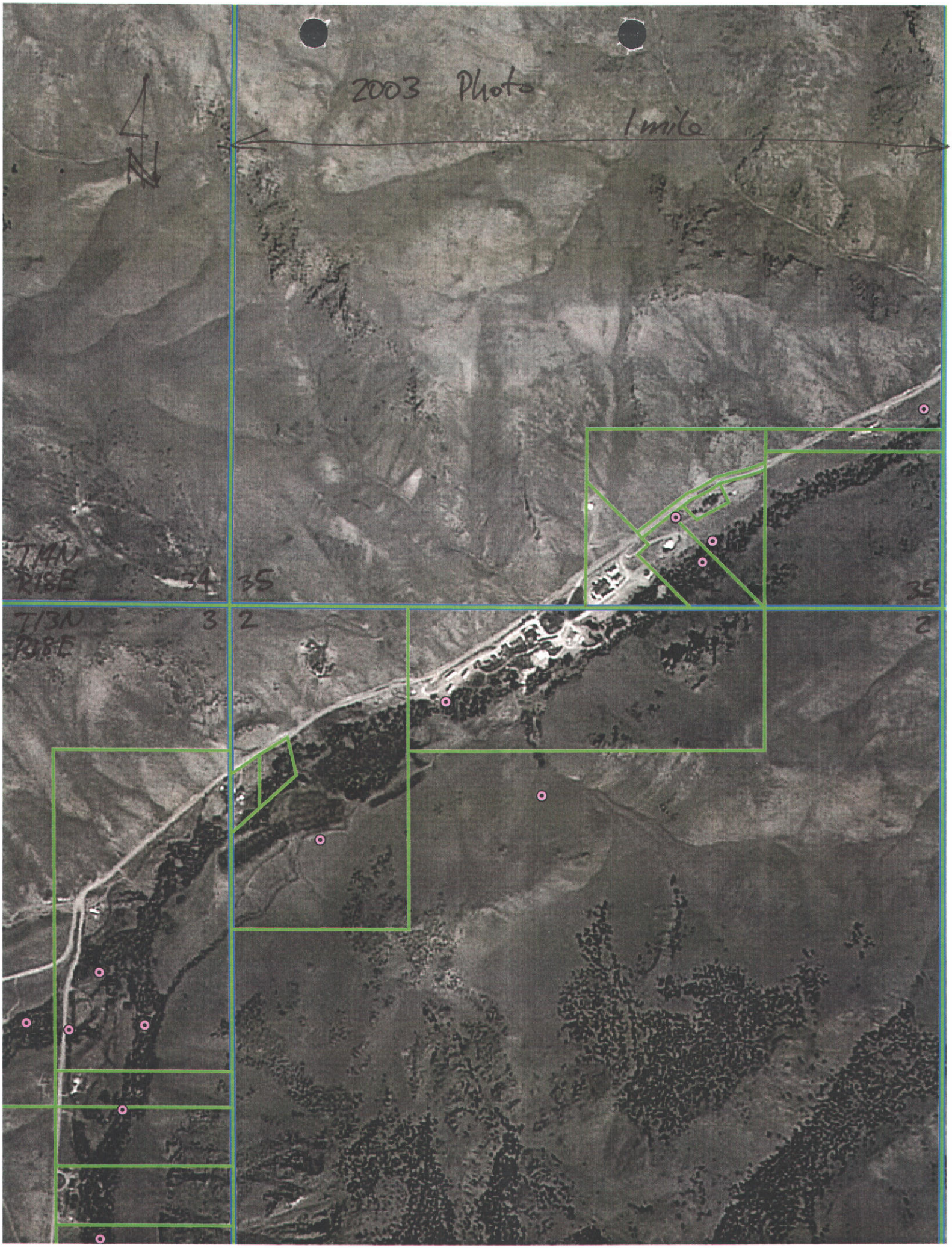
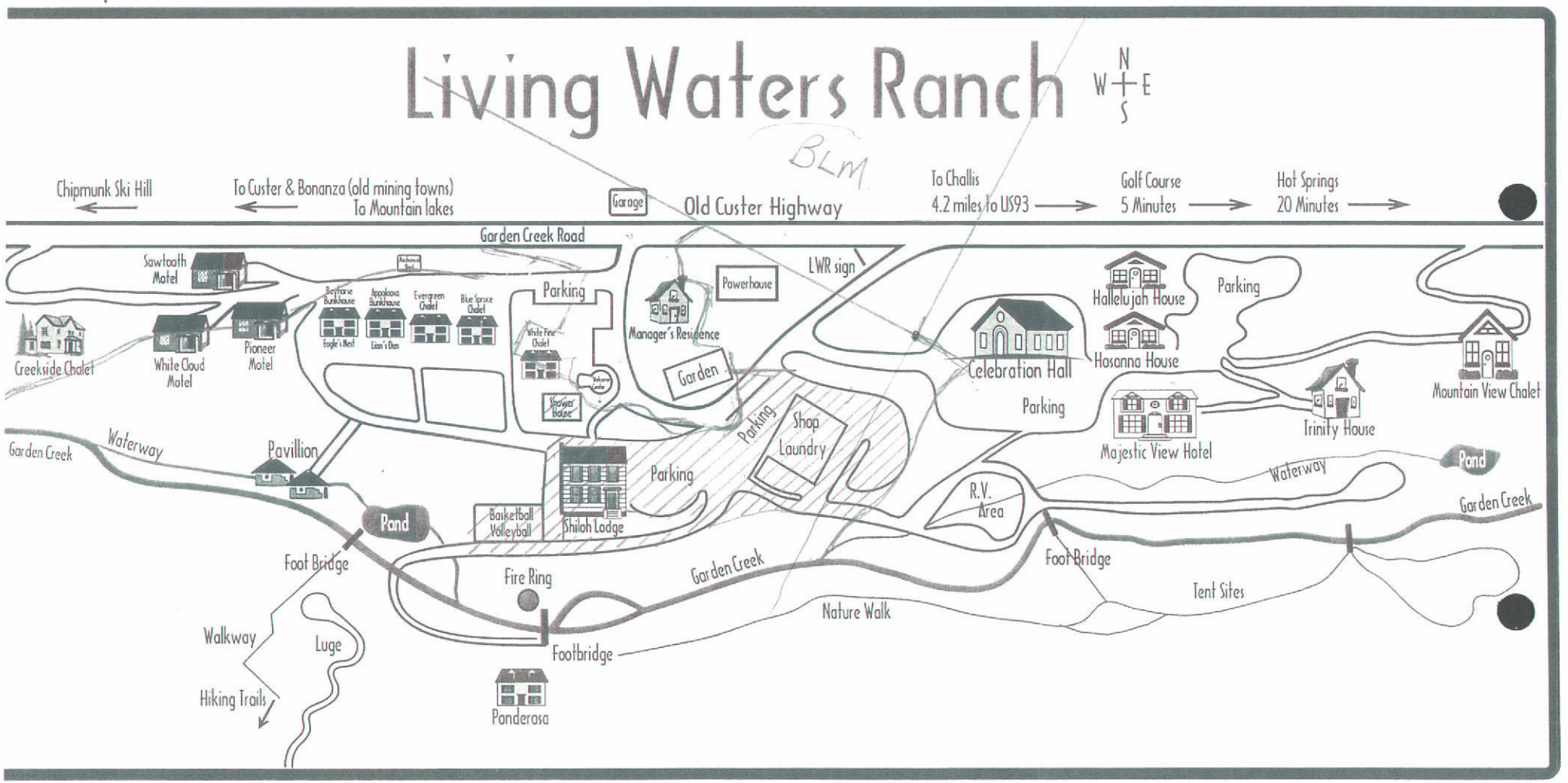

2003 Photo
1 mile
T14N
R8E
34
35
35
T13N
R8E
3
2
2

6/2/04 PROPOSED 1.5 acres for mitigation 72-00109G



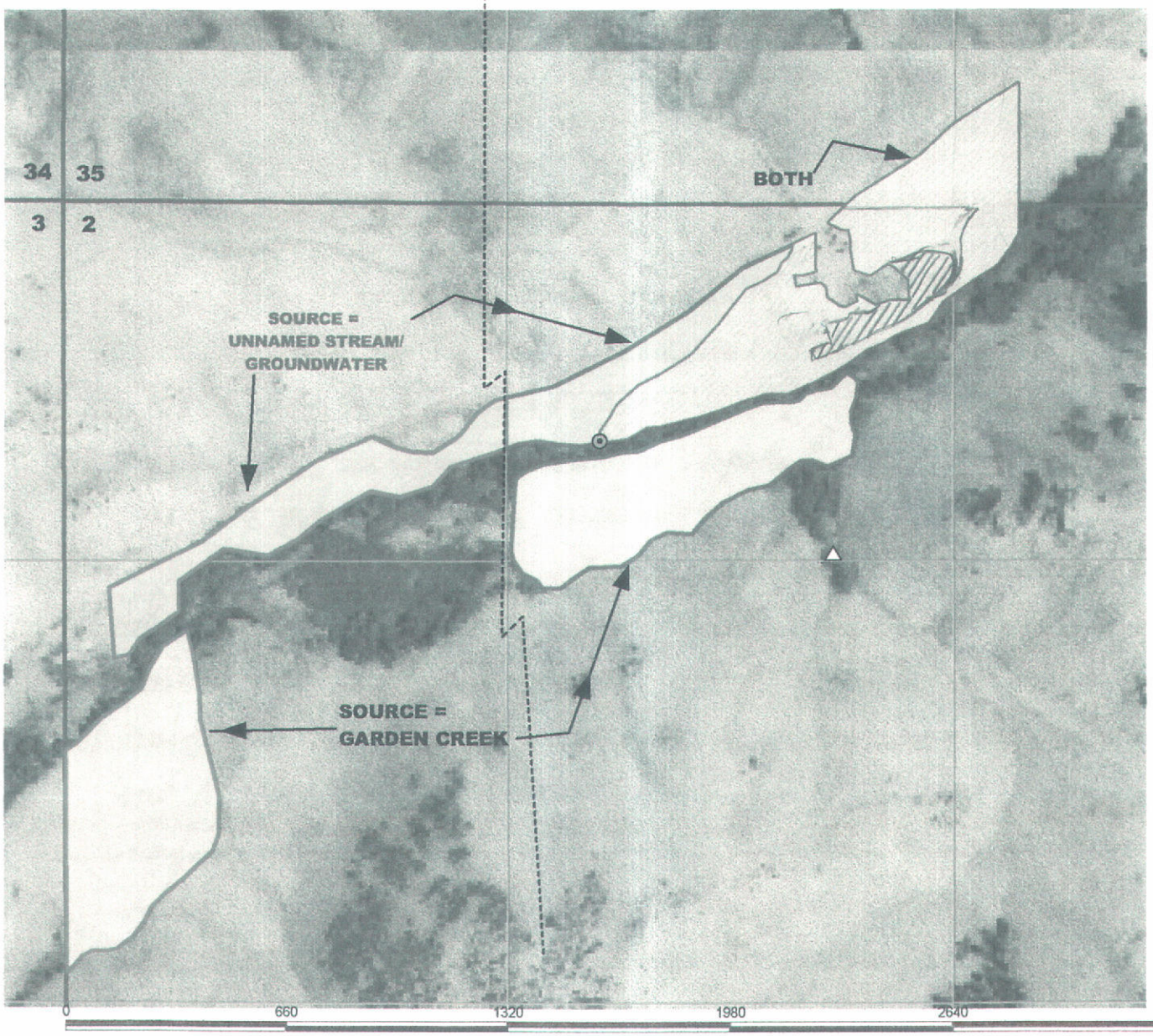
	Sq. ft	1" = 200'
2 1/8" x 3/4" or 425' x 150'	63,750	Large Area (Shiloh lodge, Parking Lot, Shop, Bone Yard. E of Shop)
1/2" x 3/16 or 100' x 70'	7,000	Basketball & Volley ball Court
	70,750	
	- 3,000	gross below Shiloh Lodge
	67,750	Square feet of Mitigated Land

IDAHO DEPARTMENT OF WATER RESOURCES

Proposed 11 acres for mitigation 6/2/04

CHRISTOPHER JAMES TRUST
GARDEN CREEK RIGHTS
72-00106F, 72-00109F, & 72-10486A
UNNAMED STREAM/GROUNDWATER
72-04174A

FIRSTFRUITS FOUNDATION
72-00106G, 72-00109G, & 72-10486B
UNNAMED STREAM/GROUNDWATER
72-04174B



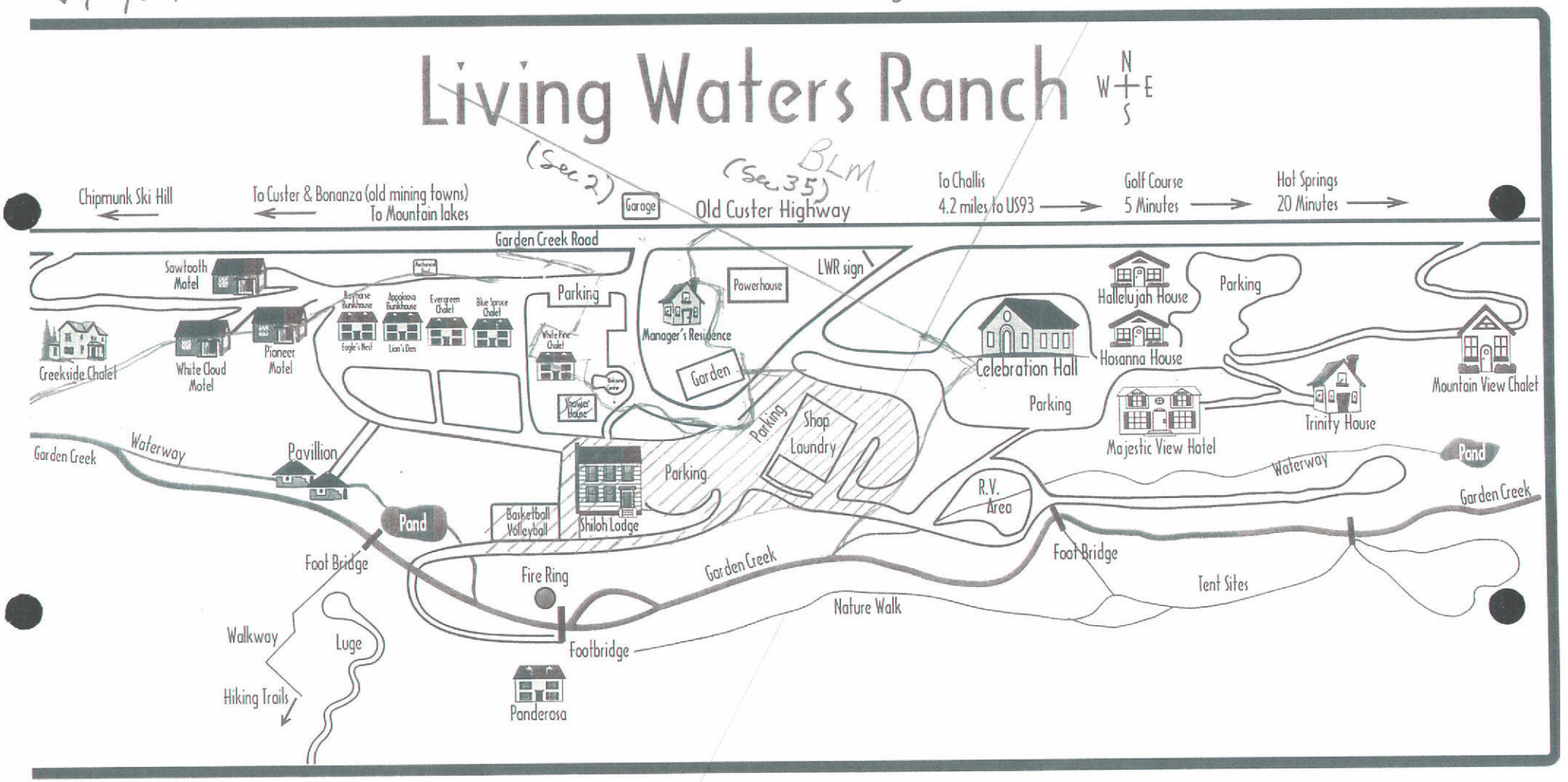
RECOMMENDED PLACE OF USE
TWP 14N RNG 18E, SEC 35
TWP 13N RNG 18E, SEC 2
data entry on October 13, 1998

N
W E
S

⊙ **RECOMMENDED POINT OF DIVERSION**
RECOMMENDED PLACE OF USE
SECTIION LINES
QUARTER/QUARTER LINES

GIS PLACE OF USE PRESENTATION
1992 USDA-F AERIAL PHOTOGRAPHY
DATA ENTRY BY KELLY K CHRISTENSEN

6/2/04 PROPOSED 1.5 acres for mitigation 72-00109G



Sq. ft 1" = 200'

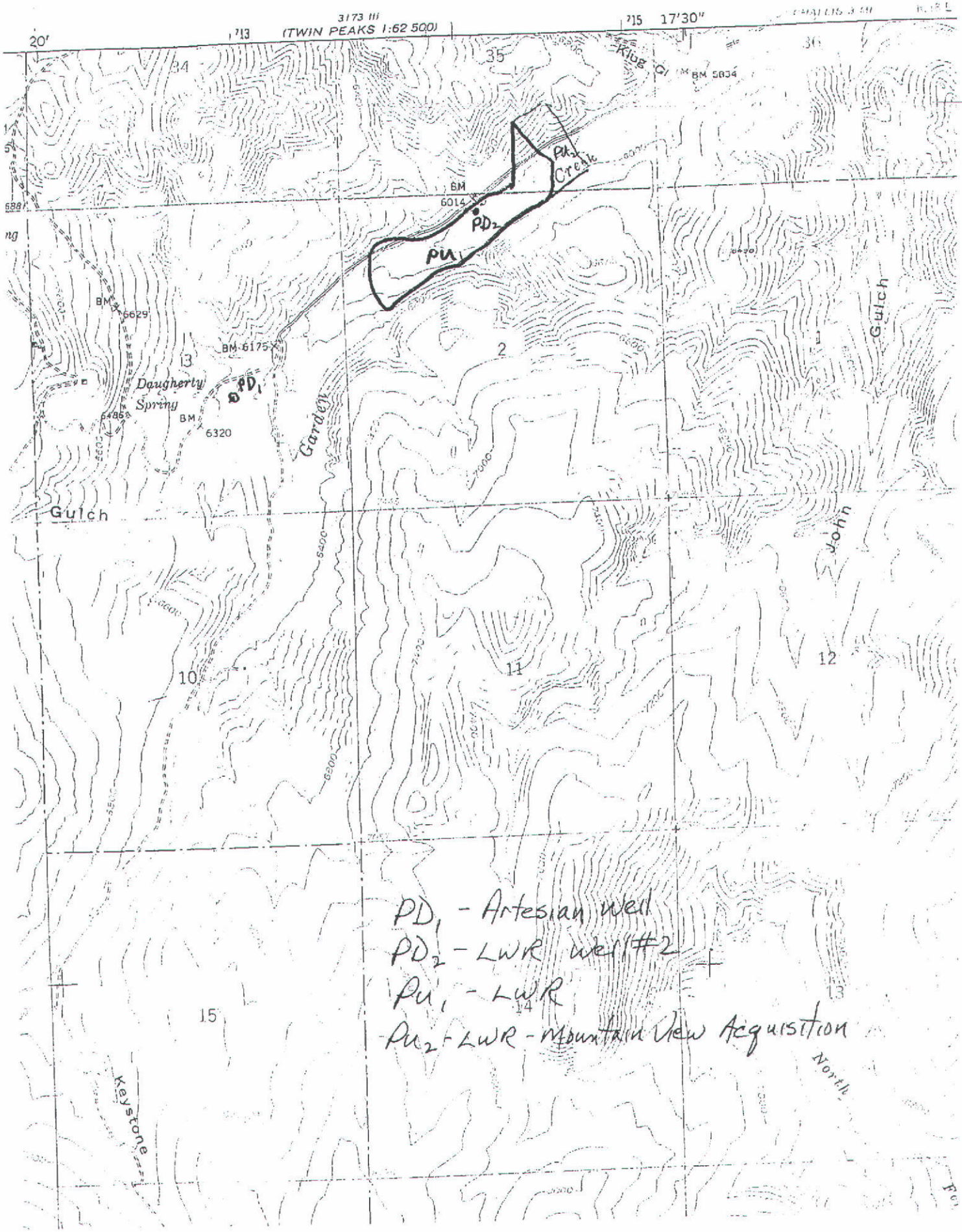
2 1/8" x 3/4" or 425' x 150' = 63.750 Large Area (Shiloh Lodge, Parking Lot, Shops, Bone Yard. E of Shops)

1/2" x 3/16 or 100' x 70' 7.000 Basketball & Volley ball Court

70.750

- 3,000 gross below Shiloh Lodge

67,750 Square feet of mitigated land.


(TWIN PEAKS 1:62 500)
Klug G
BM 5834
Creek
BM
6014
PD2
PU1
BM 6629
BM 6175
Daugherty
Spring
PD1
6486
BM
6320
Garden
Gulch
Gulch
10
11
12
13
14
15
2
35
Keystone
North
PD1 - Artesian well
PD2 - LWR well #2
PU1 - LWR
PU2 - LWR - Mountain View Acquisition

JOINT CONFERENCE via Telephone

RE: Applications for Permit No. 72-16624 and 72-16625

PLACE: Idaho Department of Water Resources Office, 1341 Fillmore Street; Twin Falls ID

DATE: Tuesday - January 20, 2004 at 4:00 p.m.

CONFERENCE OFFICER: Allen D. Merritt

ASSISTED BY: None

ROSTER OF ATTENDANCE

NAME	ADDRESS	REPRESENTING
Bonnie Rowls		Self
Don Rowls		WD
Jeff Yeo		Self
Christopher James		
Debbie James		
Mark Dryan		
Initial exchange of witness lists, exhibits		March 5
Drop dead date to request subpoenas		March 12
Final exchange of witness & exhibits		March 22
Hearing	1-2, 5-7 April	

SUMMARY OF WELL DRILLING PERMITS (continued):

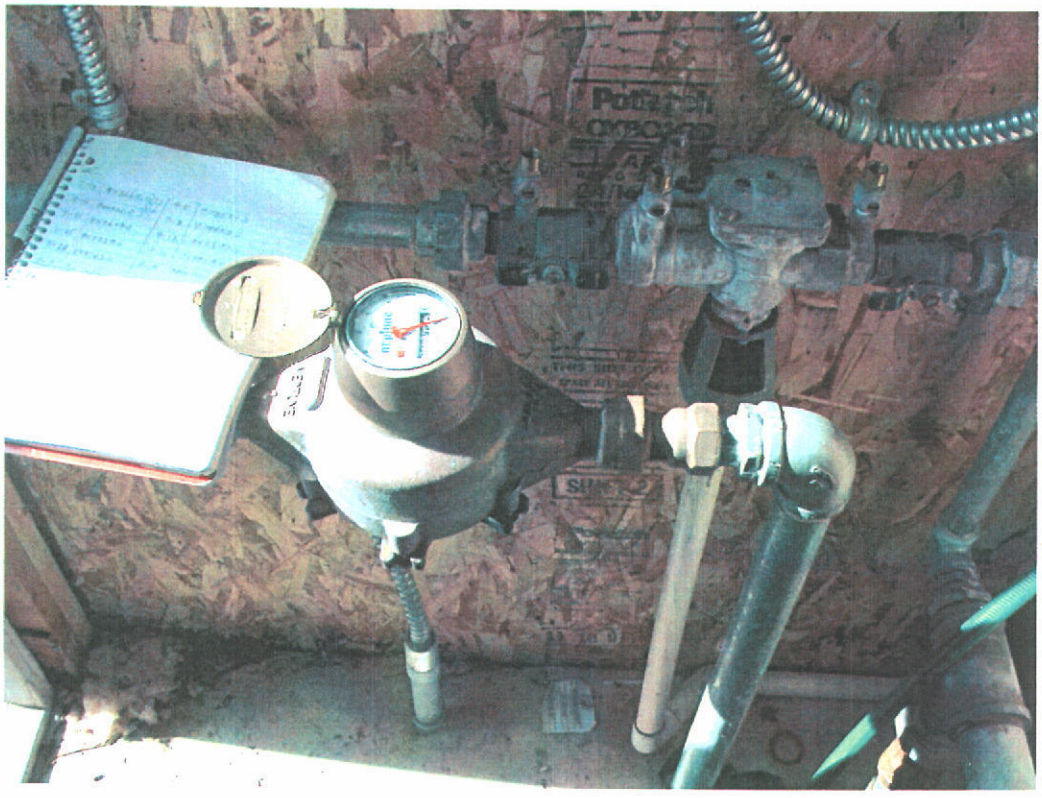
Name:	Domestic Well for Residence	Domestic Well for Residence
Permit No:	740219	740227
Well ID #:	287895	287904
Location:	T13N R18E Sec. 2 SWNW	T13N R18E Sec. 2 SWNW
Use of Well:	Domestic-Single Residence	Domestic-Single Residence
Const Dates:	Jul 07, 08 1994	Jul 08, 09 1994
Completed Depth:	205 FT	200 FT
Production Rate:	1 GPM	10 GPM
Static Water Level:	100 FT	80 FT
Status:	Abandoned	In-Use

Photo 1. Well #1 flowmeter and connection piping to potable water system.



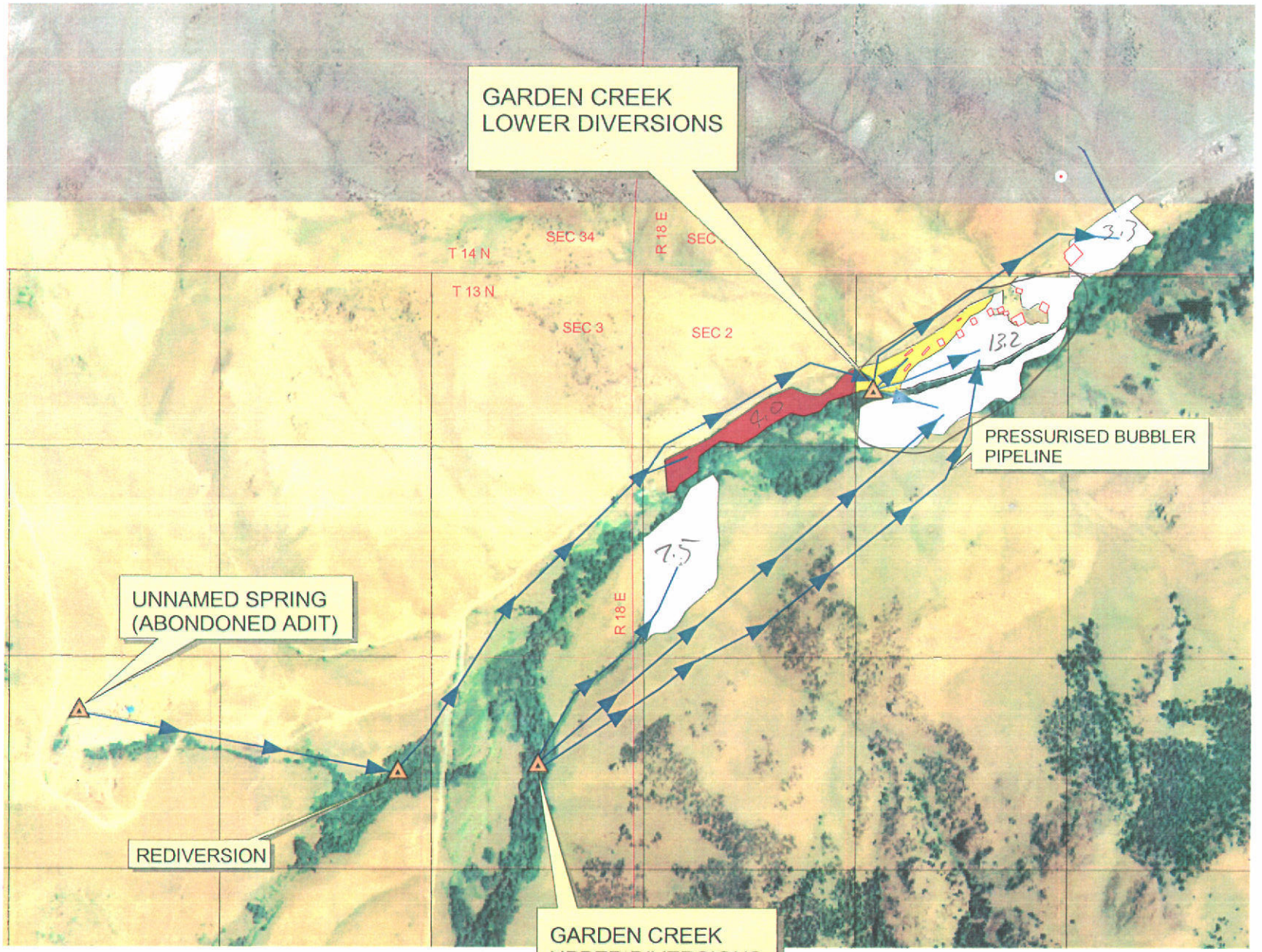
RECEIVED
NOV 12 2003
Department of Water Resources
Southern Region

Photo 2. Well #2 flowmeter and connection piping to potable water system.



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NOV 12 2003
Department of Water Resources
Southern Region

Figure 1. Decreed Irrigation Rights



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Department of Water Resources
Southern Region

Point of diversion

Irrigation water conveyance

Unnamed spring POU

Garden Cr. POU

Combined POU - unnamed spri... and Garden C...

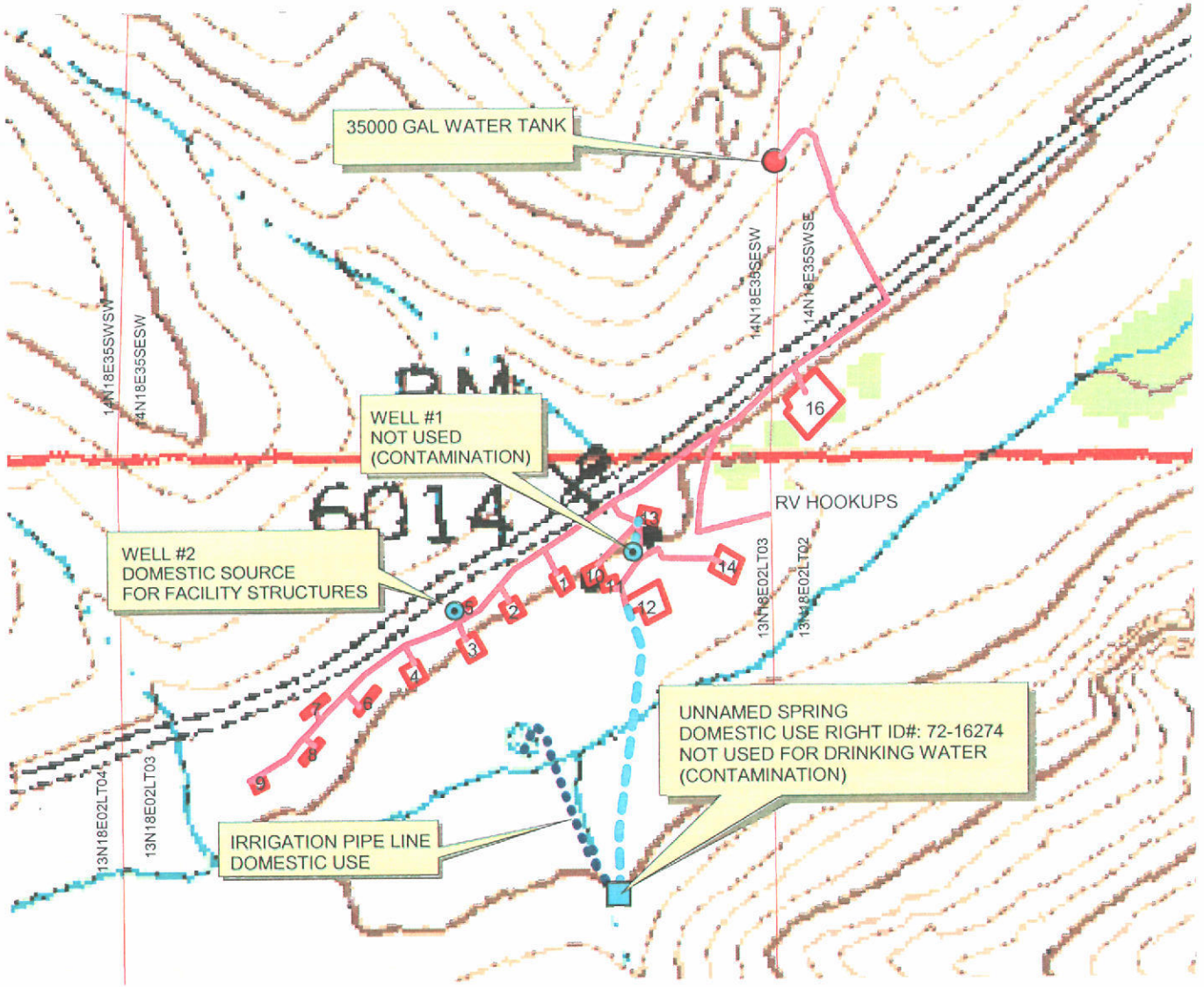
Building

N

0.5 0 0.5 1 Miles

IDWR
10/31/2003

Figure 2. Potable Water and Other Domestic System Features



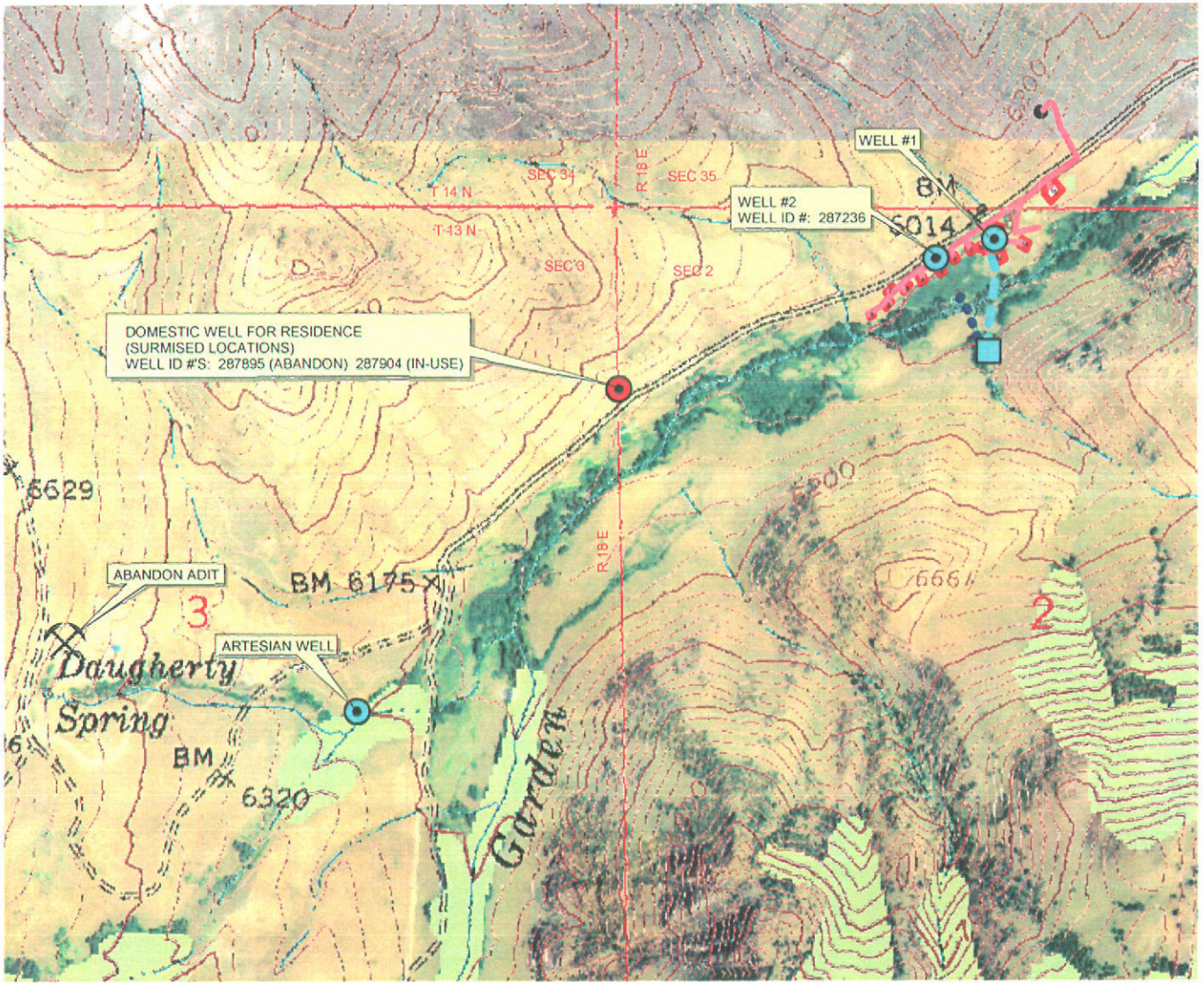
RECEIVED
NOV 12 2003
Department of Water Resources
Southern Region

- Wells
- Domestic spring
- Shut off domestic water line
- Potable water line
- Domestic irrigation line
- Building and no.

N

0.25 0 0.25 Miles

FIGURE 3. ARTESIAN AND DOMESTIC RESIDENCE WELL LOCATIONS



RECEIVED
NOV 12 2003
Department of Water Resources
Southern Region

- Wells
- Domestic spring
- Potable Water Pipe
- Building

N

IDWR
10/31/2003

RECEIVED

SEP 0 2 2003

Department of Water Resources
Southern Region

AFFIDAVIT OF PUBLICATION

State of Idaho, County of Custer, ss:

I, Ruth E. Burchell, representing the Challis Messenger, a weekly newspaper, published at Challis, Idaho, do solemnly swear that the notice hereto attached and made a part hereof, was published in the regular and entire issue of the Challis Messenger for 2 consecutive weeks, commencing with the issue dated Aug 21 2003 and ending with the issue dated Aug 28 2003.

Ruth E Burchell

STATE OF IDAHO

COUNTY OF CUSTER

On this 29th day of August in the year of 2003 before me, a Notary Public, personally appeared Ruth E. Burchell known or identified to me to be the person whose name subscribed to the within instrument, and being by me first duly sworn, declared that the statements therein are true, and acknowledged to me that he executed the same.

Janet Gangis
Notary Public for Idaho
Residing at Challis
My commission expires: 4/30/04

APPLICATION FOR WATER RIGHT 72-16624

The following application has been filed to appropriate the public waters of the State of Idaho, Custer County:

72-16624

FIRSTFRUITS FOUNDATION, CHRISTOPHER W. JAMES TRUST, CHRISTOPHER JAMES TRUSTEE, PO BOX 510, CHALLIS ID 83226.

Point(s) of Diversion: NWSE S3 T13N R18E

Source: GROUNDWATER

Use: 01/01 To 12/31

DOMESTIC (0.2 CFS)

Total Diversion: 0.2 CFS

Date Filed: 10/15/2002

Place Of Use: T13N R18E S2: NWNE Lot 2 NENW Lot 3 NWNW Lot 4 SWNW SENW T14N R18E S35: SWSE

Permits will be subject to all prior water rights. Protests may be submitted based on the criteria of Sec 42-203A, Idaho Code. Any protest against the approval of this application must be filed with the Director, Dept. of Water Resource, Southern Region, 1341 Fillmore St, Suite 200, Twin Falls ID 83301 together with a protest fee of $25 for each application on or before 09/09/2003. The protestant must also send a copy of the protest to the applicant.

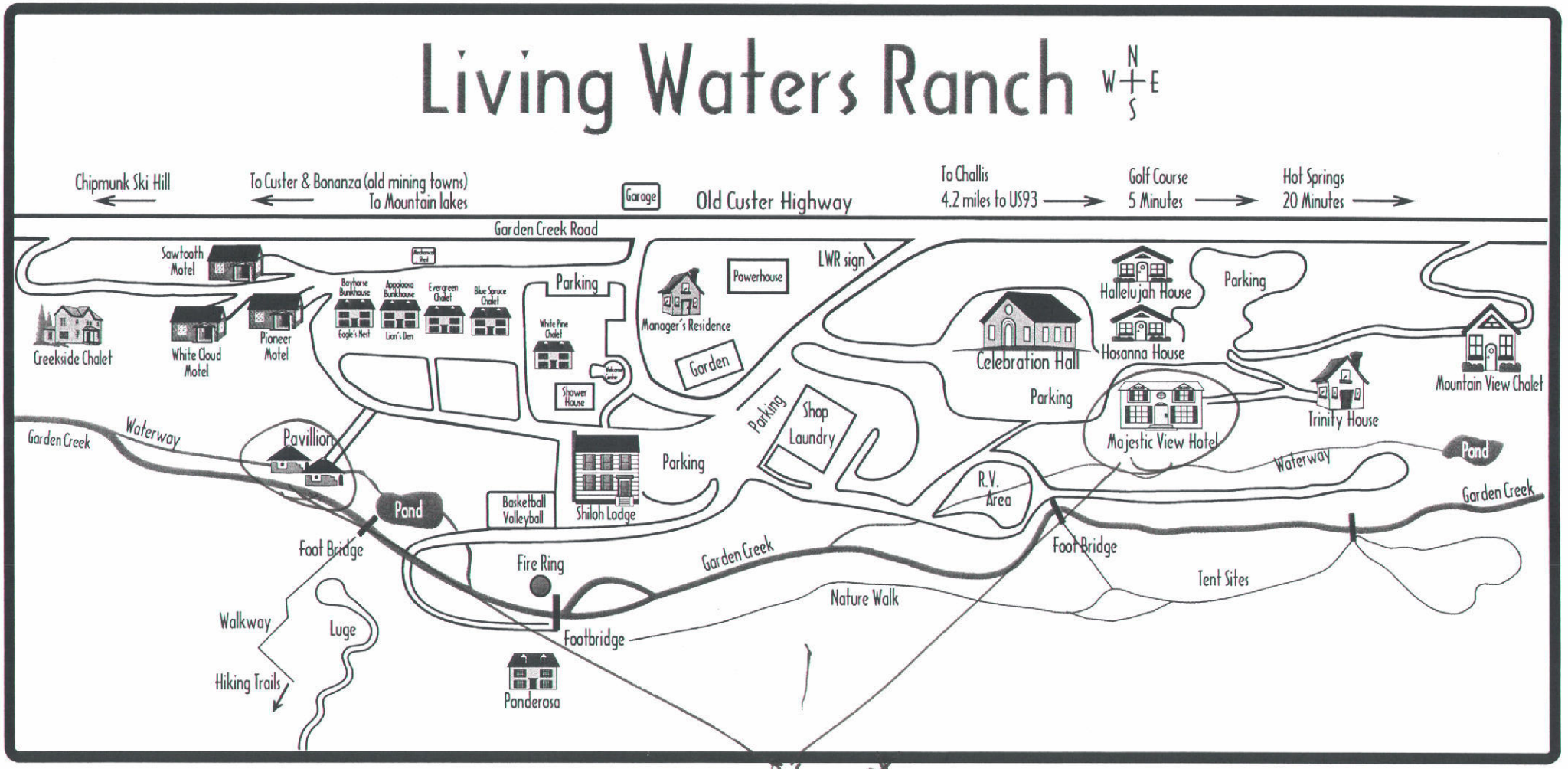
KARL J. DREHER, Director

Pub: Aug. 21 & 28, 2003.

OK
MB
9/2/03

AH #6

Living Waters Ranch



not built

Department of Water Resources
APPLICANT'S
Attach 6
Date Admitted 4/6/04



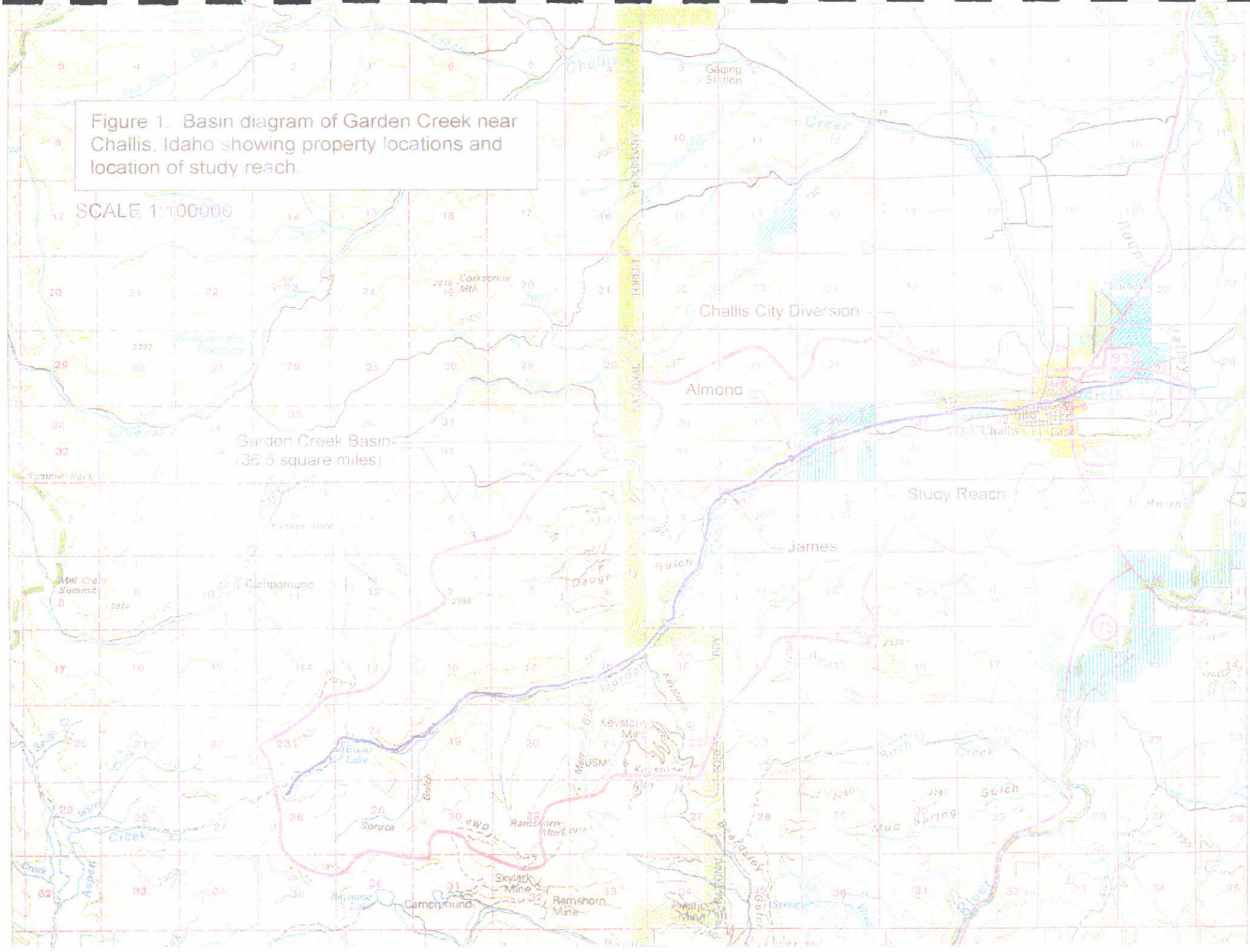


Figure 1. Basin diagram of Garden Creek near Challis, Idaho showing property locations and location of study reach.

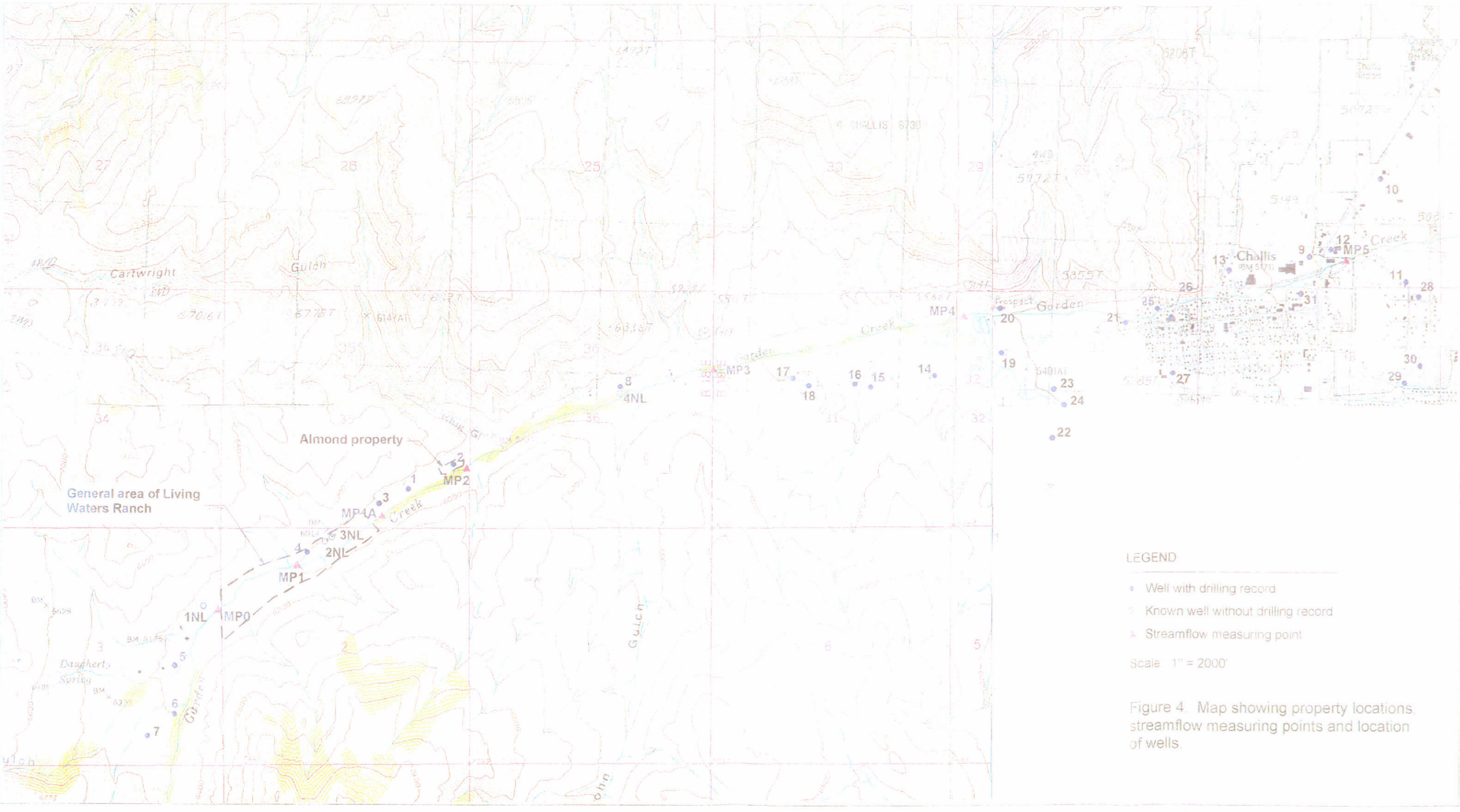


Figure 4. Map showing property locations, streamflow measuring points and location of wells.

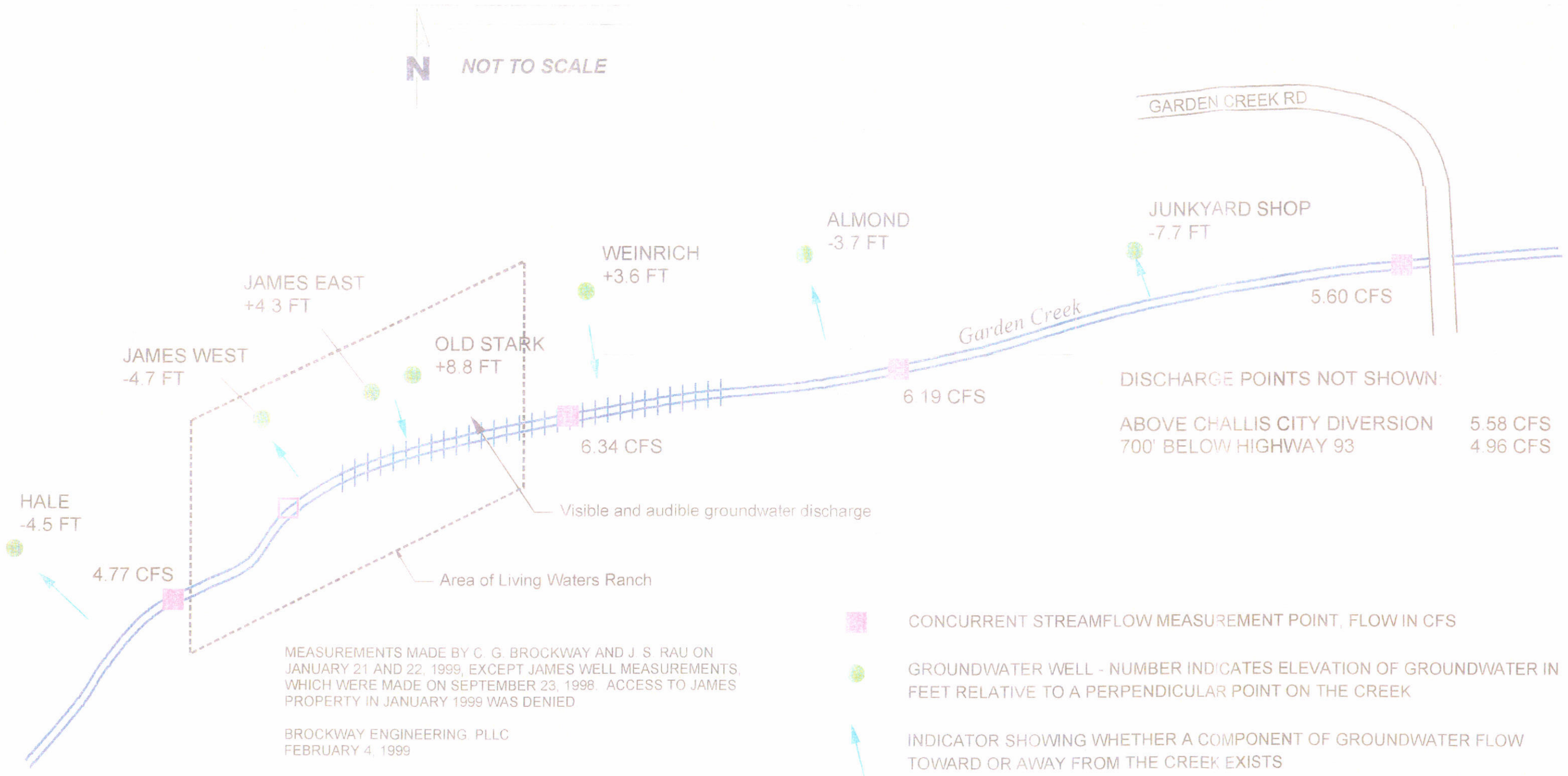
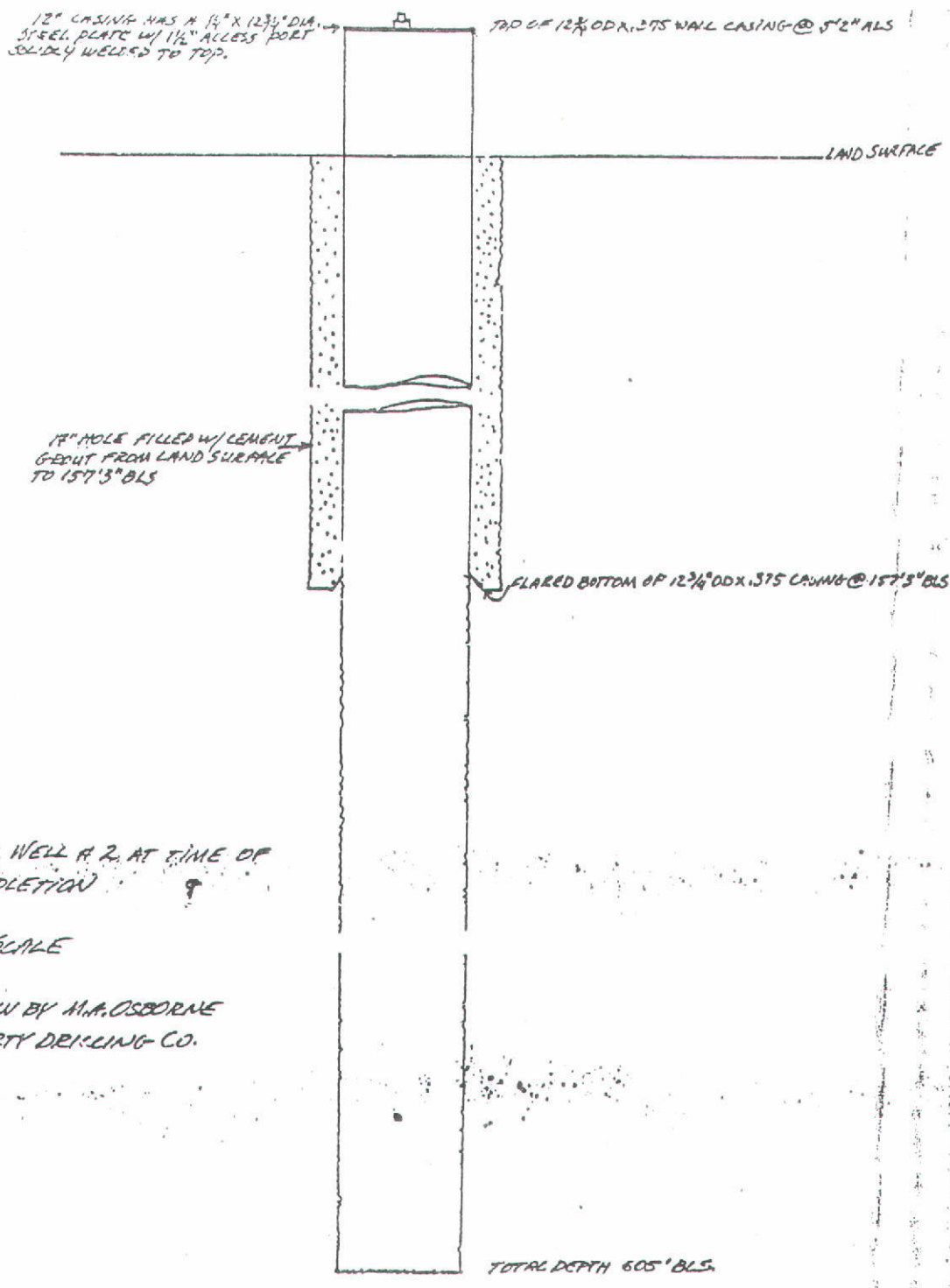


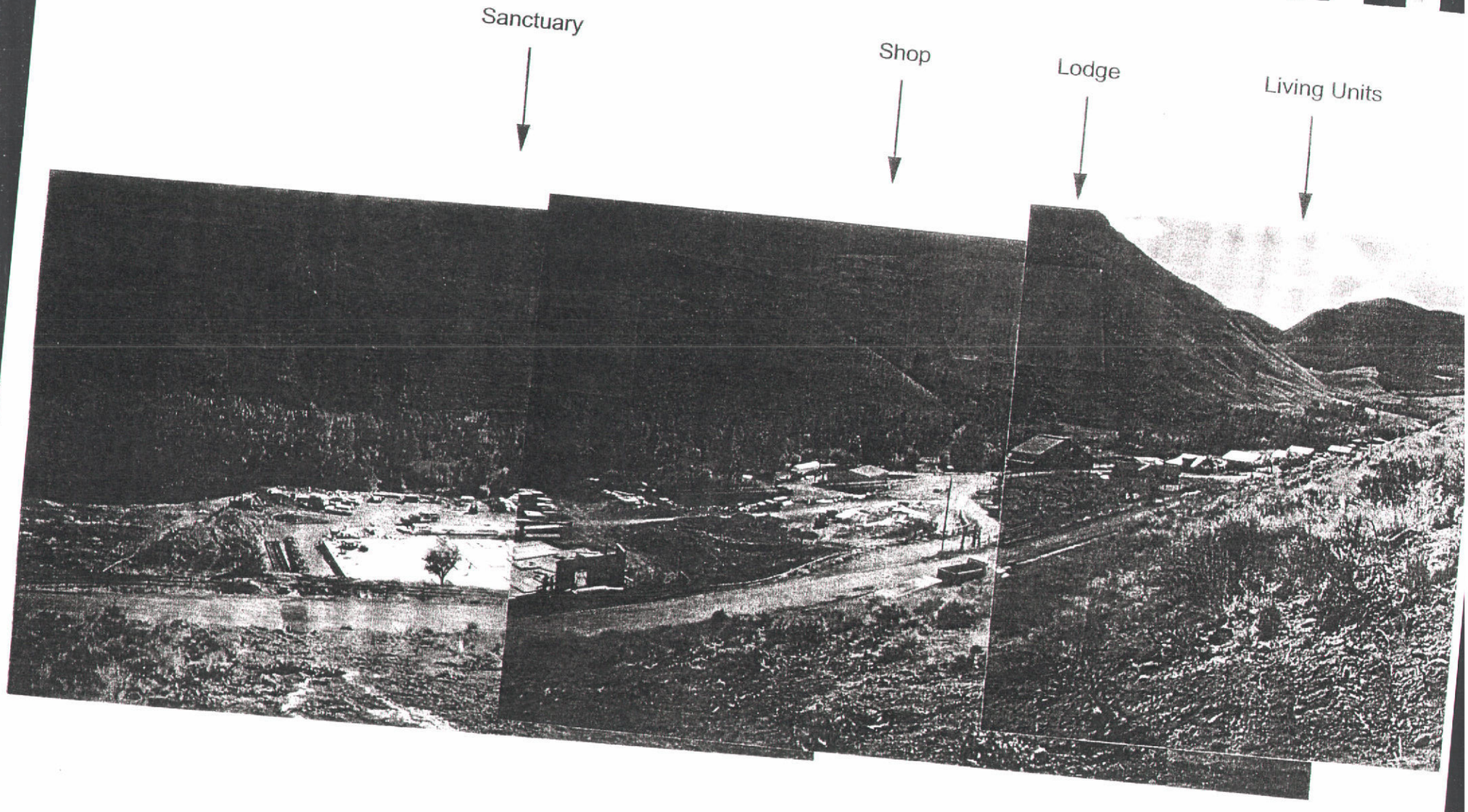
Figure 5. A schematic summarizing groundwater and surface water measurements in Garden Creek above Challis, Idaho.



WEST WELL # 2 AT TIME OF COMPLETION

NO SCALE

DRAWN BY H.A. OSBORNE
LIBERTY DRILLING CO.



LIVING WATERS RANCH RETREAT FACILITY
CHALLIS, IDAHO
Photo date: 9/23/1998

INTRODUCTION

The City of Challis, seat of Custer County Idaho, lies in the Salmon River valley at an elevation of approximately 5000 feet (Figure 1). The city presently derives domestic water from a combination of surface water from Garden Creek and ground water from three wells (Figure 2). The quantity received from these sources marginally accommodates present needs, and cannot sustain future growth.

This report summarizes results of a hydrogeologic study of the Challis water system undertaken by IWRRI and the Technical Assistance for Rural Ground Water Development Within Idaho project to provide the city with information that could lead to development of additional sources of water. In order to accomplish this goal we geologically mapped the area surrounding the city, studied the geologic, hydrologic and engineering aspects of the three municipal wells, and integrated these data with existing climatic data.

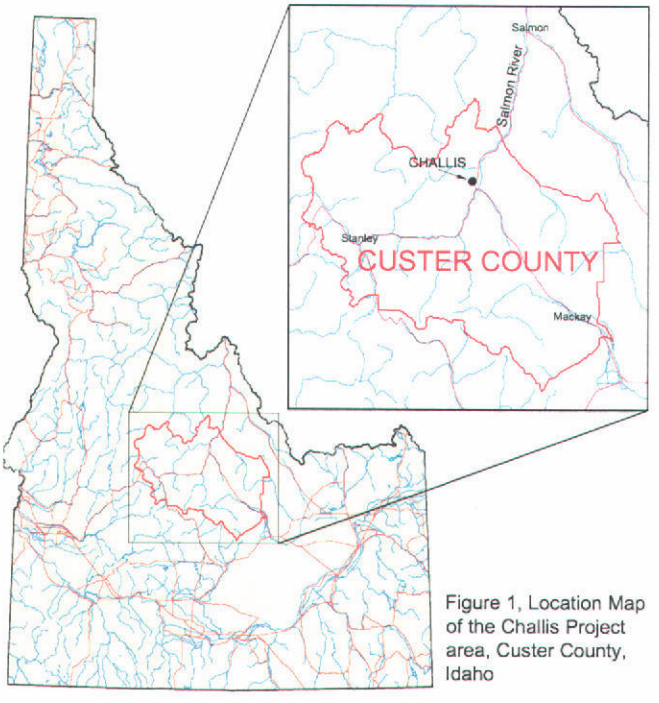


Figure 1, Location Map of the Challis Project area, Custer County, Idaho

STATEMENT OF PROBLEM

The community of Challis may experience growth in future years due largely to increased tourism, and sustained growth will need a viable water supply. During certain parts of an average year the community presently utilizes it's entire available capacity. Additionally one of the wells may be experiencing a declining static level, though incomplete historic water production data do not allow an accurate understanding of this possibility.

OBJECTIVE

The primary objective of this study was to provide Challis with technical information about their water supply in order to foster improvements that will alleviate an apparent water supply deficiency. Additionally, recommendations provided herein will enhance the community's ability to collect accurate water usage data for use in future planning.

GROUND WATER DEVELOPMENT CONCEPTS

Ground water occurs and moves through interconnected fractures and intergranular pore space in an aquifer. It moves under the force of gravity from higher elevation recharge areas to lower elevation discharge areas. Most recharge results from

infiltration of precipitation, though some occurs from streams and lakes at elevations higher than the water table. Typical discharge areas include springs, streams and lakes. Ground water moves slowly, generally less than 10 feet per day.

Subsurface geology strongly controls water movement within an aquifer. Therefore, an understanding of the subsurface distribution of unlithified sediment, lithified rock, faults, and their physical properties generally leads to a commensurate understanding of ground water flow systems. Mapping the surface geology and reviewing logs of material penetrated by wells, helps interpret features critical to ground water flow.

Sustainable well development requires less ground water use than aquifer recharge because removal of water results in some water level decline with an associated reduction in natural discharge. The basis for proper ground water development requires characterizing natural ground water discharge from springs and seeps, knowing the discharge of interconnected streams, and understanding the quantity and location of annual aquifer recharge. Additionally, domestic water supplies need recharge zones protected from contamination because pollutants can mix with ground water and contaminate the municipal supply.

GEOLOGY

Several regional geologic features influence the hydrogeology of the Challis area. The community lies near the eastern margin of the Idaho batholith, near the northern margin of basin and range extension, and within the Eocene-age Challis volcanic field. This diverse assemblage of geologic environments provides a challenge to understanding the controls that structure and rock type play on the local area hydrogeology.

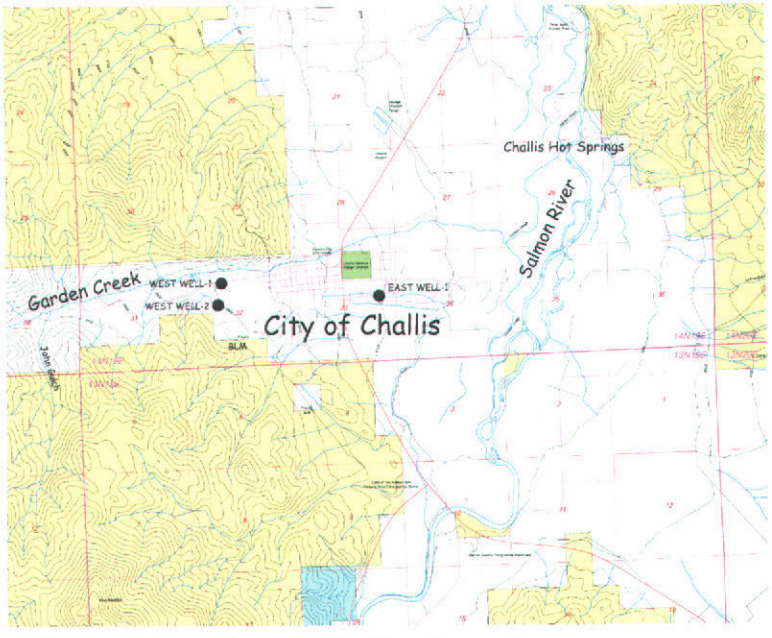


Figure 2, Location of Challis city wells

REGIONAL GEOLOGY

East Central Idaho lies in a geologic terrain dominated by Eocene-age volcanic strata. These rocks erupted 51 to 40 million years ago (McIntyre et al, 1982) onto a steep mountainous topography, similar to that present today. The volcanics emanated primarily from stratovolcanoes and large calderas.

Challis resides in a structural basin bounded on the east by the northern extension of the Borah Peak fault and on the west by a series of smaller

parallel faults. Eocene-age volcanic strata were deposited in a proto-Salmon River canyon deeply incised into Proterozoic-age quartzite, suggesting that the Challis basin formed at least 50 million years ago or before.

PROJECT AREA GEOLOGY

The Salmon River canyon near Challis formed initially by a combination of faulting and stream erosion during and before eruption of the Challis Volcanics. Faults active at the time of volcanism helped form the topography that largely controlled the thickness of volcanic strata blanketing the area. These volcanic strata now tilt gently to the east, reflecting rotation during renewed faulting (Figure 3). The thickness, distribution of strata and the geometry of faults largely control the location, flow volume and flow direction of ground water. The following section discusses these aspects of the Challis area.

STRATIGRAPHY



Figure 3: Photograph (looking north) showing pyroclastic strata immediately north of Challis. City Well-2 is in bottom left of picture; City Well-1 is just below left center.

Strata of the Challis volcanic field in the study area include a lower unit of basaltic lava flows and two upper units of pyroclastic material. The lower unit of the pyroclastic strata includes deposits of unwelded to poorly welded volcanic ash (white beds in Figure 3). The upper unit consists of densely welded ash-flow tuff (reddish beds in Figure 3). Exposures of the basaltic lava flows occur along much of the Garden Creek drainage (Figure 4). The lower lava flows are dark brown to gray, the middle ash unit is brilliant white to pastel green, and the upper welded tuff unit is typically bright orange to crimson red. Color, though

generally not a reliable indicator of rock type, works well to identify the volcanic rocks in the Challis area.



Figure 4: Photograph showing an exposure of basaltic lavas in Garden Creek, approximately 1 mile west of Challis.

BASALTIC LAVA FLOWS

Basalt and andesite lava flows form the lowest unit exposed in the study area (Plate 1, unit Taf). The flow sequence has a variable thickness with an unknown maximum; based on map distribution it is at least 1000 feet thick in the Garden Creek drainage. Volcanic textures displayed in outcrops, such as pyroclastic spatter and spindle bombs incorporated into lavas, show that the flows emanated from nearby sources (Figure 5). Age dates indicate this part of the sequence erupted approximately 50.3 million years ago (McIntyre et al, 1982).



Figure 5: Close-up photograph of the Mafic lava unit. The feature in the center is a spindle bomb ejected from a nearby vent and incorporated into the lava flow.

The generally aphanitic lavas range from aphyric to plagioclase porphyritic. Colonnades and entablatures are generally not well developed, though outcrops show abundant cooling fractures, particularly in flow-brecciated portions. Flow boundaries are generally not visible, probably due to poor exposure. A dark brownish gray to black color on weathered surfaces distinguishes these rocks from the overlying pyroclastic strata. The basaltic lavas form most of the canyon of Garden Creek west of town.

Basalt lavas underlie much of the recharge area for the aquifers that Challis uses. Joints formed during cooling and fractures formed during post-depositional deformation occur throughout the unit, providing avenues for entry and migration of ground water. West Well-2 collared and terminated in the lavas, and is one of Challis's most important sources of water. The well is 605 feet deep, and pumps an average of 450-500 gallons per minute.

AIR-FALL RHYOLITE ASH

The tuff of Penal Gulch, a white to pastel-green volcanic ash erupted from the large Van Horn Peak Caldera complex northwest of Challis (Plate 1, unit Tp; McIntyre, et al,

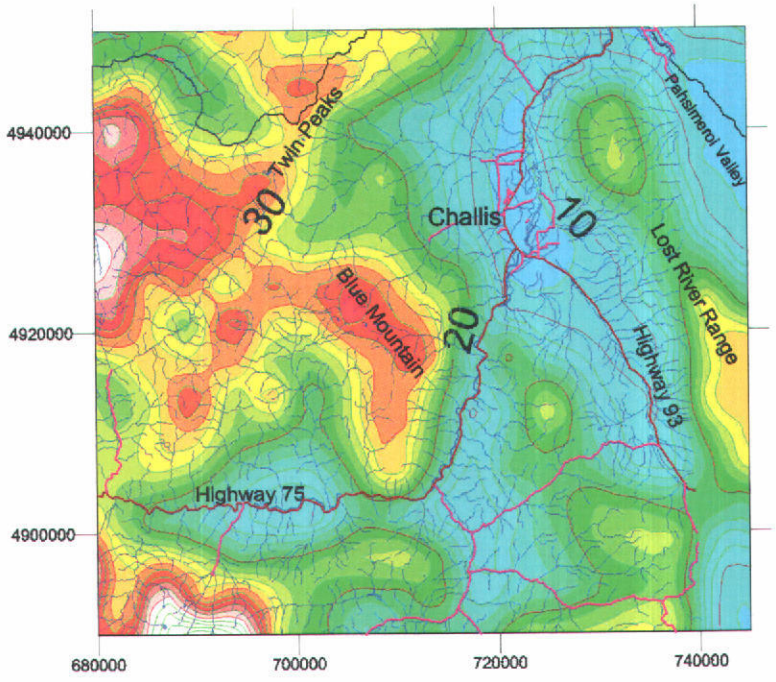


Figure 6: Annual precipitation in the Challis area (after Daly and Taylor, 2001) Coordinates are UTM NAD27-11.

Fractures created during deformation form preferentially in hard, brittle rocks. Two types of volcanic rocks in the Challis area fall into this category, basaltic lava flows and rhyolite ash-flow tuff. Ash-flow tuff, an accumulation of high-temperature ash when deposited, fuses into a dense, vitreous rock. Lower temperature air-fall ash deposits commonly contain abundant clay, which allows the rock to deform without developing through-going fractures. Lava flows and densely welded ash-flow tuff generally create the best aquifers in volcanic rocks because they form the greatest fracture permeability. The terrain surrounding Challis displays an abundance of faults, which influence ground water distribution and flow.

PROJECT AREA HYDROGEOLOGY

Geologic mapping shows that gently inclined volcanic strata in combination with a rectilinear network of faults places strong controls on how and where ground water in the Challis basin flows (Plate 1). This, coupled with low recharge volumes due to the dry climate, provides a unique challenge in locating a sustainable source of water.

Our appraisal of the city water supply shows that water is derived from three independent sources: surface water from Garden Creek, and two ground water aquifers. Challis West Wells #1 and #2 penetrate an aquifer within fractured basaltic lavas. The second ground water system, tapped by Challis East Well #1, occurs in unconsolidated sand and gravel that fill the Salmon River Valley. A third ground water system, not presently utilized, lies within shallow sand and gravel zones that underlie Garden Creek Valley. The following section outlines each of these systems.

GROUND WATER FLOW SYSTEMS IN VOLCANIC ROCK

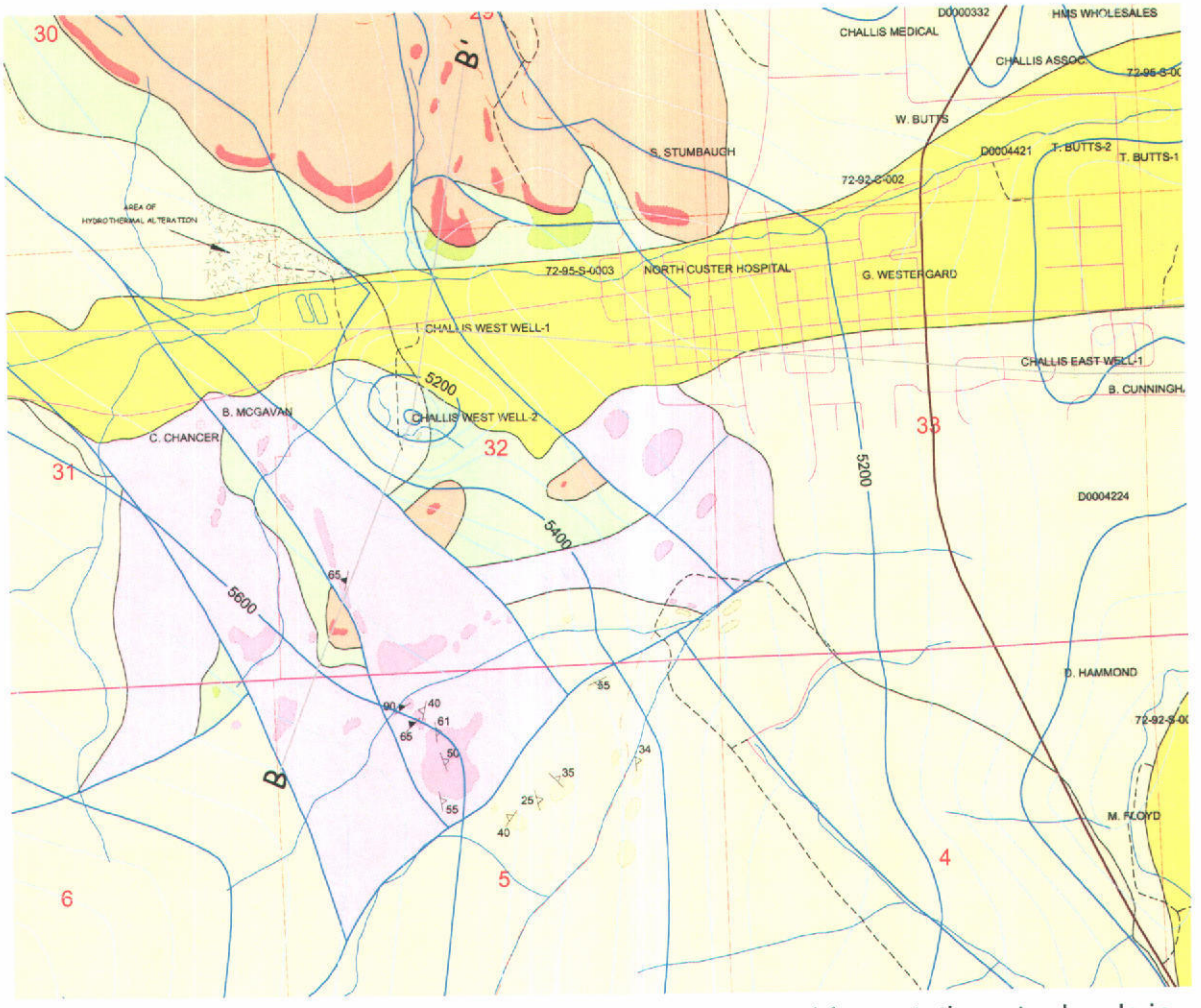


Figure 7: Water table map of the Challis area. Constructed from static water levels in wells and from elevations of perennial streams.

The depth to water in West Well #2 when drilled in 1980 (about 317 feet below land surface) suggests isolation from the surrounding aquifers (Figure 7). This measurement places the water level about 300 ft lower than in any surrounding well. In an effort to check the water level, we attempted to collect a new measurement in West Well #2. We ran 450 ft of water level measurement tape down West Well #2 without encountering any water. This suggests that the water level could have dropped from 317 ft below land surface when the well was drilled to below 450 ft, or that our tape was hung in the well. The fact that the original static water level in West Well #2 was much lower than in the surrounding wells suggests that this well taps a different aquifer than the surrounding wells. The relevant questions then are: 1) does this aquifer receive adequate recharge to supply the city of Challis demands, and 2). From where does this aquifer receive recharge?

2. The amount of annual precipitation, particularly winter snowpack also impacts flow levels.

Figure 6 shows the annual precipitation of the Challis area. This map indicates that most of the water that flows through the garden creek drainage entered the hydrological system from higher elevation terrains to the west.

ANALYSIS OF WELL DEVELOPMENT

WEST WELL #2

Challis West Well-2, a reliable producer of quality water, penetrates an unaltered portion of the lower basaltic lava unit. Long-term utilization of this well depends on present pumping rates in relation to average annual recharge rates. Available information gives conflicting evidence on this issue. First, water level decline may be occurring based on one attempt to measure depth to water in this well. If the water level lies below 450 feet in West Well #2, then water level decline poses a major problem. However, pumping rate measurements do not show a drop, which is the norm during water level decline. Accurate measurement of the static water levels in West Well #2 will resolve this issue.

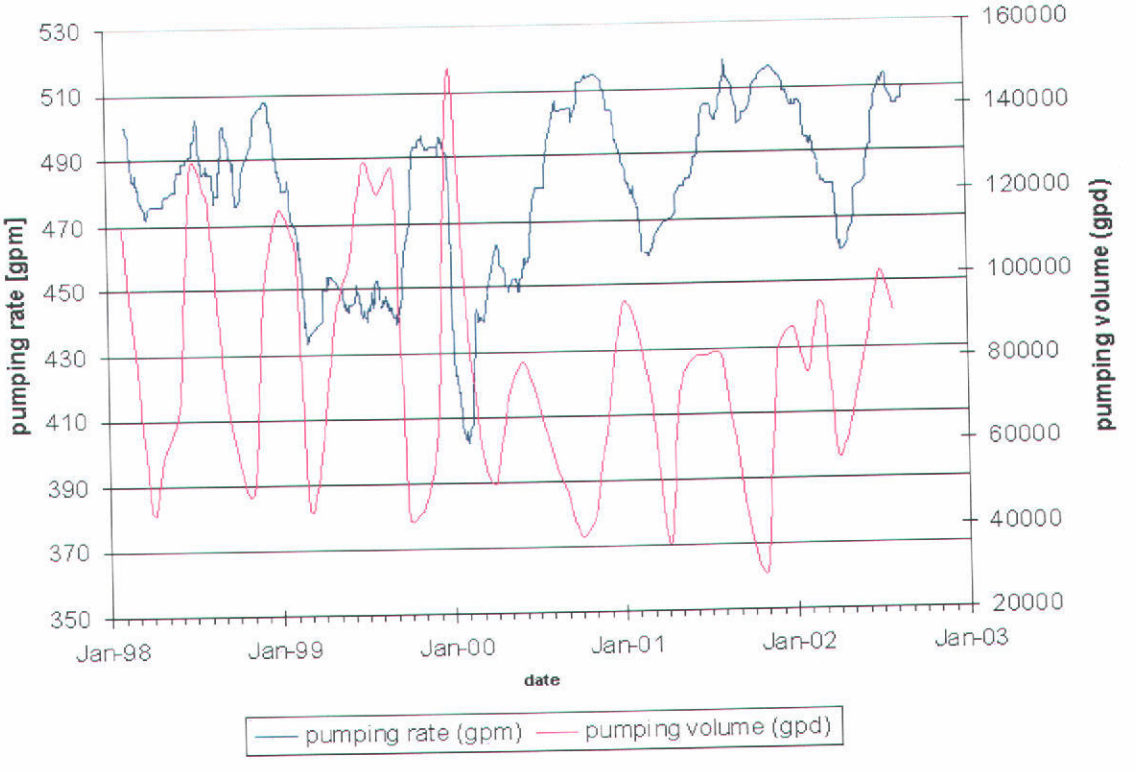


Figure 9. Graph of pumping rate in gpm with respect to time for West Well #2.

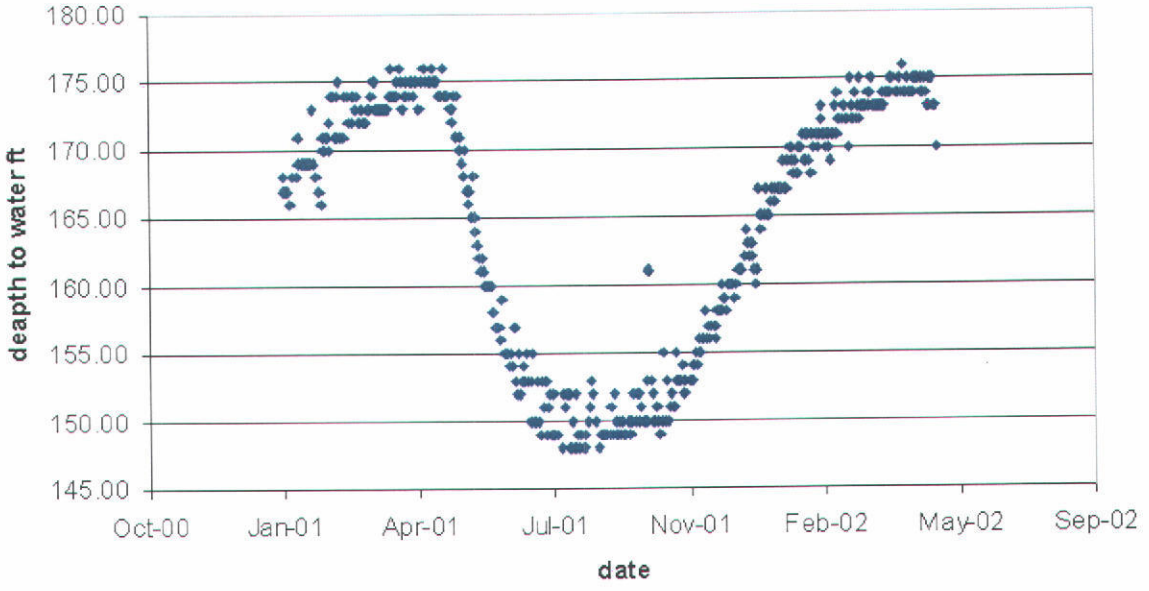


Figure 10. Hydrograph from East Well #1.

DISCUSSION OF RESULTS

The following discussion outlines possible options for Challis to develop additional ground water in:

1. The Garden Creek gravel aquifer,
2. The Salmon River gravel aquifer, and
3. One of the other mapped compartments similar to the West Well #1 aquifer.

A shallow well (ground water diversion) from the Garden Creek gravel aquifer could probably replace the existing surface water system. As such, the resource would be available throughout the year and under fewer regulatory restrictions than the current surface water system. Pumping from this aquifer would directly deplete Garden Creek so perhaps the city could transfer its water right to a well or series of wells along Garden Creek. This strategy would enable the city to use this resource during the winter months as well as summer provided Garden Creek adequately recharges the aquifer. Treatment requirements for a shallow well located near a stream depend on IDEQ designations of whether the well is "under the influence of surface water" or "under the direct influence of surface water". These issues should be investigated in detail prior to any development of the shallow Garden Creek alluvial aquifer. This strategy could diminish recharge to the aquifer supplying West Well #2, so, the necessity to monitor water levels in West Well #2 will increases if this approach is adopted

Drilling a new well along the east edge of the city should tap the Salmon River gravels. East Well #1 penetrates about 250 ft of unproductive fan gravels before encountering

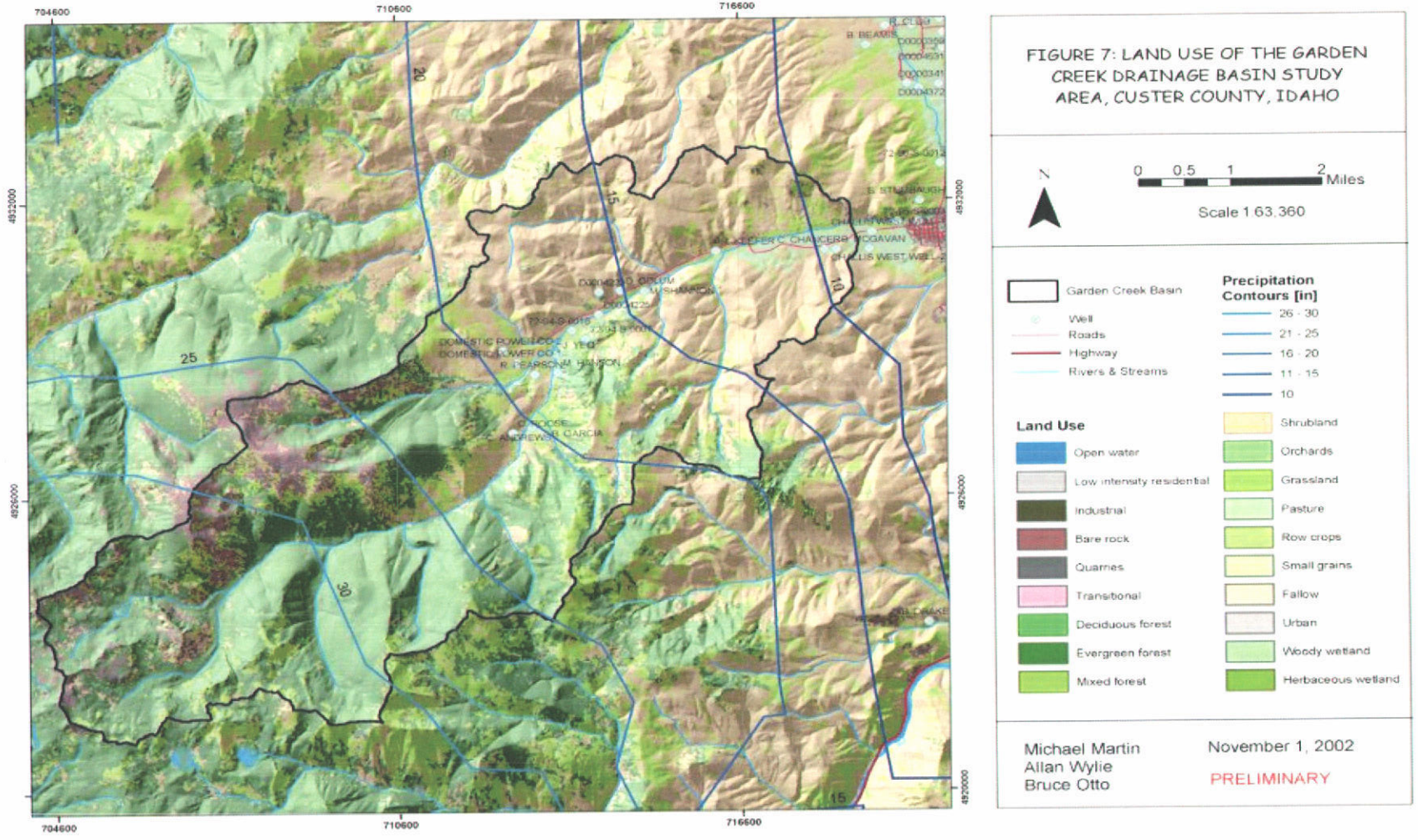
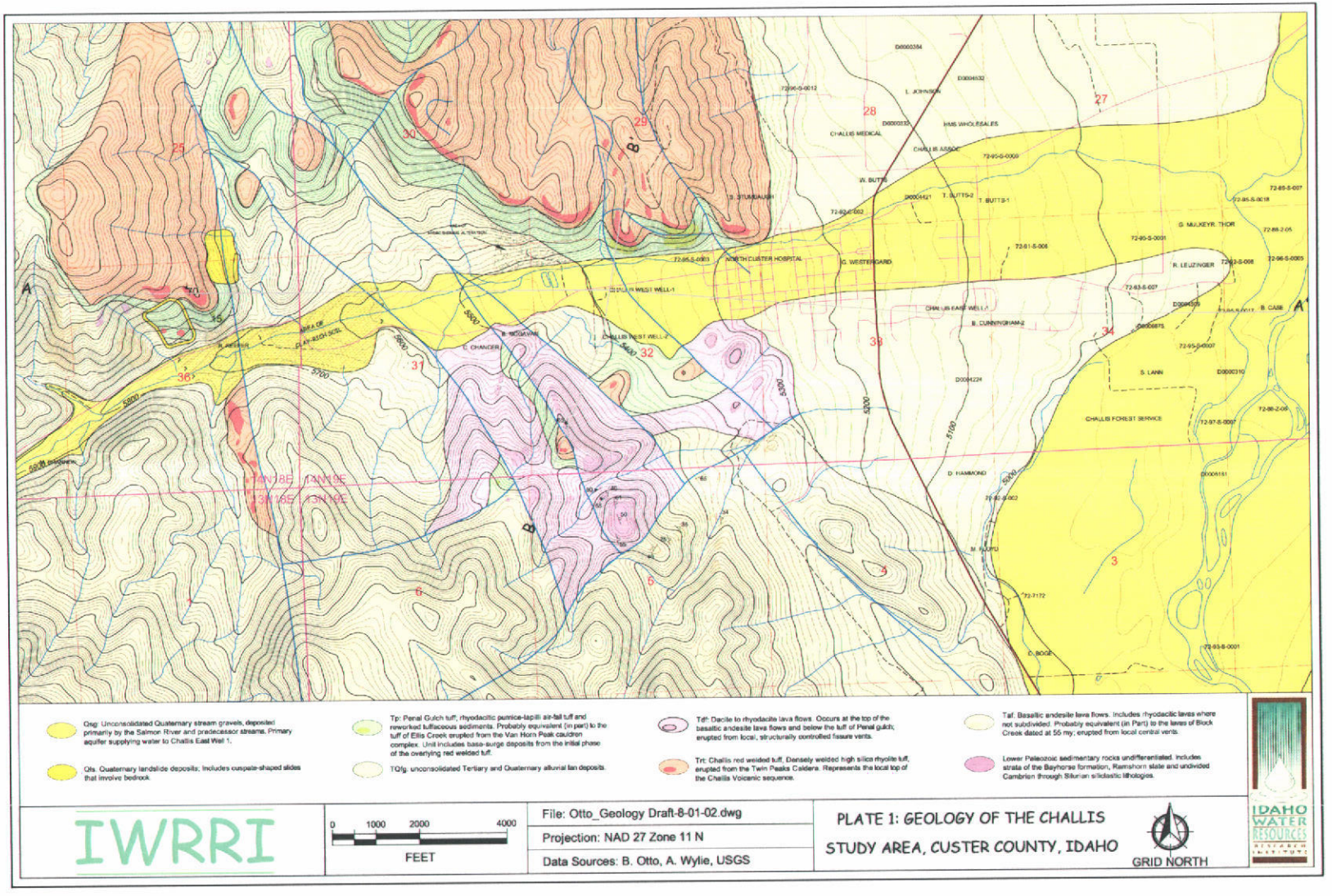
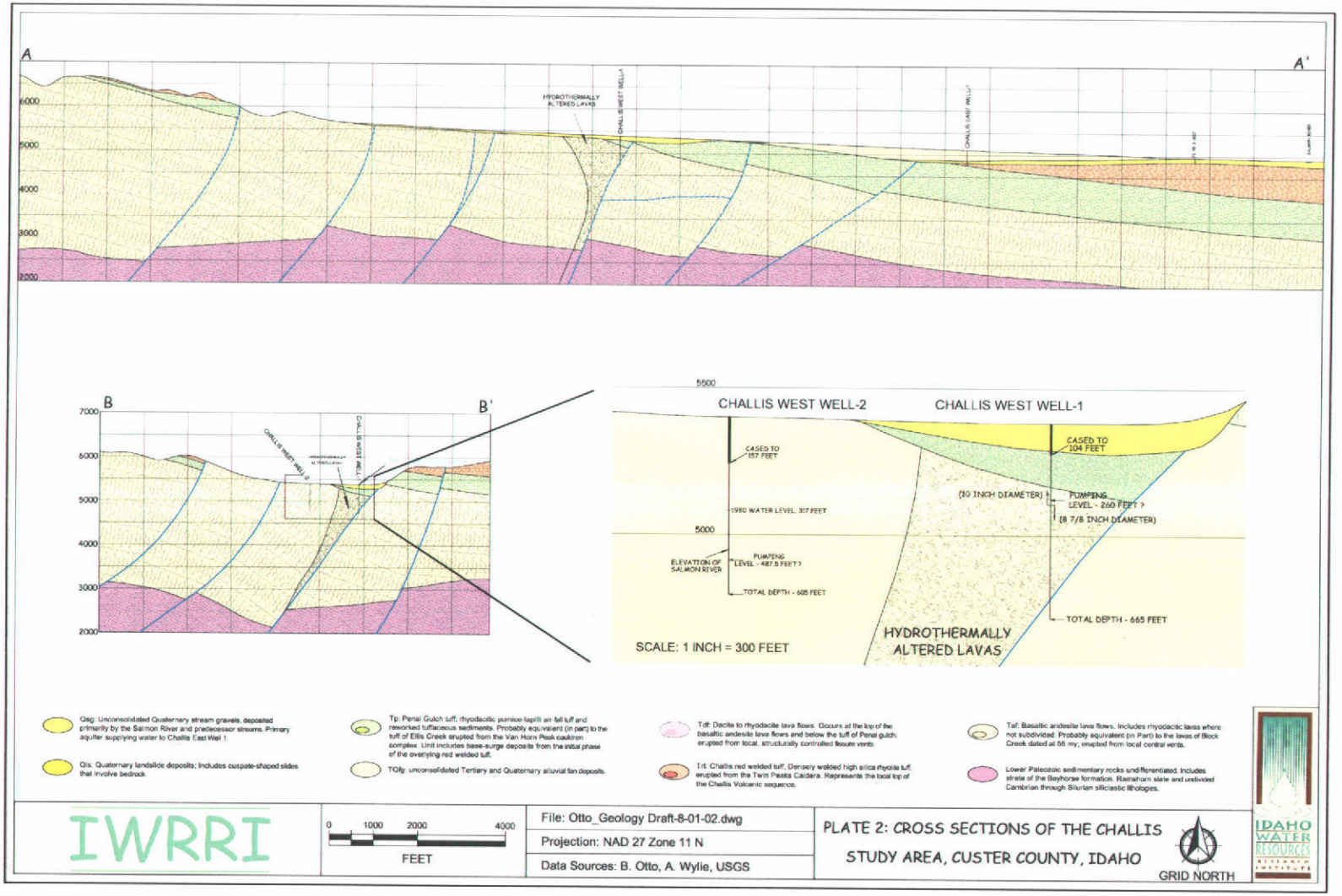


Figure 11: Recharge map for the Garden Creek drainage.


Qsg: Unconsolidated Quaternary stream gravels, deposited primarily by the Salmon River and predecessor streams. Primary aquifer supplying water to Challis East Well 1.
Qls. Quaternary landslide deposits; Includes cuspate-shaped slides that involve bedrock
Tp: Penal Gulch tuff; rhyodacitic pumice-lapilli air-fall tuff and reworked tuffaceous sediments. Probably equivalent (in part) to the tuff of Ellis Creek erupted from the Van Horn Peak cauldron complex. Unit includes basa-surge deposits from the initial phase of the overlying red welded tuff.
TQ/g. unconsolidated Tertiary and Quaternary alluvial fan deposits.
Tdf- Dacite to rhyodacite lava flows. Occurs at the top of the basaltic andesite lava flows and below the tuff of Penal gulch; erupted from local, structurally controlled fissure vents.
Trt: Challis red welded tuff, Densely welded high silica rhyolite tuff, erupted from the Twin Peaks Caldera. Represents the local top of the Challis Volcanic sequence.
Taf: Basaltic andesite lava flows. Includes rhyodacitic lavas where not subdivided. Probably equivalent (in Part) to the lavas of Block Creek dated at 55 my; erupted from local central vents.
Lower Paleozoic sedimentary rocks undifferentiated. Includes strata of the Bayhorse formation, Ramshorn slate and undivided Cambrian through Silurian siliclastic lithologies.
IWRRI
0 1000 2000 4000
FEET
File: Otto_Geology Draft-8-01-02.dwg
Projection: NAD 27 Zone 11 N
Data Sources: B. Otto, A. Wylie, USGS
PLATE 1: GEOLOGY OF THE CHALLIS STUDY AREA, CUSTER COUNTY, IDAHO
GRID NORTH
IDAHO WATER RESOURCES RESEARCH INSTITUTE


A
A'
6000
5000
4000
3000
2000
HYDROTHERMALLY ALTERED LAVAS
B
B'
7000
6000
5000
4000
3000
2000
5500
CHALLIS WEST WELL-2
CHALLIS WEST WELL-1
CASED TO 157 FEET
CASED TO 104 FEET
(10 INCH DIAMETER)
1980 WATER LEVEL 317 FEET
PUMPING LEVEL - 260 FEET ?
(8 7/8 INCH DIAMETER)
5000
ELEVATION OF SALMON RIVER
PUMPING LEVEL - 487.5 FEET ?
TOTAL DEPTH - 605 FEET
TOTAL DEPTH - 665 FEET
SCALE: 1 INCH = 300 FEET
HYDROTHERMALLY ALTERED LAVAS
Qsg: Unconsolidated Quaternary stream gravels, deposited primarily by the Salmon River and predecessor streams. Primary aquifer supplying water to Challis East Well 1.
Qls: Quaternary landslide deposits; Includes cuspate-shaped slides that involve bedrock.
Tp: Penal Gulch tuff; rhyodacitic pumice-lapilli air fall tuff and reworked tuffaceous sediments. Probably equivalent (in part) to the tuff of Ellis Creek erupted from the Van Horn Peak cauldron complex. Unit includes base-surge deposits from the initial phase of the overlying red welded tuff.
TQfg: unconsolidated Tertiary and Quaternary alluvial fan deposits.
Tdf: Dacite to rhyodacite lava flows. Occurs at the top of the basaltic andesite lava flows and below the tuff of Penal gulch; erupted from local, structurally controlled fissure vents.
Trt: Challis red welded tuff; Densely welded high silica rhyolite tuff, erupted from the Twin Peaks Caldera. Represents the local top of the Challis Volcanic sequence.
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Lower Paleozoic sedimentary rocks undifferentiated. Includes strata of the Bayhorse formation. Ramshorn slate and undivided Cambrian through Silurian siliciastic lithologies.
IWRRI
0 1000 2000 4000
FEET
File: Otto_Geology Draft-8-01-02.dwg
Projection: NAD 27 Zone 11 N
Data Sources: B. Otto, A. Wylie, USGS
PLATE 2: CROSS SECTIONS OF THE CHALLIS STUDY AREA, CUSTER COUNTY, IDAHO
GRID NORTH
IDAHO WATER RESOURCES

Protestant's Exhibit C

RECEIVED
MAR 24 2004
Department of Water Resources

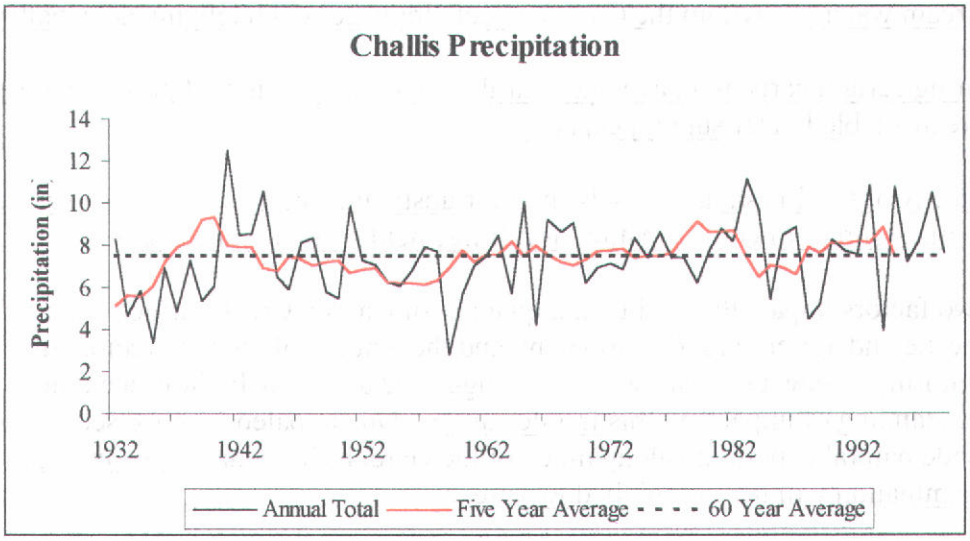
Jeffrey Yeo

RECEIVED
MAR 23 2004
Department of Water Resources
Southern Region

Protest:
Application for Water Right 72-16624

1. LONG-TERM RECORD OF PRECIPITATION FOR CHALLIS

- Periodic historic multi-year droughts, with current period of drought extending from 1999 to present, impact the aquifer.
- 1993, 1995, & 1998 had substantially more precipitation than during previous decade.



2. GARDEN CREEK HYDROLOGY REPORTS

- ***Brockway et al. (1999):*** **Protestant's Exhibit A**

"Yields from wells in the aquifer are low, ranging from 4 gpm to 20 gpm. The aquifer is not suitable for high-demand uses such as irrigation, and is marginally suitable for domestic residences and other low-use facilities."

"The above analysis was performed during a period of above-average water years. During extended drought periods, basin recharge declines and the groundwater discharge could be substantially reduced."

"The total groundwater discharge through the aquifer is estimated to be 14,900 gallons per day, or 16.7 acre-feet per year."

"The daily water demand for the facility [Living Waters Ranch] is approximately 14,750 gpd at maximum capacity after full build-out, which is significantly more than 5000 gpd design capacity of the sewage disposal system."

Department of Water Resources
PROTESTANT'S
Exhibit C
Date Admitted 4/6/04

PROTESTANTS EXHIBIT: J

RECEIVED
MAR 24 2004
Department of Water Resources

RECEIVED
MAR 23 2004
Department of Water Resources
Southern Region

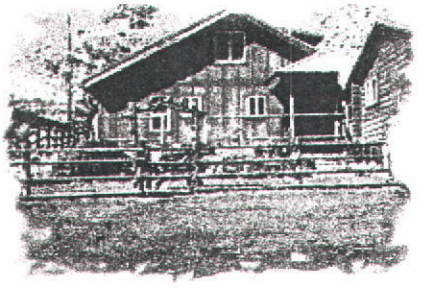
HOME
ABOUT US
RANCH FACILITIES
RECREATION
CAMP CUISINE
RANCH RATES
RESERVATIONS
LOCATE US
LWR NEWSLETTER
LWR NEWSWIRE
CONTACT US

WELCOME TO...

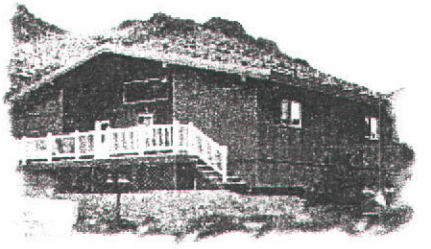
Living Waters Ranch

CONFERENCE AND RETREAT CENTER

Ranch Facilities



White Pine Chalet
2 Queen Bedrooms
1 Loft Bedroom w/5 twin beds



Hosanna House
Mini Lodge
with 8 bedrooms/ 8 baths



Blue Spruce & Evergreen Chalets
Upstairs:
2 Queen Bedrooms
Kitchen/Living Room/Bathroom



Blue Spruce & Evergreen Chalets
Downstairs:
1 Queen Bedroom
1 Bedroom w/2 sets of bunks

Department of Water Resources
PROTESTANT'S
Exhibit J
Date Admitted 4/6/04



Motels
2 Twin Beds w/bath

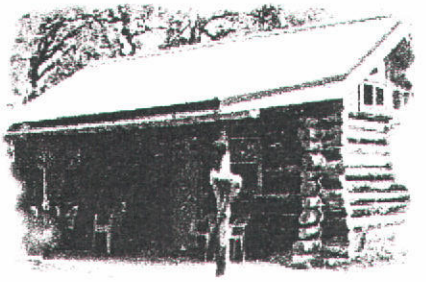


Tent / RV Sites

Bunk Facilities



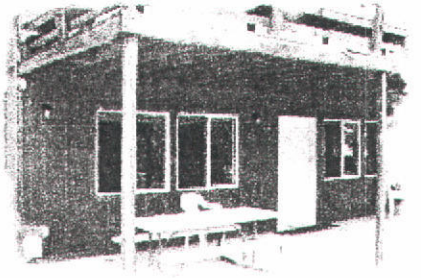
Shiloh Lodge
Sleeps 50 in bunks



Ponderosa Log Cabin
2 Room Log Cabin
Sleeps 24 in bunks



Appaloosa & Bayhorse Bunk Houses
2 rooms sleep 15 each

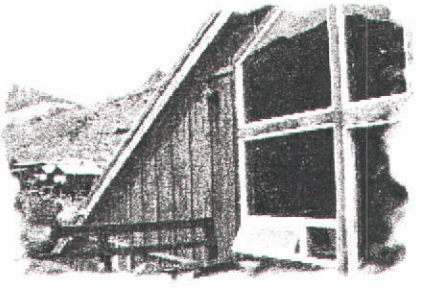


Eagle's Nest
Bunk Room sleeps 32

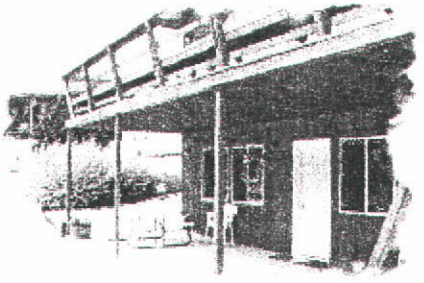
Meeting Rooms



Celebration Hall
Accomodates groups over 400



The Upper Room
Accomodates groups up to 75



Eagle's Nest



Stone Amphitheater

Accomodates groups under 50

Outdoor meeting area



Lion's Den
Recreation Room

Home | About Us | Ranch Facilities | Recreation | Camp Cuisine | Ranch Rates
Reservations | Locate Us | LWR Newsletter | LWR Newswire | Contact Us

© 2002 Living Waters Ranch, Christopher and Debbie James

Site developed by: Brieanna Korb

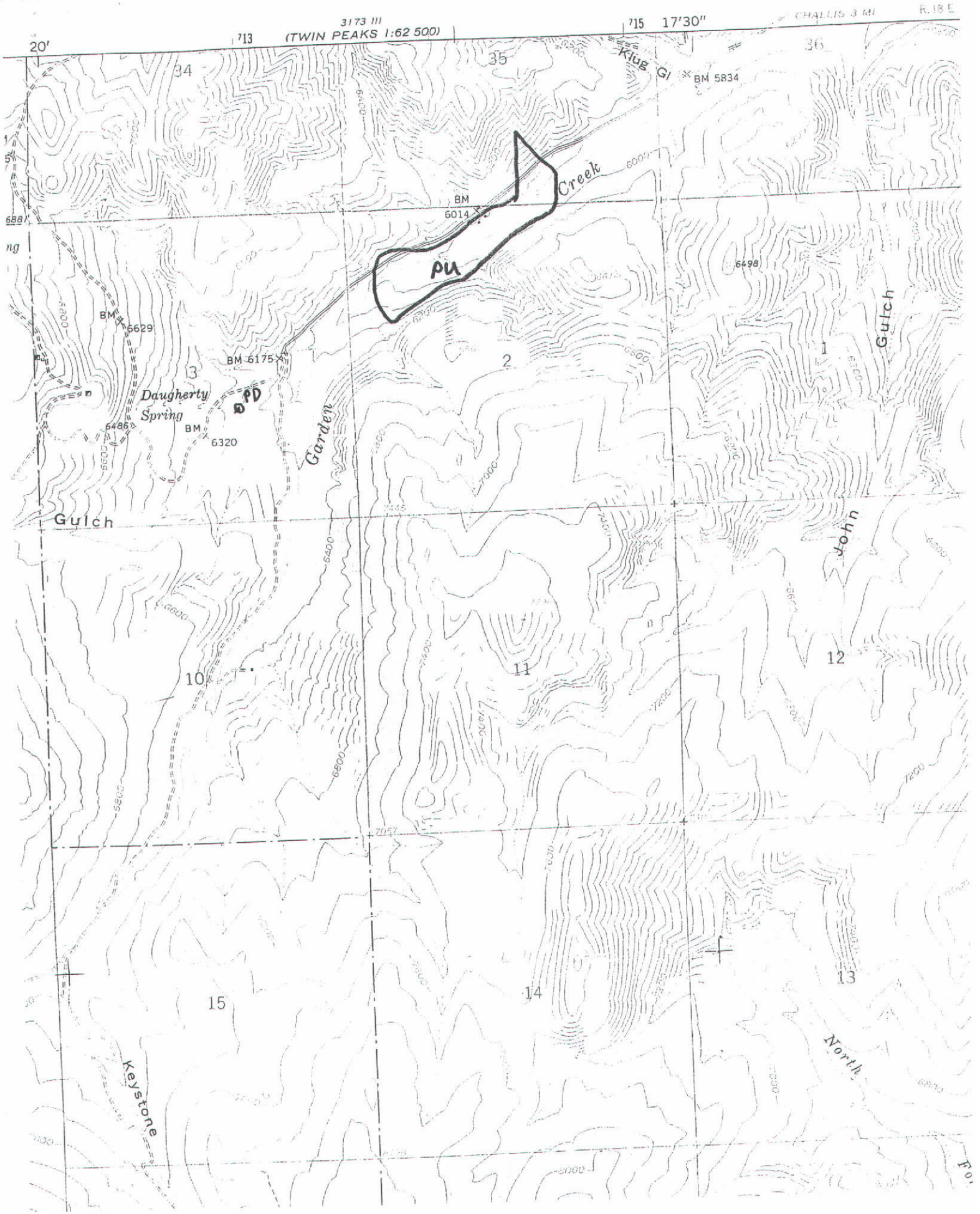
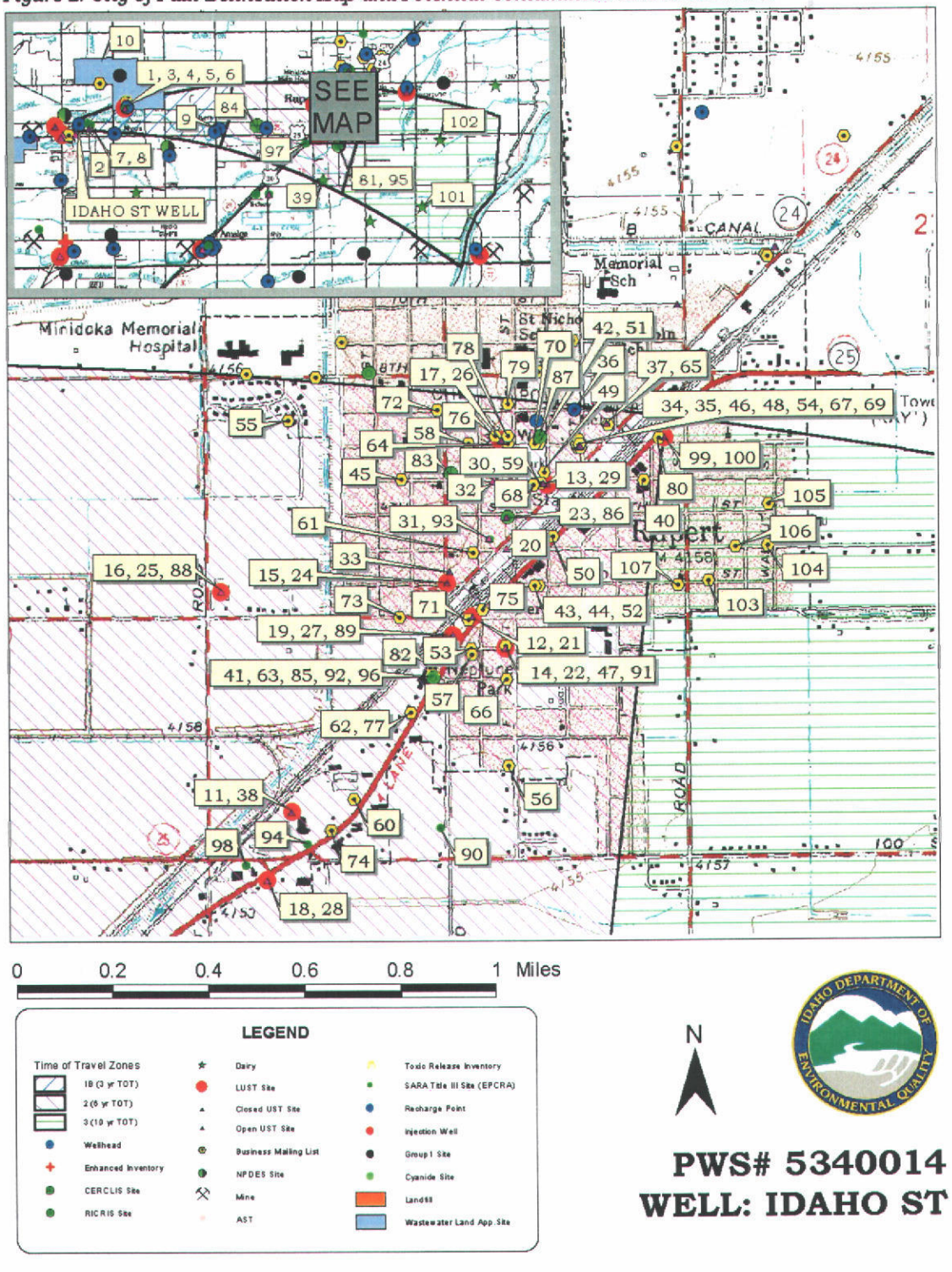

3173 III
(TWIN PEAKS 1:62 500)
17'30"
CHALLIS 3 MI
R.18 E
20'
713
715
34
35
36
Klug Gl
BM 5834
Creek
BM
6014
PU
6498
BM
6629
BM 6175
3
2
1
Gulch
Daugherty
Spring
PD
6486
BM
6320
Garden
Gulch
John
10
11
12
15
14
13
Keystone
North

Figure 2. East Well #1 Source Water Delineation

Figure 2. City of Paul Delineation Map and Potential Contaminant Source Locations



State of Idaho
Department of Water Resources

ROSTER OF ATTENDANCE

IN THE MATTER OF APPLICATION FOR PERMIT NOS. 72-16624 AND 72-16625 IN THE NAME OF FIRSTFRUITS FOUNDATION AND CHRISTOPHER W. JAMES TRUST

Date: April 6, 2004
Time: 9:00 a.m.
Location: Courtroom
Custer County Courthouse
Challis, ID
Hearing Officer: L. Glen Saxton

** *Please Print* **

NAME	ADDRESS	REPRESENTING (Applicant, Protestant)
Debbie James	P.O. Box 510 Challis	Living Waters Ranch
Christopher James	" "	" " "
[illegible]	PO Box 299 Challis	Self
Mark Bunyan	P.O. Box 1122	LWR
Dannie Rowles	P.O Box 1087	Protestant
Marion McDaniel	P.O. 587	City of Challis
Jerry Mass	P.O. 587	City of Challis
Don Rowles	PO 1087	Protestant Garden Creek Water Dist 72-B
Todd Adams	P.O. Box 1151/Challis	Challis Messenger
Claudia Whitten	P.O. Box 1026	City of Challis Self
Jack S. Hammond, PE	Gooding, ID PO Box 127,	Applicant
Joe D Chester	P.O. Box 759	Applicants

ROSTER OF ATTENDANCE - PAGE 2

* * Please Print * *

NAME	ADDRESS		REPRESENTING
Bob STEckman	HC 61 Box 3065	Challis	Challis Golf Assn.

MEMORANDUM

To: L. Glen Saxton

From: Karl J. Dreher

RE: APPOINTMENT AS HEARING OFFICER - PROCEDURE RULE 410

Date: March 16, 2004

You are hereby appointed as hearing officer and are authorized to represent the Department as provided by IDAPA Rule 37.01.01410 (Procedure Rule 410) in the following matter:

IN THE MATTER OF APPLICATION FOR PERMIT NOS. 72-16624 AND 72-16625 IN THE NAME OF FIRSTFRUITS FOUNDATION AND CHRISTOPHER W. JAMES TRUST

Date: April 6, 2004

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Challis, ID

State of Idaho
Department of Water Resources

ROSTER OF ATTENDANCE

IN THE MATTER OF APPLICATION FOR PERMIT NOS. 72-16624 AND 72-16625 IN THE NAME OF FIRSTFRUITS FOUNDATION AND CHRISTOPHER W. JAMES TRUST

Date: August 10, 2004
Time: 9:00 a.m.
Location: Courtroom
Custer County Courthouse
Challis, ID
Hearing Officer: L. Glen Saxton

* * *Please Print* * *

NAME	ADDRESS	REPRESENTING (Applicant, Protestant)
Don Rowles	PO Box 1087 Challis	Garden Water Dist 72B
Bonnie Rowles	PO BOX 1087 Challis	Protestant
Marion McDaniel	P.O. Box 587 Challis	City of Challis
Debbie James	P.O. Box 510 Challis	Living Waters Ranch
MARK BRYAN	Po Box 1122 CHALLIS	LIVING WATERS RANCH
Christopher James	PO Box 510 Challis	Living Waters Ranch
Jean Dair	PO Box 934 Challis	City of Challis
Jim Chu	P.O Box 757 Challis	I W R
Jack S. Hammond	2510 Valley View Dr. Clarkston WA	I W R
Anna Means	Box 405 Challis	Challis Messenger

QUESTIONS

1. Need to identify location of the 1.5 acres offered for mitigation by quarter-quarter.

2. Dimensions of the aesthetic pond? How deep?

3. Identify the water rights that are used in connection with the pond?

4. What are the rights of the city of Challis? Surface or ground water rights? What are the water right identification numbers?

watermaster job

"overallocated"

"mitigation"

Calcs

8-11-04

13,000 gpd → 14.6 AF

25% Consumptive

~~for~~ CU = 2.5 AF/acre

Calcs

$$\frac{14.6\,AF(0.25)\,ac}{2.5\,AF} = 1.46\,acres \rightarrow 1.5\,acre$$

Pond evap.

0.15 acre (2.5) = 0.4 AF

0.4 AF (325,850) = 130,340 gallons

Finishing & Cancel – location of 1.5 acres.

– Location

(Lot 3 (NENW) Sec 2, T13N, R18E

Lot 2 " " " "

Area incl Shiloh lodge, Parking lot, Shop & bone yard E. of shop

Basketball & Volley ball court

TAPE Log

72-16624 & 72-16625 Amended Applications

8/19/04

by ADM

0000 – 014.0	Glen's Introduction
014.2 – 048.6	Christopher James Direct
077.6 – 085.8	McDaniel – X
086.0 – 101.0	Ms. Rowels – X
101.6 – 152.9	Mr. Rowels – X
	112.0 ? about pond & algae
152.9 – 163.3	Christopher James Re-Direct
165.0 – 172.8	McDaniel – Direct
173.0 –	James X of McDaniel
182.9	
186.9	Jon wire garden
	cutting 187.9 WR
189.0	50 gpm loss
192.0	Ms. Rowel – X

206.0 – 216.6	Jerry Moss – City Water Supervisor 11-5 water restrictions
216.6 –	Mr. Rowels – X
229.4 – 236.6	Mr. James – X
240.0 – 296.5	Ms. Rowels – Direct ? about organization camp 270.8 Transfer Processing Memo 291.4 Mitigation? for pond
296.9 – 301.7	James – X by James
307.3 – 323.9	Mr. Rowels – Source of Volume – 2 – replacements/days – meas. device on fountain
323.9	Mr. James – X

329.5 — 66ks wrap-up
exhibit "5"

348.2

work Sheet

Applicant's Exhibits:

1. Letter dated March 1, 2004, from Christopher W. James with the following attachments in connection with Application for Permit No. 72-16624:

    1. Water measurement readings for Well #2 for 2001, 2002 and 2003
    2. Letter dated September 5, 2003, to Karl Dreher and Jim Stanton from Christopher W. James
    3. Financial statement from Wells Fargo Bank Northwest for Firstfruits Foundation
    4a. Letter dated March 3, 2003, to Gloria Jakovak from William Teuscher
    4b. Letter dated February 14, 2003, to Gloria Jakovak from Kellye Eager
    5. Letter dated May 29, 2002, to Catherine Becker from Corey Skinner
    6. Schematic of Living Waters Ranch

2. Letter dated March 1, 2004, from Christopher W. James with Attachment 1 in connection with Application for Permit No. 72-16625

3. 2 Letters — Admitted

4. 7/20/04 Letter & Pond sketch —

5. Meter Readings —

6. Pond Calculation — ✓

worksheet

Protestant's Exhibits:

A. Report titled Hydrologic Investigation of the Garden Creek Watershed and Aquifer prepared by Brockway Engineering - February 11, 1999
B. Report titled Hydrogeologic Analysis of the Water Supply for the Community of Challis, Custer County, Idaho prepared by Idaho Water Resources Research Institute – February 25, 2003 (Preliminary Draft)
C. Protest of Jeffrey Yeo
D. Protest of Bonnie Rowles
E. Letter dated May 21, 2002, to Department of Water Resources from Catherine Becker
F. Letter dated July 10, 2003, to Custer County Commissioners from Catherine Becker
G. Letter dated July 22, 2003, to Garden Creek Association from Catherine Becker
H. Letter to Betty Horn from Don Munkers (Not dated)
I. Living Waters Ranch Well #1 Meter Readings – 2003, 2002 and 2001
J. Information from Living Waters Ranch website
K. Letter dated August 1, 2000, to Mark Dietrich from Christopher W. James and letter dated August 17, 2000, to Charles G. Brockway from Christopher James
L. Application for Permit (draft)
M. Letter dated July 21, 2003, to Christopher James from James E. Stanton
N. Phase 1 Sewer System Log – Living Waters Ranch
O. Summary by Garden Creek Water District of Factors Pertaining to Application for Permit no. 72-16625
P. Letter dated September 30, 2003, to Steve Adams from William Teuscher
Q. Letter dated December 19, 2003, to Steve Adams from William Teuscher

R. Letter dated July 24th 2008 to DEQ (Admitted)

S. Drinking water Protection Plan (Draft)

T. Sketch of Pond X-Section (Admitted)

NOTES

First Fruits Hearing
aug 10, 2004 - Challis, Id

Applicant - Christopher Jones

Protestants
Bonnie Rowles (Rolls)
Jeffrey "Jeo" Yo"
Water Distr. 72-B (Don Rowles)
City of Challis - Marion McDaniels

- m. McDaniel

Protestants - ms. Rolls
- mr. Rolls

mr Jones

Exh R - or
P
Ex - 5 -

Applicant
Exh 3 -
4 -
5 - meter

McDaniel Rolls Rolls James

14.7 Christopher James direct
Rep to Exh. 3.

32 - Reports - Brockway
IWRRI

50. amendment explanation

App 2-16624 -

16625 - algae concern
0.1 → 0.2

- other source

- Mtn View Chalet property
"own water rt"

86 Rolls x-exam of James

2 wells on Mtn View property

2. "decomission"? - not being used.
2. "transfer" terminology

95. no flow meters

101 mr. Rolls x-exam

McDaniel

Mr. Rolls x-exam of James — Rolls — Rolls

James

- Domestic well only on upstream

116.- Fountain flow ? unknown
0.06 cfs from babbler
0.34 cfs thru domestic
0.40 cfs

124 ~~12~~ pond 7 or 8' deep at deepest point,
139. ? on mitigation
151 algae

153. James redirect
243K gallons in pond

165. End of James redirect

167 McDaniel direct
- overallocated - Garden Cr.
- may impact only

174 James x-exam of McDaniel

176. McDaniel redirect
- James water shut off

185 John Weingartner (watermaster)
- cutting 1879 rights

McDaniel Rolls Rolls James

187. John Weingarner direct (con't)

Rolls ? of Weingarner

197 mr. Rolls x-exam of Weingarner

206 James x-exam of Weingarner

213. Allen M. question of weingarner

216. Jerry Moss public water works Supervisor.

— water conservation - no water between 11° + 5 P.

229 James x of Moss.

236 End Moss

238 Mrs. Rolls direct

278 Transfer proc memo #24 on pg 22

279 Do water at is shut off, should all domestic water be shut off to Living Water Ranch

McDaniel Rolls Rolls James

282 Mrs. Rolls direct (con't)

296. James x-exam of Mrs. Rolls

306 Mr. Rolls direct

- Overallocated water
- Wants water loss measurements
- "Prior to" — concern

323 James x-exam of Rolls

State of Idaho
Department of Water Resources

Permit to Appropriate Water

NO. 72-16624

Priority: October 15, 2002 Maximum Diversion Rate: 0.20 CFS

This is to certify, that FIRSTFRUITS FOUNDATION
PO BOX 510
CHALLIS ID 83226

CHRISTOPHER W JAMES TRUST
CHRISTOPHER JAMES TRUSTEE
PO BOX 510
CHALLIS ID 83226

has applied for a permit to appropriate water from:

Source: GROUND WATER

and a permit is APPROVED for development of water as follows:

BENEFICIAL USE	PERIOD OF USE	RATE OF DIVERSION
DOMESTIC	01/01 to 12/31	0.20 CFS

LOCATION OF POINTS OF DIVERSION:

GROUND WATER NW¼SE¼ Sec. 3, Twp 13N, Rge 18E, B.M., CUSTER County
GROUND WATER L3 (NE¼NW¼) Sec. 2, Twp 13N, Rge 18E, B.M., CUSTER County

PLACE OF USE: 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	
13N 18E 2		X			X	X	X										
		L 2			L 3	L 4											
14N 18E 35															X		

CONDITIONS OF APPROVAL

1. Proof of application of water to beneficial use shall be submitted on or before **September 01, 2006.**
2. Subject to all prior water rights.
3. The quantity of water diverted under this right shall not exceed 13,000 gallons per day and 14.6 AF per year.
4. To mitigate for the depletion of water resulting from the use of water under this right and to prevent injury to senior water right holders, the right holder shall cease diverting and using water as authorized by the following water rights for the purposes and amounts specified below. Moreover, the official record for the following water right(s) will be changed to show that diversion and use of water is not authorized because the rights, or portion(s) thereof, are being dedicated to mitigation purposes.

Right No.	Use Changed to Mitigation	Mitigation Rate	Mitigation Acres
72-106J	Irrigation	0.06	1.5
72-109J	Irrigation	0.06	1.5
72-4174C	Irrigation	0.03	1.5
72-10486C	Irrigation	0.06	1.5

State of Idaho
Department of Water Resources

Permit to Appropriate Water

NO. 72-16624

The land that will no longer be irrigated under these rights is located within Govt. Lot 3 (NE¼NW¼), Section 2, Township 13 North, Range 18 East, B.M.
If the specified mitigation rights, or portions thereof, are sold, transferred, leased, used on any place of use, or are not deliverable due to a shortage of water or a priority call, then the amount of water authorized for diversion under this permit shall be reduced by the same proportion as the reduction to the mitigation rights.

5. Right holder shall comply with the drilling permit requirements of Section 42-235, Idaho Code, and applicable Well Construction Rules of the Department.
6. Prior to the diversion and use of water under this approval, the right holder shall comply with applicable water quality standards of the Department of Environmental Quality.
7. Water diverted under this right shall not be used for irrigation purposes.
8. Prior to diversion of water under this right, the right holder shall install and maintain suitable measuring devices at the points of diversion to measure the rate of diversion and volume of water diverted and shall report the amounts to the Department at a frequency determined by the Department.
9. Use of water is for domestic purposes in connection with a church camp/conference center.
10. This issuance of this right does not grant any right-of-way or easement across the land of another.
11. The permit holder shall allow access by the watermaster of State Water District 72-B to the measuring devices installed at the points of diversion.
12. Failure to comply with these conditions of approval is cause for the Director to void the permit.

This permit is issued pursuant to the provisions of Section 42-204, Idaho Code. Witness the signature of the Director, affixed at Boise, this 4th day of October, 2004.

KARL J DREHER, Director

BEFORE THE DEPARTMENT OF WATER RESOURCES

OF THE STATE OF IDAHO

IN THE MATTER OF APPLICATION FOR PERMIT NOS. 72-16624 AND 72-16625 IN THE NAME OF FIRSTFRUITS FOUNDATION AND CHRISTOPHER W. JAMES TRUST	)	**AMENDED PRELIMINARY ORDER**

On April 23, 2004, the hearing officer for the Idaho Department of Water Resources ("Department" or "IDWR") issued a Preliminary Order in connection with the above captioned matter. The parties subsequently filed petitions for reconsideration and exceptions to the Preliminary Order.

Before the Department issued a Final Order in the matter, Firstfruits Foundation and Christopher W. James Trust filed an application for amendment of each application for permit. On June 7, 2004, the Director of the Department remanded the matter to the hearing officer to take additional testimony relative to the applications for amendment.

After conducting the second hearing on remand in the matter, the hearing officer enters the following Findings of Fact, Conclusions of Law and Amended Preliminary Order:

FINDINGS OF FACT

1. On October 15, 2002, Firstfruits Foundation and Christopher W. James Trust ("applicant") submitted Application for Permit No. 72-16624 ("application") to the Department proposing the diversion of 0.20 cubic feet per second ("cfs") of ground water to be used year-round for domestic purposes. The location of the point of diversion is within NW1/4SE1/4 Section 3, T13N, R18E, B.M., Custer County, Idaho and the proposed place of use is within lots 2, 3 and 4, S1/2 NW1/4 Section 2, T13N, R18E, B.M. and SW1/4SE1/4 Section 35, T14N, R18E, B.M.

(Note: The "1/4" designations will be omitted from subsequent legal descriptions in this order).

2. On October 15, 2002, the applicant also submitted Application for Permit No. 72-16625 ("application") to the Department proposing the diversion of 0.40 cfs of water from Garden Creek tributary to the Salmon River to be used from April 1 to October 31 for aesthetic purposes. The location of the point of diversion and place of use are within lot 3 Section 2, T13N, R18E, B.M., Custer County, Idaho.

3. The applicant subsequently submitted an application to amend application 72-16624 by adding a point of diversion located in NENW Section 2, T13N, R18E, B.M. known as Well #2 and by adding property referred to as the Mountain View Acquisition located in SWSE Section 14, T18E, B.M. as part of the place of use. The applicant also submitted an application to amend application 72-16625 by adding a second point of diversion in the NESE Section 3, T13N, R18E, B.M.

4. The Department published notice of application 72-16624 and its amendment that were protested by Bonnie Rowles, Jeffrey J. Yeo, and the city of Challis. Application 72-16625 and its amendment were protested by Dee Keppner on behalf of Water District 72-B and by the city of Challis.

5. On April 6, 2004 and on August 10, 2004, the Department conducted hearings in the matter in Challis, Idaho. Christopher W. James was present and represented the applicant. Protestants Bonnie Rowles and Jeffrey J. Yeo were present and represented themselves although Jeffrey J. Yeo did not appear at the August 10 hearing. Don Rowles, a member of the Water District 72-B advisory committee was present on behalf of protestant Water District 72-B. Marion McDaniel appeared for the city of Challis.

6. Issues the Department can consider under section 42-203A, Idaho Code, in this matter are as follows:

a. Whether the appropriation will reduce the quantity of water under existing water rights;
b. Whether the water supply itself is insufficient for the purpose for which it is sought to be appropriated;
c. Whether the application is made in good faith, or is made for delay or speculative purposes;
d. Whether the applicant has sufficient financial resources with which to complete the work involved therein;
e. Whether the proposed appropriation will conflict with the local public interest;
f. Whether the proposed appropriation is contrary to conservation of water resources within the state of Idaho; and
g. Whether the proposed use will adversely affect the local economy of the watershed or local area within which the source of water for the proposed use originates, in the case where the place of use is outside of the watershed or local area where the source of water originates.

7. Exhibits premarked, offered or accepted as a part of the record are as follows:

Applicant's Exhibits:

1. Letter dated March 1, 2004, from Christopher W. James with the following attachments in connection with Application No. 72-16624:

1. Water measurement readings for Well #2 for 2001, 2002 and 2003
2. Letter dated September 5, 2003, to Karl Dreher and Jim Stanton from Christopher W. James
3. Financial statement from Wells Fargo Bank Northwest for Firstfruits Foundation

4a. Letter dated March 3, 2003, to Gloria Jakovak from William Teuscher

4b. Letter dated February 14, 2003, to Gloria Jakovak from Kellye Eager

5. Letter dated May 29, 2002, to Catherine Becker from Corey Skinner
6. Schematic of Living Waters Ranch

2. Letter dated March 1, 2004, from Christopher W. James with Attachment 1 in connection with Application for Permit No. 72-16625
3. Letter dated July 30, 2004, to Firstfruits Foundation/Christopher W. James Trust from Allen Merritt and a letter dated August 9, 2004, to L. Glen Saxton from Christopher W. James
4. Letter dated July 20, 2004, to Interested Parties from Mark Bryan, a plan view sketch of the aesthetic pond and a photograph of the pond
5. Meter readings for Well #2
6. Calculations of water volume in the aesthetic pond

Protestant's Exhibits:

A. Report titled Hydrologic Investigation of the Garden Creek Watershed and Aquifer prepared by Brockway Engineering - February 11, 1999
B. Report titled Hydrogeologic Analysis of the Water Supply for the Community of Challis, Custer County, Idaho prepared by Idaho Water Resources Research Institute – February 25, 2003 (Preliminary Draft)
C. Protest of Jeffrey Yeo
D. Protest of Bonnie Rowles
E. Letter dated May 21, 2002, to Department of Water Resources from Catherine Becker
F. Letter dated July 10, 2003, to Custer County Commissioners from Catherine Becker
G. Letter dated July 22, 2003, to Garden Creek Association from Catherine Becker
H. Letter to Betty Horn from Don Munkers (Not dated)
I. Living Waters Ranch Well #1 Meter Readings – 2003, 2002 and 2001
J. Information from Living Waters Ranch website
K. Letter dated August 1, 2000, to Mark Dietrich from Christopher W. James and letter dated August 17, 2000, to Charles G. Brockway from Christopher James
L. Application for Permit (draft)
M. Letter dated July 21, 2003, to Christopher James from James E. Stanton
N. Phase 1 Sewer System Log – Living Waters Ranch
O. Summary by Garden Creek Water District of Factors Pertaining to Application for Permit no. 72-16625

P. Letter dated September 30, 2003, to Steve Adams from William Teuscher
Q. Letter dated December 19, 2003, to Steve Adams from William Teuscher
R. Letter dated July 24, 2004, to Department of Environmental Quality from Bonnie Rowles
S. Drinking Water Protection Plan for the City of Challis - Draft
T. Schematic drawing - Elevation view of aesthetic pond

The hearing officer officially noticed the following information:

- Administrative rules of the Department of Water Resources

- Administrative rules of the Department of Environmental Quality for public drinking water systems identified as IDAPA 58.01.08

- Well driller reports in Department files including the report for the domestic well drilled in 1997 for protestant Jeffrey Yeo

- IDWR Administrator's Memorandum - Transfer Processing No. 24 - Re: Transfer Processing Policies and Procedures - dated October 30, 2002

8. The applications seek the use of water in connection with a church camp/conference center ("church camp") that is located about 4 miles west of the city of Challis, Idaho in the Garden Creek drainage. Existing facilities at the church camp include an 8,500 square foot chapel designed to accommodate 450 people, a 5,000 square foot lodge with a sleeping capacity of 50 persons, 9 chalets, two mini lodges, 12 motel units, a shop, a powerhouse, a manager's residence, a shower house, RV sites some with facilities and some without facilities, and a tent camping area. The applicant plans additional development such as a cafeteria, an activities building and more individual rental units. The applicant can sleep about 236 people at the church camp.

9. Presently the church camp receives water from a well identified as Well #2 (aka the mechanical building well) that was drilled in 1997 to a depth of 63 feet. The well provides about 15 gallons per minute ("gpm") of water. A 35,000 gallon elevated water storage tank is part of the water distribution system and is used to stabilize fluctuating water demands and to provide water for fire protection. The applicant wants to cease use of this well and to use the artesian well described in application 72-16624 in order to minimize contamination problems that the applicant has experienced using Well #2. The applicant, however, wishes to retain the use of Well #2 for as a backup well for the church camp. There is not a recorded water right for use of Well #2.

10. The applicant does not have other ground water rights for domestic use for the church camp other than perhaps an unrecorded, unquantified domestic use from a well on the Mountain View property that the applicant has acquired.

11. The new well sought for use under application 72-16624 is an existing artesian well located about 0.8 miles upgradient from the church camp. The depth of the well is about 400 feet below land surface. Although the rate of flow available from the well is disputed, the applicant has pumped 40 gpm from the well in excess of 3

hours with a draw down of about 20 feet.

12. The applicant owns several water rights diverted from Garden Creek that are used for the irrigation of the applicant's land. The irrigated lands include a 7.5 acre tract furthest upstream, a 13.2 acre tract upstream and adjacent to the church camp and a 3.3 acre tract downstream from the church camp.

13. Existing development in the Garden Creek drainage, not counting the applicant's development, includes about 12 single-family residences up gradient from the church camp and about 8 or 9 residences down gradient. Ground water generally is not used for irrigation in the drainage.

14. The total annual surface water yield from the Garden Creek drainage is estimated to be 13,530 acre feet ("AF") of which the estimated amount of ground water discharge is 16.7 AF per year. Garden Creek gains water in some reaches and loses water in other reaches. (See Protestant's Exhibit A).

15. Ground water and surface water in the Garden Creek drainage upstream from Challis are hydraulically connected. Depletion of ground water will decrease the amount of surface water available in Garden Creek. (See Protestant's Exhibit A).

16. Protestant's Exhibit A, prepared in connection with the applicant's facility concludes that "The aquifer is ... marginally suitable for domestic residences and other low-use facilities." The report also concludes that depletion of ground water at the facility will result in decreased discharge of Garden Creek with the long-term impact on the aquifer being a lowering of the water table and a corresponding decrease in reach gains and an increase in reach losses.

17. Water level measurements taken from the city of Challis's municipal wells suggest that depletion from the aquifer is increasing over time and that the city "... should closely monitor upstream water use in order to assess potential sources of contamination ...". (See Protestant's Exhibit B).

18. Garden Creek is within Water District 72-B where water deliveries are administered during times of water shortage by a watermaster. Water delivery records of Water District 72-B show that water delivery to junior users on Garden Creek is curtailed at times during most water years due to diminishing flow available to provide water to all water rights.

19. Using a total demand of 13,000 gallons per day, the amount of water diverted by the applicant under application 72-16624 would be about 14.6 AF per year. Assuming the diversion of ground water results in a depletion to the flow of Garden Creek of 25%, in terms of irrigation, the amount of water depleted would be about 3.7 AF per year that is approximately the amount of water needed to irrigate 1.5 acres of land based on a consumptive use of 2.5 AF/acre. (See Protestant's Exhibit A).

20. The applicant has offered to mitigate consumption described in Finding 19 above by ceasing to use water rights associated with the irrigation of 1.5 acres located in Lots 2 and 3, Section 2, T13N, R18E, B.M. Most of this land is located in Lot 3 and is further described as the area on which Shiloh Lodge and associated parking lot is located, land associated with the shop and the bone yard east of the shop and land associated with the basketball and volleyball courts consisting of a total of about 67,750 square feet.

21. Protestants Bonnie Rowles and Jeffrey Yeo were concerned that use of water by the applicant would injure existing water rights and is not in the local public interest.

22. Bonnie Rowles owns a bed and breakfast in Challis and receives water from the city of Challis. She does not use water from a private well in the Garden Creek drainage.

23. Jeffrey Yeo owns a domestic well located within NESE Section 3, T13N, R18E, B.M. that is about ¼ mile from the artesian well sought for use by the applicant. The Yeo well was drilled in 1997 to a depth of 104 feet with the static water level in the well about 20 feet below land surface.

24. Protestant city of Challis is generally concerned about maintaining an adequate safe water drinking supply for its citizens.

25. The aesthetic pond proposed under application 72-16625 is an existing pond located on a ditch that delivers water for irrigation to church camp property. The pond was originally used to water stock and has been converted to aesthetic use. The size of the pond is about 59' x 110' and averages about 5 feet deep. The pond has a surface area of about 0.15 acre, holds about 0.7 AF and is located close to Garden Creek. (See Applicant's Exhibit 6).

26. In the past, when water was delivered for irrigation it passed through the pond. In recent years, the water has been used the same way, but some watermasters have shut off the diversion of irrigation water from Garden Creek to the pond when the priorities of the applicant's irrigation rights (1888 and 1890) could not be filled and other watermasters have allowed the diversion to the pond to continue.

27. On behalf of protestant Water District 72-B, Don Rowles expressed the concern that there was no water available for a new appropriation from Garden Creek and that the rate of diversion requested to fill the aesthetic pond is excessive.

CONCLUSIONS OF LAW

1. Section 42-203A, Idaho Code, provides in pertinent part as follows:

> In all applications whether protested or not protested where the proposed use is such (a) that it will reduce the quantity of water under existing water

rights, or (b) that the water supply itself is insufficient for the purpose for which it is sought to be appropriated, or (c) where it appears to the satisfaction of the director that such application is not made in good faith, is made for delay or speculative purposes, or (d) that the applicant has not sufficient financial resources with which to complete the work involved therein, or (e) that it will conflict with the local public interest as defined in section 42-202B, Idaho Code, or (f) that it is contrary to conservation of water resources within the state of Idaho; or (g) that it will adversely affect the local economy of the watershed or local area within which the source of water for the proposed use originates, in the case where the place of use is outside of the watershed or local area where the source of water originates; the director of the department of water resources may reject such application and refuse issuance of a permit therefor... .

2. Section 42-111, Idaho Code, provides in pertinent part as follows:

(1) For purposes of sections 42-221, 42-227, 42-230, 42-235, 42-237a, 42-242, 42-243 and 42-1401A, Idaho Code, the phrase "domestic purposes" or "domestic uses" means:

(a) The use of water for homes, organization camps, public campgrounds, livestock and for any other purpose in connection therewith, including irrigation of up to one-half (1/2) acre of land, if the total use is not in excess of thirteen thousand (13,000) gallons per day, or

....

(3) Multiple water rights for domestic uses or domestic purposes, as defined in this section, shall not be established or exercised in a manner to satisfy a single combined water use or purpose that would not itself come within the definition of a domestic use or purpose under this section. The purpose of this limitation is to prohibit the diversion and use of water, under a combination of domestic purposes or domestic uses as defined in this section, to provide a supply of water for a use that does not meet the exemption of section 42-227, Idaho Code, and is required to comply with the mandatory application and permit process for developing a right to the use of water pursuant to chapter 2, title 42, Idaho Code.

3. Section 42-211, Idaho Code, provides in pertinent part as follows:

In connection with any application on which permit has not been issued, amendments may be made by endorsement by the applicant or his agent on the original application, which indorsement shall be initialed and dated. If the amendment will result in the use of more water than originally asked, the priority of the right shall be changed to the date of said amendment. ... If

> amendment is made after publication of notice of the original application, said notice shall be republished following amendment, upon payment by the applicant of the statutory fee for republication as in this act provided.

4. The court's finding in Hardy v. Higginson, 123 Idaho 485, 849 P.2d 946 (1993) authorizes the Director of the department to consider whether a proposed amendment is in the local public interest.

5. IDAPA 58.01.08.550.03.p (Public Drinking Water Rule 550.03.p) provides in pertinent part as follows:

> New community water systems served by ground water and constructed after July 1, 1985, or existing community water systems served by ground water that are substantially modified after July, 2002, shall have a minimum of two (2) sources if they are intended to serve more than twenty-five (25) homes or equivalent. ...

6. Article XV, section 3 of the Idaho Constitution provides as follows:

> The right to divert and appropriate the unappropriated waters of any natural stream to beneficial uses, shall never be denied, except that the state may regulate and limit the use thereof for power purposes. Priority of appropriation shall give the better right as between those using the water; but when the waters of any natural stream are not sufficient for the service of all those desiring the use of the same, those using the water for domestic purposes shall (subject to such limitations as may be prescribed by law) have preference over those claiming for any other purpose; and those using the water for agricultural purposes shall have preference over those using the water for manufacturing purposes. And in any organized mining district those using the water for mining purposes or milling purposes connected with mining, shall have preference over those using the same for manufacturing or agricultural purposes. But the usage by such subsequent appropriators shall be subject to such provisions of law regulating the taking of private property for public and private use, as referred to in section 14 of article I of this Constitution.

7. The church camp qualifies for inclusion among the "domestic uses" described in Section 42-111(1)(a), Idaho Code, and may divert up to 13,000 gallons per day from ground water for the church camp without the necessity of filing an application for permit. The use of water from all wells in connection with the "domestic uses" of the church camp, however, cannot exceed a combined total of 13,000 gallons per day under the exemption.

8. The community water system of the applicant requires two wells. (See IDAPA 58.01.08.550.03.p).

9. There is no evidence to indicate that there is an upper aquifer and a lower aquifer that are separated by a confining layer in the Garden Creek drainage. Hence, ground water depletion in the drainage by the applicant will decrease the amount of surface water available in Garden Creek, since the surface water and ground water are interconnected. (See Protestant's Exhibit A).

10. Use of water by the applicant for the church camp has increased since 1999 and likely will further increase based on the applicant's testimony that he plans to construct additional facilities at the church camp including a cafeteria, activities building and more individual rental units. The applicant has also acquired additional property in the Garden Creek drainage.

11. Diversion of 14.6 AF per year from the aquifer in the Garden Creek drainage for domestic use at the church camp as proposed in application 72-16624 will result in some depletion of ground water and will decrease surface water discharge in Garden Creek. The applicant has offered sufficient mitigation for consumption of water under its domestic use by ceasing to irrigate 1.5 acres of land that has valid water rights from Garden Creek that were recently decreed in the Snake River Basin Adjudication. The use will not reduce the quantity of water under existing water rights.

12. Use of water as proposed in application 72-16625 will result in an evaporative depletion of about 0.4 AF (2.5 AF/acre x 0.15 acre) of water per year in Garden Creek.

13. Use of water as proposed in application 72-16624 will reduce the quantity of water under existing water rights if the applicant does not mitigate the depletion attributable to the aesthetic use.

14. Although there are water shortages in the Garden Creek drainage nearly every year, the water supply itself is sufficient for the purposes intended if the applicant mitigates the uses.

15. Some of the facilities proposed in the applications have already been constructed and are in use. The applications are made in good faith and not for delay or speculative purposes.

16. The applicant has sufficient financial resources with which to complete the projects.

17. The applications do not conflict with the local public interest if the uses are adequately mitigated.

18. The applications are not contrary to the conservation of water resources within Idaho if the uses are adequately mitigated.

19. The proposed uses are not outside of the watershed or local area where the source of water originates and will not adversely affect the local economy of the watershed or local area due to watershed location changes.

20. The Department should approve the applications with conditions requiring the applicant to mitigate depletions associated with the applications.

ANALYSIS

In February 1999, the Department conducted a hearing for application 72-7562 filed in the name of Living Waters Ranch for essentially the same proposal as application 72-16624 and issued a recommended order in the matter. Before the Department issued a final order, however, the applicant withdrew the application and subsequently filed applications 72-16624 and 72-16625.

The applicant's present use of water for domestic purposes at the church camp is less than 13,000 gallons per day. Application 72-16224 represents a recording of the total domestic use of water associated with the camp and when licensed will have a priority as of the date of filing of the application. The domestic "exemption" associated with Sections 42-111 and 42-227, Idaho Code, relates to whether the filing of an application for permit is required, not that there is a grant of so much water for domestic use.

Statements of the applicant appear to indicate that the applicant believes it has an "entitlement" to 13,000 gallons per day for its church camp use without regard to other water rights and uses. This is not correct, since the domestic use or any other use of water under a water right is subject to all other prior water rights without respect to the nature of use. The oldest water right is the best water right and in times of shortage is delivered before junior water rights. A preference for domestic use, however, is provided in Article XV, section 3 of the Idaho Constitution as described in the Conclusions of Law above.

Even though there is not unappropriated water in a source for a new use, an applicant should have the opportunity to mitigate a new use in a manner that will not decrease the amount of water available in the drainage for prior water rights. Mitigation of a junior priority water right with an older water right essentially has the effect of treating the junior right as if it had the older priority when water is distributed. This assumes of course that the older water right is deliverable to the right holder.

Evaporative losses associated with the applicant's aesthetic pond are small but are real and will reduce the amount of water available to earlier water rights during periods of water shortage. Some flow through the pond is needed to prevent stagnation of the pond, but a flow rate of 0.40 cfs is excessive for this purpose. A flow rate of 0.20 cfs is sufficient to provide turnover of water in the pond and is a more reasonable rate of flow.

The Moratorium Order issued by the Department on October 26, 1999, stopped the processing of applications for permit to appropriate surface water or ground water within and tributary to the Selway-Bitterroot Wilderness Area, the Gospel-Hump Wilderness and the Frank Church-River on No Return Wilderness area. The moratorium order, however, allowed the Department to consider an application if the use of water pursuant to the application would have no effect on other water rights due to mitigation provided by an applicant.

ORDER

IT IS THEREFORE hereby ORDERED as follows:

Application for Permit No. **72-16624** in the name of Firstfruits Foundation and Christopher W. James Trust is **APPROVED** subject to the following conditions:

1. Proof of construction of works and application of water to beneficial use shall be submitted to the Department on or before September 1, 2006.

2. The quantity of water diverted under this right shall not exceed 13,000 gallons per day and 14.6 AF per year.

3. To mitigate for the depletion of water resulting from the use of water under this right and to prevent injury to senior water right holders, the right holder shall cease diverting and using water as authorized by the following water rights for the purposes and amounts specified below. Moreover, the official record for the following water right(s) will be changed to show that diversion and use of water is not authorized because the rights, or portion(s) thereof, are being dedicated to mitigation purposes.

Right No.	Use Changed to Mitigation	Mitigation Rate	Mitigation Acres
72-106J	Irrigation	0.06	1.5
72-109J	Irrigation	0.06	1.5
72-4174C	Irrigation	0.03	1.5
72-10486C	Irrigation	0.06	1.5

The land that will no longer be irrigated under these rights is located within Govt. Lot 3 (NE¼NW¼), Section 2, Township 13 North, Range 18 East, B.M.

If the specified mitigation rights, or portions thereof, are sold, transferred, leased, used on any place of use, or are not deliverable due to a shortage of water or a priority call, then the amount of water authorized for diversion under this permit shall be reduced by the same proportion as the reduction to the mitigation rights.

4. Right holder shall comply with the drilling permit requirements of Section 42-235, Idaho Code, and applicable Well Construction Rules of the Department.

5. Prior to the diversion and use of water under this approval, the right holder shall comply with applicable water quality standards of the Department of Environmental Quality.

6. Water diverted under this right shall not be used for irrigation purposes.

7. Prior to diversion of water under this right, the right holder shall install and maintain suitable measuring devices at the points of diversion to measure the rate of diversion and volume of water diverted and shall report the amounts to the Department at a frequency determined by the Department.

8. Use of water is for domestic purposes in connection with a church camp/conference center.

9. The issuance of this right does not grant any right-of-way or easement across the land of another.

10. The permit holder shall allow access by the watermaster of State Water District 72-B to the measuring devices installed at the points of diversion.

11. Failure to comply with these conditions of approval is cause for the Director to void the permit.

IT IS FURTHER hereby ORDERED as follows:

Application for Permit No. **72-16625** in the name of Firstfruits Foundation and Christopher W. James Trust is **APPROVED** subject to the following conditions:

1. Proof of construction of works and application of water to beneficial use shall be submitted to the Department on or before September 1, 2006.

2. Prior to diversion of water under this right, the right holder shall install and maintain measuring devices and lockable controlling works of a type acceptable to the Department as part of the diversion and conveyance works or shall otherwise provide for the measurement of the water diverted, as approved by the Department. The devices or measuring method shall be adequate to determine the rate of diversion from Garden Creek and to quantify losses associated with the aesthetic use of water in the right holder's pond.

3. Prior to diversion of water under this right, the right holder shall submit to the Department for review and approval a written plan describing how the right holder will mitigate losses attributable to diversion and use of water under the aesthetic use.

4. The diversion rate under this right shall not exceed 0.20 cfs.

5. Use of water is for aesthetic use in connection with a church camp/conference center.

6. Use of water rights held by the applicant will be regulated by a watermaster with responsibility for the distribution of water among appropriators within a water district. At the time of this approval, the water rights of the applicant are within State Water District 72-B.

7. At such times in the future as may be necessary to protect prior rights of other water users, the Director may require determination of the actual rate of loss within the system and may require additional mitigation for all system losses.

8. This permit does not constitute a new appropriation of water from Garden Creek and instead authorizes an additional use to be made of water (for aesthetic purposes) that is diverted for use under the applicant's existing water rights provided that applicant mitigates the evaporative loss from the pond.

9. The right holder is not authorized to divert water to its pond for aesthetic purposes when the applicant's irrigation rights are not being delivered unless the applicant provides suitable mitigation to compensate for system losses.

10. Failure to comply with these conditions of approval is cause for the Director to void the permit.

Signed this 3rd day of September, 2004.

L. GLEN SAXTON, P.E.
Hearing Officer

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 3 day of September, 2004, the above and foregoing, was served on the following by placing a copy of the same in the United States mail, postage prepaid and properly addressed to the following:

FIRSTFRUITS FOUNDATION
C/O CHRISTOPHER W. JAMES
PO BOX 510
CHALLIS ID 83226

BONNIE ROWLES
PO BOX 1087
CHALLIS ID 83226

JEFFREY J. YEO
PO BOX 299
CHALLIS ID 83226

BOB ANDREWS
WATER DISTRICT 72
PO BOX 1141
CHALLIS ID 83226

CITY OF CHALLIS
C/O MARION MCDANIEL
PO BOX 587
CHALLIS ID 83226

Patsy McGourty
Administrative Assistant
Idaho Department of Water Resources

Ident. No. 72-16824

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR PERMIT

To appropriate the public water of the State of Idaho

1. Name: FIRSTFRUITS FOUNDATION
PO BOX 510
CHALLIS ID 83226
(208)879-4560

AMENDED

CHRISTOPHER W JAMES TRUST
CHRISTOPHER JAMES TRUSTEE
PO BOX 510
CHALLIS ID 83226
(208)879-4560

2. Source: GROUND WATER

3. Location of Point of Diversion:

#1 GROUND WATER NW1/4SE1/4 Sec. 3, Twp 13N, Rge 18E, B.M.
CUSTER County

#2 GROUND WATER L3 (NE1/4NW1/4) Sec. 2, Twp 13N, Rge 18E, B.M.
CUSTER County

4. Water will be used for the following purposes:

Purpose	From To	RATE OF DIVERSION	ANNUAL VOLUME
DOMESTIC	01/01 to 12/31	0.20 CFS	

5. Total quantity to be appropriated is: 0.20 CFS

6. Proposed diverting works:

POINT OF DIVERSION #1

a. Type and size of devices used to divert water from the source: EXISTING ARTESIAN WELL, CONTROLLING WORKS & BURIED PIPELINE TO BE INSTALLED, LINE 0.8 MI LONG TO CHURCH CAMP

b. Height of storage dam _____ feet;
Active reservoir capacity _____ acre-feet;
Total reservoir capacity _____ acre-feet;

c. Proposed well diameter is _____ inches;
Proposed depth of well is _____ feet

d. Is ground water with a temperature of greater than 85F being sought?

e. If well is already drilled, when? _____;
Drilling Firm _____;
Drilling Permit No. _____.

Ident. No. 72-16824

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR PERMIT

To appropriate the public water of the State of Idaho

POINT OF DIVERSION #2

a. Type and size of devices used to divert water from the source: EXISTING WELL CURRENTLY USED BY FACILITY THAT WILL BE USED AS BACKUP TO THE OTHER WELL TO FULLFILL DEQ REQUIREMENTS

b. Height of storage dam _____ feet;
Active reservoir capacity _____ acre-feet;
Total reservoir capacity _____ acre-feet;

c. Proposed well diameter is _____ inches;
Proposed depth of well is _____ feet.

d. Is ground water with a temperature of greater than 85F being sought?

e. If well is already drilled, when? _____;
Drilling Firm _____;
Drilling Permit No. _____.

7. Time required for the completion of the works and application of the water to the proposed beneficial use is 1 year(s).

8.

PLACE OF USE: 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	
13N 18E 2		X L2			X L3	X L4	X										
14N 18E 35															X		

9a. Who owns the property at the point of diversion? If other than applicant, describe the arrangement enabling the applicant to make this filing.

Point of Diversion #1: US DEPT OF INTERIOR - annual lease of well site

9b. Who owns the land to be irrigated or place of use? If other than applicant, describe the arrangement enabling the applicant to make this filing.

APPLICANT

10. Remarks:

Ident. No. 72-16824

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR PERMIT

To appropriate the public water of the State of Idaho

Firstfruits Foundation is a non-profit organization under federal law. The camp serves various denominations as a conference center and retreat.
The well will serve our home and the conference center for culinary uses only, and daily use will be less than 10,000 gallons (it is up to 5,000 gallons now). The use should therefore be exempt from the filing requirements under Sec. 42-111(1)(a) of the Idaho Code, but we would like to obtain a recorded water right anyway.

NOTE: The proposed commercial use has been removed so that this application can be processed under the wilderness moratorium.

11. Map of proposed point of diversion and place of use attached? [ ]

BE IT KNOWN that the undersigned hereby makes application for permit to appropriate the public waters of the State of Idaho as herein set forth.

Christopher W. Jones
Applicant

Received by _____ Date _____ Time _____ Preliminary check by _____
Publication prepared by _____ Date _____ Published in _____
Publication approved _____ Date _____

Receipt No. S025269 S025270
Date: _____

Receipted by: _____

 Ident. No. 72-16624

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR PERMIT

To appropriate the public water of the State of Idaho

1. Name: FIRSTFRUITS FOUNDATION
PO BOX 510
CHALLIS ID 83226
(208)879-4560

AMENDED

CHRISTOPHER W JAMES TRUST
CHRISTOPHER JAMES TRUSTEE
PO BOX 510
CHALLIS ID 83226
(208)879-4560

2. Source: GROUND WATER

3. Location of Point of Diversion:

#1 GROUND WATER CUSTER County	NW1/4SE1/4	Sec. 3,	Twp 13N, Rge 18E, B.M.
#2 GROUND WATER CUSTER County	L3 (NE1/4NW1/4)	Sec. 2,	Twp 13N, Rge 18E, B.M.

4. Water will be used for the following purposes:

Purpose	From To	RATE OF DIVERSION	ANNUAL VOLUME
DOMESTIC	01/01 to 12/31	0.20 CFS	

5. Total quantity to be appropriated is: 0.20 CFS

6. Proposed diverting works:

POINT OF DIVERSION #1

a. Type and size of devices used to divert water from the source: EXISTING ARTESIAN WELL, CONTROLLING WORKS & BURIED PIPELINE TO BE INSTALLED, LINE 0.8 MI LONG TO CHURCH CAMP

b. Height of storage dam _____ feet;
Active reservoir capacity _____ acre-feet;
Total reservoir capacity _____ acre-feet;.

c. Proposed well diameter is _____ inches;
Proposed depth of well is _____ feet.

d. Is ground water with a temperature of greater than 85F being sought?

e. If well is already drilled, when? _____;
Drilling Firm _____;
Drilling Permit No. _____.

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR PERMIT

To appropriate the public water of the State of Idaho

POINT OF DIVERSION #2

a. Type and size of devices used to divert water from the source: EXISTING WELL CURRENTLY USED BY FACILITY THAT WILL BE USED AS BACKUP TO THE OTHER WELL TO FULLFILL DEQ REQUIREMENTS

b. Height of storage dam _____ feet;
Active reservoir capacity _____ acre-feet;
Total reservoir capacity _____ acre-feet;.

c. Proposed well diameter is _____ inches;
Proposed depth of well is _____ feet.

d. Is ground water with a temperature of greater than 85F being sought?

e. If well is already drilled, when? _____;
Drilling Firm _____;
Drilling Permit No. _____.

7. Time required for the completion of the works and application of the water to the proposed beneficial use is 1 year(s).

8.

PLACE OF USE: 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	
13N	18E	2		X			X	X	X										
				L 2			L 3	L 4											
14N	18E	35															X		

9a. Who owns the property at the point of diversion? If other than applicant, describe the arrangement enabling the applicant to make this filing.

Point of Diversion #1: US DEPT OF INTERIOR - annual lease of well site

9b. Who owns the land to be irrigated or place of use? If other than applicant, describe the arrangement enabling the applicant to make this filing.

APPLICANT

10. Remarks:

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR PERMIT

To appropriate the public water of the State of Idaho

Firstfruits Foundation is a non-profit organization under federal law. The camp serves various denominations as a conference center and retreat.
The well will serve our home and the conference center for culinary uses only, and daily use will be less than 10,000 gallons (it is up to 5,000 gallons now). The use should therefore be exempt from the filing requirements under Sec. 42-111(1)(a) of the Idaho Code, but we would like to obtain a recorded water right anyway.

NOTE: The proposed commercial use has been removed so that this application can be processed under the wilderness moratorium.

11. Map of proposed point of diversion and place of use attached? [ ]

BE IT KNOWN that the undersigned hereby makes application for permit to appropriate the public waters of the State of Idaho as herein set forth.

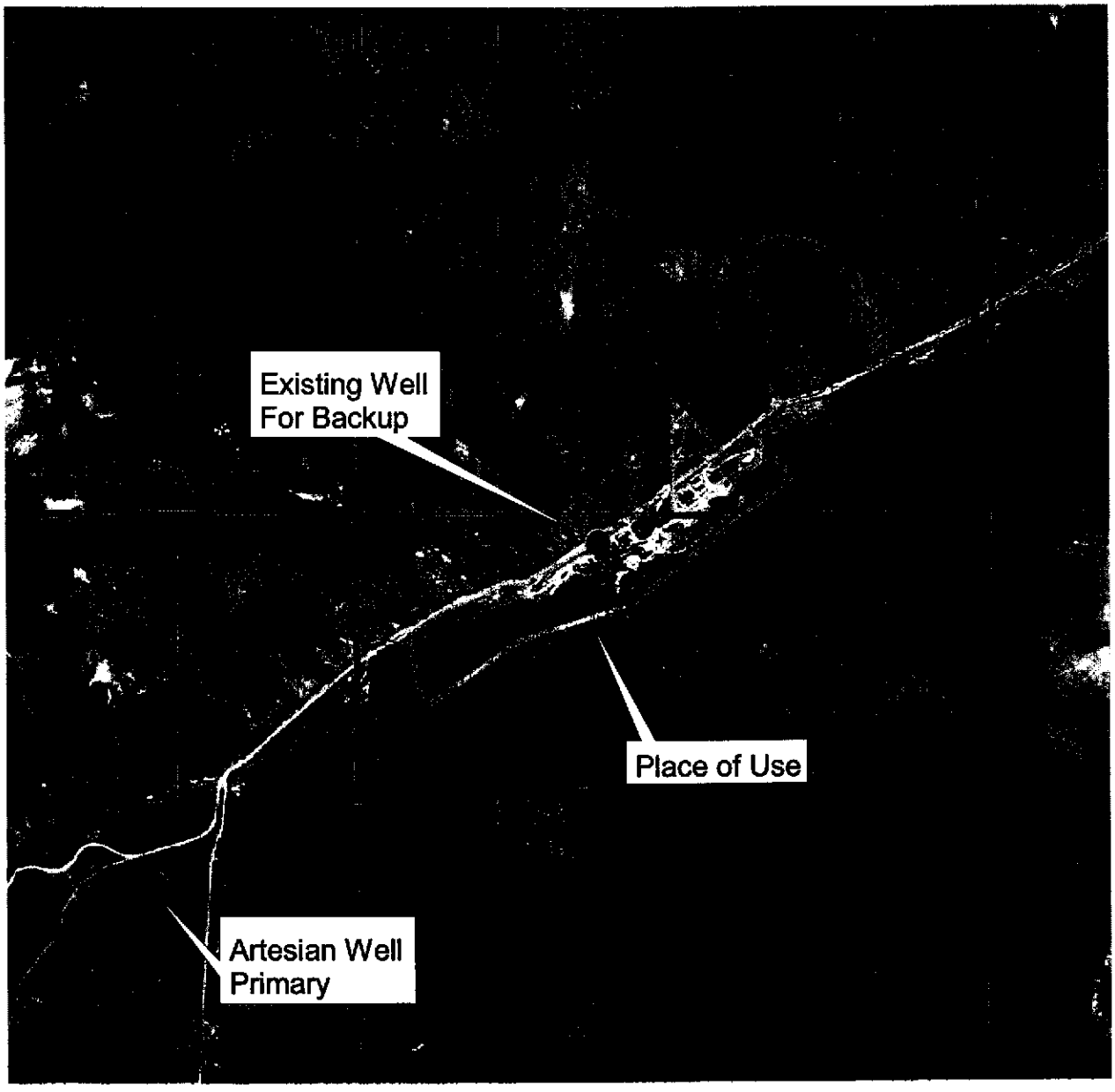
_____
Applicant

Received by _____ Date _____ Time _____ Preliminary check by _____
Publication prepared by _____ Date _____ Published in _____
Publication approved _____ Date _____

Receipt No. S025269 S025270
Date: _____

Receipted by: _____

Amended Application 72-16624



Form 22 Corrected

RECEIVED
JUN 03 2004
Department of Water Resources
Southern Region

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

Fee 650.00
Receipt 5026798
Receipted by
Date 6/3/04

APPLICATION FOR AMENDMENT OF A PERMIT

Name of Applicant Firstfruits Foundation / Christopher W. James Trust Phone 208-879-4560

Mailing address PO Box 510, Challis, ID 83226

I am the owner and the holder of Permit to Appropriate the Public Waters of the State of Idaho No. 72-16624, and request that the permit and permit map be amended and/or changed as follows:

Purpose of Amendment: ___ Change point of diversion ✓ Add point of diversion

✓ Change place of use ___ Change nature of use ___ Change period of use ___ Other

1. Point of diversion: NW ¼ SE ¼ ___ ¼, Section 3, Township 13N, Range 18E, B.M., County of Custer. Other points of diversion LWR Well #2 - NE¼, NW¼, Sec 2, TWP 13N, Rge 18E B.M. Custer County

2. Period and nature of use: (irrigation, domestic, stockwatering, industrial, etc.)

Amount ___ (cfs or acre-feet per year) for ___ (water use) purposes from ___ (Begin Month) to ___ (End month) (both dates inclusive)

Amount ___ (cfs or acre-feet per year) for ___ (water use) purposes from ___ (Begin Month) to ___ (End month) (both dates inclusive)

Amount ___ (cfs or acre-feet per year) for ___ (water use) purposes from ___ (Begin Month) to ___ (End month) (both dates inclusive)

3. Place of use or land to be ~~irrigated~~: used for "domestic" groundwater - the Mountain View Acquisition - LWR

	Twp	Rge	Sec	NE				NW				SW				SE				Totals
				NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
Add →	14	18E	35															✓		
Original	14N	18E	35															X		
	13N	18E	2		X			X	X	X	(X)	← Not owned by applicant								
					L42			L43	L44											

Total number of acres to be irrigated ___

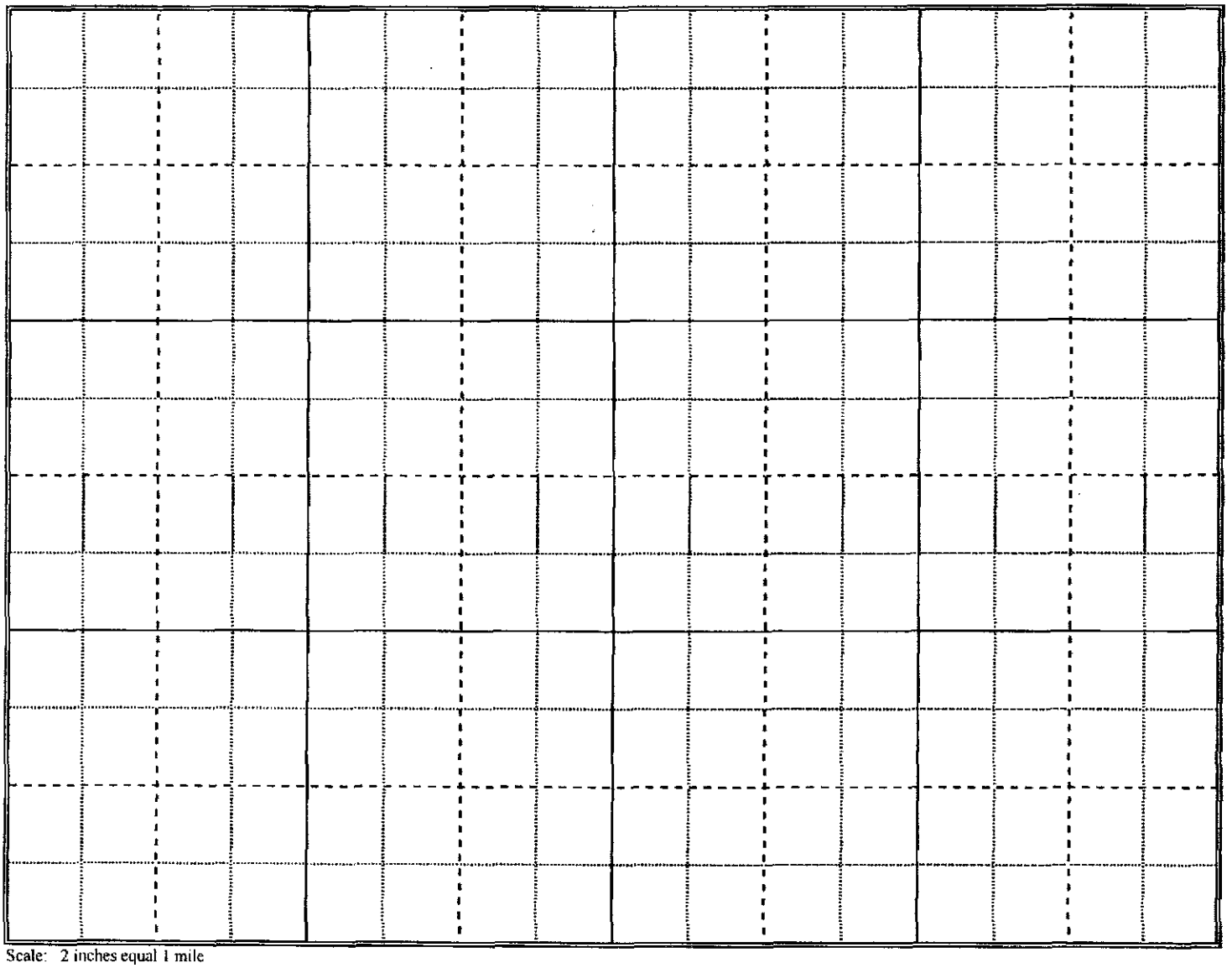
4. a. Who owns the property at the point of diversion? Firstfruits Foundation

b. Who owns the land to be irrigated or place of use? Firstfruits Foundation

c. If the property is owned by a person other than the applicant, describe the arrangement enabling the applicant to make this filing:

See Attached Sheet

Complete the following map by showing land and point of diversion as proposed by this amendment.
Show ¼ ¼, section, township, range and ditches. (The smallest subdivision represents 40 acres.)



Scale: 2 inches equal 1 mile

I hereby request approval of this change subject to the fact that no one will be injured by the change, and that the change will be made at my own risk.

Signed this 1st day of June, 2004.

Christopher W. James, Trustee for Fast Friends Foundation / Christopher James

Permit Holder Signature (and title, if for a company or organization)

ACTION OF THE DEPARTMENT OF WATER RESOURCES

Preliminary check by ADR Publication prepared by MB Date 6/28/04

Published in Challis Messenger Publication dates 7/8 + 7/15/04

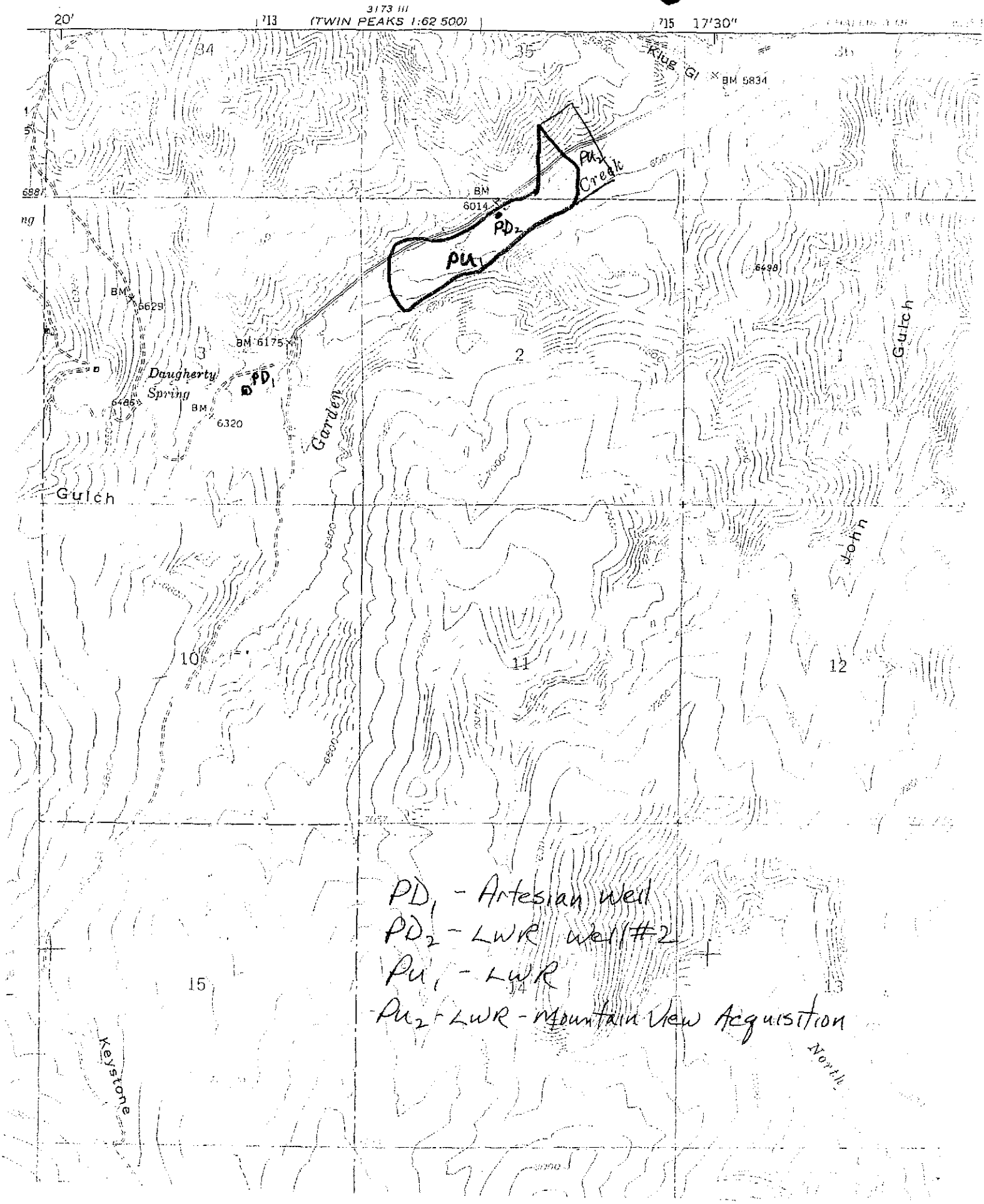
I, _____, of the Department of Water Resources hereby

_____

Witness my hand this _____ day of _____, 20 _____.

_____

SIGNATURE


3173 III
(TWIN PEAKS 1:62 500)
20'
17'30"
BM 5834
BM 6014
BM 6629
BM 6175
BM 6320
6498
6486
Daugherty Spring
Gulch
Gulch
Creek
PD2
PD1
PU1
PU2
PD1 - Artesian well
PD2 - LWR well #2
PU1 - LWR
PU2 - LWR - Mountain View Acquisition

LWR Mountain View Acquisition

ATTACHED LEGAL DESCRIPTION

Order No.: B46536

TRACT I:

A fraction of the SW¼SE¼, Section 35, Township 14 North, Range 18 E.B.M., Custer County, Idaho, described as: Beginning at the SE corner of said Section 35; thence 1321.38 feet west to the SE corner of said SW¼SE¼, the TRUE POINT OF BEGINNING; thence N. 45°00' W. 974.45 feet to a point on the southerly right-of-way of the Garden Creek Road; thence S. 52°12'05" W., 277.55 feet along said right-of-way to the northeasterly line of the land described as Tract II in the Deed to David W. Edminston, et. ux., recorded April 23, 1976, as instrument no. 142030, records of Custer County, Idaho; thence the following 3 courses along said Edminston land; S. 45°00' E., 69.50 feet; thence S. 46°44' W., 111.00 feet; thence S. 45°00' E. 556.82 feet to a point on the south boundary line of said SW¼SE¼; thence E. 546.29 feet to the True Point of Beginning. Except county road.

TRACT II:

A fraction of the SW¼SE¼, Section 35, Township 14 North, Range 18 E.B.M., Custer County, Idaho, described as: Beginning at the SE corner of said Section 35; thence 1321.38 feet west to the SE corner of said SW¼SE¼; thence N. 0°02'15" E. along the east line of said SW¼SE¼, 1074.80 feet to a point on the north right-of-way of the Garden Creek Road the REAL POINT OF BEGINNING; thence continuing N. 0°02'15" E., 247.25 feet to the NE corner of the SW¼SE¼; thence S. 89°58'15" W., 1322.06 feet to the NW corner of the SW¼SE¼; thence S. 0°00'30" W. along the west line of said SW¼SE¼, 389.40 feet, more or less, to the most northerly corner of the land described as Tract II in the Deed to David W. Edminston, et. ux., recorded April 23, 1976, as instrument no. 142030, records of Custer County, Idaho; thence S. 45°00' E., along the northeasterly line of said Edminston land 533.63 feet to a point on the northerly right-of-way line of said Garden Creek Road; thence the following courses and distances along said north right-of-way; N. 52°12'05" E., 469.66 feet; thence 369.74 feet along a curve concave to the SE having a radius of S. 37°47'55" E. 825.00 feet and a central angle of 25°40'42"; thence N. 77°52'47" E. 31.60 feet; thence 222.36 feet along a curve concave to the NW having a radius of N. 12°07'13" W. 975.00 feet and a central angle of 13°04'02" to the Real Point of Beginning. Except county road.

Form 211 05/03

RECEIVED
JUN 0 3 2004
DEPARTMENT OF WATER RESOURCES

Fee 50.00
Receipt 5026798
Receipted by
Date 6-03-04

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR AMENDMENT OF A PERMIT

Name of Applicant Firstfruits Foundation / Christopher W. James Trust Phone 208-879-4560

Mailing address PO Box 510, Challis, ID 83226

I am the owner and the holder of Permit to Appropriate the Public Waters of the State of Idaho No. 72-16624, and request that the permit and permit map be amended and/or changed as follows:

Purpose of Amendment: ____ Change point of diversion ✓ Add point of diversion

✓ Change place of use ____ Change nature of use ____ Change period of use ____ Other

1. Point of diversion: NW ¼ SE ¼ ____ ¼, Section 3, Township 13N, Range 18E, B.M., County of Custer. Other points of diversion LWR Well #2 - NE¼, NW¼, Sec 2, TWP 13N, Rge 18E B.M. Custer County

2. Period and nature of use: (irrigation, domestic, stockwatering, industrial, etc.)

Amount ____ (cfs or acre-feet per year) for ____ (water use) purposes from ____ (Begin Month) to ____ (End month) (both dates inclusive)

Amount ____ (cfs or acre-feet per year) for ____ (water use) purposes from ____ (Begin Month) to ____ (End month) (both dates inclusive)

Amount ____ (cfs or acre-feet per year) for ____ (water use) purposes from ____ (Begin Month) to ____ (End month) (both dates inclusive)

3. Place of use or land to be ~~irrigated~~: used for "domestic" groundwater - the Mountain View Acquisition - LWR

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
14	18E	35															✓		

Total number of acres to be irrigated ____

4. a. Who owns the property at the point of diversion? Firstfruits Foundation

b. Who owns the land to be irrigated or place of use? Firstfruits Foundation

c. If the property is owned by a person other than the applicant, describe the arrangement enabling the applicant to make this filing:

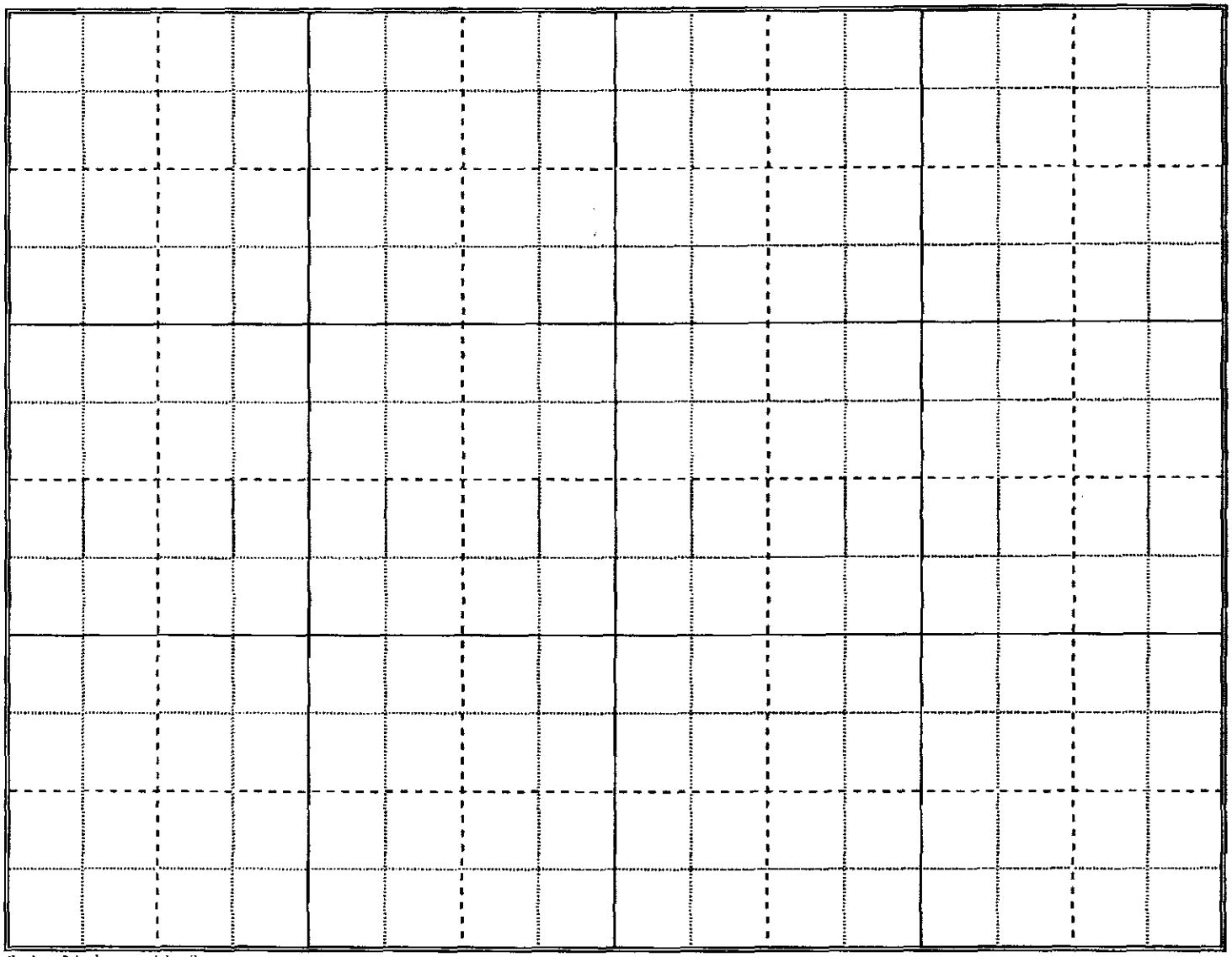
_____

_____

_____

See Attached Sheet

Complete the following map by showing land and point of diversion as proposed by this amendment.
Show ¼ ¼, section, township, range and ditches. (The smallest subdivision represents 40 acres.)



Scale: 2 inches equal 1 mile

I hereby request approval of this change subject to the fact that no one will be injured by the change, and that the change will be made at my own risk.

Signed this 1st day of June, 2004.

Christopher W. James, Trustee for
First Trust Foundation / Christopher James

Permit Holder Signature (and title, if for a company or organization)

ACTION OF THE DEPARTMENT OF WATER RESOURCES

Preliminary check by 6-03-04 Publication prepared by N/A Date _____

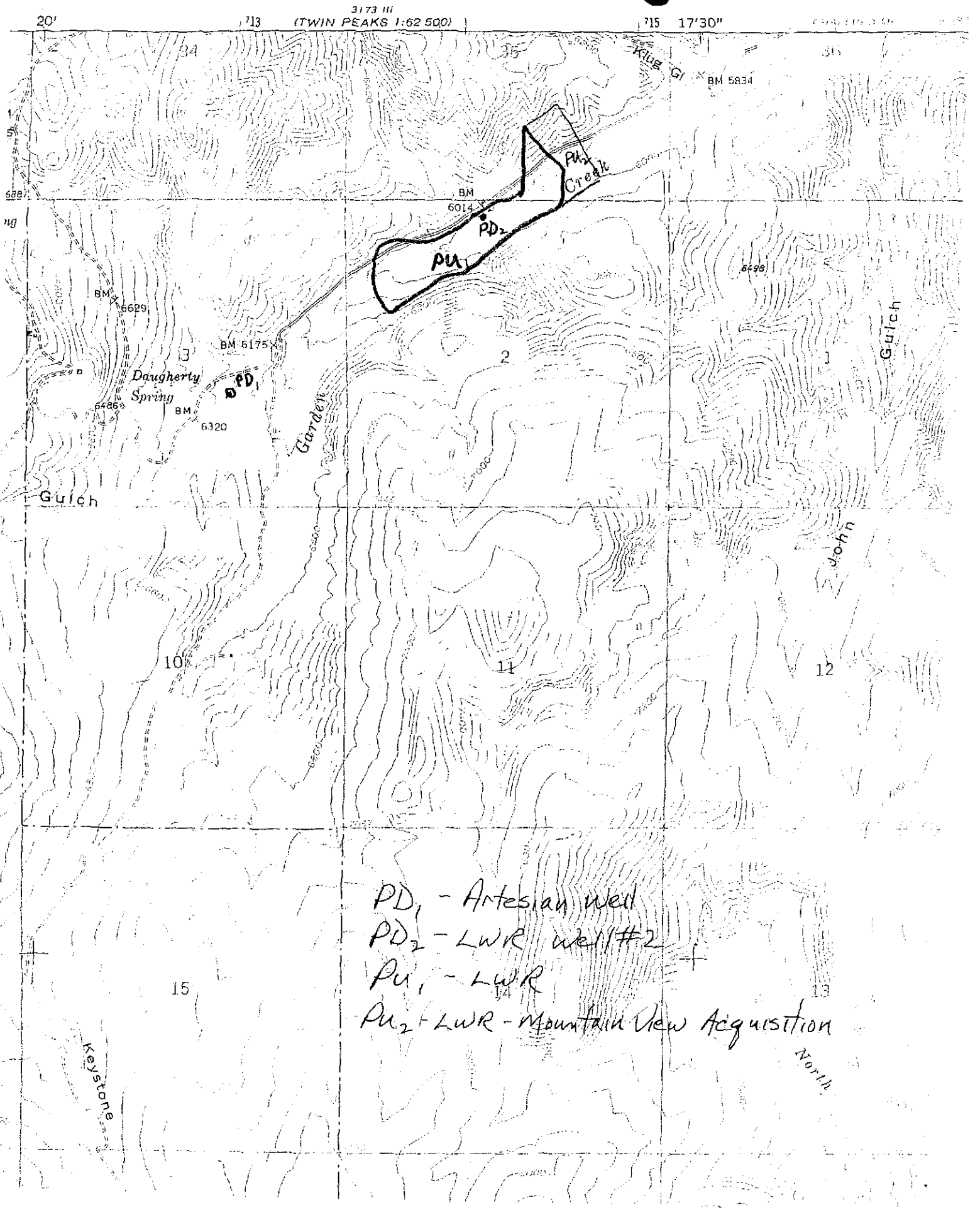
Published in N/A Publication dates N/A

I, _____, of the Department of Water Resources hereby

_____

Witness my hand this _____ day of _____, 20 _____.

_____
SIGNATURE


3173 III
(TWIN PEAKS 1:62 500)
20'
713
715
17'30"
BM 5834
BM 6014
PD2
PU1
PU2
Creek
BM 6629
BM 5175
Daugherty Spring
PD1
6486
BM 6320
Garden
Gulch
6498
Gulch
10
11
12
15
14
13
Keystone
North
PD1 - Artesian well
PD2 - LWR well #2
PU1 - LWR
PU2 - LWR - Mountain View Acquisition

LWR Mountain View Acquisition

ATTACHED LEGAL DESCRIPTION

Order No.: B46536

TRACT I:

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A fraction of the SW¼SE¼, Section 35, Township 14 North, Range 18 E.B.M., Custer County, Idaho, described as: Beginning at the SE corner of said Section 35; thence 1321.38 feet west to the SE corner of said SW¼SE¼; thence N. 0°02'15" E. along the east line of said SW¼SE¼, 1074.80 feet to a point on the north right-of-way of the Garden Creek Road the REAL POINT OF BEGINNING; thence continuing N. 0°02'15" E., 247.25 feet to the NE corner of the SW¼SE¼; thence S. 89°58'15" W., 1322.06 feet to the NW corner of the SW¼SE¼; thence S. 0°00'30" W. along the west line of said SW¼SE¼, 389.40 feet, more or less, to the most northerly corner of the land described as Tract II in the Deed to David W. Edminston, et. ux., recorded April 23, 1976, as instrument no. 142030, records of Custer County, Idaho; thence S. 45°00' E., along the northeasterly line of said Edminston land 533.63 feet to a point on the northerly right-of-way line of said Garden Creek Road; thence the following courses and distances along said north right-of-way; N. 52°12'05" E., 469.66 feet; thence 369.74 feet along a curve concave to the SE having a radius of S. 37°47'55" E. 825.00 feet and a central angle of 25°40'42"; thence N. 77°52'47" E. 31.60 feet; thence 222.36 feet along a curve concave to the NW having a radius of N. 12°07'13" W. 975.00 feet and a central angle of 13°04'02" to the Real Point of Beginning. Except county road.

APPROVED

BEFORE THE DEPARTMENT OF WATER RESOURCES

OF THE STATE OF IDAHO

IN THE MATTER OF APPLICATION FOR PERMIT NOS. 72-16624 AND 72-16625 IN THE NAME OF FIRSTFRUITS FOUNDATION AND CHRISTOPHER W. JAMES TRUST	)	**NOTICE OF HEARING AND PREHEARING ORDER**

On April 23, 2004, the Hearing Officer for the Idaho Department of Water Resources ("IDWR") issued a Preliminary Order ("order") approving the above captioned applications and on May 14, 2004, issued an Order Partially Approving Petition for Reconsideration.

On May 7, 2004, the applicant filed a petition for reconsideration. The protestants subsequently filed responses to the petition.

On May 14, 2004, the Hearing Officer issued an Order Partially Approving Petition for Reconsideration.

On May 24, 2004, the applicant filed exceptions with the Director.

On May 25, the protestants filed a petition for reconsideration.

On June 3, 2004, the applicant filed an application for amendment with IDWR seeking to add a point of diversion to Application 72-16624 and to enlarge the place of use.

On June 7, 2004, the Director issued an Order on Remand to Hearing Officer remanding the matter for additional factual information about the applications and the application for amendment.

IDWR has scheduled the above captioned matter for additional hearing on **August 10, 2004**, at 9:00 a.m. at the Courtroom of the Custer County Courthouse in Challis, Idaho. The hearing will be held in accordance with provisions of Chapters 2 and 17, Title 42, and Chapter 52, Title 67, Idaho Code, and the adopted Rules of Procedure of IDWR. A copy of the rules is available on the Department's internet homesite at www.idwr.state.id.us or may be obtained from IDWR upon request. The presiding officer at the hearing will be L. Glen Saxton.

Do not pre-mark additional exhibits in this resumed hearing, since the numbering sequence used in the prior hearing in the matter will be continued.

The hearing will be conducted in a facility that meets the accessibility requirements of the Americans with Disabilities Act. If you require special accommodations in order to attend, participate in or understand the hearing, please advise IDWR within ten (10) days prior to the hearing.

PREHEARING ORDER

IT IS HEREBY ORDERED as follows:

1. The issues to be heard at the hearing specifically include

   a) The application for amendment;

   b) The water right(s) and acreage offered as mitigation for each application; and

   c) The dimensions of the aesthetic storage pond under application 72-16625.

2. On or before **July 23, 2004**, the parties shall exchange any additional exhibits that will be offered in the resumed hearing and shall provide a copy to the Hearing Officer by this date.

Failure to comply with this pre-hearing order is cause for the hearing officer to issue a Notice of Proposed Default to dismiss a party's pleading as provided in IDAPA 37.01.01700 (Rule of Procedure 700).

Dated this 10th day of June, 2004.

L. GLEN SAXTON, P.E.
Hearing Officer

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that I served a true and correct copy of the following described document on the persons listed below by Certified Mail in the United States mail, with the correct postage affixed thereto on this _____ day of June, 2004.

Document Served: NOTICE OF HEARING AND PREHEARING ORDER

Persons Served:

FIRSTFRUITS FOUNDATION
PO BOX 510
CHALLIS ID 83226

BONNIE ROWLES
PO BOX 1087
CHALLIS ID 83226

JEFFREY J. YEO
PO BOX 299
CHALLIS ID 83226

BOB ANDREWS
WATER DISTRICT 72
PO BOX 1141
CHALLIS ID 83226

Patsy McGourty
Administrative Assistant
Idaho Dept. of Water Resouces

BEFORE THE DEPARTMENT OF WATER RESOURCES

OF THE STATE OF IDAHO

IN THE MATTER OF APPLICATION FOR PERMIT NOS. 72-16624 AND 72-16625 IN THE NAME OF FIRSTFRUITS FOUNDATION AND CHRISTOPHER W. JAMES TRUST	)	**ORDER OF REMAND TO HEARING OFFICER**

On April 23, 2004, the Hearing Officer for the Idaho Department of Water Resources issued a Preliminary Order in the above captioned matter. On May 7, 2004, Firstfruits Foundation and Christopher W. James Trust (the "applicant") filed a Petition for Reconsideration. The Hearing Officer issued an Order Partially Approving Petition For Reconsideration on May 14, 2004.

On May 24, 2004, the applicant filed exceptions with the Director of the Idaho Department of Water Resources (the "Director" or "Department"). In addition, on June 3, 2004, the applicant filed an application for amendment with the Department seeking to add a point of diversion to application for permit no. 72-16624 and to enlarge the place of use.

The application for amendment raises issues related to the captioned applications that were not the subject of the hearing held on April 6, 2004. The protestants in this matter should have an opportunity to review any supplemental evidence relating to the applications and to the application for amendment, to cross examine witnesses, and to call witnesses and present evidence.

ORDER

In consideration of the foregoing, the Director orders as follows:

1. This matter is remanded to the Department's Hearing Officer, L. Glen Saxton, for the purpose of conducting an additional hearing to take additional evidence on the applications, including the application for amendment.

2. The Hearing Officer shall provide the applicant and protestants reasonable time to prepare, submit, and review supplemental evidence or exhibits in preparation of the additional hearing.

3. Following the additional hearing and the consideration of any supplemental evidence submitted in this matter, the Hearing Officer shall issue an Amended Preliminary Order, which shall be subject to further review on exceptions before the Director.

Dated this 7th day of June, 2004.

Karl J. Dreher
Director

BEFORE THE DEPARTMENT OF WATER RESOURCES

OF THE STATE OF IDAHO

IN THE MATTER OF APPLICATIONS FOR PERMIT NOS. 72-16624 AND 72-16625 IN THE NAME OF FIRSTFRUITS FOUNDATION AND CHRISTOPHER W. JAMES TRUST	)	**ORDER PARTIALLY APPROVING PETITION FOR RECONSIDERATION**

On April 23, 2004, the hearing officer for the Department of Water Resources ("Department") issued a Preliminary Order approving Application for Permit Nos. 72-16624 and 72-16625 in the name of Firstfruits Foundation and Christopher W. James Trust ("applicant"). On May 7, 2004, the applicant filed a Petition for Reconsideration ("petition") seeking changes to the Preliminary Order.

The hearing officer has reviewed the petition and responds to the matters raised in the petition as follows:

PERMIT NO. 72-16624

Section 42-111(1)a, Idaho Code, defines the term "domestic purposes" or "domestic uses" and describes the maximum amount of water that can be diverted under the definition. Section 42-229, Idaho Code, provides that the right to appropriate ground water may be acquired only by appropriation and may be perfected by means of the application, permit and license procedure. Section 42-227, Idaho Code, provides an exemption to the mandatory permit-filing requirement of Section 42-229, Idaho Code, if the domestic use complies with Section 42-111(1)a, Idaho Code. None of these code sections suggests that there is an "inferred" right to use water for domestic purposes and does not "clear" a domestic use for up to 13,000 gallons per day without regard to other uses and without regard to the amount of water available. In the Analysis section of the Preliminary Order, the hearing officer attempted to make this point by describing that a domestic use is not an "entitlement" of up to 13,000 gallons per day and "is subject to all other prior water rights without regard to the nature of use" of the other water rights.

Well #2 is not an authorized point of diversion under Permit No. 72-16624 and can not be used as an alternate point of diversion under the permit unless the Department approves an application for amendment for the use of Well No. 2 as a second point of diversion or has approved an application for transfer, if Permit No. 72-16624 has been licensed. Decommissioning of Well No. 2 does not mitigate use of water from the artesian well but will assure that the well will not be used without authorization to divert water to the church camp.

If ceasing to use an older water right is the mitigation offered by the applicant for the domestic use, water can be diverted under the junior priority domestic right as long as there is water available in the source to fill the right being used for mitigation. The priority of the mitigation right does not "transfer" to the domestic use, but the effect is essentially the same.

Water rights are delivered in order of priority with the oldest water right receiving water first regardless of the nature of use associated with the right. As a caveat to this principle of "first in time is first in right", Article XV, Section 3 of the Idaho Constitution provides that when there is not enough water to supply all uses, domestic use has preference over all other uses, subject to provisions of law regulating the taking of private property for public and private use. In order to avail oneself of this provision of the Constitution, however, the domestic user would need to compensate the owners of water rights that would be taken for domestic use.

The Department should not approve the changes requested by the applicant.

PERMIT NO. 72-16625

The Preliminary Order approved a rate of diversion of 0.10 cfs for aesthetic purposes rather than 0.40 cfs applied for by the applicant. The diversion rate of 0.20 cfs sought in the petition of the applicant, however, is generally consistent with recommendations of the Idaho Department of Fish and Game that a turnover rate for water in a coldwater fish pond should be one exchange every one or two days. A diversion rate of 0.20 cfs also will not appreciably change losses from the ditch or from the pond.

A diversion rate of 0.20 cfs is reasonable and would generally allow the water in the aesthetic pond to be changed once every 24 hours. The Department should approve this requested change.

ORDER

IT IS HEREBY ORDERED as follows:

The changes sought for Permit No. 72-16624 are **DENIED**. The change sought for Permit No. 72-16625 to increase the authorized diversion rate from 0.10 cfs to 0.20 cfs is **APPROVED**.

Dated this 14th day of May, 2004.

L. GLEN SAXTON, P.E.
Hearing Officer

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 14th day of May, 2004, the above and foregoing, was served on the following by placing a copy of the same in the United States mail, postage prepaid and properly addressed to the following:

FIRSTFRUITS FOUNDATION
CHRISTOPER W. JAMES TRUST
PO BOX 510
CHALLIS ID 83226

BONNIE ROWLES
PO BOX 1087
CHALLIS ID 83226

JEFFREY J YEO
PO BOX 299
CHALLIS ID 83226

BOB ANDREWS
WATER DISTRICT 72B
PO BOX 1141
CHALLIS ID 83226

Victoria Wigle
Administrative Assistant to the Director
Idaho Department of Water Resources

State of Idaho
DEPARTMENT OF WATER RESOURCES
1301 North Orchard Street, Boise, ID 83706 - P.O. Box 83720, Boise, ID 83720-0098
Phone: (208) 327-7900 Fax: (208) 327-7866 Web Site: www.idwr.state.id.us

DIRK KEMPTHORNE
Governor

KARL J. DREHER
Director

April 23, 2004

RE: In the Matter of Application for Permit No. 72-16624 and 72-16625 in the Name of Firstfruits Foundation and Christopher W. James Trust

Dear Interested Parties:

The Department of Water Resources has issued the enclosed **Preliminary Order** pursuant to section 67-5245, Idaho Code. The enclosure is an informational sheet on responding to preliminary orders issued by the Idaho Department of Water Resources.

If you have any questions, please call (208) 327-7910.

Sincerely,

Victoria Wigle

Victoria Wigle
Administrative Assistant to the Director

Encl.
c: IDWR Southern Regional Office

BEFORE THE DEPARTMENT OF WATER RESOURCES

OF THE STATE OF IDAHO

IN THE MATTER OF APPLICATION FOR PERMIT NO. 72-16624 AND 72-16625 IN THE NAME OF FIRSTFRUITS FOUNDATION AND CHRISTOPHER W. JAMES TRUST	)	**PRELIMINARY ORDER**

This matter having come before the Idaho Department of Water Resources ("Department") in the form of protested applications for permit and the Department having held a conference and a hearing in the matter, the hearing officer enters the following Findings of Fact, Conclusions of Law and Preliminary Order:

FINDINGS OF FACT

1. On October 15, 2002, Firstfruits Foundation and Christopher W. James Trust ("applicant") submitted Application for Permit No. 72-16624 ("application") to the Department proposing the diversion of 0.20 cubic feet per second ("cfs") of ground water to be used year-round for domestic purposes. The location of the point of diversion is within NW1/4SE1/4 Section 3, T13N, R18E, B.M., Custer County, Idaho and the proposed place of use is within lots 2, 3 and 4, S1/2 NW1/4 Section 2, T13N, R18E, B.M. and SW1/4SE1/4 Section 35, T14N, R18E, B.M.

(Note: The "1/4" designations will be omitted from subsequent legal descriptions in this order).

2. On October 15, 2002, the applicant also submitted Application for Permit No. 72-16625 ("application") to the Department proposing the diversion of 0.40 cfs of water from Garden Creek tributary to the Salmon River to be used from April 1 to October 31 for aesthetic purposes. The location of the point of diversion and place of use are within lot 3 Section 2, T13N, R18E, B.M., Custer County, Idaho.

3. The Department published notice of application 72-16624 that was protested by Bonnie Rowles and Jeffrey J. Yeo and of application 72-16625 that was protested by Dee Keppner on behalf of Water District 72-B.

4. On April 6, 2004, the Department conducted a hearing in the matter in Challis, Idaho. Christopher W. James was present and represented the applicant.

Protestants Bonnie Rowles and Jeffrey J. Yeo were present and represented themselves. Don Rowles, a member of the Water District 72-B advisory committee was present on behalf of protestant Water District 72-B.

5. Issues the Department can consider in this matter are as follows:

a. Whether the appropriation will reduce the quantity of water under existing water rights;
b. Whether the water supply itself is insufficient for the purpose for which it is sought to be appropriated;
c. Whether the application is made in good faith, or is made for delay or speculative purposes;
d. Whether the applicant has sufficient financial resources with which to complete the work involved therein;
e. Whether the proposed appropriation will conflict with the local public interest; and
f. Whether the proposed appropriation is contrary to conservation of water resources within the state of Idaho.

6. Exhibits premarked, offered or accepted as a part of the record are as follows:

Applicant's Exhibits:

1. Letter dated March 1, 2004, from Christopher W. James with the following attachments in connection with Application for Permit No. 72-16624:

    1. Water measurement readings for Well #2 for 2001, 2002 and 2003
    2. Letter dated September 5, 2003, to Karl Dreher and Jim Stanton from Christopher W. James
    3. Financial statement from Wells Fargo Bank Northwest for Firstfruits Foundation
    4a. Letter dated March 3, 2003, to Gloria Jakovak from William Teuscher
    4b. Letter dated February 14, 2003, to Gloria Jakovak from Kellye Eager
    5. Letter dated May 29, 2002, to Catherine Becker from Corey Skinner
    6. Schematic of Living Waters Ranch

2. Letter dated March 1, 2004, from Christopher W. James with Attachment 1 in connection with Application for Permit No. 72-16625

Protestant's Exhibits:

A. Report titled Hydrologic Investigation of the Garden Creek Watershed and Aquifer prepared by Brockway Engineering - February 11, 1999
B. Report titled Hydrogeologic Analysis of the Water Supply for the Community of Challis, Custer County, Idaho prepared by Idaho Water Resources Research Institute – February 25, 2003 (Preliminary Draft)
C. Protest of Jeffrey Yeo
D. Protest of Bonnie Rowles
E. Letter dated May 21, 2002, to Department of Water Resources from Catherine Becker
F. Letter dated July 10, 2003, to Custer County Commissioners from Catherine Becker
G. Letter dated July 22, 2003, to Garden Creek Association from Catherine Becker
H. Letter to Betty Horn from Don Munkers (Not dated)
I. Living Waters Ranch Well #1 Meter Readings – 2003, 2002 and 2001
J. Information from Living Waters Ranch website
K. Letter dated August 1, 2000, to Mark Dietrich from Christopher W. James and letter dated August 17, 2000, to Charles G. Brockway from Christopher James
L. Application for Permit (draft)
M. Letter dated July 21, 2003, to Christopher James from James E. Stanton
N. Phase 1 Sewer System Log – Living Waters Ranch
O. Summary by Garden Creek Water District of Factors Pertaining to Application for Permit no. 72-16625
P. Letter dated September 30, 2003, to Steve Adams from William Teuscher
Q. Letter dated December 19, 2003, to Steve Adams from William Teuscher

The hearing officer also officially noticed well driller reports in Department files. This notice includes the report for the domestic well drilled in 1997 for protestant Jeffrey Yeo.

7. The applications seek the use of water in connection with a church camp/conference center ("church camp") that is located about 4 miles west of the city of Challis, Idaho in the Garden Creek drainage. Existing facilities at the church camp include an 8,500 square foot chapel designed to accommodate 450 people, a 5,000 square foot lodge with a sleeping capacity of 50 persons, 9 chalets, two mini lodges, 12 motel units, a shop, a powerhouse, a manager's residence, a shower house, RV sites some with facilities and some without facilities, and a tent camping area. The applicant plans additional development such as a cafeteria, an activities building and more individual rental units. The applicant can sleep about 236 people at the church camp.

8. Presently the church camp receives water from a well identified as Well #2 (aka the mechanical building well) that was drilled in 1997 to a depth of 63 feet. The well provides about 15 gallons per minute ("gpm") of water. A 35,000 gallon elevated

water tank is part of the water distribution system and is used to stabilize fluctuating water demands and to provide water for fire protection. The applicant wants to cease use of this well and to use the artesian well described in application 72-16624 in order to minimize contamination problems that the applicant has experienced using Well #2. There is not a recorded water right for use of Well #2.

9. The applicant does not have other ground water rights for domestic use for the church camp.

10. The well sought for use under application 72-16624 is an existing artesian well located about 0.8 miles upgradient from the church camp. The depth of the well is about 400 feet below land surface. Although the flow available from the well is disputed, the applicant has pumped 40 gpm from the well in excess of 3 hours with a draw down of about 20 feet. If this application is approved, the applicant intends to abandon use of Well # 2. The applicant stated that use of water from the artesian well is intended to replace church camp use of water from Well #2 and is not intended to be an appropriation in addition to any other domestic use (or unrecorded claim) for the church camp facility.

11. The applicant owns several water rights diverted from Garden Creek that are used for the irrigation of the applicant's land. The irrigated lands include a 7.5 acre tract furthest upstream, a 13.2 acre tract upstream and adjacent to the church camp and a 3.3 acre tract downstream from the church camp.

12. Existing development in the Garden Creek drainage, not counting the applicant's development, includes about 12 single-family residences up gradient from the church camp and about 8 or 9 residences down gradient. Ground water generally is not used for irrigation in the drainage.

13. The total annual surface water yield from the Garden Creek drainage is estimated to be 13,530 acre feet ("AF"). Ground water discharge from the aquifer associated with Garden Creek is estimated to be 16.7 AF per year. Garden Creek gains water in some reaches and loses water in other reaches. (See Protestant's Exhibit A).

14. Ground water and surface water in the Garden Creek drainage upstream from Challis are hydraulically connected. Depletion of ground water will decrease the amount of surface water available in Garden Creek. (See Protestant's Exhibit A).

15. Protestant's Exhibit A, prepared in connection with the applicant's facility concludes that "The aquifer is ... marginally suitable for domestic residences and other low-use facilities." The report also concludes that depletion of ground water at the facility will result in decreased discharge of Garden Creek with the long-term impact on the aquifer being a lowering of the water table and a corresponding decrease in reach gains and an increase in reach losses.

16. Water level measurements taken from the city of Challis's municipal wells suggest that depletion from the aquifer is increasing over time and that the city "... should closely monitor upstream water use in order to assess potential sources of contamination ...". (See Protestant's Exhibit B).

17. Garden Creek is within Water District 72-B where water deliveries are administered during times of water shortage by a watermaster. Water delivery records of Water District 72-B show that water delivery to junior users on Garden Creek is curtailed at times during most water years due to diminishing flow available to provide water to all water rights.

18. Using a total demand of 13,000 gallons per day, the amount of water diverted by the applicant under application 72-16624 would be about 14.6 AF per year. Assuming the diversion of ground water results in a depletion to the flow of Garden Creek of 25%, in terms of irrigation, the amount of water depleted would be about the amount of water needed to irrigate 1.5 acres of land based on a consumptive use of 2.5 AF/acre. (See Protestant's Exhibit A).

19. Protestants Bonnie Rowles and Jeffrey Yeo were concerned that use of water by the applicant would injure existing water rights and is not in the local public interest.

20. Bonnie Rowles owns a bed and breakfast in Challis and receives water from the city of Challis. She does not use water from a private well in the Garden Creek drainage.

21. Jeffrey Yeo owns a domestic well located within NESE Section 3, T13N, R18E, B.M. that is about ¼ mile from the artesian well sought for use by the applicant. The Yeo well was drilled in 1997 to a depth of 104 feet with the static water level in the well about 20 feet below land surface.

22. The aesthetic pond proposed under application 72-16625 is an existing pond located on a ditch that delivers water for irrigation to church camp property. The pond was originally used to water stock and has been converted to aesthetic use. The size of the pond is about 50' x 80' and is about 4 feet deep. The pond has a surface area of about 0.1 acre and holds about 0.4 AF.

23. A rate of diversion of 0.4 cfs from Garden Creek will fill the 0.4 AF aesthetic pond in 12 hours.

24. In the past, when water was delivered for irrigation it passed through the pond. In recent years, the water has been used the same way, but some watermasters have shut off the diversion of irrigation water from Garden Creek to the pond when the priorities of the irrigation rights (1888 and 1890) could not be filled and other watermasters have allowed the diversion to the pond to continue.

25. On behalf of protestant Water District 72-B, Don Rowles expressed the concern that there was no water available for a new appropriation from Garden Creek and that the rate of diversion requested to fill the aesthetic pond is excessive.

CONCLUSIONS OF LAW

1. Section 42-203A, Idaho Code, provides in pertinent part as follows:

> In all applications whether protested or not protested where the proposed use is such (a) that it will reduce the quantity of water under existing water rights, or (b) that the water supply itself is insufficient for the purpose for which it is sought to be appropriated, or (c) where it appears to the satisfaction of the director that such application is not made in good faith, is made for delay or speculative purposes, or (d) that the applicant has not sufficient financial resources with which to complete the work involved therein, or (e) that it will conflict with the local public interest as defined in section 42-202B, Idaho Code, or (f) that it is contrary to conservation of water resources within the state of Idaho; or (g) that it will adversely affect the local economy of the watershed or local area within which the source of water for the proposed use originates, in the case where the place of use is outside of the watershed or local area where the source of water originates; the director of the department of water resources may reject such application and refuse issuance of a permit therefor... .

2. Section 42-111, Idaho Code, provides in pertinent part as follows:

(1) For purposes of sections 42-221, 42-227, 42-230, 42-235, 42-237a, 42-242, 42-243 and 42-1401A, Idaho Code, the phrase "domestic purposes" or "domestic uses" means:

> (a) The use of water for homes, organization camps, public campgrounds, livestock and for any other purpose in connection therewith, including irrigation of up to one-half (2) acre of land, if the total use is not in excess of thirteen thousand (13,000) gallons per day, or
>
> ....

(3) Multiple water rights for domestic uses or domestic purposes, as defined in this section, shall not be established or exercised in a manner to satisfy a single combined water use or purpose that would not itself come within the definition of a domestic use or purpose under this section. The purpose of this limitation is to prohibit the diversion and use of water, under a combination of domestic purposes or domestic uses as defined in this section, to provide a supply of water for a use that does not meet the exemption of section 42-227, Idaho Code, and is required to comply with the mandatory application and permit process for developing a right to the use of water pursuant to chapter 2, title 42, Idaho Code.

3. The church camp qualifies for inclusion among the "domestic uses" described in Section 42-111(1)(a), Idaho Code, and may divert up to 13,000 gallons per day from ground water for the church camp without the necessity of filing an application for permit. The use of water from all wells in connection with the "domestic uses" of the church camp, however, cannot exceed a combined total of 13,000 gallons per day under the exemption.

4. There is no evidence to indicate that there is an upper aquifer and a lower aquifer that are separated by a confining layer in the Garden Creek drainage. Hence, ground water depletion in the drainage by the applicant will decrease the amount of surface water available in Garden Creek, since the surface water and ground water are interconnected. (See Protestant's Exhibit A).

5. Use of water by the applicant for the church camp has increased since 1999 and likely will further increase based on the applicant's testimony that he plans to construct additional facilities at the church camp including a cafeteria, activities building and more individual rental units. The applicant has also acquired additional property in the Garden Creek drainage.

6. Use of water as proposed in application 72-16624 will reduce the quantity of water under existing water rights unless the use is adequately mitigated.

7. Diversion of 14.6 AF per year from the aquifer in the Garden Creek drainage for domestic use at the church camp will result in some depletion of ground water and will decrease surface water discharge in Garden Creek. The applicant should be required to mitigate the depletion by ceasing to irrigate 1.5 acres of land that is presently irrigated or by providing other acceptable mitigation as determined by the Department.

8. Use of water as proposed in application 72-16625 will also result in a depletion of water in Garden Creek even though the depletion will be small due to the small surface area of the pond and the relatively short time period when water is not being delivered for irrigation purposes through the pond.

9. Use of water as proposed in the applications will not reduce the quantity of water under existing water rights if the applicant mitigates depletions attributable to the uses.

10. Although there are water shortages in the Garden Creek drainage nearly every year, the water supply itself is sufficient for the purposes intended if the applicant mitigates the uses.

11. Some of the facilities proposed in the applications have already been constructed and are in use. The applications are made in good faith and not for delay or speculative purposes.

12. The applicant has sufficient financial resources with which to complete the projects.

13. The applications do not conflict with the local public interest if the uses are adequately mitigated.

14. The applications are not contrary to the conservation of water resources within Idaho.

15. The Department should approve the applications with conditions requiring the applicant to mitigate depletions associated with the applications.

ANALYSIS

In February 1999, the Department conducted a hearing for application 72-7562 filed in the name of Living Waters Ranch for essentially the same proposal as application 72-16624 and issued a recommended order in the matter. Before the Department issued a final order, however, the applicant withdrew the application and subsequently filed applications 72-16624 and 72-16625.

The applicant's present use of water for domestic purposes at the church camp is less than the maximum of 13,000 gallons per day. Application 72-16224 represents a recording of the total domestic use of water associated with the camp and if perfected into a water right will have a priority as of the date of filing of the application. The domestic "exemption" associated with Sections 42-227 and 42-111, Idaho Code, relates to whether the filing of an application for permit is required, not that there is a grant of so much water for a domestic use.

Statements of the applicant appear to indicate that the applicant believes it has an "entitlement" to 13,000 gallons per day for its church camp use without regard to other water rights and uses. This is not correct, since the domestic use or any other use of water under a water right is subject to all other prior water rights without respect to the nature of use. The oldest water right is the best water right and in times of shortage should be delivered before junior water rights.

Even if there is not sufficient water in a source for a new use, however, an applicant should have the opportunity to mitigate a new use of water in a manner that will not decrease the amount of water in the drainage for prior water rights. Although there are a number of ways to provide mitigation, the most commonly offered and accepted mitigation is to cease an existing use in a magnitude to provide water for the new use. The offer of "paper" water rights that are not being used and that would not compensate for new consumption is not suitable mitigation. The drying up of land that is being irrigated is generally acceptable for mitigation.

The applicant also appears to believe that water used for domestic purposes is

non-consumptive in nature. While there is effluent discharge from most domestic use facilities, domestic use has a consumptive component.

Evaporative losses associated with the applicant's small aesthetic pond or from the ditch to the pond are not large, but are losses that will injure earlier water rights during periods of water shortage. Some flow through the pond is needed to prevent stagnation of the pond, but a flow rate of 0.40 cfs is excessive for this purpose. A flow rate of 0.10 cfs is sufficient to prevent stagnation of water in the pond and is more reasonable.

The Moratorium Order issued by the Department on October 26, 1999, stopped the processing of applications for permit to appropriate surface water or ground water within and tributary to the Selway-Bitterroot Wilderness Area, the Gospel-Hump Wilderness and the Frank Church-River on No Return Wilderness area. The moratorium order, however, allowed the Department to consider an application if the use of water pursuant to the application would have no effect on other water rights due to mitigation provided by an applicant.

ORDER

IT IS THEREFORE hereby ORDERED as follows:

Application for Permit No. **72-16624** in the name of Firstfruits Foundation and Christopher W. James Trust is **APPROVED** subject to the following conditions:

1. Proof of construction of works and application of water to beneficial use shall be submitted to the Department on or before May 1, 2006.

2. The quantity of water diverted under this right shall not exceed 13,000 gallons per day and 14.6 AF per year.

3. To mitigate the depletion of water under this right, the right holder shall not divert water until the right holder completes Option A or Option B below:

   Option A – The right holder shall obtain an approved water right transfer changing the purpose of use of water rights diverted from Garden Creek or its tributaries for the irrigation of 1.5 acres of land to mitigation use and shall cease the use of water under the transferred rights for other than mitigation use.

   Option B – The right holder shall assign 4.5 afa appurtenant to 1.5 acres of irrigated land under water rights diverted from Garden Creek or its tributaries to the water supply bank operated by the Idaho Water Resource Board to be used solely for the purpose of mitigating water use under permit no. 72-16624.

4. Diversion of water from Well #2 located within the NENW Section 2, T13N, R18E, B.M., is not authorized for any use if water is diverted and used from the

artesian well located within the NWSE, Section 3, T13N, R18E, B.M. as authorized by this permit. Upon use of water under this right, the applicant shall abandon or decommission Well #2 and/or its diversion facilities in a manner approved by the Department to assure that water is not diverted from the well.

5. Right holder shall comply with the drilling permit requirements of Section 42-235, Idaho Code, and applicable Well Construction Rules of the Department.

6. Prior to the diversion and use of water under this approval, the right holder shall comply with applicable water quality standards of the Department of Environmental Quality.

7. Water diverted under this right shall not be used for irrigation purposes.

8. Prior to diversion of water under this right, the right holder shall install a suitable measuring device at the point of diversion to measure the rate of diversion and volume of water diverted and shall report the amounts to the Department at a frequency determined by the Department.

9. Use of water is for domestic purposes in connection with a church camp/conference center.

10. The issuance of this right does not grant any right-of-way or easement across the land of another.

11. The permit holder shall allow access by the watermaster of State Water District 72-B to the measuring device installed at the point of diversion.

12. Failure to comply with these conditions of approval is cause for the Director to void the permit.

IT IS FURTHER hereby ORDERED as follows:

Application for Permit No. **72-16625** in the name of Firstfruits Foundation and Christopher W. James Trust is **APPROVED** subject to the following conditions:

1. Proof of construction of works and application of water to beneficial use shall be submitted to the Department on or before May 1, 2006.

2. Prior to diversion of water under this right, the right holder shall install and maintain measuring devices and lockable controlling works of a type acceptable to the Department as part of the diversion and conveyance works. The devices shall be adequate to determine the rate of diversion from Garden Creek and to quantify any losses associated with the aesthetic use of water in the right holder's pond.

3. Prior to diversion of water under this right, the right holder shall provide

suitable mitigation for losses attributable to the diversion and use of water under this right in accordance with a plan approved in writing by the Department.

4. The diversion of water under this right shall not exceed 0.10 cfs when the applicant's irrigation rights are not also being diverted and conveyed through the pond.

5. Use of water is for aesthetic use in connection with a church camp/conference center.

6. Use of water rights held by the applicant will be regulated by a watermaster with responsibility for the distribution of water among appropriators within a water district. At the time of this approval, the water rights of the applicant are within State Water District 72-B.

7. At such times in the future as may be necessary to protect prior rights of other water users, the Director may require determination of the actual rate of loss within the system and may require additional mitigation for all system losses.

8. The right holder is not authorized to divert water to its pond for aesthetic purposes when the applicant's irrigation rights are not being delivered unless the applicant provides suitable mitigation to compensate for system losses.

9. Failure to comply with these conditions of approval is cause for the Director to void the permit.

DATED this 23 day of April, 2004.

L. GLEN SAXTON, P.E.
Hearing Officer

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 23rd day of April, 2004, the above and foregoing, was served on the following by placing a copy of the same in the United States mail, postage prepaid and properly addressed to the following:

FIRSTFRUITS FOUNDATION
CHRISTOPER W. JAMES TRUST
PO BOX 510
CHALLIS ID 83226

BONNIE ROWLES
PO BOX 1087
CHALLIS ID 83226

JEFFREY J YEO
PO BOX 299
CHALLIS ID 83226

BOB ANDREWS
WATER DISTRICT 72B
PO BOX 1141
CHALLIS ID 83226

Victoria Wigle
Administrative Assistant to the Director
Idaho Department of Water Resources

RESPONDING TO PRELIMINARY ORDERS ISSUED BY THE IDAHO DEPARTMENT OF WATER RESOURCES

The accompanying order is a **Preliminary Order** issued by the Idaho Department of Water Resources (Department) pursuant to section 67-5243, Idaho Code. **It can and will become a final order without further action of the Department unless a party petitions for reconsideration within fourteen (14) days after issuance as further described below:**

PETITION FOR RECONSIDERATION

Any party may file a petition for reconsideration of a preliminary order with the hearing officer within fourteen (14) days of the service date of the order as shown on the certificate of service. **Note: the petition must be received by the Department within this fourteen (14) day period.** The hearing officer will act on a petition for reconsideration within twenty-one (21) days of its receipt, or the petition will be considered denied by operation of law. See section 67-5243(3) Idaho Code.

EXCEPTIONS AND BRIEFS

Within fourteen (14) days after (a) the service date of a preliminary order, (b) the service date of a denial of a petition for reconsideration from this preliminary order, or (c) the failure within twenty-one (21) days to grant or deny a petition for reconsideration from this preliminary order, any party may in writing support or take exceptions to any part of a preliminary order and may file briefs in support of the party's position on any issue in the proceeding to the Director. Otherwise, this preliminary order will become a final order of the agency.

If any party appeals or takes exceptions to this preliminary order, opposing parties shall have fourteen (14) days to respond to any party's appeal. Written briefs in support of or taking exceptions to the preliminary order shall be filed with the Director. The Director retains the right to review the preliminary order on his own motion.

ORAL ARGUMENT

If the Director grants a petition to review the preliminary order, the Director shall allow all parties an opportunity to file briefs in support of or taking exceptions to the preliminary order and may schedule oral argument in the matter before issuing a final order. If oral arguments are to be heard, the Director will within a reasonable time period notify each party of the place, date and hour for the argument of the case. Unless the Director orders otherwise, all oral arguments will be heard in Boise, Idaho.

CERTIFICATE OF SERVICE

All exceptions, briefs, request for oral argument and any other matters filed with the Director in connection with the preliminary order shall be served on all other parties to the proceedings in accordance with Rules of Procedure 302 and 303.

FINAL ORDER

The Department will issue a final order within fifty-six (56) days of receipt of the written briefs, oral argument or response to briefs, whichever is later, unless waived by the parties or for good cause shown. The Director may remand the matter for further evidentiary hearings if further factual development of the record is necessary before issuing a final order. The Department will serve a copy of the final order on all parties of record.

Section 67-5246(5), Idaho Code, provides as follows:

> Unless a different date is stated in a final order, the order is effective fourteen (14) days after its issuance if a party has not filed a petition for reconsideration. If a party has not filed a petition for reconsideration. If a party has filed a petition for reconsideration with the agency head, the final order becomes effective when:
>
> (a) the petition for reconsideration is disposed of; or
> (b) the petition is deemed denied because the agency head did not dispose of the petition within twenty one (21) days.

APPEAL OF FINAL ORDER TO DISTRICT COURT

Pursuant to sections 67-5270 and 67-5272, Idaho Code, if this preliminary order becomes final, any party aggrieved by the final order or orders previously issued in this case may appeal the final order and all previously issued orders in this case to district court by filing a petition in the district court of the county in which:

i. A hearing was held,
ii. The final agency action was taken,
iii. The party seeking review of the order resides, or
iv. The real property or personal property that was the subject of the agency action is located.

The appeal must be filed within twenty-eight (28) days of this preliminary order becoming final. See section 67-5273, Idaho Code. The filing of an appeal to district court does not itself stay the effectiveness or enforcement of the order under appeal.

State of Idaho
DEPARTMENT OF WATER RESOURCES
322 East Front Street, P.O. Box 83720, Boise, ID 83720-0098
Phone: (208) 287-4800 Fax: (208) 287-6700 Web Site: www.idwr.idaho.gov.

DIRK KEMPTHORNE
Governor
KARL J. DREHER
Director

October 25, 2004

CHRISTOPHER W JAMES TRUST
CHRISTOPHER JAMES TRUSTEE
FIRSTFRUITS FOUNDATION
PO BOX 510
CHALLIS ID 83226

RE: Permit 72-16624

Dear Permit Holder:

I have enclosed the permit issued in accordance with the Amended Preliminary order dated September 3, 2004.

Please note that water right owners are required to report any change of water right ownership and/or mailing address to the Department within 120 days of the change. Failure to report these changes could result in a $100 late filing fee. Contact any office of the Department or visit the Department's homepage on the Internet to obtain the proper forms and instructions.

Sincerely,

Shelley W. Keen
Water Rights Supervisor

SWK:klt

Enclosure

First Fruits Foundation

FORM NO.202A
REVISED 7/31/98

APPLICATION NO. 72-16624

STATE OF IDAHO
IDWR SOUTHERN REGION
APPLICATION FOR PERMIT ANALYSIS SHEET

INITIAL REVIEW BY J Elliston DATE 7-28-03

REQUIRED INFORMATION (Ck if OK)

- √ Name (If applicant is a corporation or partnership, names must be provided for the director, officers, & other partners.
- √ Address
- √ Source (see USGS quad for names of water sources)
- √ Point of diversion (10 Acres for spring, lot & block descriptions for subdivisions, local name, flow &/or volume.
- √ County
- √ Quantity (flow &/or volume)
- √ Period of use
- √ Nature of proposed use (include description of use)
- √ Description of diverting works.
- √ Time required for beneficial use of water.
- √ Place of use or acres irrigated.
- √ Map
- √ Signature (If applicant is corp., partnership, or municipality, title of signator is required)
- √ Fee
- √ Yes ___ No* In form to receipt?

++++PROPOSED PRIORITY DATE 10-15 19,2002

ADDITIONAL INFORMATION

- ___ Overlapping place of use(Describe source & relationship to present application on the back.
- ___ Overlapping point of diversion.
- ___ Yes √ No Is Source Surface Water?
  If Yes Send Copy to F&G.
  If Yes Field check/memo required.
  Field check/memo by_____
- ___ Yes √ No Field report attached?
- ___ Yes √ No Critical Ground water area?
- ___ Yes √ No Groundwater management area?
- ___ Yes √ No Measurement District or Groundwater District?
  What District? _____
- ___ Yes √ No Send Dam safety information?
- ___ Yes √ No Send power requirement letter?
- ___ Yes √ No Send fish farm requirement letter?
- ___ Yes √ No Power residency affidavit attached?
- ___ Yes √ No Power efficiency form?
- ___ Yes √ No Within trustwater boundary?(If yes, attach trustwater supplementary analysis sheet.
- ___ Yes √ No Diversion greater than 5 cfs or 500 acre ft? (If yes,attach large diversion supplementary analysis sheet.
- ___ Yes √ No Is Application made to record Pre Nov 1987 Development?
  If Yes then request clear evidence of when use started.

Process - Claims To Be Moratorium Exempt

* REQUEST THE FOLLOWING ADDITIONAL INFORMATION FROM THE APPLICANT:

_____

_____

_____

_____ Date Requested _____

	Date Sent	Comments Received
SEND COPIES TO:		
___ Idaho Dept of Health & Welfare		
_√_ USDI BLM	8/14/03	
___ Idaho Dept of Fish & Game		
___ USFS		
___ Idaho Dept of Lands		
___ Water Dist. No. _____		
___ Adjudication Bureau Unit		
___ _____		
___ _____		

PROCESSING _√_ Yes ___ No In form for Advertising?
___ Yes _√_ No Statewide Advertising?
_√_ Yes ___ No Fee amount, receipt date & No. recorded?

___ Yes _√_ No Has all requested additional information been received?
If not, describe action taken: permission from BLM for well use

FINAL REGIONAL PROCESSING REVIEW
___ Yes ___ No Affidavit of publication received?
___ Yes ___ No Application published correctly? If not, record action taken.

___ Yes ___ No Publication dates and paper recorded?
Final date for protest: _____
___ Yes ___ No Protests received?
___ Yes ___ No Protested?
Describe Resolution: _____

___ Yes ___ No Measuring device required?
___ Yes ___ No Access port required?
___ Yes ___ No Will water be delivered by watermaster? If yes, what dist? ____
___ Yes ___ No Special conditions codes:

___ Yes ___ No Is Evaluation Memo Attached?
If yes; date of Memo _____

Date of priority recommended: _____

COMMENTS:

RECOMMEND _____ Approval _____ Denial

By _____ Date _____

Saxton, Glen

From: Merritt, Allen
Sent: Monday, September 20, 2004 4:13 PM
To: Saxton, Glen
Subject: RE: FIRST FRUITS

The issue will probably come up but maybe if I just place a copy of these e-mails in the file may be enough to explain the intent sufficiently. I agree that drying up the acres should suffice and that mitigation to an aquifer is different than mitigation to a live stream and storage lag time should be considered. As you know we discussed this with all parties at the hearing which included the watermaster so hopefully this argument will not be raise by them. I will provide a copy of the e-mail to the file.

Allen

-----Original Message-----
From: Saxton, Glen
Sent: Monday, September 20, 2004 3:51 PM
To: Merritt, Allen
Subject: RE: FIRST FRUITS

Allen,

We did discuss lag time related to the irrigation season of use and year-round domestic use. The Preliminary Order is not as clear as it could be relative to the rights for mitigation and the lag time associated with the rights. My intent, however, would be to not shut off the domestic use of First Fruits if 1.5 acres are permanently dried up relative to permit 72-16624. Since a petition for reconsideration has not been filed, it would be a little awkward to clarify this matter by issuing another amended preliminary order. I prefer to leave it as it is unless you feel we need to pursue it further. lgs

-----Original Message-----
From: Merritt, Allen
Sent: Monday, September 20, 2004 3:36 PM
To: Saxton, Glen
Subject: RE: FIRST FRUITS

Corey Skinner came in my office and did question about whether the domestic right would be cut off if the mitigation rights are curtailed as they normally are every year. His question arises from Condition #3 one page 11 of the order. I recall at the hearing we discussed that the groundwater aquifer may allow some lag time on an annual basis and that if the lands were not irrigated that would be sufficient to allow year round use from ground water for the domestic use. This discussion does not appear to be reflected in the approval..

Allen

-----Original Message-----
From: Saxton, Glen
Sent: Monday, September 20, 2004 3:21 PM
To: Merritt, Allen
Subject: FIRST FRUITS

Allen,

Has your office received any petition for reconsideration from the parties to the First Fruits matter? The time for filing ended last Friday, September 17. lgs

FirstFruits mitigation plan

Basin	Sequence	Suffix	Basis	Status	Source	Priority Date	Original Rate(cfs)	Adjusted Rate(cfs)	Original Acres	Acres - 1.5	Water Use(s)	Owner(s)	Combined Acres
72	106	J	Decreed	Active	GARDEN CREEK	1890/05/15	0.52	0.46	13.2	11.7	IRRIGATION	FIRSTFRUITS FOUNDATION	13.2
72	109	J	Decreed	Active	GARDEN CREEK	1888/05/15	0.52	0.46	13.2	11.7	IRRIGATION	FIRSTFRUITS FOUNDATION	13.2
72	10486	C	Decreed	Active	GARDEN CREEK	5/20/1914	0.29	0.26	13.2	11.7	IRRIGATION	FIRSTFRUITS FOUNDATION	13.2
72	4174	C	Decreed	Active	UNNAMED STREAM	5/20/1914	0.37	0.31	9.2	7.7	IRRIGATION, STOCKWATER	FIRSTFRUITS FOUNDATION	13.2

1.5 acres dried from T13N, R18E, Section 2, Gov. Lot 3 (NENW).

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

SOUTHERN REGION

DIRK KEMPTHORNE
Governor

KARL J. DREHER
Director

July 30, 2004

FIRSTFRUITS FOUNDATION/CHRISTOPHER W JAMES TRUST
CHRISTOPHER JAMES TRUSTEE
PO BOX 510
CHALLIS ID 83226

RE: Application Nos. 72-16624 & 72-16625

Dear Mr. James:

Enclosed is a copy of an additional protest filed against the above referenced applications. The Department suggests you contact the protestant(s) &/or their legal counsel directly to determine the exact nature of the protest(s) and, if possible, to resolve the matter.

At the **Hearing scheduled for 9:00 a.m. on August 10, 2004 at the Custer County Courthouse**, the following are the principal items the Department will consider in either approving or denying an application for amendment of a permit (Section 42-211, IDAHO CODE):

1) Will the change result in the diversion and use of more water than originally permitted?

2) Will the rights of others be adversely affected by the change?

3) Is the proposed change in the local public interest, where local public interest is defined as the affairs of the people in the area directly affected by the proposed use?

If you have any questions or if this office can be of further assistance, please feel free to contact us.

Very truly yours,

Allen D. Merritt, P.E.
Southern Region Manager

AM:MB
Enclosure(s)

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

SOUTHERN REGION

DIRK KEMPTHORNE
Governor

KARL J. DREHER
Director

July 30, 2004

ATTN MARION MC DANIEL
CITY OF CHALLIS
PO BOX 587
CHALLIS ID 83226

RE: Application Nos. 72-16624 & 72-16625 (FirstFruits Foundation/Christopher W. James Trust)

Dear Protestant(s):

Your protests against the approval of the above referenced applications have been received and a copy has been sent to the applicant.

Please note that the application is considered a contested case and subject to the Rules of Procedure adopted by the Department.

If you need a copy of these rules, please contact this office. The Rules of Procedure are also available on the Internet by using the IDWR Homepage at the following electronic address:

http://www.idwr.state.id.us/apa/idapa37/0101.htm

The attachment to this letter describes the issues which the Department must consider in taking action on an application. It also gives a brief description of the conference and hearing procedure followed by the Department in resolving protested applications.

A Joint Hearing has been scheduled for 9:00 a.m. on August 10, 2004 at the Custer County Courthouse for the purpose of conducting an additional hearing to take additional evidence on the protested applications, including the Applications for Amendment filed by the applicants.

If you have any questions or if this office can be of further assistance, please feel free to contact us.

Very truly yours,

Allen D. Merritt, P.E.
Southern Region Manager

AM:MB
Enclosure(s)

RECEIVED
JUL 22 2004
Department of Water Resources

Living Waters Ranch
PO Box 1190
Challis, ID 83226
208-879-28888

To: Interested Parties July 20, 2004

Re: Additional Evidence for Permit Nos. 72-16624 and 72-16625 in the name of Firstfruits Foundation and the Christopher James Trust.

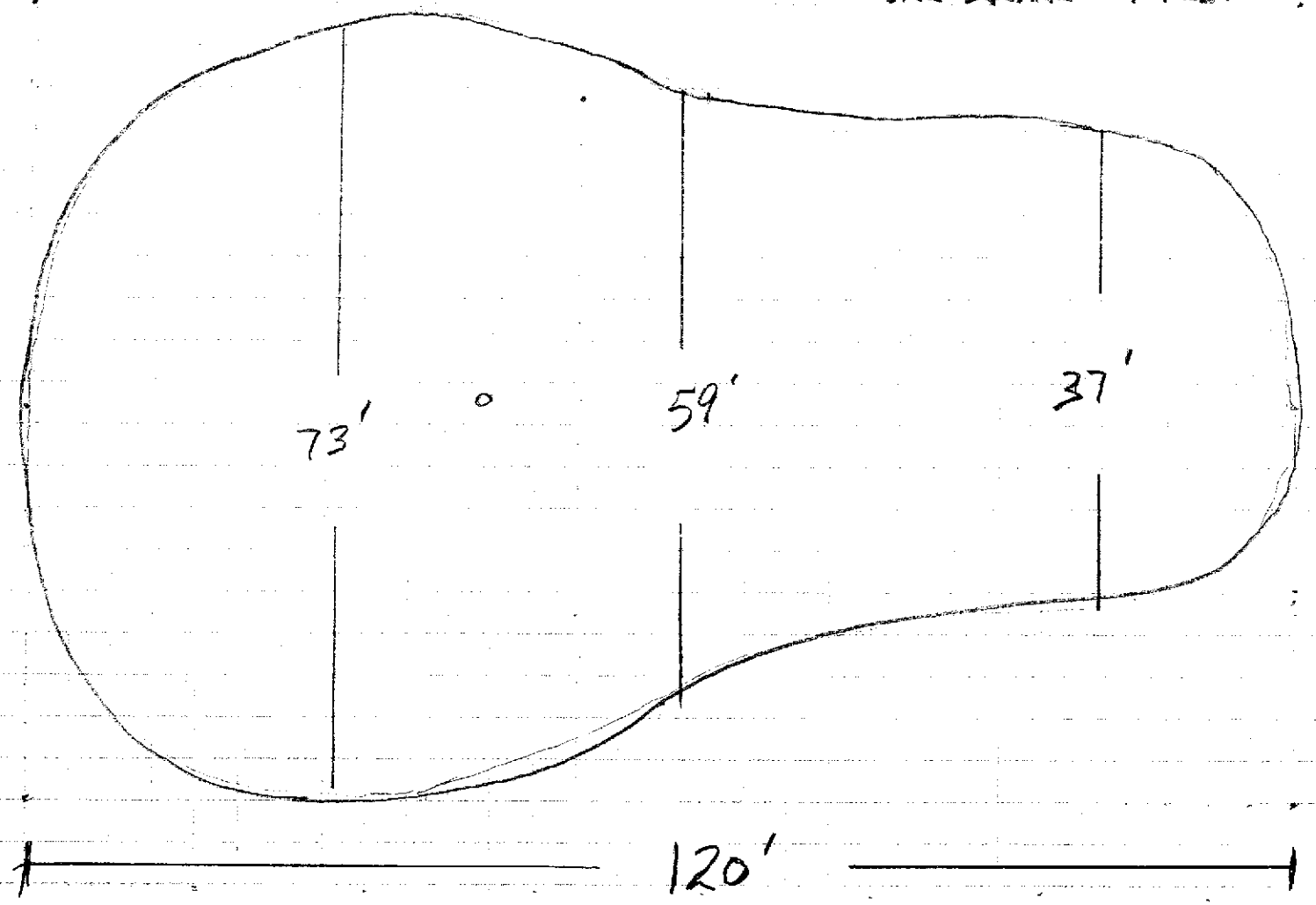
Dear Interested Parties,

I am submitting additional evidence for the hearing scheduled for August 10, 2004. Included are dimensions and a photograph of the aesthetic storage pond under application 72-16625. Also I am including updated meter readings for Well #2 under application 72-16624.

Sincerely,

Mark Bryan
Manager, Living Waters Ranch
Mark Bryan
Encl: 1
L. Glen Saxton, P. E., Hearing Officer
Allen Merritt, IWDR
Firstfruits Foundation, Christopher James
Marion McDaniel, Challis City Council President
Don and Bonnie Rowles
Jeffrey Yeo
Bob Andrews

LIVING WATERS RANCH
AESTHETIC STORAGE POND
ONE INCH = 16 FEET
ONE SQUARE = 4 FEET



APPROXIMATE
304' CIRCUMFERENCE

Living Waters Ranch
Well #2 Meter Reading –2004

Date	End	Start	Gal/Mth	Days	Gal/Day
Jan 2004	10,634,410 –	10,474,910 =	159,500	31	5,145
Feb 2004	10,854,350 –	10,634,410 =	219,940	28	7,855
March 2004	11,073,110 –	10,854,350 =	218,760	31	7,056
April 2004	11,264,980 -	11,073,110 =	191,870	30	6,395
May 2004	11,410,410 –	11,264,980 =	145,430	31	4,691
June 2004	11,643,730 –	11,410,410 =	233,320	30	7,777

LIVING WATERS RANCH

FACSIMILE TRANSMITTAL SHEET

TO: GLEN SAXTON ALLEN MERRITT	FROM: MARK BRAM
FAX NUMBER:	DATE: 7-20-04
COMPANY:	TOTAL NO. OF PAGES INCLUDING COVER: 4
PHONE NUMBER:	SENDER'S REFERENCE NUMBER:
RE:	YOUR REFERENCE NUMBER:

☐ URGENT ☐ FOR REVIEW ☐ PLEASE COMMENT ☐ PLEASE REPLY ☐ PLEASE RECYCLE

NOTES/COMMENTS:

DEAR GLEN AND ALLEN,

I AM FAXING THIS EVIDENCE TO YOU TODAY AND MAILING THE ORIGINALS AND A PHOTO OF THE POND.

THANKS
MARK

P.O. BOX 1190 • CHALLIS, ID 83226
OFFICE: (208) 879-2888 • RESERVATIONS: (208) 879-2729 • FAX: (208) 879-2182

Living Waters Ranch
PO Box 1190
Challis, ID 83226
208-879-28888

To: Interested Parties July 20, 2004

Re: Additional Evidence for Permit Nos. 72-16624 and 72-16625 in the name of Firstfruits Foundation and the Christopher James Trust.

Dear Interested Parties,

I am submitting additional evidence for the hearing scheduled for August 10, 2004. Included are dimensions and a photograph of the aesthetic storage pond under application 72-16625. Also I am including updated meter readings for Well #2 under application 72-16624.

Sincerely,

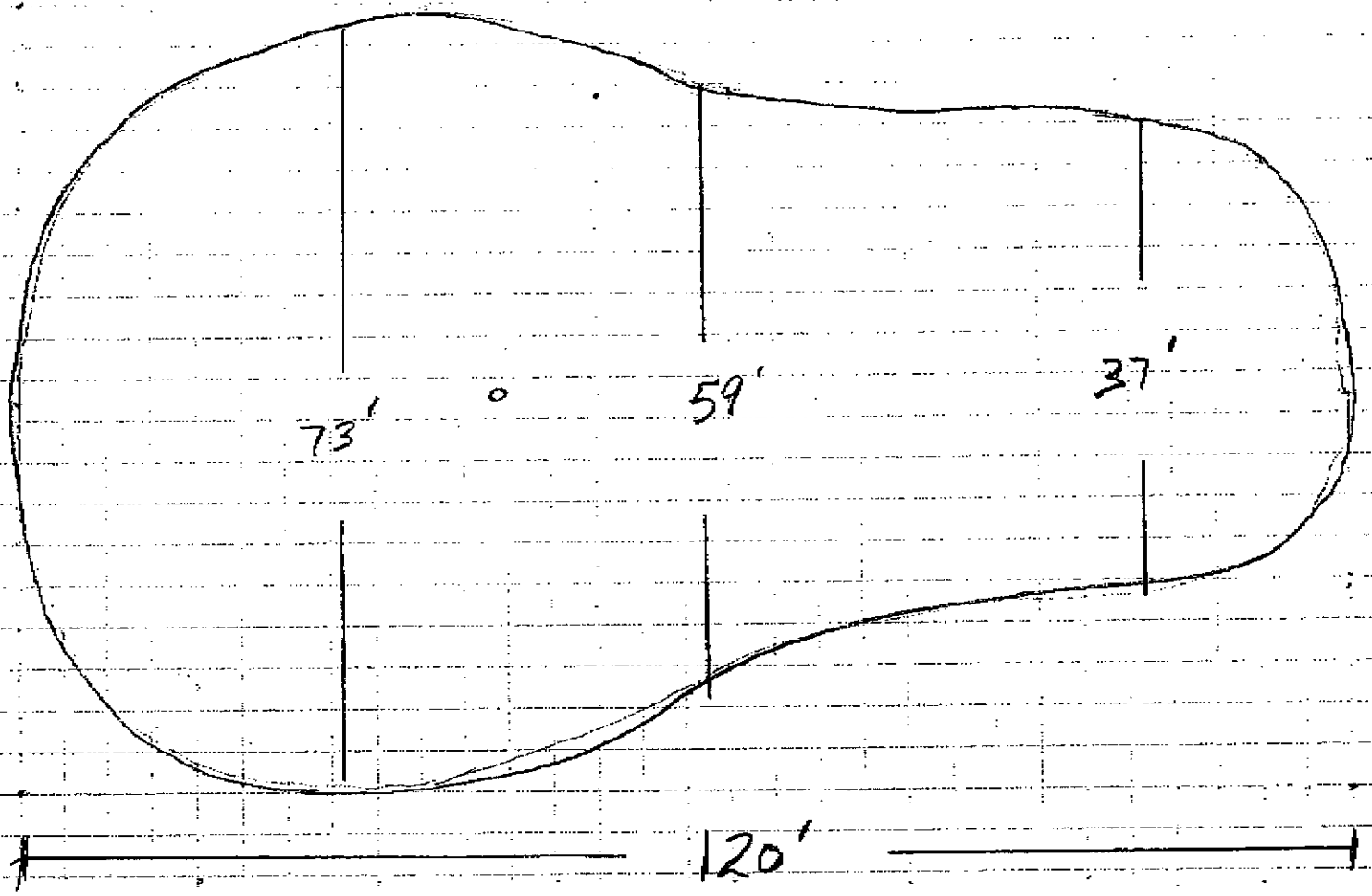
Mark Bryan
Manager, Living Waters Ranch
Mark Bryan
Encl: 1
L. Glen Saxton, P. E., Hearing Officer
Allen Merritt, IWDR
Firstfruits Foundation, Christopher James
Marion McDaniel, Challis City Council President
Don and Bonnie Rowles
Jeffrey Yeo
Bob Andrews

07/20/2004 15:22 FAX 2088792182 Cannon MultiPASS 003

LIVING WATERS RANCH
AESTHETIC STORAGE POND

ONE INCH = 16 FEET

ONE SQUARE = 4 FEET



APPROXIMATE
304' CIRCUMFERENCE

Living Waters Ranch
Well #2 Meter Reading –2004

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May 2004	11,410,410 –	11,264,980 =	145,430	31	4,691
June 2004	11,643,730 –	11,410,410 =	233,320	30	7,777

AFFIDAVIT OF PUBLICATION

State of Idaho, County of Custer, ss:

I, Ruth E. Burchill, representing the Challis Messenger, a weekly newspaper, published at Challis, Idaho, do solemnly swear that the notice hereto attached and made a part hereof, was published in the regular and entire issue of the Challis Messenger for 2 consecutive weeks, commencing with the issue dated July 8 2004 and ending with the issue dated July 15 2004.

Ruth E Burchill

STATE OF IDAHO

COUNTY OF CUSTER

On this 19th day of July in the year of 2004 before me, a Notary Public, personally appeared Ruth E. Burchill known or identified to me to be the person whose name subscribed to the within instrument, and being by me first duly sworn, declared that the statements therein are true, and acknowledged to me that he executed the same.

Lura H Baker
Notary Public for Idaho
Residing at Clayton, ID
My commission expires: 12-12-09

RECEIVED
JUL 20 2004
Department of Water Resources
Southern Region

Notice of Applications

Notice is hereby given that two Amended Applications for Permit have been filed with the Idaho Department of Water Resources by Firstfruits Foundation/Christopher W. James Trust, PO Box 510; Challis ID 83226 concerning applications within Custer County:

Application No. 72-16624
Date Amended: 6/03/2004
Source: ground water
Diversion Pt: NWSE, S03 and NENW, S02; all T13N, R18E.
Use: 1/1-12/31
Domestic (0.20 cfs)
Place of Use: Lot 2 (NWNE), Lot 3 (NENW), Lot 4 (NWNW), SWNW; S02, T13N, R18E and SWSE, S35, T14N, R18E.
The proposed change is to add a point of diversion and change place of use.

Application No. 72-16625
Date Amended: 6/25/2004
Source: Garden Creek tributary to Salmon River
Diversion Pt: SENESE, S03 and Lot 3 (SWNENW), S02; all T13N, R18E.
Use: 04/01-10/31
Aesthetic (0.40 cfs)
Place of use: Lot 3 (NENW), S02, T13N, R18E.
The proposed change is to add a point of diversion.

Any protest against the Amended Applications must be filed with the Department of Water Resources, Southern Region, 1341 Fillmore St., Suite 200; Twin Falls, ID 83301 together with a protest fee of $25.00 on or before July 26, 2004. The protestant must also send a copy of the protest to the applicant. A Joint Hearing has been scheduled for 9:00 a.m. on August 10, 2004 at the Custer County Courthouse for the purpose of conducting an additional hearing to take additional evidence on the protested applications including the Applications for Amendment filed by the above referenced applicants.

Karl J. Dreher, Director
Published 7/8 & 7/15/04.

OK
MB
7/27/04

LURA H. BAKER
NOTARY PUBLIC
STATE OF IDAHO

CITY OF CHALLIS
P.O. Box 587
211 Main Street
Challis, Idaho 83226

RECEIVED
JUL 15 2004
Department of Water Resources
Southern Region

Mayor: Catherine Becker
Clerk: Betty Horn

Phone: (208) 879-2386
Fax: (208) 879-5288

July 13, 2004

Idaho Department of Water Resources Joint Hearing

RE: Application No. 72-16624
Application No. 72-16625
Firstfruits Foundation / Christopher W. James

The purpose of this letter is to protest the amended applications for permit within Custer County.

Application No. 72-16624, adding a point of diversion and changing the place of use.
Application No. 72-16625, adding a point of diversion.

The City of Challis must protect the health and welfare of the citizens, this includes our abundant supply of clean, safe drinking water.

Sincerely,

Marion McDaniel

City Council President, Marion McDaniel

cc: Firstfruits Foundation / Christopher W. James

Receipt # SO 26908
7/15/04
MB

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

SOUTHERN REGION

DIRK KEMPTHORNE
Governor

KARL J. DREHER
Director

June 29, 2004

BONNIE ROWLES
PO BOX 1087
CHALLIS ID 83226

BOB ANDREWS
WATER DISTRICT 72
PO BOX 1141
CHALLIS ID 83226

JEFFREY J. YEO
PO BOX 299
CHALLIS ID 83226

JON WINEGARNER, WATERMASTER
PO BOX 1032
CHALLIS ID 83226

Re: Amended Applications for Permit No. 72-16624 & 72-16625 (FirstFruits Foundation/Christopher W. James Trust)

Ladies and Gentlemen:

Since you filed a protest against the initial applications, the purpose of this letter is to inform you that the above referenced applications have been AMENDED and a copy is enclosed for your reference.

This office will be advertising the Amended applications in the Challis Messenger on 7/8 & 7/15/04. A period of ten days following the second publication will be allowed for the submittal of protests. (July 26, 2004)

As you are aware, a Joint Hearing has been scheduled for 9:00 a.m. on August 10, 2004 at the Custer County Courthouse for the purpose of conducting an additional hearing to take additional evidence on the protested applications including the Applications for Amendment filed by the above referenced applicants.

Please feel free to contact this office if you have any questions regarding this procedure.

Very truly yours,

Allen D. Merritt, P.E.
Regional Manager

AM:MB

Enclosures

IDAHO DEPARTMENT OF WATER RESOURCES
1341 FILLMORE STREET-STE# 200
TWIN FALLS ID 83301
Phone: 736-3033, Fax#: 736-3037

June 28, 2004

Legal Notice Department
Custer Publishing Co
PO Box 405
Challis ID 83226

Dear LEGAL NOTICE DEPARTMENT:

Enclosed you will find a legal notice which we wish to have published in the Challis Messenger on the dates indicated (once a week for two consecutive weekly issues). If you cannot publish the notice on the proposed dates, please contact us immediately.

An affidavit of publication must be submitted to the Department along with the publication bill. Your cooperation is appreciated.

Sincerely

Mary A. Baldwin
Administrative Assistant

Notice of Applications
Notice is hereby given that two Amended Applications for Permit have been filed with the Idaho Department of Water Resources by Firstfruits Foundation/Christopher W. James Trust, PO Box 510; Challis ID 83226 concerning applications within Custer County:
Application No. 72-16624
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Diversion Pt: NWSE, S03 and NENW, S02; all T13N, R18E.
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The proposed change is to add a point of diversion and change place of use.
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Source: Garden Creek tributary to Salmon River
Diversion Pt: SENESE, S03 and Lot 3 (SWNENW), S02; all T13N, R18E.
Use: 04/01-10/31
Aesthetic (0.40 cfs)
Place of use: Lot 3 (NENW), S02, T13N, R18E.
The proposed change is to add a point of diversion.
Any protest against the Amended Applications must be filed with the Department of Water Resources, Southern Region, 1341 Fillmore St., Suite 200; Twin Falls, ID 83301 together with a protest fee of $25.00 on or before July 26, 2004. The protestant must also send a copy of the protest to the applicant. A Joint Hearing has been scheduled for 9:00 a.m. on August 10, 2004 at the Custer County Courthouse for the purpose of conducting an additional hearing to take additional evidence on the protested applications including the Applications for Amendment filed by the above referenced applicants.
Karl J. Dreher, Director

Published in the Challis Messenger on 7/8 & 7/15/04.

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

SOUTHERN REGION

DIRK KEMPTHORNE
Governor

KARL J. DREHER
Director

June 28, 2004

FIRSTFRUITS FOUNDATION/
CHRISTOPHER W. JAMES TRUST
PO BOX 510
CHALLIS ID 83226

Re: Amended Applications for Permit No. 72-16624 & 72-16625

Dear Applicants:

The Department of Water Resources acknowledges the changes to your applications for permit as referenced above.

This office will be advertising the Amended Applications in the Challis Messenger on 7/8 & 7/15/04. A period of ten days following the second publication will be allowed for the submittal of protests. (July 26, 2004)

If An Amended Application is protested you will be sent a copy of the protest. Whether protested or not, this Department will conduct a conference and/or hearing on this matter as scheduled on August 10th, 2004.

Please feel free to contact this office if you have any questions regarding this procedure.

Sincerely,

Allen D. Merritt
Regional Manager

Bonnie Rowles
P.O.Box 1087
Challis, Idaho 83226

RECEIVED
JUN 1? 2004
Department of Water Resources

June 15, 2004

State of Idaho
Department of Water Resources
P.O. Box 83720
Boise, Idaho 83720-0098

RE: Response to petition for permit #72-16624, #72-16625

Dear Mr. Saxton,

In your recent letter dated June 10, 2004 you state, " The department will not advertise the application." Idaho statutes 42-211 states " If amendment is made after publication of notice of the original application, said notice shall be republished following amendment, upon payment by the applicant of the statutory fee for republication as in this act provided."

People with existing water rights and The City of Challis have a right to know how the amended application changes the original application.

Sincerely,

Bonnie Rowles
Protestant

Cc: FF/LWR
Jeffrey J. Yeo
Bob Andrews
Allen Merritt
City of Challis
Custer County Commissioners



CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insura

7008 0809 4414 8307

OFFICIAL USE

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	**$**

Postmark Here

Sent To
Fruitful Foundation
Street, Apt. No.; or PO Box No.
PO Box 510
City, State, ZIP+4
Ft. Pierce, FL 34954

Certified Mail Provides:

- A mailing receipt
- A unique identifier for your mailpiece
- A signature upon delivery
- A record of delivery kept by the Postal Service for two years

Important Reminders:

- Certified Mail may ONLY be combined with First-Class Mail or Priority Mail.
- Certified Mail is not available for any class of international mail.
- NO INSURANCE COVERAGE IS PROVIDED with Certified Mail. For valuables, please consider Insured or Registered Mail.
- For an additional fee, a Return Receipt may be requested to provide proof of delivery. To obtain Return Receipt service, please complete and attach a Return Receipt (PS Form 3811) to the article and add applicable postage to cover the fee. Endorse mailpiece "Return Receipt Requested". To receive a fee waiver for a duplicate return receipt, a USPS postmark on your Certified Mail receipt is required.
- For an additional fee, delivery may be restricted to the addressee or addressee's authorized agent. Advise the clerk or mark the mailpiece with the endorsement "Restricted Delivery".
- If a postmark on the Certified Mail receipt is desired, please present the article at the post office for postmarking. If a postmark on the Certified Mail receipt is not needed, detach and affix label with postage and mail.

IMPORTANT: Save this receipt and present it when making an inquiry.

ENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

FIRSTFRUITS FOUNDATION
PO BOX 510
CHALLIS ID 83226

COMPLETE THIS SECTION ON DELIVERY

A. Received by *(Please Print Clearly)* Christopher James | B. Date of Delivery 6/5/14

C. Signature
X Christopher James ☑ Agent ☐ Addressee

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☑ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number *(Copy from service label)*
7000 1530 0000 9414 8307

PS Form 3811, July 1999 Domestic Return Receipt 102595-00-M-0952

UNITED STATES POSTAL SERVICE

First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

RECEIVED
JUN 18 2004
DEPARTMENT OF WATER RESOURCES

• Sender: Please print your name, address, and ZIP+4 in this box •

GLEN SAXTON
DEPARTMENT OF WATER RESOURCES
1301 N. ORCHARD ST.
BOISE, ID 83706-2237

7008 1510 0004 4744 8414

CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insura

OFFICIAL USE

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	**$**

Postmark Here

Sent To
Jeffrey L Ulo

Street, Apt. No.; or PO Box No.
PO Box 269

City, State, ZIP+4
Pinckney MI 48169

PS

Certified Mail Provides:

- A mailing receipt
- A unique identifier for your mailpiece
- A signature upon delivery
- A record of delivery kept by the Postal Service for two years

Important Reminders:

- Certified Mail may ONLY be combined with First-Class Mail or Priority Mail.
- Certified Mail is not available for any class of international mail.
- NO INSURANCE COVERAGE IS PROVIDED with Certified Mail. For valuables, please consider Insured or Registered Mail.
- For an additional fee, a Return Receipt may be requested to provide proof of delivery. To obtain Return Receipt service, please complete and attach a Return Receipt (PS Form 3811) to the article and add applicable postage to cover the fee. Endorse mailpiece "Return Receipt Requested". To receive a fee waiver for a duplicate return receipt, a USPS postmark on your Certified Mail receipt is required.
- For an additional fee, delivery may be restricted to the addressee or addressee's authorized agent. Advise the clerk or mark the mailpiece with the endorsement "Restricted Delivery".
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IMPORTANT: Save this receipt and present it when making an inquiry.

ENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

JEFFREY J YEO
PO BOX 299
CHALLIS ID 83226

COMPLETE THIS SECTION ON DELIVERY

A. Received by *(Please Print Clearly)* JEFFREY YEO — B. Date of Delivery 6/15

C. Signature
X [signature] ☐ Agent ☐ Addressee

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number *(Copy from service label)* 7000 1530 0000 9414 8314

PS Form 3811, July 1999 — Domestic Return Receipt — 102595-00-M-0952

UNITED STATES POSTAL SERVICE

First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box •

GLEN SAXTON
DEPARTMENT OF WATER RESOURCES
1301 N. ORCHARD ST.
BOISE, ID 83706-2237

RECEIVED
JUN 18 2004
DEPARTMENT OF
WATER RESOURCES

7230 0000 9414 4321

CERTIFIED MAIL
(Domestic Mail Only; No Insurance)

OFFICIAL USE

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	**$**

Postmark Here

Sent To: Bonnie Bowles

Street, Apt. No.; or PO Box No. PO Box 1087

City, State, ZIP+4 Hillsdale IL 61257-1087

PS

Certified Mail Provides:

- A mailing receipt
- A unique identifier for your mailpiece
- A signature upon delivery
- A record of delivery kept by the Postal Service for two years

Important Reminders:

- Certified Mail may ONLY be combined with First-Class Mail or Priority Mail.
- Certified Mail is not available for any class of international mail.
- NO INSURANCE COVERAGE IS PROVIDED with Certified Mail. For valuables, please consider Insured or Registered Mail.
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- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

BONNIE ROWLES
PO BOX 1087
CHALLIS ID 83226

COMPLETE THIS SECTION ON DELIVERY

A. Received by *(Please Print Clearly)* Bonnie Rawls

B. Date of Delivery 6/15/9

C. Signature

X [signature] ☐ Agent ☐ Addressee

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☑ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number *(Copy from service label)*
7000 1530 0000 9414 8321

PS Form 3811, July 1999 Domestic Return Receipt 102595-00-M-0952

UNITED STATES POSTAL SERVICE

First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

RECEIVED
JUN 18 2004
DEPARTMENT OF
WATER RESOURCES

• Sender: Please print your name, address, and ZIP+4 in this box •

GLEN SAXTON
DEPARTMENT OF WATER RESOURCES
1301 N. ORCHARD ST.
BOISE, ID 83706-2237

7007 1490 0000 9414 8338

CERTIFIED MAIL RECEI
(Domestic Mail Only; No Insu

OFFICIAL USE

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	**$**

Postmark Here

Sent To Bob Andrews

Street, Apt. No.; or PO Box No. Water Dist 12 PO Box 1141

City, State, ZIP+ Mullis, Tx 78226

Certified Mail Provides:

- A mailing receipt
- A unique identifier for your mailpiece
- A signature upon delivery
- A record of delivery kept by the Postal Service for two years

Important Reminders:

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- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

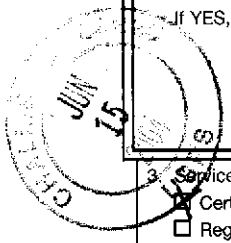
BOB ANDREWS
WATER DISTRICT 72
PO BOX 1141
CHALLIS ID 83226

COMPLETE THIS SECTION ON DELIVERY

A. Received by *(Please Print Clearly)* | B. Date of Delivery

C. Signature
X [signature] ☐ Agent ☒ Addressee

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No



3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number *(Copy from service label)*
7000 1530 0000 9414 8338

PS Form 3811, July 1999 Domestic Return Receipt 102595-00-M-0952

UNITED STATES POSTAL SERVICE

First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box •

RECEIVED
JUN 17 2004
DEPARTMENT OF WATER RESOURCES

GLEN SAXTON
DEPARTMENT OF WATER RESOURCES
1301 N. ORCHARD ST.
BOISE, ID 83706-2237

83706+2237

State of Idaho
DEPARTMENT OF WATER RESOURCES
1301 North Orchard Street, Boise, ID 83706 - P.O. Box 83720, Boise, ID 83720-0098
Phone: (208) 327-7900 Fax: (208) 327-7866 Web Site: www.idwr.state.id.us

DIRK KEMPTHORNE
Governor

KARL J. DREHER
Director

June 10, 2004

TO: Interested Parties

RE: APPLICATION OF PERMIT NOS. 72-16624 AND 72-16625 IN THE NAME OF FIRSTFRUITS FOUNDATION AND THE CHRISTOPHER W. JAMES TRUST

Dear Party:

Enclosed are a Notice of Hearing and Prehearing Order in the above referenced matter that should be self-explanatory.

Also enclosed for your review and information is the application for amendment ("application") to Permit No. 72-16624 submitted by the applicant on June 3, 2004. The application proposes to add a well as an additional point of diversion to Permit No. 72-16624 ("permit") and to enlarge the domestic place of use area. The well to be added was described as "Well # 2" in the hearing held on April 6, 2004. The department will not advertise the application, since there are existing protestants to the permit that the department assumes would also protest the application for amendment. Hence in the interest of time and efficiency, the department will treat the protestants of the permit to also be protestants of the application for amendment.

If you have procedural questions, please feel free to contact me or Allen Merritt in Twin Falls at (208) 736-3033.

Sincerely,

L. GLEN SAXTON, P.E.
Hearing Officer

Encl: 1
c: First Fruits Foundation
Bonnie Rowles
Jeffrey Yeo
Bob Andrews
Allen Merritt - IDWR

Allen M.

BEFORE THE DEPARTMENT OF WATER RESOURCES

OF THE STATE OF IDAHO

RECEIVED
JUN 10 2004
Department of Water Resources

IN THE MATTER OF APPLICATION FOR PERMIT NOS. 72-16624 AND 72-16625 IN THE NAME OF FIRSTFRUITS FOUNDATION AND CHRISTOPHER W. JAMES TRUST

ORDER OF REMAND TO HEARING OFFICER

On April 23, 2004, the Hearing Officer for the Idaho Department of Water Resources issued a Preliminary Order in the above captioned matter. On May 7, 2004, Firstfruits Foundation and Christopher W. James Trust (the "applicant") filed a Petition for Reconsideration. The Hearing Officer issued an Order Partially Approving Petition For Reconsideration on May 14, 2004.

On May 24, 2004, the applicant filed exceptions with the Director of the Idaho Department of Water Resources (the "Director" or "Department"). In addition, on June 3, 2004, the applicant filed an application for amendment with the Department seeking to add a point of diversion to application for permit no. 72-16624 and to enlarge the place of use.

The application for amendment raises issues related to the captioned applications that were not the subject of the hearing held on April 6, 2004. The protestants in this matter should have an opportunity to review any supplemental evidence relating to the applications and to the application for amendment, to cross examine witnesses, and to call witnesses and present evidence.

ORDER

In consideration of the foregoing, the Director orders as follows:

1. This matter is remanded to the Department's Hearing Officer, L. Glen Saxton, for the purpose of conducting an additional hearing to take additional evidence on the applications, including the application for amendment.

2. The Hearing Officer shall provide the applicant and protestants reasonable time to prepare, submit, and review supplemental evidence or exhibits in preparation of the additional hearing.

3. Following the additional hearing and the consideration of any supplemental evidence submitted in this matter, the Hearing Officer shall issue an Amended Preliminary Order, which shall be subject to further review on exceptions before the Director.

Dated this 7th day of June, 2004.

Karl J. Dreher
Director

RECEIVED
JUN 07 2004
DEPARTMENT OF
WATER RESOURCES

IN THE MATTER OF APPLICATION)
FOR PERMIT NO. 72-16624 IN THE NAME) IDENTIFICATION of
OF FIRSTFRUITS FOUNDATION AND) 1.5 ACRES for Mitigation
CHRISTOPHER W. JAMES TRUST)

June 2, 2004

The applicants (Firstfruits Foundation and the Christopher W. James Trust) agree with the order to mitigate the 14 AF of water potentially used at Living Waters Ranch. The order states that drying up 1.5 acres of pasture will be sufficient to cover all of Living Waters Ranch's usage in a year's time. The attached maps identify the 1.5 acres or 66,000+ square feet.

Sincerely,

Christopher W. James, Firstfruits Foundation and the Christopher W. James Trust

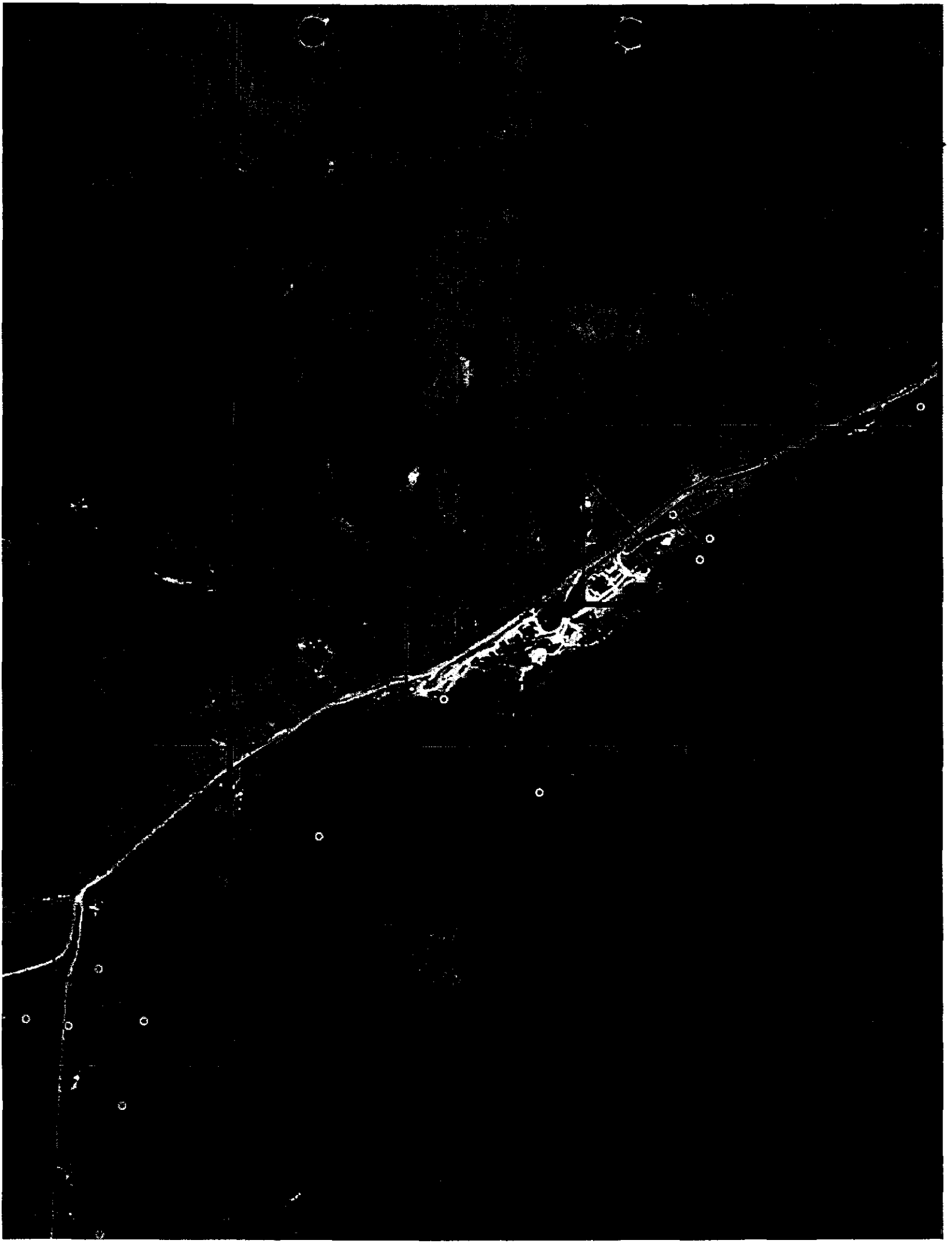
Cc: Bonnie Rowles
P O Box 1087
Challis, ID 83226

Jeffrey J. Yeo
P O Box 299
Challis, ID 83226

Bob Andrews
Water District 72
P O Box 1141
Challis, ID 83226

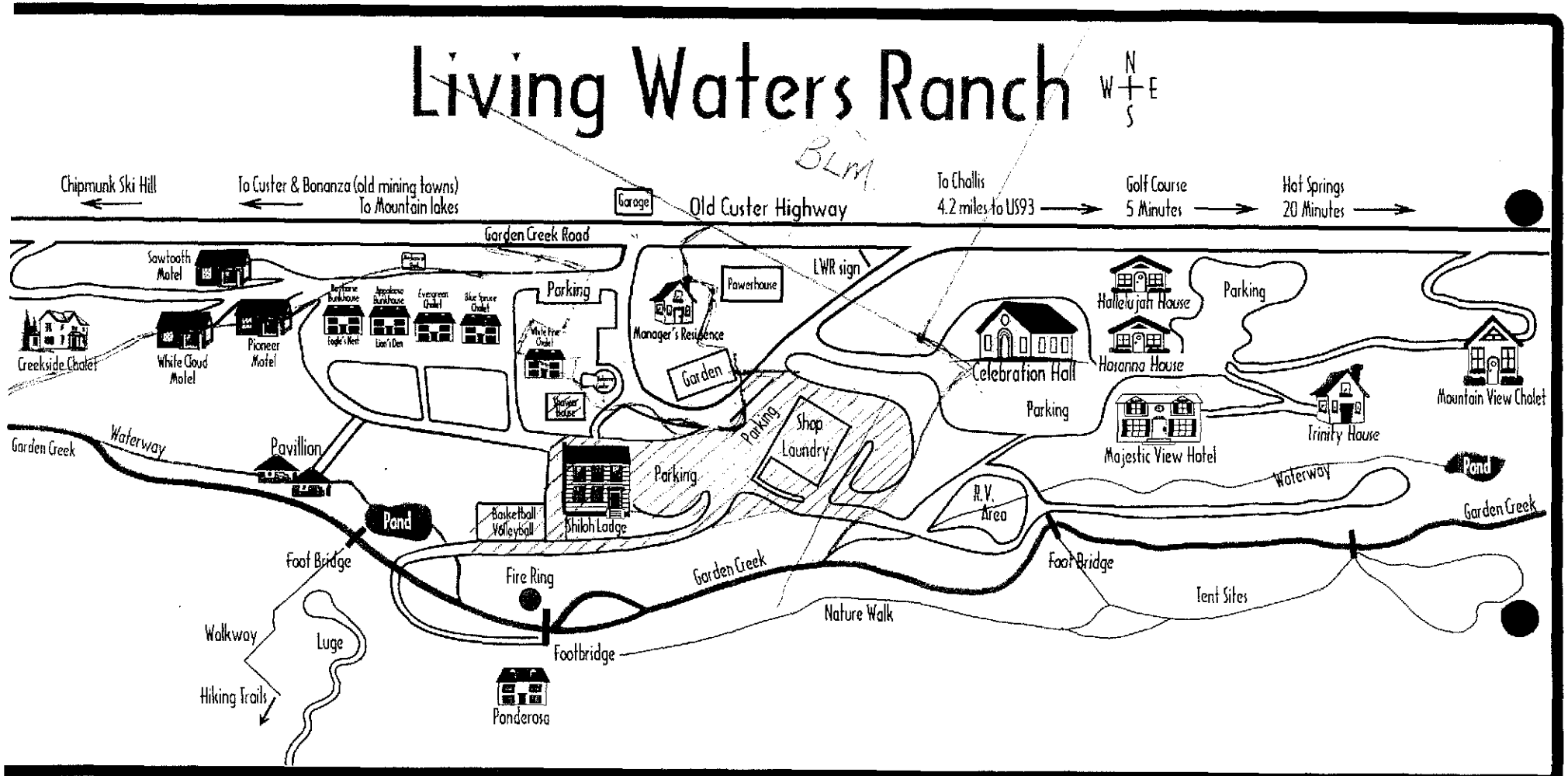
Allen Merritt
IDWR
1341 Fillmore St, Suite 200
Twin Falls, ID 83301-3380

L. Glen Saxton, P. E.
IDWR
P O Box 83720
Boise, ID 83720-0098



6/2/04 PROPOSED 1.5 acres for mitigation 72-00109G

Living Waters Ranch



Sq. ft 1" = 200'

2 1/8" x 3/4" or 425' x 150' = 63,750 Large Area (Shiloh Lodge, Parking Lot, Shop, Bare Land, E of Shop)

1/2" x 3/4" or 100' x 70' 7,000 Basketball & Volley ball Court

70,750

− 3,000 gross below Shiloh Lodge

67,750 Square feet of Mitigated Land

GLEN

RECEIVED
JUN 07 2004
DEPARTMENT OF
WATER RESOURCES

June 3, 2004

State of Idaho
Department of Water Resources
P.O. Box 83720
Boise, Idaho 83720-0098

RE: Response to petition for permit #72-16624

Dear Mr. Saxton,

The proposed water right Christopher James wants to use for mitigation no longer exists. Water right 72-00109G is a parent water right that has been split. The United States Government owns a portion of this water right.

Sincerely,

Bonnie Rowles
Protestant

Cc: FF/LWR
Jeffrey J. Yeo
Bob Andrews
Allen Merritt

RECEIVED
JUN 07 2004
DEPARTMENT OF
WATER RESOURCES

June 2, 2004

State of Idaho
Department of Water Resources
P.O. Box 83720
Boise, Idaho 83720-0098

RE: Response to petition for permit #72-16624

Dear Mr. Saxton,

In the recent letter received from Christopher James, dated May 24, 2004, he states" In a recent conference call with the IDEQ and IDWR, it was determined that Living Waters Ranch will need to comply with the "10 States Standards" for their public water supply."

How can the Protestants be left out of these conference calls?

Under no circumstances should a 60-day extension be granted.

Sincerely,

Bonnie Rowles
Protestant

Cc: FF/LWR
Jeffrey J. Yeo
Bob Andrews
Allen Merritt

June 3, 2004

RECEIVED
JUN 04 2004
Department of Water Resources
Southern Region

State of Idaho
Department of Water Resources
P.O. Box 83720
Boise, Idaho 83720-0098

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Protestant

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Jeffrey J. Yeo
Bob Andrews
Allen Merritt

RECEIVED
JUN 0 4 2004
Department of Water Resources
Southern Region

June 2, 2004

State of Idaho
Department of Water Resources
P.O. Box 83720
Boise, Idaho 83720-0098

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Bonnie Rowles
Protestant

Cc: FF/LWR
Jeffrey J. Yeo
Bob Andrews
Allen Merrit

RECEIVED
JUN 0 4 2004
Department of Water Resources
Southern Region

IN THE MATTER OF APPLICATION)
FOR PERMIT NO. 72-16624 IN THE NAME) IDENTIFICATION of
OF FIRSTFRUITS FOUNDATION AND) 1.5 ACRES for Mitigation
CHRISTOPHER W. JAMES TRUST)

June 2, 2004

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Sincerely,

Christopher W. James, Firstfruits Foundation and the Christopher W. James Trust

Cc: Bonnie Rowles
P O Box 1087
Challis, ID 83226

Jeffrey J. Yeo
P O Box 299
Challis, ID 83226

Bob Andrews
Water District 72
P O Box 1141
Challis, ID 83226

Allen Merritt
IDWR
1341 Fillmore St, Suite 200
Twin Falls, ID 83301-3380

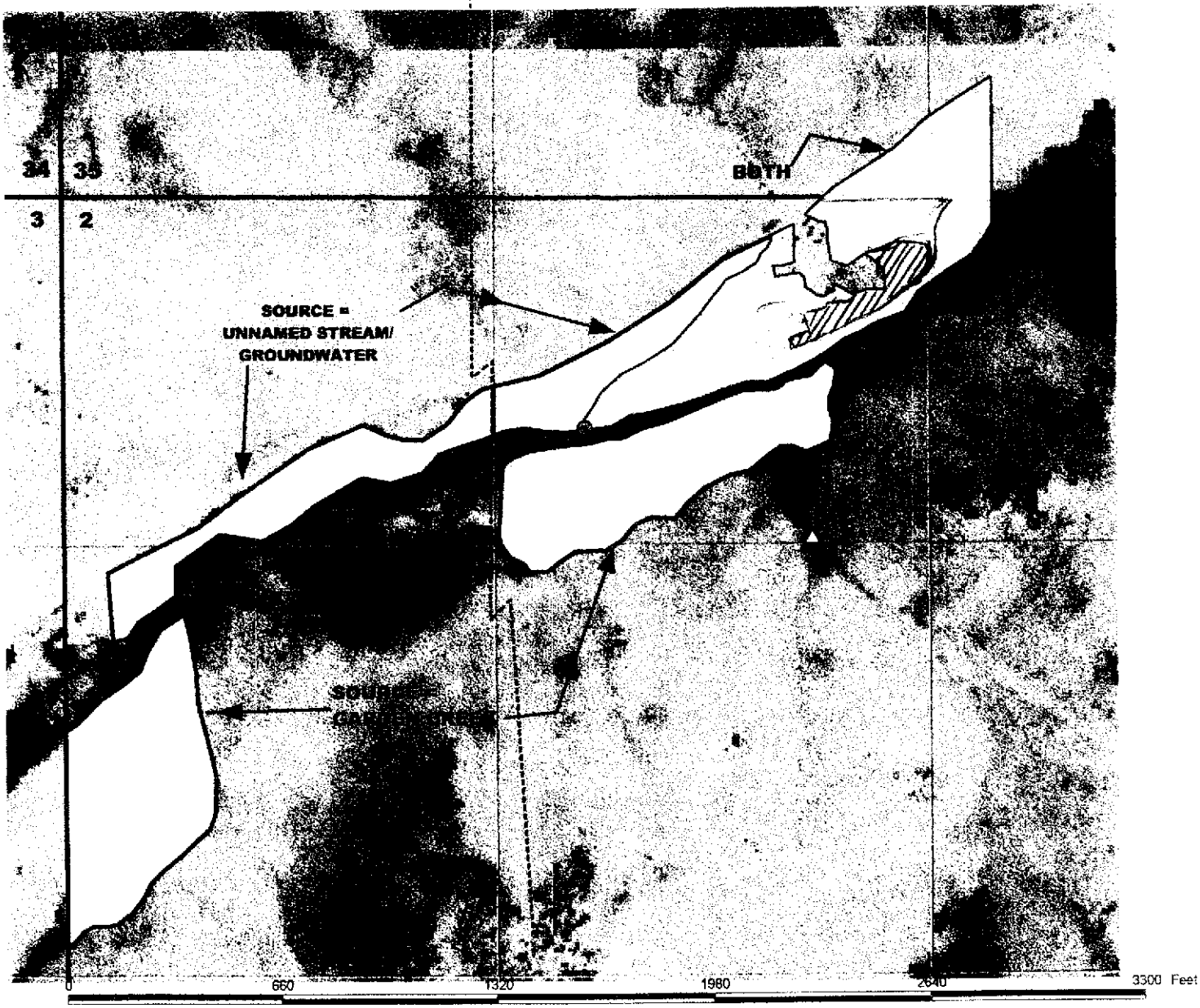
L. Glen Saxton, P. E.
IDWR
P O Box 83720
Boise, ID 83720-0098

IDAHO DEPARTMENT OF WATER RESOURCES

Proposed 1½ acres for mitigation 6/2/04

CHRISTOPHER JAMES TRUST
GARDEN CREEK RIGHTS
72-00106F, 72-00109F, & 72-10486A
UNNAMED STREAM/GROUNDWATER
72-04174A

FIRSTFRUITS FOUNDATION
72-00106G, 72-00109G, & 72-10486B
UNNAMED STREAM/GROUNDWATER
72-04174B



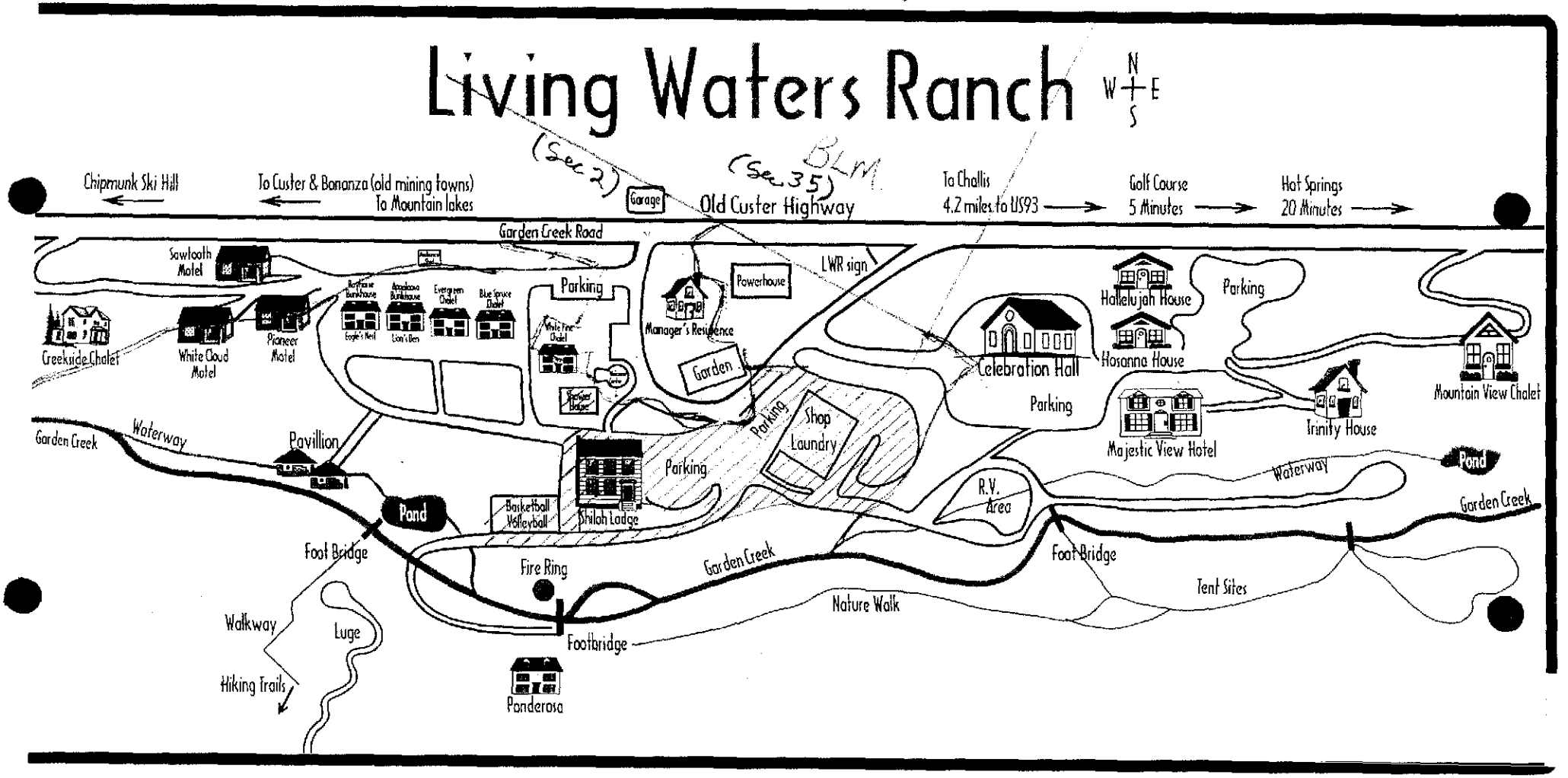
RECOMMENDED PLACE OF USE
TWP 14N RNG 18E, SEC 35
TWP 13N RNG 18E, SEC 2
data entry on October 13, 1998

N
W E
S

⊙ **RECOMMENDED POINT OF DIVERSION**
RECOMMENDED PLACE OF USE
SECTIION LINES
QUARTER/QUARTER LINES

GIS PLACE OF USE PRESENTATION
1992 USDA-F AERIAL PHOTOGRAPHY
DATA ENTRY BY KELLY K CHRISTENSEN

6/2/04 PROPOSED 1.5 acres for mitigation 72-00109G



	Sq. ft	1" = 200'
2 1/8" x 3/4" or 425' x 150'	63.750	Large Area (Shiloh Lodge, Parking Lot, Shops, Bow Pond, E of Shops)
1/2" x 3/16" or 100' x 70'	7.000	Basketball + Volleyball Court
	70.750	
	− 3,000	gross below Shiloh Lodge
	67,750	Square feet of mitigated land.

RECEIVED
JUN 0 3 2004
DEPARTMENT OF
WATER RESOURCES

Living Waters Ranch / Firstfruits Foundation
P O Box 510, Challis, ID 83226
208-879-2729, fax 879-4902

June 1, 2004

Allen Merritt
Idaho Department of Water Resources
1341 Filmore Street, Suite 200
Twin Falls, ID 83301-3380

RE: Amendment to Permit No. 72-16624

Dear Allen,

In my letter to L. Glen Saxton and you, dated May 24, 2004, I mentioned that I planned to amend my application for Permit No. 72-16624. The Amendment is attached.

With this application of amendment I am making 2 changes. The first is to add LWR Well #2 as a **point of diversion**. The second is to add the Mountain View acquisition to Living Waters Ranch (LWR) public water supply as a change to **place of use**.

With the acquisition LWR plans to add the water system of Mountain View to the existing LWR public water supply. LWR will decommission the well on the property.

Yours Truly,

Christopher W. James, Trustee of Firstfruits Foundation

Enclosures: Amendment of a Permit and Check for $50.

Cc: L. Glen Saxton
Bonnie Rowles
Jeffrey Yeo
Bob Andrews

Merritt, Allen

From: Merritt, Allen
Sent: Thursday, June 03, 2004 10:06 AM
To: 'lwatersr@custertel.net'
Subject: Draft for 1.5 acres to dry up

Dear Mr. James

I have reviewed your fax of yesterday regarding amendment of permit 72-16624. The amendment documents the need to add an additional well and describe the additional place of use for domestic needs. As I understand all domestic uses intended to be covered including those that will be on the additional lands will still be within the 13,000 gpd limit.

I have reviewed the proposed 1.5 acres to be dried up for mitigation. You reference right 72-00109G is associated with this acreage. I have reviewed the rights in this area and find that record 72-00109G has been superceded by 72-109J. Additionally there are other rights that overlap this same acreage. These additional rights are recorded under 72-106J, 72-10486C and 72-4174C. Since there is an overlap of these four rights on the lands identified to be dried up for mitigation portions of all of these rights will be required for tied up for mitigation.

If you have questions please feel free to contact this office.

Allen Merritt

RECEIVED
JUN 0 2 2004
Department of Water Resources

6/2/04

To : L Glen Saxton, IDWR 1-208-327-7866

From: Christopher James FF 1-208-879-4902

RE: Identifying 1.5 acres for Mitigation

Dear Mr Saxton

Attached are the maps identifying the 1.5 acres for mitigation

Sincerely

Christopher James

To: Allen Merritt IDWR 208-736-3037

From: Christopher James FF 208-879-4902

June 2, 04

RECEIVED
JUN 02 2004
Department of Water Resources
Southern Region

RE: Amendment to Permit 72-16624
& Draft for 1.5 acres Identified to Dry up.

Dear Allen.

Attached is the Amendment to Permit 72-16624 and 2 draft maps identifying 1.5 acres of land to be dried up to comply with Hearing order. I believe the water right is 72-00109 & that would dry up the basketball & volleyball courts, Shelob Lodge, Parking lot, Shop/Laundry, & bone yard.

Are the maps good enough to submit for land identified for drying up?

Thank you,

Christopher James

P.S. I've sent the amendment to all yesterday. Maps identifying land dried up are yet to be sent

RECEIVED
JUN 0 2 2004
Department of Water Resources

6/1/04

TO: L. Glen Sorton IDWR - 1-208-327-7866

FROM: Christopher James, FF, 1-208-879-4902

RE: Amendment to 72-16624

Dear Mr. Sorton:

Attached is the cover letter & the amendment to 72-16624

Thank you very much

Sincerely,

Christopher James
Fat Fruits Foundation ±
The Christopher W. James Trust.

Living Waters Ranch / Firstfruits Foundation
P O Box 510, Challis, ID 83226
208-879-2729, fax 879-4902

June 1, 2004

Allen Merritt
Idaho Department of Water Resources
1341 Filmore Street, Suite 200
Twin Falls, ID 83301-3380

RE: Amendment to Permit No. 72-16624

Dear Allen,

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With this application of amendment I am making 2 changes. The first is to add LWR Well #2 as a **point of diversion.** The second is to add the Mountain View acquisition to Living Waters Ranch (LWR) public water supply as a change to **place of use.**

With the acquisition LWR plans to add the water system of Mountain View to the existing LWR public water supply. LWR will decommission the well on the property.

Yours Truly,

Christopher W. James

Christopher W. James, Trustee of Firstfruits Foundation

Enclosures: Amendment of a Permit and Check for $50.

Cc: L. Glen Saxton
Bonnie Rowles
Jeffrey Yeo
Bob Andrews

Form 211 05/03

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

Fee
Receipt
Receipted by
Date

APPLICATION FOR AMENDMENT OF A PERMIT

Name of Applicant Firstfruits Foundation / Christopher W. James Trust Phone 208-879-4560

Mailing address PO Box 510, Challis, ID 83226

I am the owner and the holder of Permit to Appropriate the Public Waters of the State of Idaho No. 72-16624, and request that the permit and permit map be amended and/or changed as follows:

Purpose of Amendment: ___ Change point of diversion ✓ Add point of diversion

✓ Change place of use ___ Change nature of use ___ Change period of use ___ Other

1. Point of diversion: NW ¼ SE ¼ ___ ¼, Section 3, Township 13N, Range 18E, B.M., County of Custer. Other points of diversion LWR Well #2 - NE¼, NW¼, Sec 2, TWP 13N, Rge 18E B.M. Custer County

2. Period and nature of use: (irrigation, domestic, stockwatering, industrial, etc.)

Amount ___ (cfs or acre-feet per year) for ___ (water use) purposes from ___ (Begin Month) to ___ (End month) (both dates inclusive)

Amount ___ (cfs or acre-feet per year) for ___ (water use) purposes from ___ (Begin Month) to ___ (End month) (both dates inclusive)

Amount ___ (cfs or acre-feet per year) for ___ (water use) purposes from ___ (Begin Month) to ___ (End month) (both dates inclusive)

3. Place of use or land to be ~~irrigated~~: used for "domestic" groundwater - the Mountain View Acquisition - LWR

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
14	18E	35															✓		

Total number of acres to be irrigated ___

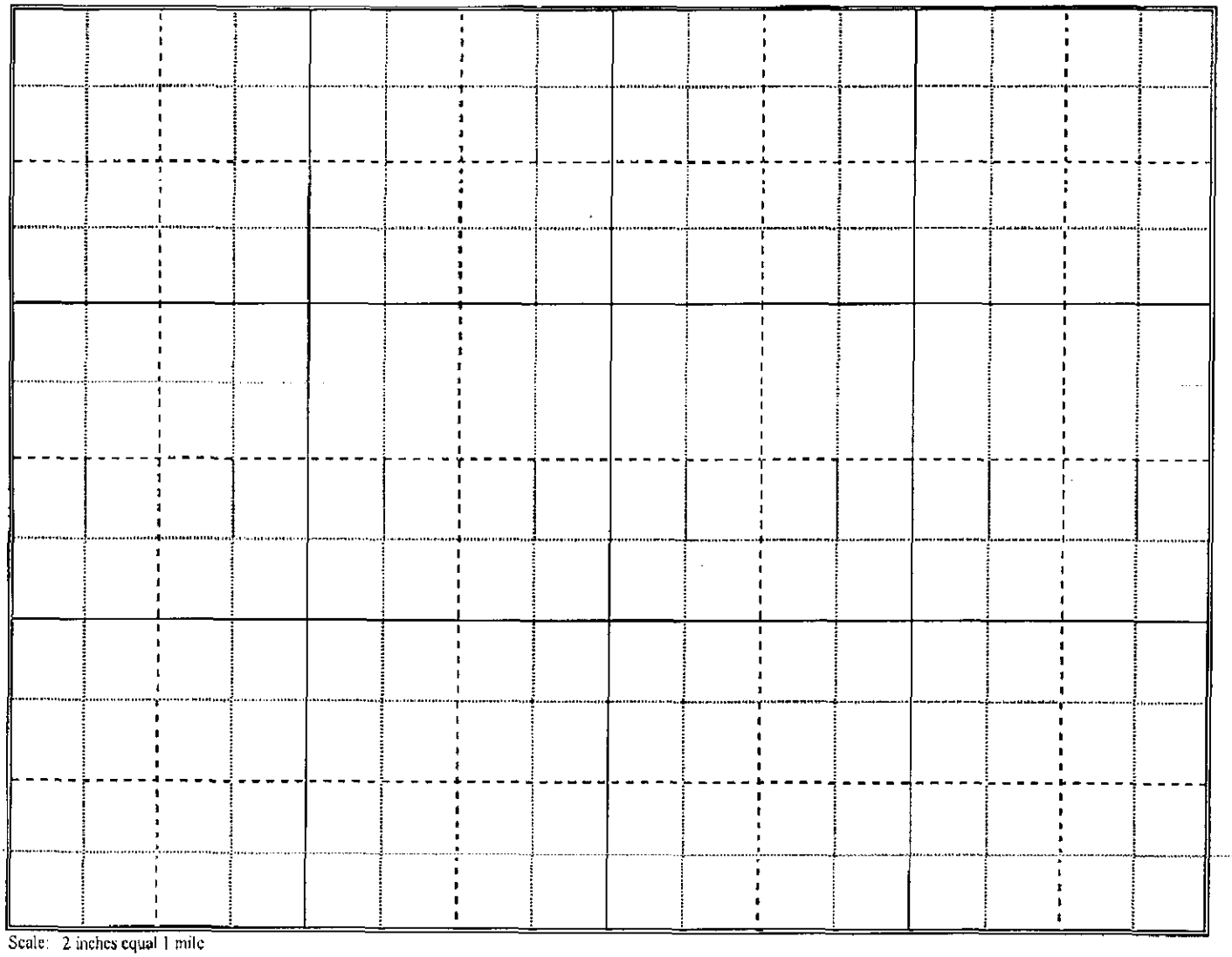
4. a. Who owns the property at the point of diversion? Firstfruits Foundation

b. Who owns the land to be irrigated or place of use? Firstfruits Foundation

c. If the property is owned by a person other than the applicant, describe the arrangement enabling the applicant to make this filing:

See Attached Sheet

Complete the following map by showing land and point of diversion as proposed by this amendment.
Show ¼ ¼, section, township, range and ditches. (The smallest subdivision represents 40 acres.)



Scale: 2 inches equal 1 mile

I hereby request approval of this change subject to the fact that no one will be injured by the change, and that the change will be made at my own risk.

Signed this 1st day of June, 20 04.

Chris Baker w. James, Trustee for
First Trust Foundation / Chris Baker w. James Trust

Permit Holder Signature (and title, if for a company or organization)

ACTION OF THE DEPARTMENT OF WATER RESOURCES

Preliminary check by _____ Publication prepared by _____ Date _____

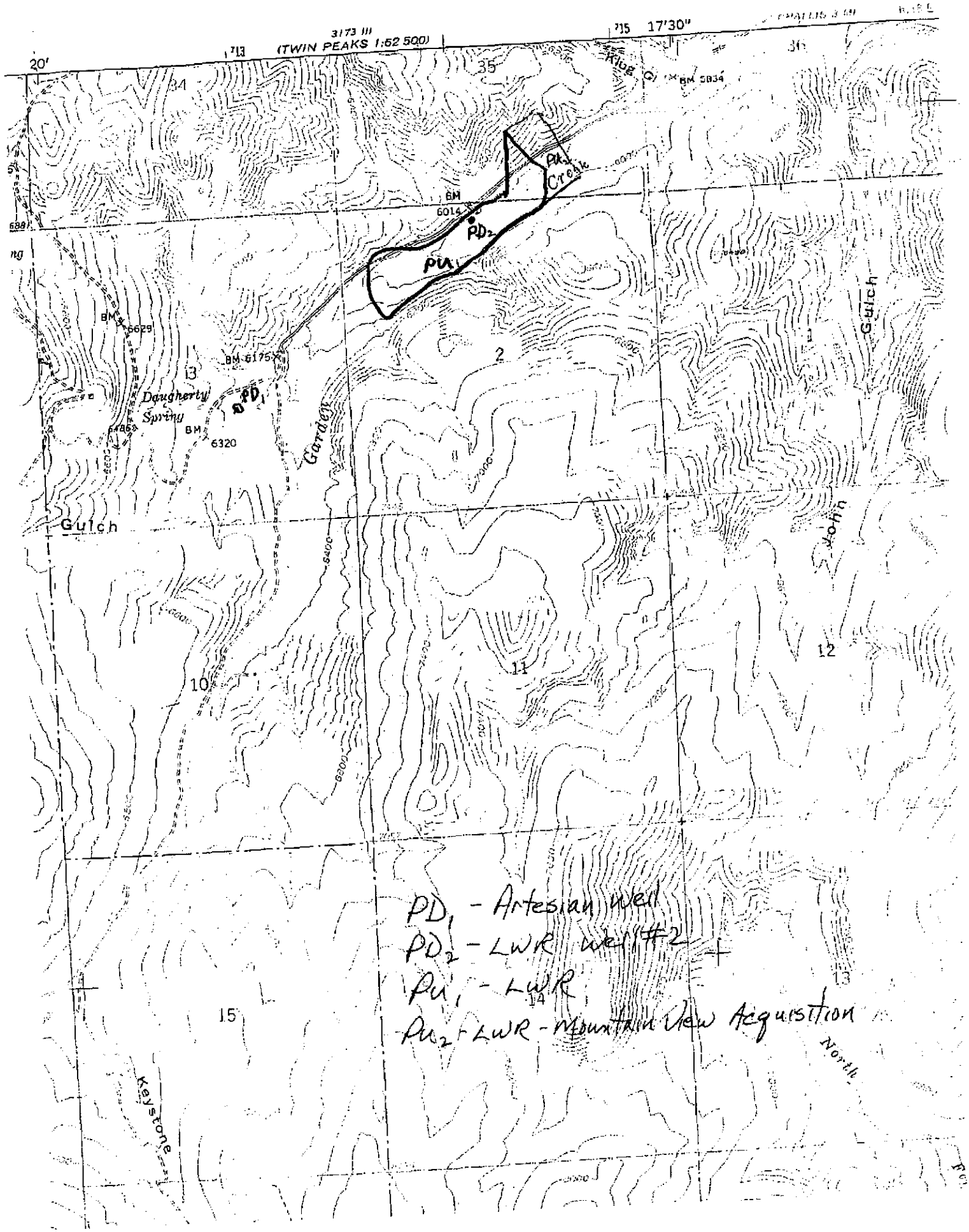
Published in _____ Publication dates _____

I, _____, of the Department of Water Resources hereby

_____

Witness my hand this _____ day of _____, 20 _____.

_____
SIGNATURE


3173 III
(TWIN PEAKS 1:62 500)
17'30"
Ridge
BM 5834
Creek
BM
6014
PD2
PW1
Gulch
BM 6629
BM 6175
PD1
Daugherty
Spring
BM
6320
Garden
Gulch
North
Keystone
PD1 - Artesian well
PD2 - LWR well #2
PW1 - LWR
PW2 + LWR - Mountain View Acquisition

LWL Mountain View Acquisition

ATTACHED LEGAL DESCRIPTION

Order No.: B46536

TRACT I:

A fraction of the SW¼SE¼, Section 35, Township 14 North, Range 18 E.B.M., Custer County, Idaho, described as: Beginning at the SE corner of said Section 35; thence 1321.38 feet west to the SE corner of said SW¼SE¼, the TRUE POINT OF BEGINNING; thence N. 45°00' W. 974.45 feet to a point on the southerly right-of-way of the Garden Creek Road; thence S. 52°12'05" W., 277.55 feet along said right-of-way to the northeasterly line of the land described as Tract II in the Deed to David W. Edminston, et. ux., recorded April 23, 1976, as instrument no. 142030, records of Custer County, Idaho; thence the following 3 courses along said Edminston land; S. 45°00' E., 89.50 feet; thence S 46°44' W., 111.00 feet; thence S. 45°00' E. 556.82 feet to a point on the south boundary line of said SW¼SE¼; thence E. 546.29 feet to the True Point of Beginning. Except county road.

TRACT II:

A fraction of the SW¼SE¼, Section 35, Township 14 North, Range 18 E.B.M., Custer County, Idaho, described as: Beginning at the SE corner of said Section 35; thence 1321.38 feet west to the SE corner of said SW¼SE¼; thence N. 0°02'15" E. along the east line of said SW¼SE¼, 1074.80 feet to a point on the north right-of-way of the Garden Creek Road the REAL POINT OF BEGINNING; thence continuing N. 0°02'15" E., 247.25 feet to the NE corner of the SW¼SE¼; thence S. 89°58'15" W., 1322.06 feet to the NW corner of the SW¼SE¼; thence S. 0°00'30" W. along the west line of said SW¼SE¼, 389.40 feet, more or less, to the most northerly corner of the land described as Tract II in the Deed to David W. Edminston, et. ux., recorded April 23, 1976, as instrument no. 142030, records of Custer County, Idaho; thence S. 45°00' E., along the northeasterly line of said Edminston land 533.63 feet to a point on the northerly right-of-way line of said Garden Creek Road; thence the following courses and distances along said north right-of-way; N. 52°12'05" E., 469.66 feet; thence 569.74 feet along a curve concave to the SE having a radius of 0. 37°47'55" E. 825.00 feet and a central angle of 25°40'42"; thence N. 77°52'47" E. 31.60 feet; thence 222.36 feet along a curve concave to the NW having a radius of N. 12°07'13" W. 975.00 feet and a central angle of 13°04'02" to the Real Point of Beginning. Except county road.

APPROVED AS TO
FORM AND CONTENT

RECEIVED

MAY 2 6 2004

DEPARTMENT OF
WATER RESOURCES

IN THE MATTER OF APPLICATION)
FOR PERMIT NO. 72-16624 IN THE NAME) EXCEPTIONS &
OF FIRSTFRUITS FOUNDATION AND) CLARIFICATIONS
CHRISTOPHER W. JAMES TRUST)

May 24, 2004

The applicants (Firstfruits Foundation and the Christopher W. James Trust) agree with the order to mitigate the 14 AF of water potentially used at Living Waters Ranch. The order states that drying up 1.5 acres of pasture will be sufficient to cover all of Living Waters Ranch's usage in a year's time.

The applicants are very concerned for the possibility of having their domestic water cut off before other groundwater users. Therefore, **the applicants request that curtailment of mitigated water right should not occur unless other junior uses of groundwater were curtailed sooner**. To better insure the seniority of the water right, the applicants are willing to mitigate with its oldest water rights. This is in accordance with the first paragraph on page 2. of the "Order Partially Approving Petition for Reconsideration" that says that the priority of the mitigation is essentially the same.

Although there is a connection between the surface water and the groundwater, the aquifer acts much like a battery. Surface water being withdrawn from the system does not have an immediate effect on groundwater. Likewise groundwater being withdrawn from the aquifer does not have an immediate impact on the surface water.

Under the adjudication signed in 2000, Living Waters Ranch was afforded its current water rights. The information for the adjudication was compiled sometime in 1997 and 1998 while Living Waters Ranch was starting its development. Due to the date of the adjudication, **all the current water rights are valid with no forfeiture**. Therefore, the applicants understand that all the current water rights can be used for mitigation and/or transferal.

Due to some work currently being completed, the applicants are asking for a 60 day extension to best determine what specific lands should be used for mitigation. The applicants have contracted with an aerial survey team to complete an aerial survey that will perfect this process and give better detailed information to the IDEQ. This survey will define where all the buildings and parking lots are. When this is completed, the applicants will overlay the water right lands over the survey to best determine which water rights should be mitigated and which should be transferred.

It is the intention of the applicants to amend the application to comply with IDEQ rules for our water supply. In a recent conference call with the IDEQ and IDWR, it was determined that Living Waters Ranch will need to comply with the "10 States Standards" for their public water supply. The rule simply states that a public water supply needs to have a complete backup source large enough to handle demand. (Please see Attachment). The amendment will ask that Well #2 be included in this water right. Both sources will

have the proper measuring devices to record water usage. Furthermore, in the amendment the applicants will state that they plan to soon decommission the well on the property that Firstfruits Foundation purchased in Nov. 2002. The new property will come on line with the Living Waters water system. It will be included in its allowed 13,000 gpd.

Sincerely,

Christopher W. James, Firstfruits Foundation and the Christopher W. James Trust

Cc: Bonnie Rowles
P O Box 1087
Challis, ID 83226

Jeffrey J. Yeo
P O Box 299
Challis, ID 83226

Bob Andrews
Water District 72
P O Box 1141
Challis, ID 83226

Allen Merritt
IDWR
1341 Fillmore St, Suite 200
Twin Falls, ID 83301-3380

L. Glenn Saxton, P. E.
IDWR
P O Box 83720
Boise, ID 83720-0098

RECEIVED

MAY 25 2004

DEPARTMENT OF WATER RESOURCES

May 19, 2004

L. Glen Saxton, Hearing Officer
State of Idaho
Department of Water Resources
1301 North Orchard Street
Boise, ID 83706

RE: Petition for Reconsideration In the matter of application for permit # 72-16625 in the name of First Fruits Foundation and Christopher W. James Trust

Mr. Saxton:

This letter is in response to the Petition for Reconsideration for the Preliminary Order in which you APPROVED the request from the applicant to increase the water to .2 CFS from the .1 as set forth in the Preliminary Order.

As president of the Garden Creek Water District #72-B and a member or the advisory committee and protestant for the application, Garden Creek Water District protests the approval of this increase to .2 CFS.

1. The preliminary order of .1CFS seemed to be a fair and equitable compromise however, We still maintain that the total volume of the pond is much less than .4 acre feet. The pond has the shape of a frustum where the bottom is no more than about 10 feet in diameter, not a cube or rectangular cube. We believe the volume is less than .1 Acre Foot and there for maintain that .1 CFS will be more than sufficient to replace the water without it stagnating. May we also remind the department that this is NOT a fish pond, but an aesthetic pond.

2. Point #2 under the section related to this application in the preliminary order, you required the installation of measuring devices that could measure the loss attributable to this aesthetic use. During a recent visit by IDWR employee Bob Foster from the Salmon field office when he assisted in training our new water master, we physically inspected each Garden Creek Diversion, it was noted that there is a device at the outflow of the pond which can measure the water returning to the creek and upon calculation noted that there is a considerable loss from where it is diverted from the creek until this measuring device after the pond. The pond is currently in operation and we request the pond be shut off on or before June 1 until such time mitigation for losses has been completed and other terms of the final order, when issued, met.

3. It has come to our attention that there is ANOTHER source of water being supplied to the pond that we were unaware of which DID NOT COME OUT at the hearing. There is a fountain in the middle of the pond shooting water several feet into the air. This fountain was assumed to be an electrical re-circulating pump of some sort however it is NOT. The stream of water is shooting from the gravity fed source coming from James' 'UPPER' diversion (Section 02, township 13N, Range 18E). The water from this upper diversion is being piped on the south side of Garden Creek down to bubblers and then

through a pipe across Garden Creek into the pond. We estimate this to be in excess of .1 CFS. This is not a new addition and has been in place since the pond was created and in fact the original application states "... A fountain has been installed in the center of the pond..." and there is NO mention that this fountain is actually an additional water source from another diversion!

The compromise of .1 CFS in the preliminary order seemed to be reasonable, however, based on the above information we submit that this clearly demonstrates lack of 'good faith' in the original application and there fore we request that the department not only deny the request for .2 CFS but rescind the preliminary order and deny the entire application # 72-16625 and require that the pond be shut off immediately despite on going negotiations of the application.

Sincerely,

Don Rowles
President and Advisory Committee Member
Garden Creek Water District, #72-B

Cc: First Fruits Foundation
Jeffrey J. Yeo
Bonnie Rowles
Bob Andrews
John Winegarner, water master

5/24/04

To: L. Glenn Saxton 208-327-7866 IDWR

From: Christopher James 208-879-4902

RE: Hearing 72-16624

RECEIVED
MAY 24 2004
DEPARTMENT OF
WATER RESOURCES

Dear Mr. Saxton.

Attached is the Exceptions & Clarifications that I am sending to all the interested parties. I will be sending a hard copy today by mail. The attachment mentioned is the "10 State Standards" sheet(s) sent earlier.

Thank you for your patience.

Sincerely,

Christopher James

Living Waters Ranch & Frankhuis Foundation

IN THE MATTER OF APPLICATION)
FOR PERMIT NO. 72-16624 IN THE NAME) EXCEPTIONS &
OF FIRSTFRUITS FOUNDATION AND) CLARIFICATIONS
CHRISTOPHER W. JAMES TRUST)

May 24, 2004

The applicants (Firstfruits Foundation and the Christopher W. James Trust) agree with the order to mitigate the 14 AF of water potentially used at Living Waters Ranch. The order states that drying up 1.5 acres of pasture will be sufficient to cover all of Living Waters Ranch's usage in a year's time.

The applicants are very concerned for the possibility of having their domestic water cut off before other groundwater users. Therefore, **the applicants request that curtailment of mitigated water right should not occur unless other junior uses of groundwater were curtailed sooner**. To better insure the seniority of the water right, the applicants are willing to mitigate with its oldest water rights. This is in accordance with the first paragraph on page 2. of the "Order Partially Approving Petition for Reconsideration" that says that the priority of the mitigation is essentially the same.

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It is the intention of the applicants to amend the application to comply with IDEQ rules for our water supply. In a recent conference call with the IDEQ and IDWR, it was determined that Living Waters Ranch will need to comply with the "10 States Standards" for their public water supply. The rule simply states that a public water supply needs to have a complete backup source large enough to handle demand. (Please see Attachment). The amendment will ask that Well #2 be included in this water right. Both sources will

have the proper measuring devices to record water usage. Furthermore, in the amendment the applicants will state that they plan to soon decommission the well on the property that Firstfruits Foundation purchased in Nov. 2002. The new property will come on line with the Living Waters water system. It will be included in its allowed 13,000 gpd.

Sincerely,

Christopher W. James

Christopher W. James, Firstfruits Foundation and the Christopher W. James Trust

Cc: Bonnie Rowles
P O Box 1087
Challis, ID 83226

Jeffrey J. Yeo
P O Box 299
Challis, ID 83226

Bob Andrews
Water District 72
P O Box 1141
Challis, ID 83226

Allen Merritt
IDWR
1341 Fillmore St, Suite 200
Twin Falls, ID 83301-3380

L. Glenn Saxton, P. E.
IDWR
P O Box 83720
Boise, ID 83720-0098

RECEIVED
MAY 24 2004
DEPARTMENT OF
WATER RESOURCES

May 14, 2004

State of Idaho
Department of Water Resources
P.O. Box 83720
Boise, Idaho 83720-0098

RE: Response to fax petition for permit #72-16624

Dear Mr. Saxton,

In the fax received from Christopher James he states, "Item 3.2.1.1 source capacity says, a redundant source is needed to handle maximum capacity. In other words our well #2 should not be decommissioned." Please refer to protestant's Exhibit D, item #2. Is the water supply sufficient for the purpose for which it is sought to be appropriated? SUMMARY: No, under proposed full occupancy, the water supply is not sufficient.

Sincerely,

Bonnie Rowles
Protestant

Cc: FF/LWR/ Christopher James
Jeffrey J. Yeo
Bob Andrews

RECEIVED
MAY 17 2004
Department of Water Resources

Jeffrey Yeo
P. O. Box 299
Challis, Idaho 83226
(208) 879-5066

May 13, 2004

L. Glenn Saxton
Idaho Department of Water Resources
P. O. Box 83720
Boise, Idaho 83720-0098

RE: Petition for Reconsideration from Christopher James, Application Nos. 72-16624 & 72-16625

Dear Mr. Saxton:

Thank you for forwarding the petition, as you were correct in understanding that Christopher James has not sent copies to me or the other protestants.

I would have preferred that IDWR not grant Application No. 72-16624 because I think that Christopher James should resolve his water issues on his own land rather than appropriating water from public lands. However, I believe that your Preliminary Order is a fair compromise and I ask that IDWR deny the Petition for Reconsideration.

In his petition, Christopher James makes claims of an "inferred right" to 13,000 gpd, which you clearly refute on page 8 in the Analysis section of the Preliminary Order. He states in the first paragraph of his petition that he seeks to replace well #2 and will mitigate the new appropriation by decommissioning the well. However, in his next paragraph, he petitions to keep well #2 available for "an emergency." He seems to want to circumvent the basic intent of your Preliminary Order, which is to mitigate the new appropriation. A fundamental issue underlying concerns about the development at Living Waters Ranch is the reliability of the water usage data. Placing a water measuring device on the artesian well with inspection by the water master, and decommissioning well #2 would help alleviate those concerns. Retaining well #2 would add to existing concerns.

My understanding is that the priority date on the artesian well would be 2002, the date of the application, not the 2000 as stated in the 3rd paragraph of the petition.

In your Preliminary Order, you obviously had calculated that 0.10 cfs was sufficient for the aesthetic pond (Application 72-16625). Christopher James's petition to double that amount again seems an effort to ignore the need for mitigation and the rights of other water users in the Garden Creek drainage.

It seems to me that the Living Waters Ranch development would be better served if Christopher James drilled a new well on his property that, combined with his existing and possibly new water storage capacity, would meet his water needs, rather than seeking new water appropriations elsewhere.

Thank you for your efforts in this matter.

Sincerely,

Jeffrey J. Yeo

cc: Christopher James
Don and Bonnie Rowles
Bob Andrews

GLEN

RECEIVED

MAY 17 2004

Department of Water Resources

May 12, 2004

State of Idaho
Department of Water Resources
P.O. Box 83720
Boise, Idaho 83720-0098

RE: Response to petition for permit #72-16624

Dear Mr. Saxton,

In the petition for reconsideration the applicant states "that he was seeking to replace the water coming from Well#2 with water coming from the Artesian Well for the sake of improving the quality of the water as suggested by IDEQ and District 7 Health in Exhibits 4a and 4b. It is not the applicant's desire to gain any more water than his right to 13,000 gpd under Section 42-111(1)(a). Furthermore, by the department's order to decommission Well #2, mitigation is being accomplished through decommissioning."

This application is not a transfer of an existing water right; it is for a new appropriation. Mitigation is not being accomplished through decommissioning.

The applicant needs to be reminded Idaho Code, 42-111, "domestic purposes" or "domestic uses" means: (3) Multiple water rights for domestic uses or domestic purposes, as defined in this section, shall not be established or exercised in a manner to satisfy a single combined water use or purpose that would not itself come within the definition of a domestic use or purpose under this section. The purpose of this limitation is to prohibit the diversion and use of water, under a combination of domestic purposes or domestic uses as defined in this section, to provide a supply of water for a use that does not meet the exemption of section 42-227. Idaho Code, and is required to comply with the mandatory application and permit process for developing a right to the use of water pursuant to chapter2, title42, Idaho Code.

Please be reminded that the majority of LWR domestic water flows through a 35,000-gallon storage tank and is not connected to a flow meter. To get an accurate account of water used at LWR, a flow meter should be connected to the 35,000- gallon storage tank, and at the point of diversion from all domestic wells located at LWR.

If the applicant provides suitable mitigation and this permit is approved, I expect the applicant to abandon Well #2 according to Idaho Code, not just disconnecting power to it.

Sincerely,

Bonnie Rowles
Protestant

Cc: FF/LWR
Jeffrey J. Yeo
Bob Andrews

State of Idaho
DEPARTMENT OF WATER RESOURCES
1301 North Orchard Street, Boise, ID 83706 - P.O. Box 83720, Boise, ID 83720-0098
Phone: (208) 327-7900 Fax: (208) 327-7866 Web Site: www.idwr.state.id.us

DIRK KEMPTHORNE
Governor
KARL J. DREHER
Director

May 11, 2004

Christopher James
PO Box 510
Challis, ID 83226

RE: IN THE MATTER OF APPLICATION FOR PERMIT NOS. 72-16624 AND 72-16625 IN THE NAME OF FIRSTFRUITS FOUNDATION AND CHRISTOPHER W. JAMES TRUST

Dear Mr. James:

On May 7, 2004, I sent a copy of the petition for reconsideration that you filed with me to all the other parties in the above referenced contested matter, since I could not determine that you had served the parties as you are required to do by IDAPA Rule 37.01.01302 (Procedure Rule 302).

On May 10, 2004, I received a FAX from you about this matter and again cannot determine if you have served the other parties. Hence, by copy of this letter to the other parties, I am forwarding the FAX for their information.

As information for you and the other parties, issuance of the Preliminary Order started a series of potential actions that are presently ongoing. The next step in the process is for me to respond to the petition you have filed.

Enclosed for your information is a copy of IDAPA 37.01.01.417 titled Ex Parte Communications (Procedure Rule 417) that limits how parties can communicate with the hearing officer. Please read it and comply with this rule. Note that in the future, I will return to you any submittal that doesn't show that you have complied with these Rules of Procedure.

Sincerely,

L. GLEN SAXTON, P.E.
Hearing Officer

Encl: 2

c: Bonnie Rowles
Jeffrey J. Yeo
Bob Andrews
Allen Merritt – IDWR

To Glen Saxton 208-327-7866 IDWR

From Christopher James 208-879-4902

RE: Hearing 72-16624.

Dear Mr. Saxton:

My plumber, Joe Chester, gave me a copy from (2 sources needed — ~~Item~~ 3.2.1.2) the 10 States Standard manual. Item 3.2.1.1 Source Capacity says a redundant source is needed to handle maximum capacity. In other words our well #2 should not be decommissioned.

Could you address this matter?

Thank you

Christopher James

SOURCE DEVELOPMENT PART 3

3.0 GENERAL

In selecting the source of water to be developed, the designing engineer must prove to the satisfaction of the reviewing authority that an adequate quantity of water will be available, and that the water which is to be delivered to the consumers will meet the current requirements of the reviewing authority with respect to microbiological, physical, chemical and radiological qualities. Each water supply should take its raw water from the best available source which is economically reasonable and technically possible.

3.1 SURFACE WATER

A surface water source includes all tributary streams and drainage basins, natural lakes and artificial reservoirs or impoundments above the point of water supply intake. A sourcewater protection plan for continued protection of the watershed from potential sources of contamination shall be provided as determined by the reviewing authority.

3.1.1 Quantity

The quantity of water at the source shall

a. be adequate to meet the maximum projected water demand of the service area as shown by calculations based on the extreme drought of record while not significantly affecting the ecology of the water course downstream of the intake.,

b. provide a reasonable surplus for anticipated growth,

c. be adequate to compensate for all losses such as silting, evaporation, seepage, etc.,

d. be adequate to provide ample water for other legal users of the source.

3.1.2 Quality

A sanitary survey and study shall be made of the factors, both natural and man made, which may affect quality. Such survey and study shall include, but not be limited to

a. determining possible future uses of impoundments or reservoirs,

b. determining degree of control of watershed by owner,

c. assessing degree of hazard to the supply by accidental spillage of materials that may be toxic, harmful or detrimental to treatment processes,

d. assessing all waste discharges (point source and non point sources) and activities that could impact the water supply. The location of each waste discharge shall be shown on a scale map,

e. obtaining samples over a sufficient period of time to assess the microbiological, physical, chemical and radiological characteristics of the water,

f. assessing the capability of the proposed treatment process to reduce contaminants to applicable standards,

3.1.5.2 Construction

may require

a. approval from the appropriate regulatory agencies of the safety features for stability and spillway design,

b. a permit from an appropriate regulatory agency for controlling stream flow or installing a structure on the bed of a stream or interstate waterway.

3.2 GROUNDWATER

A groundwater source includes all water obtained from dug, drilled, bored or driven wells, and infiltration lines.

3.2.1 Quantity

3.2.1.1 Source capacity

The total developed groundwater source capacity shall equal or exceed the design maximum day demand and equal or exceed the design average day demand with the largest producing well out of service.

3.2.1.2 Number of sources

A minimum of two sources of groundwater shall be provided.

3.2.1.3 Standby power

a. To ensure continuous service when the primary power has been interrupted, a standby power supply shall be provided through

1. connection to at least two independent public power sources, or

2. portable or in-place auxiliary power.

b. When automatic pre-lubrication of pump bearings is necessary, and an auxiliary power supply is provided, the pre-lubrication line shall be provided with a valved by-pass around the automatic control, or the automatic control shall be wired to the emergency power source.

3.2.2 Quality

3.2.2.1 Microbiological quality

After disinfection of each new, modified or reconstructed groundwater source, one or more water samples shall be submitted to a laboratory satisfactory to the reviewing authority for microbiological analysis with satisfactory results reported to such agency prior to placing the well into service.

d. Authority to issue a written decision of the hearing officer, including a narrative of the proceedings before the hearing officer and findings of fact, conclusions of law, and recommended or preliminary orders by the hearing officer, following the submission of evidence through stipulation of the parties, affidavits, exhibits, or hearing testimony. (4-5-00)

02. **Limitation.** The hearing officer's scope of authority may be limited from the standard scope, either in general, or for a specific proceeding. For example, the hearing officer's authority could be limited to scope in Rule Subsection 413.01.c. (giving the officer authority only to conduct hearing), with the agency retaining all other authority. Hearing officers can be given authority with regard to the agency's rules as provided in Rule 416. (7-1-93)

414. PRESIDING OFFICER(S) (Rule 414).
One (1) or more members of the agency board, the agency director, or duly appointed hearing officers may preside at hearing as authorized by statute or rule. When more than one (1) officer sits at hearing, they may all jointly be presiding officers or may designate one (1) of them to be the presiding officer. (7-1-93)

415. CHALLENGES TO STATUTES (Rule 415).
A hearing officer in a contested case has no authority to declare a statute unconstitutional. However, when a court of competent juri4-5-00iction whose decisions are binding precedent in the state of Idaho has declared a statute unconstitutional, or when a federal authority has preempted a state statute or rule, and the hearing officer finds that the same state statute or rule or a substantively identical state statute or rule that would otherwise apply has been challenged in the proceeding before the hearing officer, then the hearing officer shall apply the precedent of the court or the preemptive action of the federal authority to the proceeding before the hearing officer and decide the proceeding before the hearing officer in accordance with the precedent of the court or the preemptive action of the federal authority. (7-1-93)

416. REVIEW OF RULES (Rule 416).
When an order is issued by the agency head in a contested case, the order may consider and decide whether a rule of that agency is within the agency's substantive rulemaking authority or whether the rule has been promulgated according to proper procedure. The agency head may delegate to a hearing officer the authority to recommend a decision on issues of whether a rule is within the agency's substantive rulemaking authority or whether the rule has been promulgated according to proper procedure or may retain all such authority itself. (7-1-93)

417. EX PARTE COMMUNICATIONS (Rule 417).
Unless required for the disposition of a matter specifically authorized by statute to be done ex parte, a presiding officer serving in a contested case shall not communicate, directly or indirectly, regarding any substantive issue in the contested case with any party, except upon notice and opportunity for all parties to participate in the communication. The presiding officer may communicate ex parte with a party concerning procedural matters (e.g., scheduling). Ex parte communications from members of the general public not associated with any party are not required to be reported by this rule. A party to a contested agency proceeding shall not communicate directly or indirectly with the presiding officer or the agency head regarding any substantive issue in the contested case. When a presiding officer or the agency head becomes aware of an ex parte communication regarding any substantive issue from a party or representative of a party during a contested case, the presiding officer or agency head shall place a copy or written summary of the communication in the file for the case and order the party providing the communication to serve a copy of the communication or written summary upon all parties of record. Repeated violations of this rule shall be cause for the presiding officer to dismiss an action or to dismiss a party from an action. Written communications from a party showing service upon all other parties are not ex parte communications. (4-5-00)

418. -- 499. (RESERVED).

500. ALTERNATIVE RESOLUTION OF CONTESTED CASES (Rule 500).
The Idaho Legislature encourages informal means of alternative dispute resolution (ADR). For contested cases, the means of ADR include, but are not limited to, settlement negotiations, mediation, fact finding, minitrials, and arbitration, or any combination of them. These alternatives can frequently lead to more creative, efficient and sensible outcomes than may be attained under formal contested case procedures. An agency may use ADR for the resolution of issues in controversy in a contested case if the agency finds that such a proceeding is appropriate. An agency may, for example, find that using ADR is not appropriate if it determines that an authoritative resolution of the matter is needed for precedential value, that formal resolution of the matter is of special importance to avoid variation in

To Glenn Saxton 208-327-7866 IDWR

From Christopher James 208-879-4902

RE: Hearing 72-16624

Dear Mr. Saxton:

My plumber, Joe Chester, gave me a copy from (2 sources needed — ~~Item~~ 3.2.1.2) the 10 States Standard manual. Item 3.2.1.1 Source Capacity says a redundant source is needed to handle maximum capacity. In other words our well #2 should not be decommissioned.

Could you address this matter?

Thank you

Christopher James

3.0 GENERAL

In selecting the source of water to be developed, the designing engineer must prove to the satisfaction of the reviewing authority that an adequate quantity of water will be available, and that the water which is to be delivered to the consumers will meet the current requirements of the reviewing authority with respect to microbiological, physical, chemical and radiological qualities. Each water supply should take its raw water from the best available source which is economically reasonable and technically possible.

3.1 SURFACE WATER

A surface water source includes all tributary streams and drainage basins, natural lakes and artificial reservoirs or impoundments above the point of water supply intake. A sourcewater protection plan for continued protection of the watershed from potential sources of contamination shall be provided as determined by the reviewing authority.

3.1.1 Quantity

The quantity of water at the source shall

a. be adequate to meet the maximum projected water demand of the service area as shown by calculations based on the extreme drought of record while not significantly affecting the ecology of the water course downstream of the intake.,

b. provide a reasonable surplus for anticipated growth,

c. be adequate to compensate for all losses such as silting, evaporation, seepage, etc.,

d. be adequate to provide ample water for other legal users of the source.

3.1.2 Quality

A sanitary survey and study shall be made of the factors, both natural and man made, which may affect quality. Such survey and study shall include, but not be limited to

a. determining possible future uses of impoundments or reservoirs,

b. determining degree of control of watershed by owner.

c. assessing degree of hazard to the supply by accidental spillage of materials that may be toxic, harmful or detrimental to treatment processes,

d. assessing all waste discharges (point source and non point sources) and activities that could impact the water supply. The location of each waste discharge shall be shown on a scale map,

e. obtaining samples over a sufficient period of time to assess the microbiological, physical, chemical and radiological characteristics of the water,

f. assessing the capability of the proposed treatment process to reduce contaminants to applicable standards,

3.1.5.2 Construction

may require

a. approval from the appropriate regulatory agencies of the safety features for stability and spillway design,

b. a permit from an appropriate regulatory agency for controlling stream flow or installing a structure on the bed of a stream or interstate waterway.

3.2 GROUNDWATER

A groundwater source includes all water obtained from dug, drilled, bored or driven wells, and infiltration lines.

3.2.1 Quantity

3.2.1.1 Source capacity

The total developed groundwater source capacity shall equal or exceed the design maximum day demand and equal or exceed the design average day demand with the largest producing well out of service.

3.2.1.2 Number of sources

A minimum of two sources of groundwater shall be provided.

3.2.1.3 Standby power

a. To ensure continuous service when the primary power has been interrupted, a standby power supply shall be provided through

1. connection to at least two independent public power sources, or

2. portable or in-place auxiliary power.

b. When automatic pre-lubrication of pump bearings is necessary, and an auxiliary power supply is provided, the pre-lubrication line shall be provided with a valved by-pass around the automatic control, or the automatic control shall be wired to the emergency power source.

3.2.2 Quality

3.2.2.1 Microbiological quality

After disinfection of each new, modified or reconstructed groundwater source, one or more water samples shall be submitted to a laboratory satisfactory to the reviewing authority for microbiological analysis with satisfactory results reported to such agency prior to placing the well into service.

State of Idaho
DEPARTMENT OF WATER RESOURCES
1301 North Orchard Street, Boise, ID 83706 - P.O. Box 83720, Boise, ID 83720-0098
Phone: (208) 327-7900 Fax: (208) 327-7866 Web Site: www.idwr.state.id.us

DIRK KEMPTHORNE
Governor

KARL J. DREHER
Director

May 7, 2004

RE: IN THE MATTER OF APPLICATION FOR PERMIT NOS. 72-16624 AND 72-16625 IN THE NAME OF FIRSTFRUITS FOUNDATION AND CHRISTOPHER W. JAMES TRUST

Dear Party:

Enclosed for your information, review and response is a copy of a letter dated May 6, 2004, from Christopher James together with a petition for reconsideration ("petition") in the above referenced matter. I received the information on May 7, 2004, by FAX and am forwarding a copy to the parties, since I cannot determine from the applicant's submittal that the applicant served the parties as required by IDAPA Rule 37.01.01302 (Rule of Procedure 302). You are not required to respond to the petition, but you may do so if you wish within (14) days from the date the applicant served you with a copy of their petition, if they served you, or the date of this letter, whichever is earlier.

Section 67-5243(3), Idaho Code, provides that the hearing officer will act on a petition for reconsideration within twenty-one (21) days of its receipt, or the petition will be considered denied by operation of law.

Please recognize that if you file a response to the petition, you also are required to serve all the other parties with your response.

Sincerely,

L. GLEN SAXTON, P.E.
Hearing Officer

Encl: 2

c: Firstfruits Foundation
Bonnie Rowles
Jeffrey J. Yeo
Bob Andrews

RECEIVED
MAY 07 2004
Department of Water Resources

FAX 5/7/04

To: Victoria Wigle, IDWR, 208-327-7866
Allen Merritt, IDWR, 208-736-3037

From: Christopher James, FF/LWR 208-879-4902

RE: Petition for Reconsideration Permits #72-16624, 72-16625

Dear Victoria & Allen,

Attached is the cover letter and the petition

Thank you
Christopher James

Could you fax me back a receipt that you received this? Thank you.

RECEIVED
MAY 07 2004
Department of Water Resources

Firstfruits Foundation
dba Living Waters Ranch
P O Box 510, Challis, ID 83226
208-879-4560, fax 879-4902, cell (IF) 339-4560

May 6, 2004

L. Glen Saxton, Hearing Officer
Idaho Department of Water Resources
P O Box 83720
Boise, ID 83720-0098

RE: Petition for Reconsideration for Application for Permit No. 72-16624 and 72-16625

Dear Mr. Saxton:

Please reconsider the attached Petition for Reconsideration from Firstfruits Foundation and the Christopher W. James Trust.

Thank you very much.

Yours Truly,

Christopher W. James, for Firstfruits Foundation, Living Waters Ranch, and the Christopher W. James Trust.

RECEIVED
MAY 07 2004
Department of Water Resources

Petition for Reconsideration

For Permit 72-16624

On pg. 7 under Conclusions of the Law #6, it says "the proposed application will reduce the quantity of water under existing water rights unless the use is adequately mitigated." Section 42-111(1)(a) Idaho Code says that "domestic uses" (including a church camp) may divert 13,000 gpd without necessity of filing an application for permit. Under this section Firstfruits Foundation dba Living Waters Ranch (FF/LWR) already has an inferred right. With FF/LWR already having an (inferred) water right of up to 13,000 gpd, how can FF/LWR's new water right reduce the quantity of water to the water system when FF/LWR is cleared for up to 13,000 gpd? Also, in the testimony the applicant stated that he was seeking to replace the water coming from Well #2 with water coming from the Artesian Well for the sake of improving the quality of the water as suggested by IDEQ and District 7 Health in Exhibits 4a and 4b. It is not the applicant's desire to gain anymore water than his right to 13,000 gpd under Section 42-111(1)(a). Furthermore, by the department's order to decommission Well #2, mitigation is being accomplished through decommissioning.

On pg. 9 under Order #4, it speaks of the need to decommission Well #2. If the Artesian Well source is not adequate to provide enough quantity or quality for FF/LWR's Public Water Supply, FF/LWR would like the right to recommission Well #2 in an emergency.

Hopefully, this is a moot point with there being no need for mitigation. Nevertheless, I would like some further clarification on mitigation. Is the date of the water right used for mitigation transferred to the water right on the Artesian Well? The water right of the Artesian Well will be 2000. If water rights dated 1888 were used for mitigation, would the year 2000 water right for the Artesian Well be treated as an 1888 right?

On pg. 8 in the Analysis it states that "domestic use" and "other water rights and uses" have parity on use. The applicant assumes this to mean that the determining factor for delivery is the earlier date of issuance of the water right. Are there any exceptions? Will the IDWR and/or its representative cut off water strictly to its issuance date?

For Permit 72-16625

On Page 9 under Analysis with the paragraph starting "Evaporative losses..." Starting with the 2nd sentence stating that some flow through the pond is needed, but flow rate of 0.40 cfs is excessive for this purpose. A flow rate of 0.10 cfs is sufficient..." Could you say that 0.10 cfs is likely sufficient? If the pond starts to stagnate, then the applicant working with the watermaster could increase the amount to 0.20 cfs. Under the Order on page 11, item 4, could you say not to exceed 0.20 cfs, but to see if 0.10 cfs is sufficient to keep the pond fresh? This would give the watermaster and FF/LWR some flexibility.

RECEIVED
APR 15 2004
Department of Water Resources

Living Waters Ranch
PO Box 1190
Challis, ID 83226
208-879-2888

Allen Merritt
Idaho Department of Water Resourses
1341 Fillmore St, Suite 200
Twin Falls, ID 83301-3380

April 13, 2004

Dear Mr. Merritt,

This letter is in refference to the water right application # 72 – 16624, for use of the artisian well. At the protest meeting held on April 6, 2004, it was requested that meter reading totals through March of 2004, for well #2 be added to the attachment #1 for Christopher James, representing Firstfruits Foundation and Living Waters Ranch.

I am including the meter reading totals to you and will also mail them to Don and Bonnie Rowles and Jeff Yeo. Please let me know if you have any questions.

Sincerely,

Mark Bryan

Mark Bryan
Director of Operations
Living Waters Ranch

Rec'd
4-6-04
at hearing
in Challis
Id. NPS

11/30/2003

Idaho Dept. Water Resourses

To Whom It May Concern,

I am writing this letter because I am concerned about the water in Garden Creek. My concerns are that the town ground and surface water is not being protected. I feel that a development the size of Living Waters is too large for us not to be concerned. Futher development needs careful consideration. I would ask that you do not grant any more water rights until a study of the impact that any pass or future developments will have on the town's water is investigated.

Thank You,

Claudia Whitten

State of Idaho
DEPARTMENT OF WATER RESOURCES
1301 North Orchard Street, Boise, ID 83706 - P.O. Box 83720, Boise, ID 83720-0098
Phone: (208) 327-7900 Fax: (208) 327-7866 Web Site: www.idwr.state.id.us

DIRK KEMPTHORNE
Governor

KARL J. DREHER
Director

March 19, 2004

Bonnie Rowles
P.O. Box 1087
Challis, ID 83226

RE: APPLICATION FOR PERMIT NOS. 72-16624 AND 72-16625

Dear Ms. Rowles:

On March 9, 2004, I received a large number of proposed exhibits submitted in connection with a hearing scheduled for the above referenced applications. During my brief review of the proposed exhibits, it appeared that all of the exhibits had been submitted by the applicant, Firstfruits Foundation and that the protestants did not submit any. Hence, on March 11, 2004, I wrote to the applicant and asked that the applicant predetermine the identification that should be assigned to the exhibits prior to the hearing in order to make the hearing more efficient and less time consuming.

On March 19, 2004, the applicant called me in connection with my March 11, 2004 letter and advised that the applicant had submitted only 3 or 4 proposed exhibits. After further discussion, I determined that most of the proposed exhibits, that measure over an inch thick and were not accompanied by a transmittal letter, apparently were submitted by the protestants. If this is the case, you and/or the other protestants need to predetermine before the hearing how you want the exhibits marked for reference. The actual marking will be done just prior to the hearing in Challis. Protestant's first exhibit should be identified as "Protestant's Exhibit A", the next as "Protestant's Exhibit B" and so on.

If you have questions, please feel free to contact me.

Sincerely,

L. GLEN SAXTON, P.E.
Hearing Officer

c: Firstfruits Foundation
Jeffrey J. Yeo
Water District 72-B (Bob Andrews)
Allen Merritt - IDWR

Saxton, Glen

From: Merritt, Allen
Sent: Thursday, March 18, 2004 8:44 AM
To: Baldwin, Mary; Saxton, Glen
Subject: Change of Address for Protestant "WD 72-B Garden Creek" in the First Fruit applications 72-16624 and 72-16625

Don Rowels (Chairman) for the Water District called and indicated that Dee Keppner was not re-elected this year and he is currently the contact for the protest of the above matters. Don requested that any future correspondence regarding these matters be sent to the district's secretary:

Water District 72-B
c/o Bob Andrews
PO Box 1141
Challis, ID 83226

State of Idaho
DEPARTMENT OF WATER RESOURCES
1301 North Orchard Street, Boise, ID 83706 - P.O. Box 83720, Boise, ID 83720-0098
Phone: (208) 327-7900 Fax: (208) 327-7866 Web Site: www.idwr.state.id.us

DIRK KEMPTHORNE
Governor

KARL J. DREHER
Director

RECEIVED
MAR 15 2004
Department of Water Resources
Southern Region

March 11, 2004

Firstfruits Foundation
Christopher W. James Trust
P.O. Box 510
Challis, ID 83226

RE: APPLICATION FOR PERMIT NOS. 72-16624 AND 72-16625

Dear Mr. James:

I have received the documents and proposed exhibits that you submitted to the Department and to the protestants in the above referenced matter. The purpose of this letter is to ask that, prior to the hearing, you determine the identification that you want assigned to each of the proposed exhibits so the exhibits can be marked for reference during the course of the hearing. For example, each document that you offer as part of the hearing record needs to be identified as "Applicant's Exhibit ____." Your first exhibit should be identified as Applicant's Exhibit 1, the next as "Applicant's Exhibit 2" and so on.

If the protestants offer exhibits, their exhibits will be marked as "Protestant's Exhibit A", "Protestant's Exhibit B" and so on.

By predetermining exhibit identification, the hearing will be more efficient and less time consuming.

Sincerely,

L. GLEN SAXTON, P.E.
Hearing Officer

c: Bonnie Rowles
Jeffrey J. Yeo
Dee Keppner
Allen Merritt - IDWR

GLEN

RECEIVED

MAR 15 2004

Department of Water Resources

Firstfruits Foundation
dba Living Waters Ranch
P O Box 510, Challis, ID 83226
208-879-4560, fax 879-4902, cell (IF) 339-4560

March 4, 2004

Glen Saxton
Idaho Dept. of Water Resources
P O Box 83720
Boise, ID 83720-0098

Regarding: **Hearing for Applications of Permits Nos.72-16624 and 72-16625**

Dear Mr Saxton:

In accordance to the instructions of Allen Merritt's letter dated January 27, 2004, I am enclosing my responses for both protested permits to you and to the particular protesting parties. The documents are in the form of answers to 6 questions and their attachments, which will prove the validity of my application. Furthermore, Firstfruits Foundation is represented by myself, my wife Debbie, and Mark Bryan, the manager of Living Waters Ranch. Our expert witnesses are Jack Hammond, Civil Engineer, P.E.; Joe Chester, B.S. in Electrical Engineering, University of Idaho; and Robert Steckman, Board Member of Challis Golf Association.

Yours Truly,

Christopher W. James, Firstfruits Foundation, and Living Waters Ranch.

Cc: Bonnie Rowles and Jeff Yeo for permit #72-16624 and Dee Keppner #72-16625

State of Idaho
DEPARTMENT OF WATER RESOURCES
1301 North Orchard Street, Boise, ID 83706 - P.O. Box 83720, Boise, ID 83720-0098
Phone: (208) 327-7900 Fax: (208) 327-7866 Web Site: www.idwr.state.id.us

DIRK KEMPTHORNE
Governor

KARL J. DREHER
Director

March 5, 2004

Firstfruits Foundation
Christopher W. James Trust
P.O. Box 510
Challis, Idaho 83226

Jeffrey J. Yeo
Watermaster
P.O. Box 299
Challis, Idaho 83226

RECEIVED
MAR 09 2004
Department of Water Resources
Southern Region

Bonnie Rowles
P.O. Box 1087
Challis, Idaho 83226

Dee Keppner,

Water District #72-B
P.O. Box 1153
Challis, Idaho 83226

RE: APPLICATION FOR PERMIT NO. 72-[redacted]

Dear Interested Parties:

Enclosed for your information and review is a report entitled, Hydrologic Investigation of the Garden Creek Watershed and Aquifer dated February 11, 1999, that was prepared by Brockway Engineering. The purpose of this letter is to advise you that I intend to take official notice of this report, at the hearing, scheduled in the above referenced matter in Challis, Idaho on April 6, 2004, and to provide you the opportunity to review the report prior to the hearing.

Sincerely,

L. Glen Saxton, P.E.
Hearing Officer

Encl: 1
c: Allen Merritt (w/o enclosure)

State of Idaho
DEPARTMENT OF WATER RESOURCES
1301 North Orchard Street, Boise, ID 83706 - P.O. Box 83720, Boise, ID 83720-0098
Phone: (208) 327-7900 Fax: (208) 327-7866 Web Site: www.idwr.state.id.us

DIRK KEMPTHORNE
Governor

KARL J. DREHER
Director

March 5, 2004

Firstfruits Foundation
Christopher W. James Trust
P.O. Box 510
Challis, Idaho 83226

Jeffrey J. Yeo
Watermaster
P.O. Box 299
Challis, Idaho 83226

RECEIVED
MAR 9 2004
Department of Water Resources
Southern Region

Bonnie Rowles
P.O. Box 1087
Challis, Idaho 83226

Dee Keppner,

Water District #72-B
P.O. Box 1153
Challis, Idaho 83226

RE: APPLICATION FOR PERMIT NO. 72-16624 AND 72-16625

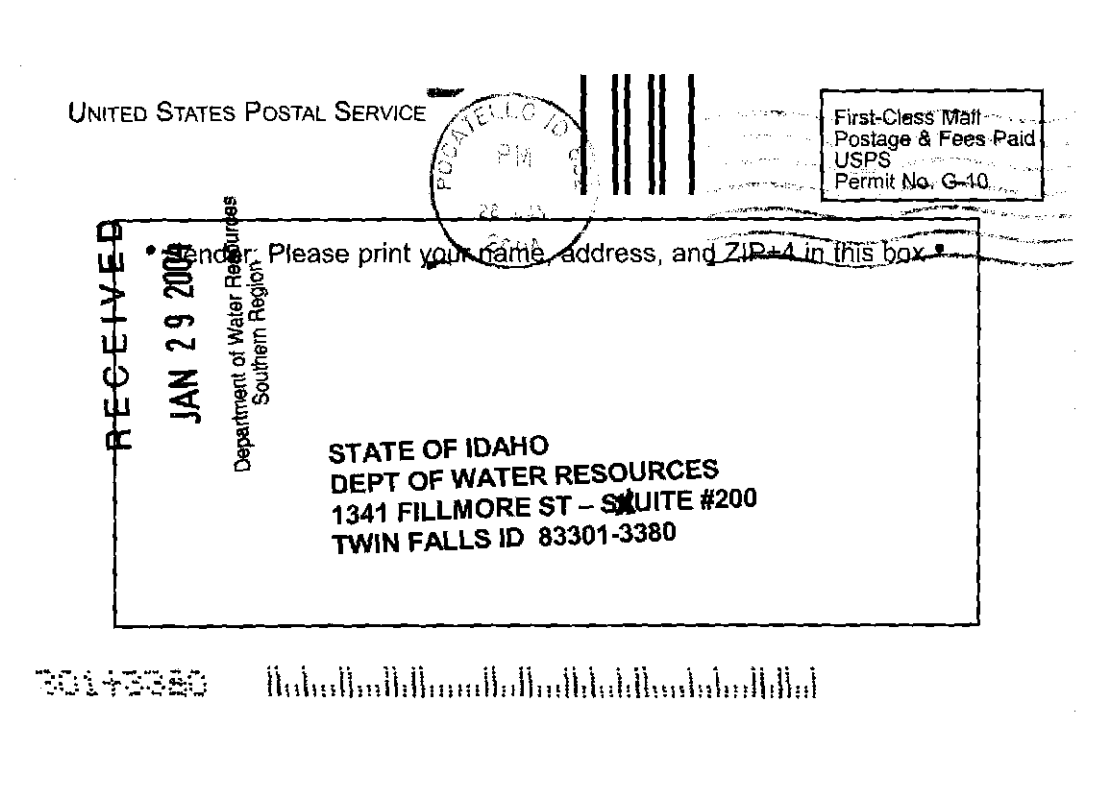
Dear Interested Parties:

Enclosed for your information and review is a report entitled, Hydrologic Investigation of the Garden Creek Watershed and Aquifer dated February 11, 1999, that was prepared by Brockway Engineering. The purpose of this letter is to advise you that I intend to take official notice of this report, at the hearing, scheduled in the above referenced matter in Challis, Idaho on April 6, 2004, and to provide you the opportunity to review the report prior to the hearing.

Sincerely,

L. Glen Saxton, P.E.
Hearing Officer

Encl: 1
c: Allen Merritt (w/o enclosure)


UNITED STATES POSTAL SERVICE
POCATELLO ID
PM
First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10
Sender: Please print your name, address, and ZIP+4 in this box
RECEIVED
JAN 29 2004
Department of Water Resources
Southern Region
STATE OF IDAHO
DEPT OF WATER RESOURCES
1341 FILLMORE ST – SUITE #200
TWIN FALLS ID 83301-3380

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to: AM/72-166 24

JEFFREY J. YEO
PO BOX 299
CHALLIS ID 83226

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by (Printed Name) JEFFREY YEO | C. Date of Delivery 9-28-04

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number *(Transfer from service label)* 7002 0460 0000 7276 2245

PS Form 3811, August 2001 Domestic Return Receipt 102595-01-M-038

UNITED STATES POSTAL SERVICE



First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box •

RECEIVED
JAN 30 2004
Department of Water Resources
Southern Region

STATE OF IDAHO
DEPT OF WATER RESOURCES
1341 FILLMORE ST – SUITE #200
TWIN FALLS ID 83301-3380

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to: AM/72-1624

BONNIE ROWLES
PO BOX 1087
CHALLIS ID 83226

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X Bonnie Rowles ☐ Agent ☐ Addressee

B. Received by (*Printed Name*) Bonnie Rowles C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☒ Certified Mail ☐ *Express Mail*
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number
(Transfer from service label) 7002 0460 0000 7276 2238

PS Form 3811, August 2001 Domestic Return Receipt 102595-01-M-0381

UNITED STATES POSTAL SERVICE

First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box •

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FEB 04 2004
Department of Water Resources
Southern Region

STATE OF IDAHO
DEPT OF WATER RESOURCES
1341 FILLMORE ST – SUITE #200
TWIN FALLS ID 83301-3380

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to: AM/72-/2624.

FIRSTFRUITS FOUNDATION
c/o CHRISTOPHER W. JAMES
PO BOX 510
CHALLIS ID 83226

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X Christopher W. James ☐ Agent ☐ Addressee

B. Received by (*Printed Name*) Christopher W James C. Date of Delivery 12-02-04

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (*Extra Fee*) ☐ Yes

2. Article Number (*Transfer from service lab*) 7002 0460 0000 7276 2221

PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-083

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to: AM/72-16624

DEE KEPPNER, WATERMASTER
WATER DISTRICT # 72-B
PO BOX 1153
CHALLIS ID 83226

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number
(Transfer from service label) 7002 0460 0000 7276 2252

PS Form 3811, August 2001 Domestic Return Receipt 102595-01-M-0381

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FEB 18 2004
Department of Water Resources
Southern Region

7002 0460 0000 7276 2252

PLACE STICKER AT TOP OF ENVELOPE TO THE RIGHT OF THE RETURN ADDRESS. FOLD AT DOTTED LINE
CERTIFIED MAIL

UNITED STATES POSTAL SERVICE
9264 83226
U.S. POSTAGE PAID TWIN FALLS, ID 83301 JAN 27, '04 AMOUNT $0.00 00077220-02

IDAHO DEPARTMENT OF WATER RESOURCES
1341 Fillmore Street, Suite 200
Twin Falls, ID 83301-3380
(208) 736-3033

TO
DEE KEPPNER, WATERMASTER
WATER DISTRICT # 72-B
PO BOX 1153
CHALLIS ID 83226

RETURN RECEIPT REQUESTED

UNCLAIMED

2-12-04

2-3-4

1-28 C

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

7002 0460 0000 7276 2221

CHALLIS ID 83226 OFFICIAL USE

Postage	$ 1.75	UNIT ID: 0372
Certified Fee	2.30	
Return Receipt Fee (Endorsement Required)	1.75	Postmark Here
Restricted Delivery Fee (Endorsement Required)		Clerk: KZBXNX
Total Postage & Fees	$ 5.80	01/27/04

FIRSTFRUITS FOUNDATION
c/o CHRISTOPHER W. JAMES
PO BOX 510
CHALLIS ID 83226

or Instructions

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

7002 0460 0000 7276 2238

CHALLIS ID 83226 OFFICIAL USE

Postage	$ 1.75	UNIT ID: 0372
Certified Fee	2.30	
Return Receipt Fee (Endorsement Required)	1.75	Postmark Here
Restricted Delivery Fee (Endorsement Required)		Clerk: KZBXNX
Total Postage & Fees	$ 5.80	01/27/04

BONNIE ROWLES
PO BOX 1087
CHALLIS ID 83226

rse for Instructions

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

7002 0460 0000 7276 2252

CHALLIS ID 83226 OFFICIAL USE

Postage	$ 1.75	UNIT ID: 0372
Certified Fee	2.30	
Return Receipt Fee (Endorsement Required)	1.75	Postmark Here
Restricted Delivery Fee (Endorsement Required)		Clerk: KZBXNX
Total Postage & Fees	$ 5.80	01/27/04

DEE KEPPNER, WATERMASTER
WATER DISTRICT # 72-B
PO BOX 1153
CHALLIS ID 83226

or Instructions

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

7002 0460 0000 7276 2245

CHALLIS ID 83226 OFFICIAL USE

Postage	$ 1.75	UNIT ID: 0372
Certified Fee	2.30	
Return Receipt Fee (Endorsement Required)	1.75	Postmark Here
Restricted Delivery Fee (Endorsement Required)		Clerk: KZBXNX
Total Postage & Fees	$ 5.80	01/27/04

JEFFREY J. YEO
PO BOX 299
CHALLIS ID 83226

e for Instructions

UNITED STATES POSTAL SERVICE

***** WELCOME TO *****
PIONEER STATION
TWIN FALLS, ID 83301-3380
01/27/04 04:06PM

Store	USPS	Trans	149
Wkstn	sys5003	Cashier	KZBXNX
Cashier's Name		DONNA	
Stock Unit Id		WINDONNA	
PO Phone Number		800-275-8777	
USPS #		5480520372	

1. First Class			0.00
Destination:	83226		
Weight:	6.20oz		
Postage Type:	Affixed		
Affix. Post.:	-5.80		
Total Cost:	5.80		
Base Rate:	1.75		
SERVICES			
Certified Mail		2.30	
70020460000072762221			
Return Receipt		1.75	
2. First Class			0.00
Destination:	83226		
Weight:	6.20oz		
Postage Type:	Affixed		
Affix. Post.:	-5.80		
Total Cost:	5.80		
Base Rate:	1.75		
SERVICES			
Certified Mail		2.30	
70020460000072762238			
Return Receipt		1.75	
SERVICES			
SERVICES			
4. First Class			0.00
Destination:	83226		
Weight:	6.30oz		
Postage Type:	Affixed		
Affix. Post.:	-5.80		
Total Cost:	5.80		
Base Rate:	1.75		
SERVICES			
Certified Mail		2.30	
70020460000072762245			
Return Receipt		1.75	
5. First Class			0.00
Destination:	83226		
Weight:	6.30oz		
Postage Type:	Affixed		
Affix. Post.:	-5.80		
Total Cost:	5.80		
Base Rate:	1.75		
SERVICES			
Certified Mail		2.30	
70020460000072762252			
Return Receipt		1.75	

Subtotal	0.00
Total	0.00

Number of Items Sold: 5

livery Confirmation is a perfect
:h for Priority Mail & only $4.30
for 1 lb.

BEFORE THE DEPARTMENT OF WATER RESOURCES
OF THE
STATE OF IDAHO

IN THE MATTER OF APPLICATIONS FOR PERMIT NOS. 72-16624 and 72-16625	
Firstfruits Foundation and Christopher W. James Trust, Applicant	NOTICE OF HEARING
Water District # 72-B, Bonnie Rowles, Jeffrey Yeo, Protestants	SOURCE: Ground water and Garden Creek COUNTY: Custer

On October 15, 2002, Firstfruits Foundation and Christopher W. James Trust, (applicant), filed with the Department of Water Resources Application No. 72-16624 to appropriate the public waters of the State of Idaho, with a proposed diversion from a ground water source. The application was subsequently AMENDED on July 28, 2003. The Department has received protests against the approval of said application from Bonnie Rowles and Jeffrey Yeo.

On October 15, 2002, Firstfruits Foundation and Christopher W. James Trust, (applicant), filed with the Department of Water Resources Application No. 72-16625 to appropriate the public waters of the State of Idaho, with a proposed diversion from Garden Creek. The Department has received a protest against the approval of said application from Water District # 72-B, c/o Dee Keppner, Watermaster.

On December 2, 2003, the Department conducted a pre-hearing conference in Challis. On January 20, 2004, the Department conducted a telephone conference. All parties were represented at these conferences. The parties did not resolve the protests at these conferences.

The Department has set the matter of protests for a joint hearing on **Tuesday, April 6, 2004 at 9:00 a.m. in the Courtroom of the Custer County Courthouse, Challis ID.**

The hearing will be held in accordance with provisions of Chapters 2 and 17, Title 42 and Chapter 52, Title 67, Idaho Code, IDAPA 37.01.01 (Rules of Procedure) of the department and IDAPA 37.03.08 (Water Appropriation Rules) Rule 40 and 45. (Please find enclosed a copy of these rules for your references.) The presiding officer at the hearing will be **Glen Saxton** whose address is: Idaho Department of Water Resources, PO Box 83720, Boise, ID, 83720-0098.

The hearing will be conducted in a facility which meets the accessibility requirements of the Americans with Disabilities Act. If you require special accommodations in order to attend, participate in or understand the hearing, please advise the department within (10) days prior to the hearing.

IT IS HEREBY ORDERED, pursuant to Rule of Procedure 37.01.01513 (Rule of Procedure 513) that each party will mail to the hearing officer at the above address and to the other parties of record the

following information as prescribed below:

Postmarked on or before March 5, 2004, an initial list of witnesses, including expert witnesses the party will call or rely on and copies of documents and proposed exhibits the party may offer at hearing.

Postmarked on or before March 22, 2004, a final list of witnesses, including expert witnesses the party will call or rely on and copies of documents and proposed exhibits the party may offer at hearing that have not already been disclosed.

All parties to these matters will have the opportunity to respond and present information and argument on all issues involved at the hearing. **The hearing officer may limit consideration to only witnesses or exhibits properly disclosed prior to the hearing.**

IT IS FURTHER HEREBY ORDERED as follows:

Postmarked on or before March 12, 2004, the parties may request any subpoenas the party wishes the Director to issue.

Failure to comply with this order may be cause for the hearing officer to issue a Notice of Proposed Default to dismiss a party's pleading as provided in IDAPA 37.01.01700 (Rule of Procedure 700).

Dated this 27th day of January, 2004.

Allen D. Merritt, P.E.
Regional Manager

CERTIFICATE OF MAILING

I hereby certify that on the 27th day of January, 2004, a true and correct copy of the above and foregoing Notice of Hearing was sent by Certified Mail to the parties listed:

Secretary

FIRSTFRUITS FOUNDATION
CHRISTOPHER W. JAMES TRUST
PO BOX 510
CHALLIS ID 83226

BONNIE ROWLES
PO BOX 1087
CHALLIS ID 83226

JEFFREY J. YEO
PO BOX 299
CHALLIS ID 83226

DEE KEPPNER, WATERMASTER
WATER DISTRICT # 72-B
PO BOX 1153
CHALLIS ID 83226

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

SOUTHERN REGION

DIRK KEMPTHORNE
Governor

KARL J. DREHER
Director

January 27, 2004

ATTN KYLA MORETTI
CUSTER COUNTY COURTHOUSE
PO BOX 160
CHALLIS ID 83226

Dear Ms. Moretti:

This is a follow-up to our telephone conversation to confirm the reservation of the Court Room for a hearing to be held by this office on **Tuesday - April 6, 2004 from 9:00 a.m.-5:00 p.m.**

If you have any questions please feel free to contact me or Allen Merritt, Southern Regional Office Manager.

Thank you very much for your assistance in this matter.

Sincerely,

Mary Baldwin

Mary A. Baldwin
Administrative Assistant

MB

JOINT CONFERENCE via [redacted]

RE: Applications for Permit No. 72-16624 and 72-16625

PLACE: Idaho Department of Water Resources Office, 1341 Fillmore Street; Twin Falls ID

DATE: Tuesday - January 20, 2004 at 4:00 p.m.

CONFERENCE OFFICER: Allen D. Merritt

ASSISTED BY: None

ROSTER OF ATTENDANCE

NAME	ADDRESS	REPRESENTING	
Bonnie Rowls		Self	
Don Rowls		WD	
Jeff Yeo		Self	
Christopher James			
Debbie James			
Mark Dryan			
Initial exchange	of witness lists,	exhibits	March 5
Dep deed date	to request subpoenas		March 12
Final exchange	of witness & exhibits		March 22
Hearing	1-2, 5-7 April		

Christopher Jones

208-879-2729

BEFORE THE DEPARTMENT OF WATER RESOURCES
OF THE
STATE OF IDAHO

IN THE MATTER OF APPLICATIONS FOR PERMIT NOS. 72-16624 and 72-16625 Firstfruits Foundation and Christopher W. James Trust, Applicant Water District # 72-B, Bonnie Rowles, Jeffrey Yeo, Protestants	NOTICE OF **JOINT** PRE-HEARING TELEPHONE CONFERENCE SOURCE: Ground water and Garden Creek COUNTY: Custer

On October 15, 2002 Firstfruits Foundation and Christopher W. James Trust, (applicant), filed with the Department of Water Resources Application No. 72-16624 to appropriate the public waters of the State of Idaho, with a proposed diversion from a ground water source. The application was subsequently AMENDED on July 28, 2003. The Department has received protests against the approval of said application from Bonnie Rowles and Jeffrey Yeo.

On October 15, 2002 Firstfruits Foundation and Christopher W. James Trust, (applicant), filed with the Department of Water Resources Application No. 72-16625 to appropriate the public waters of the State of Idaho, with a proposed diversion from Garden Creek. The Department has received a protest against the approval of said application from Water District # 72-B, c/o Dee Keppner, Watermaster.

On December 2, 2003 the Department held a pre-hearing conference in Challis. During that meeting the matters of the protests were not resolved. At that time the applicant was not prepared to discuss scheduling a hearing.

The Department has been informed by the applicant that they are now prepared to go to hearing.

For the purpose of scheduling a hearing the Department has arranged for a telephone conference call for **Tuesday, January 20 at 4:00 p.m. To participate in the conference call please dial (646) 441-1006. Once connected to the service you will also need to dial in a participation code of 386859.** If you have trouble connecting please call our office at (208) 736-3033.

The purpose of the conference is to schedule the formal hearing, arrange for the exchange of proposed exhibits or prepared expert testimony prior to the hearing, and advise the parties of the procedure which will be followed at any subsequent hearing.

The conference will be held in accordance with Chapter 2, Title 42, of the Idaho Code and the adopted Rules of Practice and Procedure of the Department of Water Resources.

Dated this 30th day of December, 2003.

Allen D. Merritt, P.E.
Regional Manager

CERTIFICATE OF MAILING

I hereby certify that on the 30th day of December, 2003 a true and correct copy of the above and foregoing Notice of Joint Pre-Hearing Conference was forwarded with all required charges prepared, by regular U.S. Mail to the parties listed below:

Mary Baldwin
Secretary

FIRSTFRUITS FOUNDATION
CHRISTOPHER W. JAMES TRUST
PO BOX 510
CHALLIS ID 83226

BONNIE ROWLES
PO BOX 1087
CHALLIS ID 83226

JEFFREY J. YEO
PO BOX 299
CHALLIS ID 83226

DEE KEPPNER, WATERMASTER
WATER DISTRICT # 72-B
PO BOX 1153
CHALLIS ID 83226

JOINT CONFERENCE

RE: Applications for Permit No. 72-16624 and 72-16625

PLACE: Commissioners Rm - Custer County Courthouse; Challis ID

DATE: Tuesday - December 2, 2003 at 1:00 p.m.

CONFERENCE OFFICER: Allen D. Merritt

ASSISTED BY:

ROSTER OF ATTENDANCE

NAME	ADDRESS	REPRESENTING
Jeffery Yeo	PO Box 249 Challis	myself
Bobbie Rowles	PO Box 1087 Challis	Myself
Linda Carlisle	PO Box 1266 Challis	Self
J. Dean Argyle	P.O. Box 848 Challis	Self
Cathy Bryant	P.O. Box 1301 Challis	City of Challis
Marion Greenawalt	P.O. Box 793 Challis	City Council
Lou Kemery	Box 621 Challis	Myself
John Van Allen	P.O. Box 1390 Challis	Myself
Don Rowles	PO Box 1087 Challis	Self
Jack S. Hammond, P.E.	P.O. Box 1070 Challis	HEDCO, Inc. & LWR
MARK BAYAR	Po box 1122 CHALLIS	Ranch
Anna Means	Box 405 Challis	Challis Messenger
Christopher James	Box 510	Challis ID
Debbie James	"	"
* Cliff Hanson		

Idaho Department of Water Resources Meeting December 2, 2003

Regarding: Water Right Application # 72-16624

The application was made by Firstfruits Foundation, the owner of the land and the water rights. Firstfruits Foundation leases the property and its water rights to Living Waters Ranch, Inc. For the sake of clarification when Living Waters Ranch is mentioned in the following, it also is inclusive of Firstfruits Foundation.

The purpose of Firstfruits Foundation / LWR in applying for this water right is to transfer and use up to its allowed 13,000 gpd as allowed by state law. The quality of the water is more than suspect. For the last couple of seasons LWR has had to treat its water for the 2 lean summer months. With increased water use, a small water treatment unit will need to be added. As a solution, the artesian well source will provide both the quality and the quantity of water to meet the needs of LWR.

1. Will the proposed appropriation injure other water rights?

Living Waters Ranch (LWR) currently uses Well #2 as its water supply. Its average daily use is approximately 5,000 gpd, while LWR is allowed by state law to use 13,000 gpd. Please see Attachment #1. When the proposed pipeline from the artesian well is completed, LWR will abandon Well #2. Currently, the artesian well is spilling on the ground 14,000 gpd. That spillage would cease with the overage being kept in the aquifer. The effect to local water rights is miniscule. An argument can be made that they are improved by the 7,000 gpd that are not being spilt on the ground. For the water rights downstream there is no change. Approximately 60% of the water used is returned to the aquifer through LWR's leach fields.

Please Attachment#2, which speaks of LWR's 5,000 gpd current usage as compared to Garden Creek's flow of 3,200,000 gpd. That works out to less than 2/10 of 1% of its flow. Our use is insignificant.

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Southern Region

2. Is the water supply sufficient for the purpose for which it is sought to be appropriated?

The artesian well currently flows at a rate slightly above the maximum rate allowed for LWR's use. LWR's state allowed use is 13,000 gpd. The artesian well is currently pouring out more than 10 gpm, which computes to 14,400 gpd.

3. Was the application made in good faith or for delay or speculative purposes?

This application was made in good faith. At approximately the same time last November, LWR made application with the BLM for a permit to transport the water to the ranch. LWR also activated electric service to the site and solicited bids for construction.

4. Does the applicant have sufficient financial resources with which to complete the proposed project?

Please see Attachment #3, which shows a balance of $169,303.06 in its Wells Fargo Savings account. Firstfruits Foundation has additional accounts.

5. Is the proposed appropriation in the local public interest, which is defined as the affairs of the people in the area directly affected by the proposed use?

DEQ and District 7 Health have strongly suggested that LWR secures a better drinking water source than the shallow 63' Well #2. Over the last 2 years LWR has had to treat our water to keep it within the Public Water Supply requirements. (See Attachment #3)

The neighbors just west or above the ranch are the Klefmans. Wayne is employed year round, while his wife, Sharlene, is employed full time during the season. The ranch's total expenses are slightly above $300,000. The majority of those monies are spent locally. Its payroll is in excess of $125,000. LWR employed this last year 22 people. LWR contributes much to the economy of the community. LWR had more than 3,000 visitors this last year. They spend money coming and going. The merchants, the golf course, gas stations, the markets, the Hot Springs and many businesses benefit from the people.

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Many of LWR and its staff make considerable contributions of time, talent, and money to the community. Such contributions are Challis Volunteer Ambulance Service, North Custer Hospital District board, Challis Assisted Living Facility, Challis Arts Council, North Custer Historical Society, Challis Volunteer Fire Department, District 181 School Board, Custer Assembly of God, Calvary Outreach, and much more.

6. Is the proposed use contrary to conservation of water resources within the state of Idaho?

LWR has approximately 4,000 feet on Garden Creek. Let's convert that to 10 ranchettes having 400 feet of creek frontage. Each ranchette would be allowed a maximum of 5,000 gpd. Instead of potentially having a maximum usage of 50,000 gpd (10 x 5,000 gpd), LWR has a maximum usage of 13,000 gpd.

Please see attachment #4 for my letter in response to Mr. Yeo's protest. I addressed the % of water LWR was currently using to the whole flow of Garden Creek. It worked out to less than $2/10^{th}$ of 1% and remember that approximately 60% to 70% of our water use is returned to the aquifer through LWR's excellent septic system.

In conclusion, I believe that LWR request for the water right on the Artesian Well will benefit the ranch's quality and quantity of water. This, in turn, will benefit the community by insuring the jobs and economic base that LWR provides.

Yours truly,

Christopher W. James, trustee of Firstfruits Foundation and president of LWR, Inc.

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Southern Region

Living Waters Ranch
Well #2 Meter Readings – 2001

Jan 01	4887775 – 4784320 =	103,455 gal
Feb 01	5028050 – 4887775 =	140,275 gal
March 01	5171430 – 5028050 =	143,380 gal
April 01	5344270 – 5171430 =	172,840 gal
May 01	5474680 – 5344270 =	130,410 gal
June 01	5627520 – 5474680 =	152,840 gal
July 01	5825560 – 5627520 =	198,040 gal
Aug 01	6011100 – 5825560 =	185,540 gal
Sept 01	6137530 – 6011100 =	126,430 gal
Oct 01	6270290 – 6137530 =	132,760 gal
Nov 01	6432610 – 6270290 =	162,320 gal
Dec 01	6543330 – 6432610 =	110,720 gal
	Total	1,759,010 gal

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Living Waters Ranch
Well #2 Meter Readings – 2002

Jan 02	6679710 – 6543330 =	136,380 gal
Feb 02	6791760 – 6679710 =	112,050 gal
March 02	6833480 – 6791760 =	41,720 gal
April 02	7032680 – 6833480 =	199,200 gal
May 02	7191440 – 7032680 =	158,760 gal
June 02	7355470 – 7191440 =	164,030 gal
July 02	7531530 – 7355470 =	176,060 gal
Aug 02	7682910 – 7531530 =	151,380 gal
Sept 02	7837750 – 7682910 =	154,840 gal
Oct 02	7984640 – 7837750 =	146,890 gal
Nov 02	8157060 – 7984640 =	172,420 gal
Dec 02	8329550 – 8157066 =	172,484 gal
	Total	1,786,214 gal

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Living Waters Ranch
Well #2 Meter Reading – 2003

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Jan 03	8478320 – 8329550 =	148,770 gal
Feb 03	8643160 – 8478320 =	164,840 gal
March 03	8802950 – 8643160 =	159,790 gal
April 03	8957150 – 8802950 =	154,200 gal
May 03	9150310 – 8957150 =	193,160 gal
June 03	9346000 – 9150310 =	195,690 gal
	Total	1,016,450 gal

Attachment 2

Firstfruits Foundation
dba Living Waters Ranch
P O Box 510, Challis, ID 83226
208-879-4560, fax 879-4902, cell (IF) 339-4560

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Department of Water Resources
Southern Region

September 5, 2003

Karl Dreher, Director
Idaho Department of Water Resources
1301 N Orchard
Boise, ID 83706

Jim Stanton
Idaho Dept. of Water Resources
1341 Fillmore St, Suite 200
Twin Falls, ID 83301-3380

Regarding: Letter of Protest from Jeffrey J. Yeo, Dated 9/1/03

Dear Mr. Dreher and Mr. Stanton:

This letter is in response to Mr. Yeo's Protest dated 9/1/03. I will be following the outline of his letter and will address points he made, respectively.

The study that Charles Brockway prepared for Paris Almond spoke of the finite nature of the Garden Creek Aquifer. That is true. Mr. Brockway addressed the Garden Creek Annual Runoff; he measured its Flow; he computed Aquifer Runoff. He did not attempt to estimate the Total Amount of Water in the Aquifer. Both the Total Amount of Water in the Aquifer and the measurement of the creek's Flow are most important as to determining how much water there is in the drainage to support people, livestock, and its wildlife.

Mr. Brockway recorded flows on Garden Creek for 3 different dates from Sept 1998 to Jan 1999. I believe this is fairly representative of the creek for that time of the year. At the various measuring points he measures a low near 5 cfs to a high of 8 cfs. 5 cfs is equal to 2250 gpm or 3,240,000 gallons/day. At Living Waters Ranch we are still pumping less than 6,000 gpd when we are allowed 13,000 gpd. Our 6,000 gpd represents less than 2/10ths of 1% (6,000/3,240,000) of the lower recorded flow for Garden Creek.

Many studies have been done for equating the return of water back to the aquifer from leach fields. I am not sure of the exact figure. It most likely varies. If I remember correctly, 60% of the water going into a leach field passes through into the aquifer. If that is true, there is a 40% loss of water through evaporation. But how much of that water would have been evaporated naturally through its runoff and the various beaver ponds along the creek. Currently on Garden Creek there are beaver ponds that take up 2 to 3 acres. How much evaporation is lost through those beaver ponds? The point here is less than half of the water for human use is lost; the majority returns to the aquifer.

A good question is how many people could Garden Creek support? The normal daily water usage for a person is 100 gpd. Let's divide the daily Flow by 100 gpd. That is 3,240,000 gallons divided by 100 gpd. Does that mean that Garden Creek could support 32,400 people? Those measurements were for the fall and winter after the first big freeze that forces the trees into hibernation. Right now in early September the creek flow is at the lowest of the year. I would guess the flow to be 2 ½ to 3 cfs. This would translate to half as many people (16,200) to use up all the flow. Of course, that would take all the water out of the creek. However, if 60% is returned to the aquifer (and the creek) through the leach fields, then there would probably be more than enough water for Challis and Round Valley.

My reasoning is likely flawed in some way, but the principle is correct. Personally, I do not advocate that the Garden Creek Drainage plan to accommodate over several thousand people. However, the point made is that our drainage could easily support more people. Curbs on development would serve only a small vocal number of isolationists.

One problem that our county has not faced is adopting state-mandated Planning and Zoning. This is to our shame. There has been a committee that has worked hard to develop a comprehensive plan. I do not know what has happened to that. I only know that nothing has been adopted.

In the third paragraph Mr. Yeo spoke of "Water being pumped continuously onto the ground from the well for weeks afterward." The water was not being pumped. It had been flowing freely for years since its abandonment in the early 1980s. Rex Berry did install an electric meter. The well was tested by Joe Chester for its capabilities. Joe also collared the old well head with a 1" line to move the **artesian** runoff away from the well head. I have done nothing illegal. Firstfruits Foundation and I own the Dougherty Spring water right that runs next to the artesian well. I own the mineral rights to the property in question and the old mine site. I believe I have not only a right to oversee and evaluate the property, but also a responsibility to do so.

For your interest I am enclosing 2 letters that suggest that LWR would be wise to secure a better water source than its 75' well. In summary, I believe the Protest is without merit and would appreciate your OK'ing the application for the water right.

Thank you very much.

Yours Truly,

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Department of Water Resources
Southern Region

Christopher W. James, Firstfruits Foundation, and Living Waters Ranch.

Enclosures: Letter from William Teuscher, Idaho Falls office of IDEQ, March 3, 2003; letter from Kellye Eager, District 7 Health dated 2/14/03
Cc: Jeffrey J Yeo

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

900 North Skyline, Suite B • Idaho Falls, Idaho 83402-1718 • (208) 528-2650

Dirk Kempthorne, Governor
C. Stephen Allred, Director

March 3, 2003

Gloria Jakovak
BLM Land Specialist
South US 93 Highway
Salmon ID 83467

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DEC 0 2 2003
Department of Water Resources
Southern Region

RE: Living Waters Ranch Public Water System

Dear Ms. Jakovak:

I have been asked to contact you by Mark Bryan, Manager of Living Water Ranch, about their request to run a water transmission line through BLM property. We support water systems like Living Waters Ranch to obtain the highest water quality source possible.

Living Waters Ranch has a history of contamination with its current water supply. Since being activated as a public water system in 1998, the system has had water quality issues and has been in violation.

Because the system must met drinking water standards set by the Environmental Protection Agency (EPA), we support the Living Waters Ranch efforts in securing an easement for the water transmission line to better their public water supply.

Please contact our office if you have any question (208) 528-2650.

Sincerely,

William Teuscher PE
DEQ IFRO

Cc: Richard Horne/Kellye Eager D7H IF.
Christopher James, President- Living Waters Ranch PO Box 510 Challis, ID 83226
Mark Bryan, Manager- Living Waters Ranch

BLM LIVING WATERS RANCH COOR.

DISTRICT SEVEN
HEALTH DEPARTMENT

PROMOTING THE HEALTH OF PEOPLE AND THEIR ENVIRONMENT

Main Office
254 E Street
Idaho Falls, ID 83402-3597
Phone (208) 522-0310
Fax (208) 525-7063

February 14, 2003

Gloria Jakovak
BLM Land Specialist
South US 93 Highway
Salmon, ID 83467

RE: **Living Waters Ranch Public Water System**

Dear Ms. Jakovak:

I have been asked to contact you by Mark Bryan, Manager of Living Water Ranch, about their request to run a water transmission line through BLM property. We support water systems like Living Waters Ranch to obtain the highest water quality source possible.

Living Waters Ranch has a history of contamination with its current water supply. Since being activated as a public water system in 1998, the system has accrued seven Maximum Contaminant Level (MCL) violations due to bacteriological contamination.

Because the system must met drinking water standards set by the Environmental Protection Agency (EPA), we support the Living Waters Ranch efforts in securing an easement for the water transmission line to better their public water supply.

Our file for the system is open for public review. Please contact our office for record assistance or if you have any questions. The number is (208) 523-5382.

Sincerely,

Kellye Eager
REHS

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Department of Water Resources
Southern Region

Cc: Richard Horne, Environmental Health Director
Willie Teuscher, DEQ- Idaho Falls
Christopher James, President- Living Waters Ranch
Mark Bryan, Manager- Living Waters Ranch

Merritt, Allen

From: Burrell, Steve
Sent: Monday, December 01, 2003 10:34 AM
To: Merritt, Allen
Cc: Luke, Tim
Subject: Living Waters Ranch additional info

Some additional information gleaned from feild notes and perusal of Grundfo's web site:

Pump type is Grundfo's model 16S07-8 (I mis-noted it as 16507-8) in well #2, which supplies the campus facilities with potable water. The pump curve for this unit jibes with our measured flow (15 gpm) for the total system static head (~ 173 feet) from the bottom of well #2 to the base of the 35 gallon storage tank upon the hillside. Losses would be minor in the system because pipe sizes are huge (up to 8").

The system pressure at the service lines to buildings would be closer to 40-50 psi. At the submersible pump in Well #2, pressures would be the 80 psi reported by the Owner/Manager.

Mrs. Rowles mentioned in a recent phone call to Tim that the spring south of Garden Creek (spring with decreed domestic right) was connected to the domestic system of Well #2, and not isolated by a shut-off valve as the Manager/Owner showed us. This spring is located at an elevation of a little over 6000' as estimated from USGS quad. The 35K gal. storage tank is located at about 6140' elevation from USGS quad. Without a booster pump, which we did not observe, the domestic spring would need an artesian pressure of 140' to be capable of supplying any water to the campus facility system. Our observation of the overflow pipe from the spring indicated an artesian head of maybe 10' at the most.

Also, regarding Mrs. Rowles claims of the Mr. James residence well being connected to the system, ground penetrating radar would easily show any pipes under the road from his house to the LWR facility. Some INEEL contractors undoubtedly have the GPR capability, if Mrs. Rowles is willing to hire them.

Sorry for the short notice before hearing tomorrow. Call if you have questions.

Steve Burrell
IDWR Hydrologist
208-327-5407

Allen Merritt / Southern

State of Idaho
DEPARTMENT OF WATER RESOURCES
1301 North Orchard Street, Boise, ID 83706 - P.O. Box 83720, Boise, ID 83720-0098
Phone: (208) 327-7900 Fax: (208) 327-7866 Web Site: www.idwr.state.id.us

DIRK KEMPTHORNE
Governor

KARL J. DREHER
Director

November 7, 2003

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NOV 12 2003
Department of Water Resources
Southern Region

Christopher James
Living Waters Ranch
P.O. Box 1190
Challis, ID 83226-1190

Re: Transmittal of Trip Report of Visit to Living Waters Ranch and Potential Illegal Expansion

Dear Mr. James,

Thank you for accommodating Mr. Foster and myself and providing unrestricted access to your facilities during our visit on October 15, 2003 to acquire information about the Living Waters Ranch potable and domestic water supply systems. Please find attached a report summarizing our findings.

IDWR (Idaho Department of Water Resources) is providing a copy of this report to Mrs. Bonnie Rowles of Challis, who initially contacted us regarding concerns of the impact of your facility on the Garden Creek watershed. The attached report does not make any conclusions regarding impacts to Garden Creek, and is only intending to provide factual information about the Living Waters Ranch domestic and irrigation water use systems.

As we discussed in an earlier phone conversation, a finding of the attached report is that use of the water from domestic right no. 72-16274 to supplement irrigation of the places of use of partially decreed Garden Creek irrigation rights constitutes an illegal expansion. Use of the water from the unnamed spring source of right no.72-16274 is limited to the decreed place of use in Lot 3, Section 2, T13N, R18E, B.M., and irrigation of a maximum of ½ acre. This maximum acreage limit for domestic use rights is defined in Idaho Code § 42-111(a). Irrigation use is further qualified in the remarks of right no. 72-16274 as the lawn appurtenant to two cabins and a shower house.

If conditions arise in the future creating a need to use the unnamed domestic spring water source for irrigating other places of use, such as Garden Creek right no.'s 72-106J, 72-109J, 72-4174C, or 72-10486C, a transfer application should be filed with our Southern Region Office in Twin Falls. This application could be used for transferring a portion of the Garden Creek right flows to the unnamed spring currently licensed for domestic use.

Please call me at 208-327-5407 if you have questions, and thanks again for your full cooperation and assistance with this matter.

Sincerely,

Steve Burrell, P.E.
Hydrologist

Attachment /1/
cc: Bob Foster, IDWR Salmon w/
Allen Merritt, IDWR Southern RO, Twin Falls w/
Dee Ray Keppner, Water District 72B Watermaster, P.O. Box 1153, Challis, ID 83226-1153 w/o

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TRIP REPORT

DATE: November 7, 2003

PREPARED BY: S. C. Burrell **LOCATION:** State Office

DISTRIBUTION: Tim Luke, Allen Merrit
cc: Bob Foster
Christopher James
Bonnie Rowles

TRAVELED TO: Living Waters Ranch, north of Challis

DATE (S) OF TRAVEL: 10/15/2003

PERSONS CONTACTED: Christopher James, Owner; Mark Bryan, Manager

PURPOSE OF TRIP: Gather information about Living Waters Ranch irrigation and domestic water systems

Idaho Department of Water Resources (IDWR) employees Steve Burrell and Bob Foster visited the Living Waters Ranch (LWR) and met with the Owner and Manager listed above. An inventory of points of diversion for potable water and other domestic water system features was done. An intensive inventory of irrigation diversions and irrigation places of use was not undertaken because this work was already accomplished during the adjudication.

SURFACE WATER IRRIGATION

A summary of irrigation and stockwater rights owned by LWR is shown below. Figure 1 shows schematically the points of diversion, and places of use for these rights. Figure 1 was produced based on information from the LWR Manager and discussions with Kelly Christenson of IDWR Southern region.

The water source for the unnamed spring (shown on Figure 1) is from a collection pool inside the abandoned, collapsed adit (horizontal mine shaft) located on a mining claim. Mr. James owns the mining claim; BLM owns the land within the claim. Water is piped out of the adit into a ditch that crosses under Garden Creek road to the place of use. This unnamed spring is separate from Daugherty Springs.

All other water is taken from Garden Creek for irrigation and stockwater use, as shown on Figure 1. A fishpond is also located on the property and is filled with water from Garden Creek rights, except during winter months. The upper Garden Creek diversion feeds a ditch upon a hillside that flows into pressurized bubbler system for irrigation of the LWR grounds.

IRRIGATION WATER RIGHTS FOR UNNAMED SPRING AT ABANDON MINE ADIT:		
Identification No:	72-4174A	72-4174C
Priority:	05/20/1914	05/20/1914
Use:	Stockwater, Irrigation	Stockwater, Irrigation
Season of Use:	4/01 to 10/31	4/01 to 10/31
Rate of Diversion:	0.100 CFS	0.370 CFS
Total Acres:	4	9.2
Remarks, Place of Use:		COMBINED TOTAL LIMIT OF 13.2 ACRES – RIGHT NOS.: 72-00106J, 72-00109J, 72-04174C, & 72-10486C.

IRRIGATION WATER RIGHTS FOR GARDEN CREEK			
Identification No:	72-106F	72-106J	72-106H
Priority:	05/15/1890	05/15/1890	05/15/1890
Use:	Irrigation	Irrigation	Irrigation
Season of Use:	4/01 to 10/31	4/01 to 10/31	4/01 to 10/31
Rate of Diversion:	0.320 CFS	0.520 CFS	0.040 CFS
Total Acres:	7.5	13.2	3.3
Remarks, Place of Use:		COMBINED LIMIT TOTAL OF 13.2 ACRES, RIGHT NOS.: 72-00106J, 72-00109J, 72-10486C & 72-04174C.	

IRRIGATION WATER RIGHTS FOR GARDEN CREEK (CONTINUED):				
Identification No:	72-109F	72-109J	72-10486A	72-10486C
Priority:	05/15/1888	05/15/1888	05/20/1914	05/20/1914
Use:	Irrigation	Irrigation	Irrigation	Irrigation
Season of Use:	04/01 to 10/31	04/01 to 10/31	04/01 to 10/31	04/01 to 10/31
Rate of Diversion:	0.320 CFS	0.520 CFS	0.180 CFS	0.290 CFS
Total Acres:	7.5	7.5	7.5	13.2
Remarks, Place of Use:	COMBINED LIMIT OF 7.5 ACRES RIGHT NOS.: 72-00106F, 72-00109F, AND 72-10486A	COMBINED LIMIT OF 13.2 ACRES RIGHT NOS.: 72-00106J, 72-00109J, 72-10486C AND 72-04174C.	COMBINED LIMIT OF 7.5 ACRES RIGHT NOS.: 72-00106F, 72-00109F AND 72-10486A.	COMBINED LIMIT OF 13.2 ACRES RIGHT NOS.: 72-00106J, 72-00109J, 72-10486C AND 72-04174C.

DOMESTIC SURFACE WATER

Figure 2 depicts schematically the domestic and potable water systems. A spring south of Garden Creek has been developed and several tanks are used for storing water. A decreed water right for domestic use exists as follows:

Identification No: 72-16274
Source: Unnamed spring tributary to Garden Creek
Priority: June 1, 1965

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Rate of diversion: 0.04 cfs
Point of diversion: SENW Section 3, T13N, R18E, B.M.
Use: Domestic
Season of use: Year-round
Place of use: Lot 3, Section 2, T13N, R18E, B.M.
Remarks: Two cabins, one shower house and lawn

A pipeline from this spring goes to Building 12 where it connects to the potable water system through a valve. The valve is closed since the spring is too contaminated for drinking water use (Findings of Fact, Permit No. 72-07526 permit appl.). Mr. James, the Owner, also stated that the spring was not used for potable water because of contamination.

Another water line from the spring goes down to Garden Creek with gate valve on its end. This line can be attached to a pump to connect and supplement the pressurized bubbler irrigation system from Garden Creek. The spring was reported to produce about 25 gallons per minute (Findings of Fact, Permit No. 72-07526 permit appl.), and is currently allowed to flow into Garden Creek from a vent pipe on the irrigation water line.

The owner reported that this supplemental irrigation water from the domestic spring has only been used once in the last 5 years. IDWR personnel verbally instructed Mr. James that expanding a domestic right to irrigation use is illegal, as the domestic rights are limited to ½ acre for irrigation purposes. A written correspondence will be sent to Mr. James and the Water District 72 watermaster warning to not commingle domestic and irrigation water rights, and suggesting measures to remedy the situation through the transfer process.

A bunkhouse across Garden Creek south of the main camp area will accommodate 24 children, has a chemical toilet, and gas or electric heat. No potable water service is available in the bunkhouse, the Manager reported.

DOMESTIC GROUNDWATER

Well #1 (shown of Figure 2) near the welcome center is not used because of excess bacteria contamination, the Owner reported. No drilling log or drilling permit could be located in IDWR files. This well is estimated to be over 40 years old, the depth is unknown, and the production rate is 10 gpm (Findings of Fact, Permit No. 72-07526 permit appl.). This well has a submersible pump and is connected to the LWR potable system in the Ranch House well house (below grade) shown in Photo 1. A Neptune flowmeter is installed on the feed line from this Well #1 upstream of the connection to the camps domestic system.

Well #2 (mechanical building well) next to building 5 (shown on Figure 2) includes a Grundfos submersible pump (model unknown) that is connected to a Neptune totalizing flowmeter, 1" model T-10 (Photo 2). The Panametrics PT868 portable ultrasonic flow meter was used to test the Neptune flowmeter accuracy, and an average flow reading for 10 minutes was 15 gpm. The totaled volume from the flow meter timed for 10 minutes was 134 gallons, or a flow rate of 13.4 gpm. Thus, the flowmeter under reports with an error of -10.7%, or a calibration factor of 1.11 should be applied to reported values from this meter. Applying the calibration factor to past reported average maximum daily volumes from LWR would increase the value to 7,400 gallons per day, and is still less than the allowed average maximum of 13,000 gallons per day.

All of the potable water for LWR is derived from Well #2, per the Owner. Well #2 supplies water to a 35,000-gallon storage tank through one main pipe line (shown on Figure 2) that is also used for

potable water service to church camp facility buildings and fire protection. Thus, water may flow in both directions through this one main pipe line. It was not known by the Owner or Manager if a booster pump was needed in addition to the submersible Grundfos pump when filling the 35,000 gallon storage tank. The owner reported the potable water system has a continuous pressure of 80 p.s.i.

The Owner agreed verbally to allow periodic inspections by IDWR personnel of the flowmeter readings on well #2 as an independent verification of the information LWR provides to DEQ as part of the wastewater monitoring program. If it proves difficult for IDWR employees to make periodic visits to the LWR, it will be discussed with the Owner to have the watermaster for district 72-C read the flowmeter on a periodic basis instead.

ARTESIAN WELL

An artesian well is located downhill from the unnamed spring at the adit (Figure 3). No information was available from IDWR records about this well. Previous testing showed a capacity of 30 gpm without reduction in pressure, the Manager reported. Currently water flowing from the well is allowed to run out onto the ground through a piece of poly pipe. It was not observed during this visit as to where this water ultimately ends up, and would require another site visit to determine.

This artesian well was already constructed when the mining claim was purchased by Mr. James in the 1980's. As a result of the Borah Peak earthquake, the mine became too unsafe to work. The BLM owns the land where the artesian well is located. This well is described as the POD for water right application 72-16624.

WELL DRILLING PERMITS

Four well drilling permits have been issued for LWR and/or the Owner, Mr. James and are summarized below. An additional well was proposed by Mr. James in 1997, but was never permitted because of ramifications stemming from a federal lawsuit over wilderness water use. Two wells were drilled for Mr. James' residence. One of these domestic-use wells was abandoned. The locations of these domestic wells for Mr. James' residence shown of Figure 3 were estimated by interpreting drilling log information. Well # 2, shown of Figure 3, is another of the four permits issued. Well #2 is the well used for the LWR church camp facilities.

One permit appears to have never been drilled, and by location information, could have been for a planned residence in 1991. No information was obtained from the Owner or Manager regarding the 1991 well permit.

SUMMARY OF WELL DRILLING PERMITS:

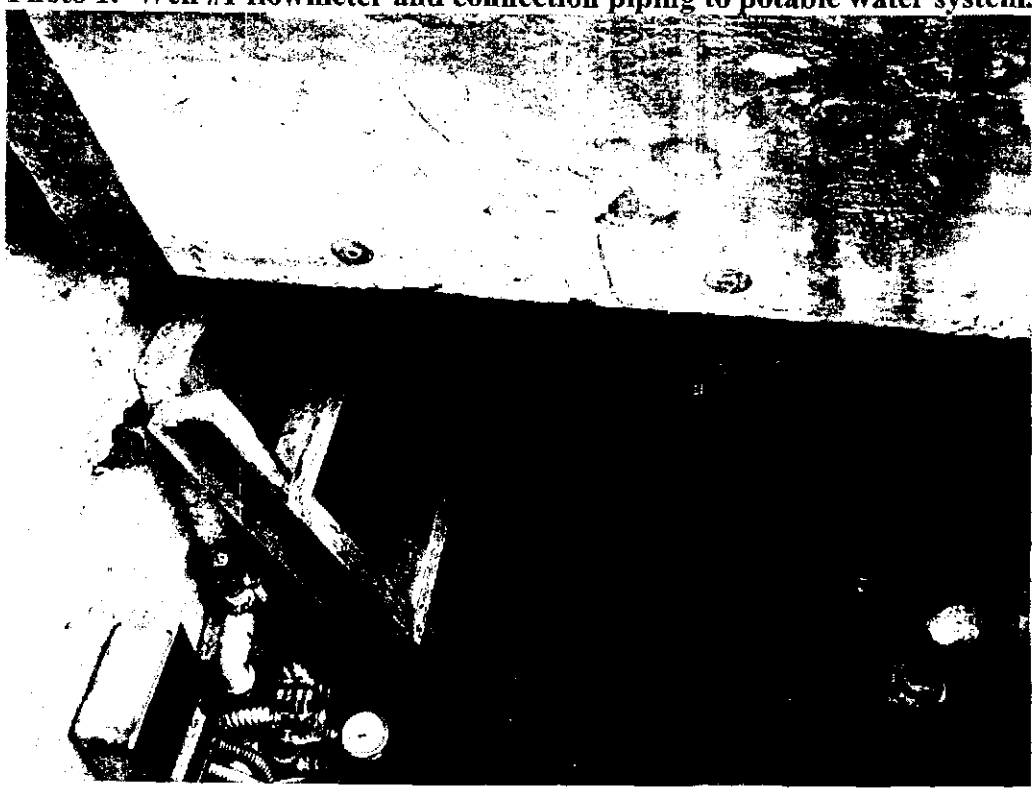
Name(s):	Well #2, Mechanical Bldg. Well, Bldg. 5 Well	N/A
Permit No:	740325	740116
Well ID #:	287236	287781
Location:	T13N R18E Sec. 2 NENW Lot 002 003	T13N R18E Sec. 2 SWNW
Use of Well:	Domestic-Single Residence	Domestic-Single Residence
Const Dates:	Oct 23, 24 1997	(1991)
Completed Depth:	63 FT	0 FT
Production Rate:	11 GPM (driller rept) 15 GPM (IDWR measure)	0 GPM
Static Water Level:	38 FT	0 FT
Status:	In-Use	Not drilled

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SUMMARY OF WELL DRILLING PERMITS (continued):

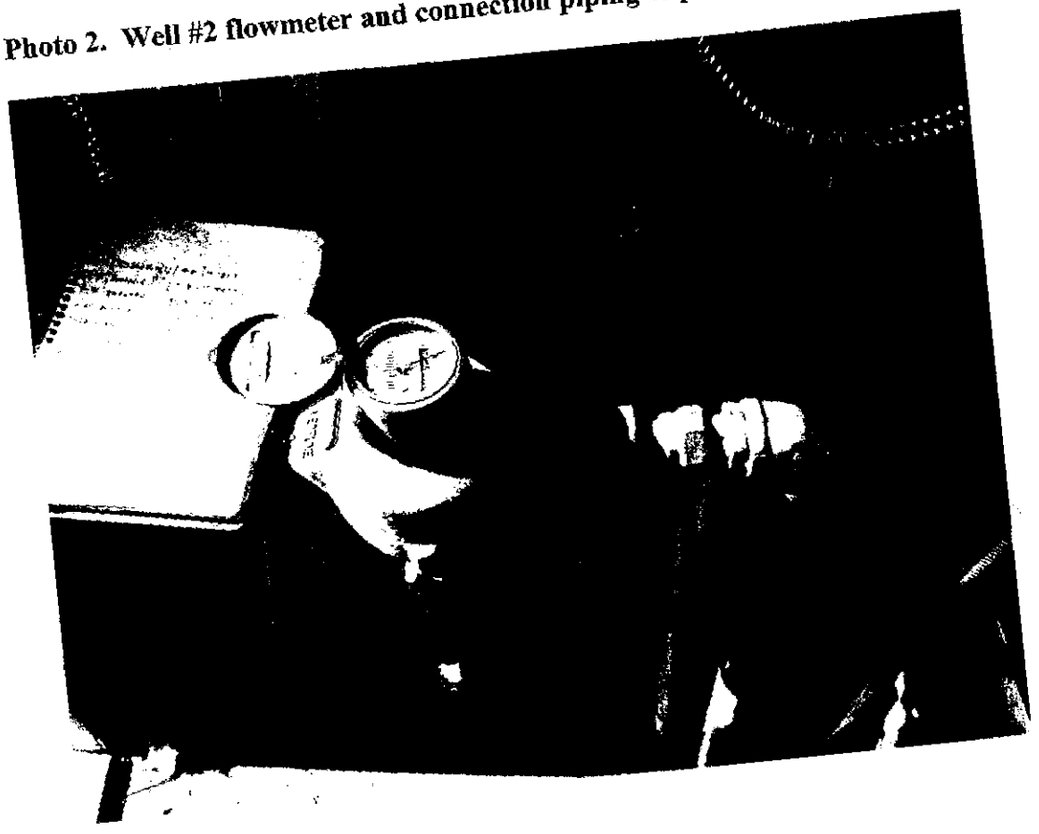
Name:	Domestic Well for Residence	Domestic Well for Residence
Permit No:	740219	740227
Well ID #:	287895	287904
Location:	T13N R18E Sec. 2 SWNW	T13N R18E Sec. 2 SWNW
Use of Well:	Domestic-Single Residence	Domestic-Single Residence
Const Dates:	Jul 07, 08 1994	Jul 08, 09 1994
Completed Depth:	205 FT	200 FT
Production Rate:	1 GPM	10 GPM
Static Water Level:	100 FT	80 FT
Status:	Abandoned	In-Use

Photo 1. Well #1 flowmeter and connection piping to potable water system.



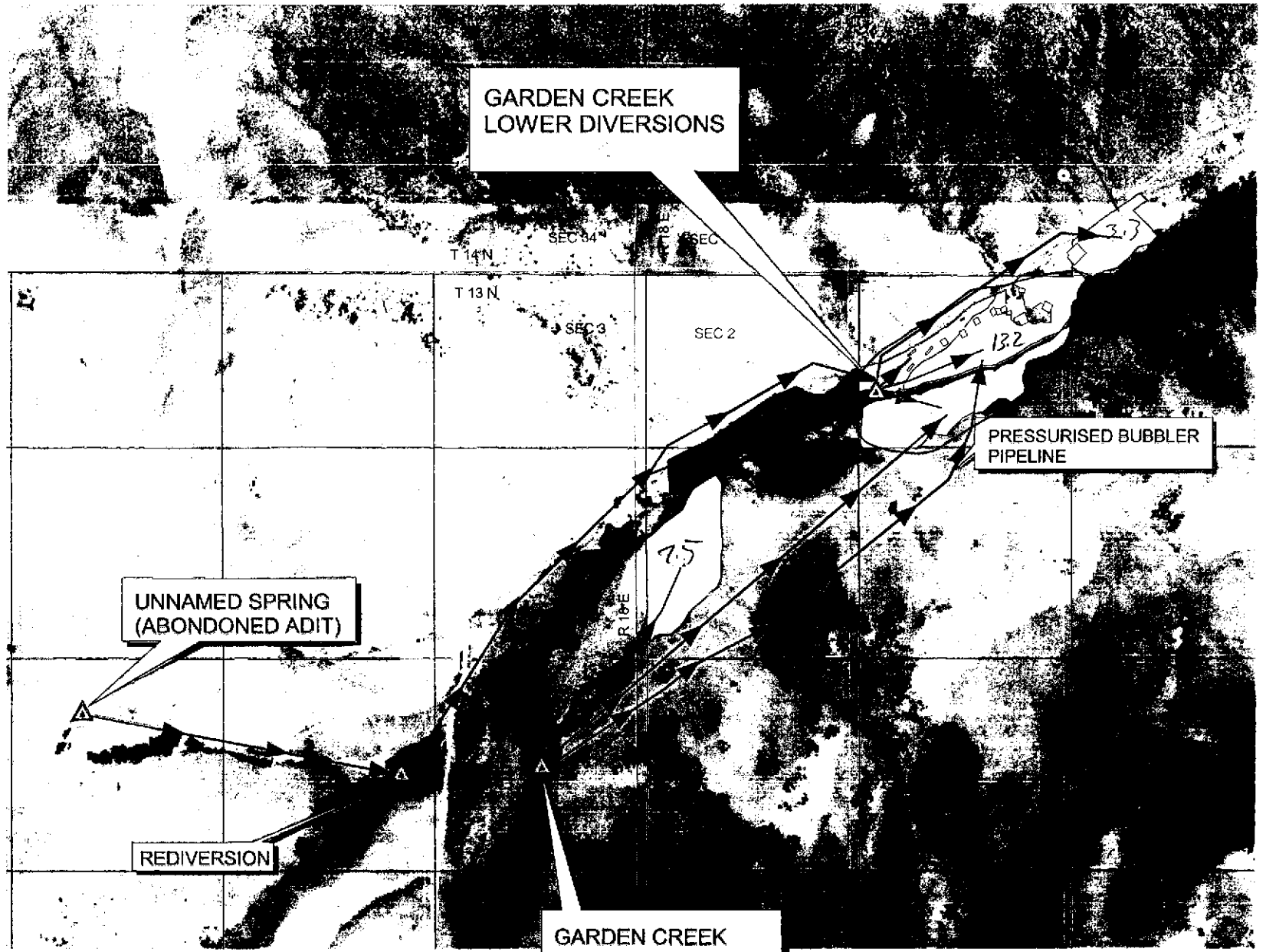
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Photo 2. Well #2 flowmeter and connection piping to potable water system.



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Figure 1. Decreed Irrigation Rights



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Point of diversion

Irrigation water conveyance

Unnamed spring POU

Garden Cr. POU

Combined POU - unnamed spri[illegible] and Garden C[illegible]

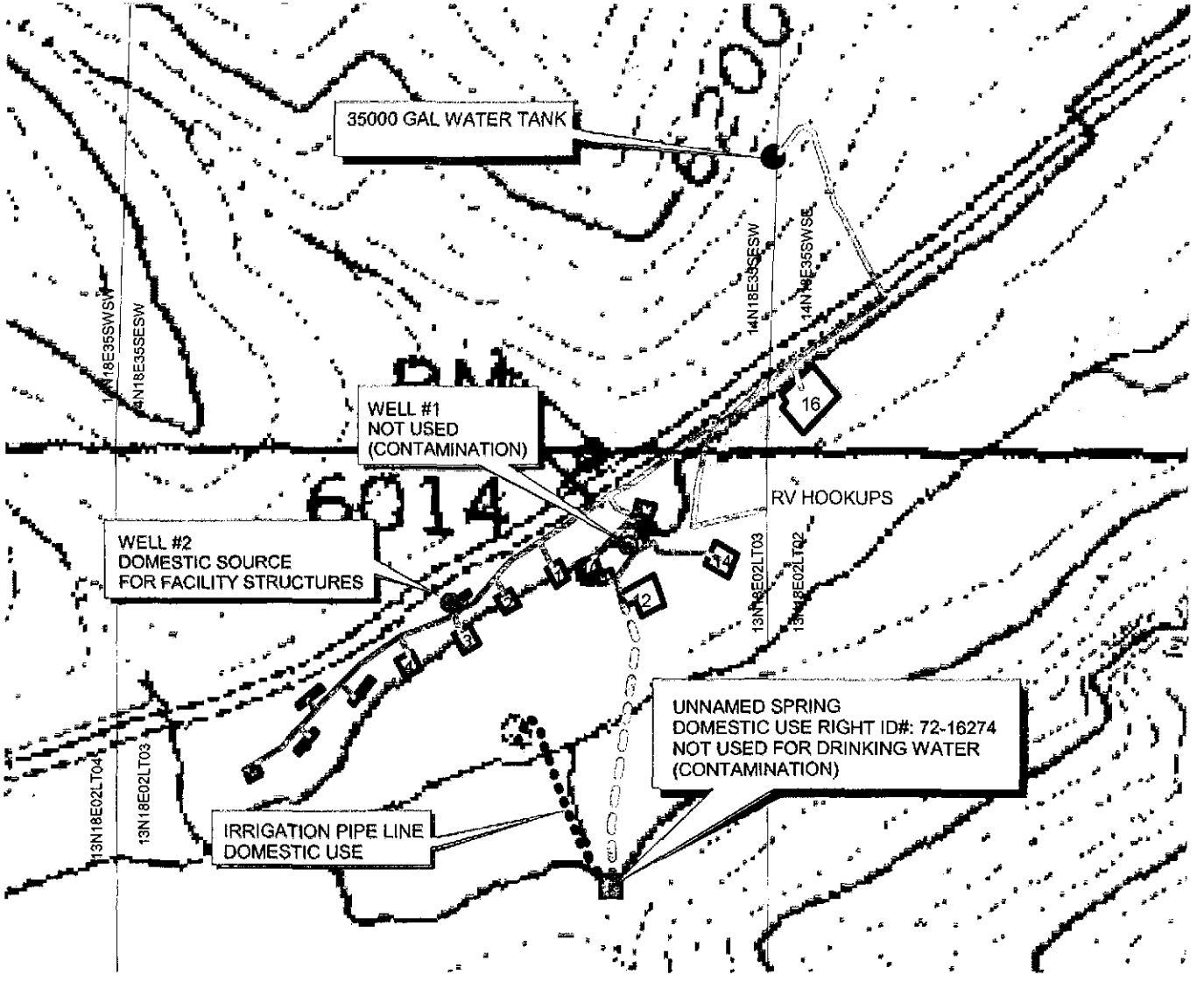
Building

N

0.5 0 0.5 1 Miles

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10/31/2003

Figure 2. Potable Water and Other Domestic System Features



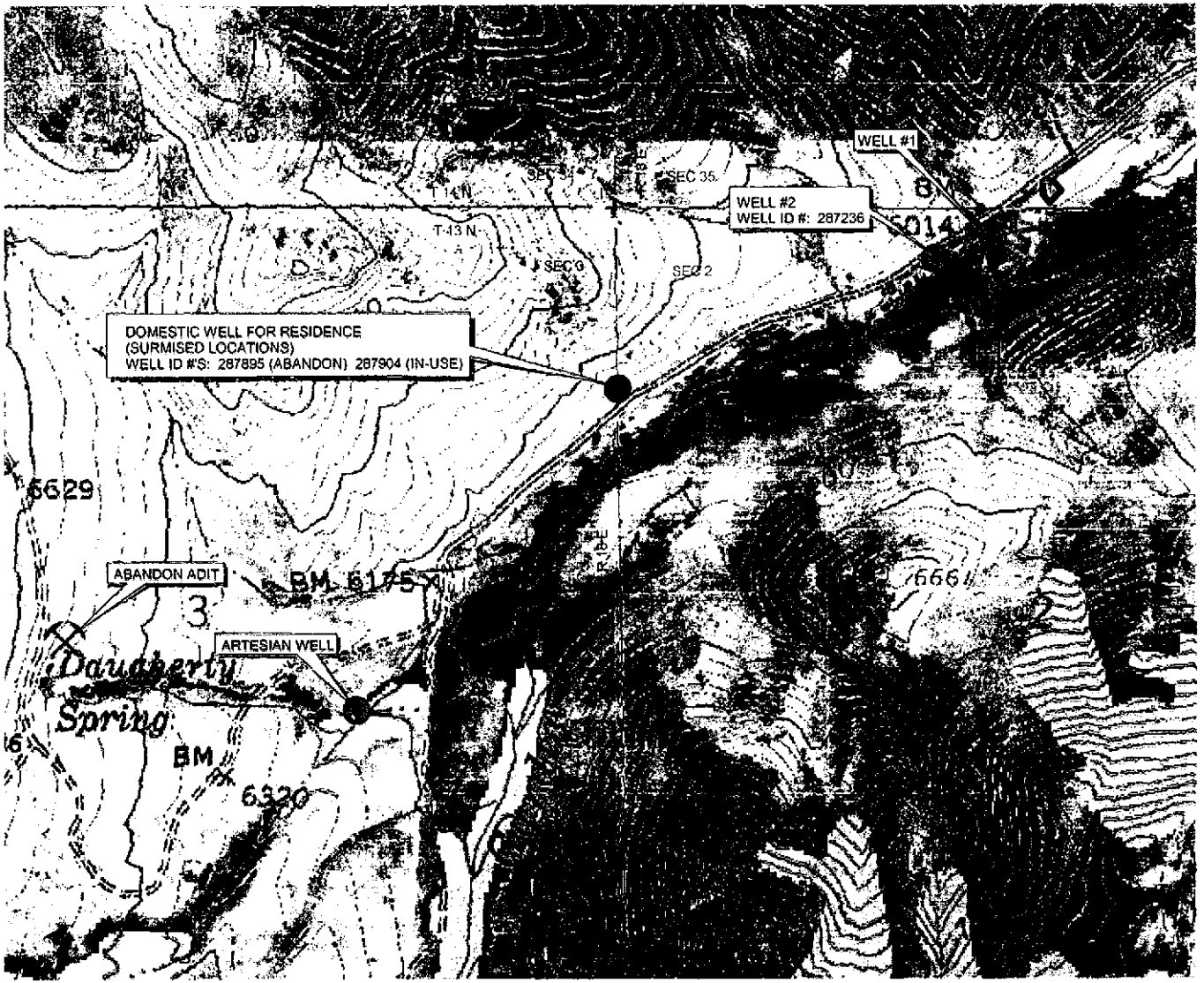
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- Wells
- Domestic spring
- Shut off domestic water line
- Potable water line
- Domestic irrigation line
- Building and no.

N

0.25 0 0.25 Miles

FIGURE 3. ARTESIAN AND DOMESTIC RESIDENCE WELL LOCATIONS



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- Wells
- Domestic spring
- Potable Water Pipe
- Building

N

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10/31/2003

BEFORE THE DEPARTMENT OF WATER RESOURCES
OF THE
STATE OF IDAHO

IN THE MATTER OF APPLICATIONS FOR PERMIT NOS. 72-16624 and 72-16625	NOTICE OF **JOINT** PRE-HEARING
Firstfruits Foundation and Christopher W. James Trust, Applicant	CONFERENCE
Water District # 72-B, Bonnie Rowles, Jeffrey Yeo, Protestants	SOURCE: Ground water and Garden Creek
	County: Custer

On October 15, 2002 Firstfruits Foundation and Christopher W. James Trust, (applicant), filed with the Department of Water Resources Application No. 72-16624 to appropriate the public waters of the State of Idaho, with a proposed diversion from a ground water source. The application was subsequently AMENDED on July 28, 2003. The Department has received protests against the approval of said application from Bonnie Rowles and Jeffrey Yeo.

On October 15, 2002 Firstfruits Foundation and Christopher W. James Trust, (applicant), filed with the Department of Water Resources Application No. 72-16625 to appropriate the public waters of the State of Idaho, with a proposed diversion from Garden Creek. The Department has received a protest against the approval of said application from Water District # 72-B, c/o Dee Keppner, Watermaster.

The Department has set the matter of protests for a joint conference on **Tuesday, December 2, 2003 at 1:00 p.m. in the Commissioners Room, Custer County Courthouse, Challis ID.**

The purpose of the conference is to formulate and simplify the issues, obtain admissions of fact and of documents which will avoid unnecessary proof, arrange for the exchange of proposed exhibits or prepared expert testimony prior to the hearing, limit the number of witnesses, consolidate the examination of witnesses, and advise the parties of the procedure which will be followed at any subsequent hearing.

The conference will be held in accordance with Chapter 2, Title 42, of the Idaho Code and the adopted Rules of Practice and Procedure of the Department of Water Resources.

The conference will be conducted in a facility which meets the accessibility requirements of the Americans with Disabilities Act. If you require special accommodations in order to attend, participate in or understand the conference, please advise the department within (10) days prior to the conference.

Dated this 6th day of November, 2003.

Allen D. Merritt, P.E.
Regional Manager

CERTIFICATE OF MAILING

I hereby certify that on the 6th day of November, 2003 a true and correct copy of the above and foregoing Notice of Joint Pre-Hearing Conference was forwarded with all required charges prepared, by regular U.S. Mail to the parties listed below:

Mary Baldwin
Secretary

FIRSTFRUITS FOUNDATION
CHRISTOPHER W. JAMES TRUST
PO BOX 510
CHALLIS ID 83226

BONNIE ROWLES
PO BOX 1087
CHALLIS ID 83226

JEFFREY J. YEO
PO BOX 299
CHALLIS ID 83226

DEE KEPPNER, WATERMASTER
WATER DISTRICT # 72-B
PO BOX 1153
CHALLIS ID 83226

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

SOUTHERN REGION

DIRK KEMPTHORNE
Governor

KARL J. DREHER
Director

November 6, 2003

ATTN Lura Baker
CUSTER COUNTY COURTHOUSE
PO BOX 160
CHALLIS ID 83226

Dear Lura:

This is a follow-up to our telephone conversation of yesterday to confirm the reservation of the Commissioners' Room for a meeting to be held by this office on **Tuesday, December 2, 2003 from 1:00 - 5:00 p.m.**

If you have any questions please feel free to contact me or Allen Merritt, Southern Regional Office Manager.

Thank you very much for your assistance in this matter.

Sincerely,

Mary Baldwin

Mary A. Baldwin
Administrative Assistant

MB

Merritt, Allen

From: Luke, Tim
Sent: Monday, September 22, 2003 7:50 AM
To: Merritt, Allen
Subject: FW: LWR results

Allen,
I asked Steve Burrell of my section to compile and analyze some of the well use and effluent discharge data for Living Waters Ranch. Steve's spreadsheet can be found at the location referenced below (let me know if you can't access this). We received the effluent data from DEQ. The well use data is higher than effluent, which is to be expected although the difference between well use and effluent seems to vary signficantly. In my meeting with Mrs. Rowles I believe she tried to tell me that the effluen numbers were higher than the well use, so either I misunderstood or one of us has some goofy data.

Here are my thoughts on following-up on this matter:
1) Call James and schedule a second on-site visit, request that James be present
- Coordinate with District 7 Health and have one of their reps on site so we can understand how the sewage system works in relation to the gw well distribution system. Visit could also include James consultant's or plumber/contract manager. Discuss with James feasiblity of including Mrs. Rowles and/or a city official. (I'm not sure it would be a good idea to have Rowles and James meet on-site - possibly too much friction. A city official may be more appropriate.)

2) The second site visit should include the following:
- get information on the flow meter, including type of meter, multipliers etc.
- calibrate the flow meter using one of our ultrasonic meters
- check on Daugherty Spring and the nearby abandoned artesian well and observe the uses from these sources
- check the use from Garden Creek, look at where and how this water is being used for irrigation or other uses
- double check & re-verify that only one well is being used now, check again on the second capped well
- verify if gw use has been extended to new buildings on other side of the creek (this question was raised by Rowles)
- site visit to include photos, GPS, thorough field notes
3) Explore options with James for improved and/or independent monitoring of well flow meter.
- Try to arrive at an option that will provide more credibility with Rowles, others. Do this for at least a year or during peak use season.

The second field visit should be done because I pretty much committed the Department to doing it when I met with Mr. and Mrs. Rowles two weeks ago. I am willing to send one of my staff up from Boise along with Bob Foster since I was the one making this committment. I don't think I will have time over the next month or two to go myself. I'd suggest sending Steve Burrell since he has reviewed the data and files, and has spoken with several District 7 reps. Steve could probably do a little field work up in the Pahsimeroi on the same trip as he has made several visits up there this summer. I could also send Jennifer Berkey, who is doing some on-going work in the nearby Big Lost basin. Both are very capable. You may wish to assign your own staff. The decision on who to send is up to you.

Glen reminded me that there may some issues about ex-parte communication between IDWR, Rowles and James in relation to James' application for permit that is protested by Rowles. We would need to be careful in our communication we these parties although Glen did not disagree with us meeting the two parties, particularly if it would help with the protest at all and as long as the two do agree to meet.

What are your thoughts?
Tim

-----Original Message-----

From: Burrell, Steve
Sent: Thursday, September 18, 2003 12:05 PM
To: Luke, Tim
Subject: RE: LWR results

Maximum average monthly gal per day is about 6600, as James claimed in letter.

I can't think of any obvious reason why pumping rate of supply well is relatively constant from month to month, while effluent pumping rate varies alot.

-----Original Message-----
From: Luke, Tim
Sent: Wednesday, September 17, 2003 5.25 PM
To: Burrell, Steve
Subject: RE: LWR results

Looks good. Thanks. Any idea on why the difference is so much in many months? Just leaks? The gpd-max spreadsheet is just effluent it appears. Could you derive a gpd figure or column for the well use for 2001 thru 8/2003, based on monthly readings?

-----Original Message-----
From: Burrell, Steve
Sent: Wednesday, September 17, 2003 4:33 PM
To: Luke, Tim
Subject: LWR results

Comparison of monthly readings shows a loss of 10-90% of water from the supply well to the septic system:

\\Dwr415\pccommon\File09172003.xls

Steve Burrell
IDWR Hydrologist
208-327-5407

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

SOUTHERN REGION

DIRK KEMPTHORNE
Governor

KARL J. DREHER
Director

September 17, 2003

FIRSTFRUITS FOUNDATION
C/O CHRISTOPHER W. JAMES
PO BOX 510
CHALLIS ID 83226

Application for Permit No. 72-16624

Dear Mr. James:

This office acknowledges your recent correspondence stating that you have contacted both Protestants without successfully resolving their concerns about your application.

Therefore, this office is tentatively scheduling the matter of protest for a pre-hearing conference for **late October or early November.** Please indicate the dates you are available on the enclosed calendars and return them to this office as soon as possible. Notices formally setting the conference time and place will be mailed at a later date.

Please note that the application is considered a contested case and subject to the Rules of Procedure adopted by the Department. Rules 302 & 417 require that any written communication between parties be sent to **all parties in the case**. Continued violation of these rules could cause the Department to dismiss a protest or to deny the application.

If you need a copy of these rules, please contact this office. The Rules of Procedure are also available on the Internet by using the IDWR Homepage at the following electronic address:

http://www.idwr.state.id.us/apa/idapa37/0101.htm

The attachment to this letter describes the issues which the Department must consider in taking action on an application. It also gives a brief description of the conference and hearing procedure followed by the Department in resolving protested applications.

If you have any questions or if this office can be of further assistance, please contact us.

Sincerely,

MB for

Allen D. Merritt, P.E.
Regional Manager

Enclosures

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

SOUTHERN REGION

September 17, 2003

DIRK KEMPTHORNE
Governor

KARL J. DREHER
Director

BONNIE ROWLES
PO BOX 1087
CHALLIS ID 83226

JEFFREY J. YEO
PO BOX 299
CHALLIS ID 83226

RE: APPLICATION FOR PERMIT NO. 72-16624 - FirstFruits Foundation

Dear Protestant(s):

The Department acknowledges your protest against the approval of the above referenced application. Correspondence in the file indicates that the applicant has contacted you both; however, it appears that your concerns have not been resolved.

Please note that the application is considered a contested case and subject to the Rules of Procedure adopted by the Department. Rules 302 & 417 require that any written communication between parties be sent to **all parties in the case.** Continued violation of these rules could cause the Department to dismiss a protest or to deny the application.

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This office is tentatively scheduling the matter of protest for a pre-hearing conference for **late October or early November.** Please indicate the dates you are available on the enclosed calendars and return them to this office as soon as possible. Notices formally setting the conference time and place will be mailed at a later date.

If you are no longer interested in pursuing a protest, please submit a written withdrawal of your protest to this office or if you have any questions or if this office can be of further assistance, please feel free to contact us.

Very truly yours,

MB for

Allen D. Merritt, P.E.
Southern Region Manager

AM:MB

Enclosure(s)

Firstfruits Foundation
dba Living Waters Ranch
P O Box 510, Challis, ID 83226
208-879-4560, fax 879-4902, cell (IF) 339-4560

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September 9, 2003

Karl Dreher, Director
Idaho Department of Water Resources
1301 N Orchard
Boise, ID 83706

Jim Stanton
Idaho Dept. of Water Resources
1341 Fillmore St, Suite 200
Twin Falls, ID 83301-3380

Regarding: Follow Up to My Letter , Dated 9/5/03

Dear Mr. Dreher and Mr. Stanton:

This letter is a follow up letter to my letter dated 9/5/03.

In the second to last paragraph of my letter dated 9/5/03 I did not mention the artesian well that I am filing on produces 10 gallons/minute. I am not sure of the rate of production for years past, but through the real dry season it has consistently produced 10 gallons/minute. Multiplying 10gal/min with 1440 minutes/day equals a daily production of 14,400 gallons.

Currently the artesian well is spilling 14,400 gal/day on the ground. The licensure of Living Waters Ranch is 13,000 gal/day with our current use of less than 6,000 gal/day. When that well is put on line, LWR will not be drawing water out of the aquifer. LWR will be taking a part of what is spilt on the ground.

Again I will appreciate your granting approval of the water right.

Thank you very much.

Yours Truly,

Christopher W. James

Christopher W. James, Firstfruits Foundation, and Living Waters Ranch.

Cc: Jeffrey J Yeo

PS Separately, I have written Jeff Yeo asking him to withdraw his protest. He will not; he wants it to come to a public forum.

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

SOUTHERN REGION

DIRK KEMPTHORNE
Governor

KARL J. DREHER
Director

September 9, 2003

Bureau of Land Management
Challis Field Office
ATTN: Renee Snyder
801 Blue Mountain Rd
Challis, ID 83226

RE: App For Permit 72-16624, Firstfruits Foundation/Christopher James Trust

Dear Ms. Snyder;

In response to your letter of 8-28-03, 0.20 cfs is the flow rate that was applied for. This is the maximum rate that can be applied for under the minimum filing fee, and gives the applicant the option of using a higher rate than normal to meet periods of peak demand. Obviously this rate could not pumped continuously without exceeding the 13,000 gpd limit that will be part of any permit approval. I do not know what the actual diversion rate will be once the system is developed, as there is an existing storage tank that will be filled from the well to take care of peak demands. There are no flow-rate limitations under Sec. 42-111(1)(a) of the Idaho Code that apply to the proposed use, so the 0.20 cfs rate applied for will not prevent us from approving the permit for a de minimus use. The application has been protested by two local citizens, so other issues may be brought up that could affect our final decision on this matter. And we are still requiring the applicant to obtain your written permission to access the existing well before issuing this permit.

If you have further questions, feel free to contact me.

Regards,

James E. Stanton
Sr. Water Resource Agent

Firstfruits Foundation
dba Living Waters Ranch
P O Box 510, Challis, ID 83226
208-879-4560, fax 879-4902, cell (IF) 339-4560

RECEIVED
SEP 09 2003
Department of Water Resources
Southern Region

September 5, 2003

Karl Dreher, Director
Idaho Department of Water Resources
1301 N Orchard
Boise, ID 83706

Jim Stanton
Idaho Dept. of Water Resources
1341 Fillmore St, Suite 200
Twin Falls, ID 83301-3380

Regarding: Letter of Protest from Jeffrey J. Yeo, Dated 9/1/03

Dear Mr. Dreher and Mr. Stanton:

This letter is in response to Mr. Yeo's Protest dated 9/1/03. I will be following the outline of his letter and will address points he made, respectively.

The study that Charles Brockway prepared for Paris Almond spoke of the finite nature of the Garden Creek Aquifer. That is true. Mr. Brockway addressed the Garden Creek Annual Runoff; he measured its Flow; he computed Aquifer Runoff. He did not attempt to estimate the Total Amount of Water in the Aquifer. Both the Total Amount of Water in the Aquifer and the measurement of the creek's Flow are most important as to determining how much water there is in the drainage to support people, livestock, and its wildlife.

Mr. Brockway recorded flows on Garden Creek for 3 different dates from Sept 1998 to Jan 1999. I believe this is fairly representative of the creek for that time of the year. At the various measuring points he measures a low near 5 cfs to a high of 8 cfs. 5 cfs is equal to 2250 gpm or 3,240,000 gallons/day. At Living Waters Ranch we are still pumping less than 6,000 gpd when we are allowed 13,000 gpd. Our 6,000 gpd represents less than 2/10ths of 1% (6,000/3,240,000) of the lower recorded flow for Garden Creek.

Many studies have been done for equating the return of water back to the aquifer from leach fields. I am not sure of the exact figure. It most likely varies. If I remember correctly, 60% of the water going into a leach field passes through into the aquifer. If that is true, there is a 40% loss of water through evaporation. But how much of that water would have been evaporated naturally through its runoff and the various beaver ponds along the creek. Currently on Garden Creek there are beaver ponds that take up 2 to 3 acres. How much evaporation is lost through those beaver ponds? The point here is less than half of the water for human use is lost; the majority returns to the aquifer.

A good question is how many people could Garden Creek support? The normal daily water usage for a person is 100 gpd. Let's divide the daily Flow by 100 gpd. That is 3,240,000 gallons divided by 100 gpd. Does that mean that Garden Creek could support 32,400 people? Those measurements were for the fall and winter after the first big freeze that forces the trees into hibernation. Right now in early September the creek flow is at the lowest of the year. I would guess the flow to be 2 ½ to 3 cfs. This would translate to half as many people (16,200) to use up all the flow. Of course, that would take all the water out of the creek. However, if 60% is returned to the aquifer (and the creek) through the leach fields, then there would probably be more than enough water for Challis and Round Valley.

My reasoning is likely flawed in some way, but the principle is correct. Personally, I do not advocate that the Garden Creek Drainage plan to accommodate over several thousand people. However, the point made is that our drainage could easily support more people. Curbs on development would serve only a small vocal number of isolationists.

One problem that our county has not faced is adopting state-mandated Planning and Zoning. This is to our shame. There has been a committee that has worked hard to develop a comprehensive plan. I do not know what has happened to that. I only know that nothing has been adopted.

In the third paragraph Mr. Yeo spoke of "Water being pumped continuously onto the ground from the well for weeks afterward." The water was not being pumped. It had been flowing freely for years since its abandonment in the early 1980s. Rex Berry did install an electric meter. The well was tested by Joe Chester for its capabilities. Joe also collared the old well head with a 1" line to move the **artesian** runoff away from the well head. I have done nothing illegal. Firstfruits Foundation and I own the Dougherty Spring water right that runs next to the artesian well. I own the mineral rights to the property in question and the old mine site. I believe I have not only a right to oversee and evaluate the property, but also a responsibility to do so.

For your interest I am enclosing 2 letters that suggest that LWR would be wise to secure a better water source than its 75' well. In summary, I believe the Protest is without merit and would appreciate your OK'ing the application for the water right.

Thank you very much.

Yours Truly,

Christopher W. James

Christopher W. James, Firstfruits Foundation, and Living Waters Ranch.

Enclosures: Letter from William Teuscher, Idaho Falls office of IDEQ, March 3, 2003; letter from Kellye Eager, District 7 Health dated 2/14/03
Cc: Jeffrey J Yeo

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

900 North Skyline, Suite B • Idaho Falls, Idaho 83402-1718 • (208) 528-2650

Dirk Kempthorne, Governor
C. Stephen Allred, Director

March 3, 2003

RECEIVED
SEP 09 2003
Department of Water Resources
Southern Region

Gloria Jakovak
BLM Land Specialist
South US 93 Highway
Salmon ID 83467

RE: Living Waters Ranch Public Water System

Dear Ms. Jakovak:

I have been asked to contact you by Mark Bryan, Manager of Living Water Ranch, about their request to run a water transmission line through BLM property. We support water systems like Living Waters Ranch to obtain the highest water quality source possible.

Living Waters Ranch has a history of contamination with its current water supply. Since being activated as a public water system in 1998, the system has had water quality issues and has been in violation.

Because the system must met drinking water standards set by the Environmental Protection Agency (EPA), we support the Living Waters Ranch efforts in securing an easement for the water transmission line to better their public water supply.

Please contact our office if you have any question (208) 528-2650.

Sincerely,

William Teuscher PE
DEQ IFRO

Cc: Richard Horne/Kellye Eager D7H IF.
Christopher James, President- Living Waters Ranch PO Box 510 Challis, ID 83226
Mark Bryan, Manager- Living Waters Ranch

BLM LIVING WATERS RANCH COOR.

DISTRICT SEVEN
HEALTH DEPARTMENT

PROMOTING THE HEALTH OF PEOPLE AND THEIR ENVIRONMENT

Main Office
254 E Street
Idaho Falls, ID 83402-3597
Phone (208) 522-0310
Fax (208) 525-7063

February 14, 2003

Gloria Jakovak
BLM Land Specialist
South US 93 Highway
Salmon, ID 83467

RECEIVED
SEP 09 2003
Department of Water Resources
Southern Region

RE: **Living Waters Ranch Public Water System**

Dear Ms. Jakovak:

I have been asked to contact you by Mark Bryan, Manager of Living Water Ranch, about their request to run a water transmission line through BLM property. We support water systems like Living Waters Ranch to obtain the highest water quality source possible.

Living Waters Ranch has a history of contamination with its current water supply. Since being activated as a public water system in 1998, the system has accrued seven Maximum Contaminant Level (MCL) violations due to bacteriological contamination.

Because the system must met drinking water standards set by the Environmental Protection Agency (EPA), we support the Living Waters Ranch efforts in securing an easement for the water transmission line to better their public water supply.

Our file for the system is open for public review. Please contact our office for record assistance or if you have any questions. The number is (208) 523-5382.

Sincerely,

Kellye Eager
REHS

Cc: Richard Horne, Environmental Health Director
Willie Teuscher, DEQ- Idaho Falls
Christopher James, President- Living Waters Ranch
Mark Bryan, Manager- Living Waters Ranch

RECEIVED
SEP 04 2003
Department of Water Resource
Southern Region

Jeffrey J. Yeo
PO Box 299
Challis, Idaho 83226
(208) 879-5066

September 1, 2003

Karl J. Dreher, Director
Dept. of Water Resource, Southern Region
1341 Fillmore St., Suite 200
Twin Falls, Idaho 83301

Director Dreher:

I am writing to protest Application for Water Right 72-16624 submitted by Firstfruits Foundation, Christopher W. James Trust, Christopher James Trustee.

The well supplying my domestic water is a short distance from the proposed well site applied for by Christopher James. The current hydrological report for the Garden Creek watershed, funded by Garden Creek homeowner Paris Almond, indicates the finite nature of the Garden Creek aquifer. Since drilling my well in June 1997, considerable development of water resources has occurred within the drainage, e.g. Christopher James has constructed a large complex of greater than 15 buildings providing motel, food, and conference services; and greater than a half dozen additional wells have been drilled within ¼ to ½ mile from my well. Christopher James has indicated his intent to continue development within the Garden Creek drainage with the planned construction of a 16-unit motel and a convenience store (reported in the Challis Messenger). I am concerned that continued development of water resources within the drainage threatens water supply to my well and other wells within Garden Creek.

In addition, the Garden Creek watershed is the source for water for the City of Challis. Our area has experienced severe drought for the past five years. Droughts are common for this region and restrict available water. The City of Challis repeatedly issues restrictions on water use to city residents. My understanding is that the City of Challis has requested of Custer County a moratorium on further development in Garden Creek because of concerns about current and future water supply for the city (reported in Challis Messenger). Custer County also recently rescinded two building permits given to Christopher James because of concerns of continued development in Garden Creek. The county initiated a land use planning and zoning process several years ago. This process once completed should address water supply and development concerns.

In late May 2003 at the old wellhead proposed for this application, apparently Christopher James had a new fuse box with electric meter installed by local electrician Rex Berry, the electric meter and power was supplied by Salmon River Electric Cooperative, and the old wellhead was capped with a supply hose extending about 40 feet. Water was pumped continuously onto the ground from the well for weeks

9/4/03
R# 50 26097
MRB

afterward. Given that there is not a water right and yet the well site is being developed, I'm concerned that public regulations are being ignored. When I contacted local BLM personnel about this development, they told me that they were not aware of the well development and hadn't given James permission to do so. BLM personnel also reported to me that Christopher James is requesting to divert the existing flow of Daugherty Springs, which flows across public lands through the existing well site, through a pipeline to his complex on Garden Creek. My understanding is that the well site (Application 72-16624) is being used as the first point of diversion for the proposed pipeline. The pipeline would require an Environmental Assessment and approval by the BLM for a right-of-way.

I am asking the Department of Water Resource to not grant this application for a water right. The water supply is finite and droughts, which occur commonly in this area, further reduce the reliability of available water. Existing wells and the water supply for Challis, which already is experiencing water restrictions, is threatened by continued development within the Garden Creek drainage. Challis is the center of economic activity in Custer County, and the basis for my family's income. A county planning and zoning process has begun. Until that process is completed and we understand what development can be accommodated without jeopardizing our water supply, no new water rights should be permitted within Garden Creek.

A check for $25.00 is enclosed to cover the protest fee. A copy of this letter has been sent to Christopher James.

Sincerely,

Jeffrey J. Yeo

cc: Christopher James

AFFIDAVIT OF PUBLICATION

State of Idaho, County of Custer, ss:

I, Ruth E. Burchell, representing the Challis Messenger, a weekly newspaper, published at Challis, Idaho, do solemnly swear that the notice hereto attached and made a part hereof, was published in the regular and entire issue of the Challis Messenger for 2 consecutive weeks, commencing with the issue dated Aug 21 2003 and ending with the issue dated Aug 28 2003.

Ruth E Burchell

STATE OF IDAHO

COUNTY OF CUSTER

On this 29th day of August in the year of 2003 before me, a Notary Public, personally appeared Ruth E. Burchell known or identified to me to be the person whose name subscribed to the within instrument, and being by me first duly sworn, declared that the statements therein are true, and acknowledged to me that he executed the same.

Janet Gangis
Notary Public for Idaho
Residing at Challis
My commission expires: 4/30/04

RECEIVED
SEP 02 2003
Department of Water Resources
Southern Region

APPLICATION FOR WATER RIGHT 72-16624

The following application has been filed to appropriate the public waters of the State of Idaho, Custer County:

72-16624

FIRSTFRUITS FOUNDATION, CHRISTOPHER W. JAMES TRUST, CHRISTOPHER JAMES TRUSTEE, PO BOX 510, CHALLIS ID 83226.

Point(s) of Diversion: NWSE S3 T13N R18E

Source: GROUNDWATER

Use: 01/01 To 12/31 DOMESTIC (0.2 CFS)

Total Diversion: 0.2 CFS

Date Filed: 10/15/2002

Place Of Use: T13N R18E S2: NWNE Lot 2 NENW Lot 3 NWNW Lot 4 SWNW SENW T14N R18E S35: SWSE

Permits will be subject to all prior water rights. Protests may be submitted based on the criteria of Sec 42-203A, Idaho Code. Any protest against the approval of this application must be filed with the Director, Dept. of Water Resource, Southern Region, 1341 Fillmore St, Suite 200, Twin Falls ID 83301 together with a protest fee of $25 for each application on or before 09/09/2003. The protestant must also send a copy of the protest to the applicant.

KARL J. DREHER, Director

Pub: Aug. 21 & 28, 2003.

OK
MB
9/2/03

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Challis Field Office
801 Blue Mountain Road
Challis, Idaho 83226

RECEIVED
AUG 29 2003
Department of Water Resources
Southern Region

In Reply Refer To:
7250 (084)

August 28, 2003

Mary A. Baldwin
State of Idaho
Department of Water Resources
1341 Fillmore Street, Suite 200
Twin Falls, Idaho 83301-3380

Re: Response to Application for Permit No. 72-16624, Firstfruits Foundation, c/o Christopher James.

Dear Ms. Baldwin:

Thank you for requesting my comments on water withdrawal Permit No. 72-16624, Firstfruits Foundation.

In this application, the applicant requests a permit to withdraw less than 10,000 gallons per day, roughly the *de minimus* rate of 0.02 cfs. On Page 1 of the application, however, that amount is written as "0.20 cfs". Please confirm the 0.02 cfs rate in your permit.

Sincerely,

Renee Snyder

Renee Snyder
Field Manager

Merritt, Allen

From: Merritt, Allen
Sent: Thursday, August 28, 2003 12:02 PM
To: Dreher, Karl
Cc: Saxton, Glen; Larsen, Dick; Peppersack, Jeff
Subject: Living Waters Ranch on Garden Creek above Challis/ Bonnie Rowles Complaint to Governor

Karl,

We received the memo from Bob Foster regarding his field visit to the ranch. It may be viewed thru "PowerDoc" by searching for right 72-16624. The memo is document No. 82381. Note that 72-16624 is the protested application by the ranch for use of an artesian well for the facility. Currently the facility is supplied water from various sources and rights.

As I indicated yesterday I had a phone conversation with Mrs. Rowles on 8/25 who is the protestant to 72-16624 and the one complaining to the Governor.

Review of records:

Christopher James Trust
In SRBA partial decrees for rights 72-106F, 72-109F, 72-10486A from Garden Creek for irrigation of 7.5 acres.
In SRBA right 72-4174A from Daugherty Spring to irrigate 4.0 acres.

First Fruits Foundation
In SRBA partial decrees for rights 72-106J, 72-109J, 72-10486C from Garden Creek and right 72-4174C from Daugherty Spring irrigate 13.2 acres.
In SRBA partial decree for right 72-106H from Garden Creek for 3.3 acres.
In SRBA partial decree of 72-16274 from spring for domestic use.

Application 72-7562 was made for groundwater domestic use...it was protested and a hearing was held. The application was proposed to be approved but the applicant withdrew the application. (Go figure?)

Application 72-16624 for artesian well drilled on nearby mine site that is currently unused. Protested by Rowles.
Application 72-16625 is for use of Garden Creek water for a fountain in a pond (Aesthetic). Protested by Keppner (Watermaster). Fountain exists in an old stock pond as part of one of the Garden Creek irrigation/stock rights.

***Note that the active records for rights from Daugherty Spring (72-4174 series are messed up and need work in workflow to properly record source and PD)

As far as the existing well currently being used or the older well reported to be contaminated I cannot find a water right record and believe they are unrecorded D&S use limited to 13,000 GPD. There are two drilling records for wells...one drilled in 1994 and one in 1997. I suspect these may be the wells.

State of Idaho
DEPARTMENT OF WATER RESOURCES
1301 North Orchard Street, Boise, ID 83706 - P.O. Box 83720, Boise, ID 83720-0098
Phone: (208) 327-7900 Fax: (208) 327-7866 Web Site: www.idwr.state.id.us

DIRK KEMPTHORNE
Governor

KARL J. DREHER
Director

RECEIVED
AUG 29 2003
Department of Water Resources
Southern Region

August 27, 2003

Bonnie Rowles
P. O. Box 1087
Challis, ID 83226

Re: Ground Water Supplies in Garden Creek Valley

Dear Ms. Rowles:

Governor Kempthorne asked that I contact you in response to your letter to him dated July 22, 2003 (received by the Department of Water Resources on August 14, 2003). To further identify your concerns, I had one of my employees (Dick Larsen) call you directly. I have also been briefed concerning your contacts with the Department's regional office in Twin Falls.

My understanding is that your concerns primarily involve water quality issues. However, I understand that you are also specifically concerned that the Living Waters Ranch Conference and Retreat Center may be exceeding the limitations on use of ground water pursuant to its water right (water right no. 72-16274). SP-ILS.

Under its water right, Living Waters Ranch is authorized to divert and consume up to 13,000 gallons per day for domestic purposes. Living Waters Ranch does have suitable measuring devices on both the well currently being used and on its wastewater system. These measurements show that Living Waters Ranch diverts approximately 6,000 gallons of ground water on average per day, most of which is not consumed but returned to Garden Creek or the aquifer through the Living Waters Ranch septic system. Average diversion rates are used by the Department to regulate water use throughout the State of Idaho unless an instantaneous rate above the authorized diversion rate causes injury to another water right. With tens of thousands of wells across the state, monitoring the instantaneous rates of diversion on an every day basis is not an efficient use of available resources. To confirm that Living Waters Ranch is not exceeding use of water under its right, my employee located in Salmon has completed a field investigation and is preparing a memorandum setting forth his findings.

Regarding your concern about the overall water supply in the Garden Creek watershed, a summary review of the available data does not indicate a current problem with supply. However, I will have my hydrology staff continue to monitor ground water levels throughout the watershed.

Sincerely,

Karl J. Dreher
Director

Samantha Pisca – Office of Governor Kempthorne
First Fruits Foundation (Living Water Ranch)
Allan Merritt

State of Idaho
DEPARTMENT OF WATER RESOURCES
1391 North Orchard Street, P.O. Box 83729, Boise, Idaho 83729-0098
Phone (208) 327-7900 FAX: (208) 327-7866

DIRK KEMPTHORNE
GOVERNOR

KARL J. DREHER
DIRECTOR

To:	Allen Merritt	**Fax:**	(208) 736-3037
From:	Victoria Wigle, Director's Assistant	**Date:**	August 26, 2003
Re:		**Pages:**	7 (including cover sheet)
CC:			

☐ Urgent ☐ For Review ☐ Please Comment ☐ Please Reply ☐ Please Recycle

COMMENTS:

Allen,

Karl asks that you look into this constituent's request and investigate the matter. In particular, look at the Living Waters Ranch Conference and Retreat Center in Challis. Dick Larsen has called and spoke with Ms. Rowles, and his notes are on the last page her letter. If you have any questions, please call.

Victoria

RECEIVED
AUG 14 2003
Department of Water Resources

DIRK KEMPTHORNE
GOVERNOR

Constituent Tracking Slip

August 13, 2003

ISSUE	Water Resources, Garden Valley Aquifer	**CID:**	26141
		Date Received:	8/7/03
		Received in:	letter
SENT TO	**Karl Dreher**	**DUE DATE:**	9/8/03
ACTION	Please review and respond directly to constituent. Please send a copy of response to the Governor's office in care of Samantha Pisca.		
CONSTITUENT	**Name**	Bonnie Rowles	
	Address	PO Box 1087 Challis, ID 83226	**Organization:**
	Phone	208/ 879-5084	
	E-mail		
FROM	**Samantha Pisca, Policy Assistant** spisca@gov.state.id.us **334-2100**		
NOTES:			

Bonnie Rowles
P.O. Box 1087
Challis, Idaho 83226
208-879-5084 Day
208-879-5021 Evening

July 22, 2003

State of Idaho
Governor Dirk Kempthorne
700 West Jefferson, 2nd Floor
P.O. Box 83720
Boise, Idaho

Governor Kempthorne:

Living in a small rural community we face many challenges. One of the challenges we are facing in The City of Challis is the protection of the Garden Creek Aquifer.

Garden Creek originates near Buster Lake at an elevation of about 9020 feet above MSL, and flows generally in an easterly or northeasterly direction until its confluence with the Salmon River approximately 2 miles east of the Challis. The creek flows through the City of Challis, and is used by the city for a portion of its water supply. Diverted surface water flows from the creek through sand filters, is chlorinated, and then flows into the city distribution system.

Recent development in the Garden Creek valley, in particular Living Waters Ranch Conference and Retreat Center, have prompted questions about the capacity of the local aquifer to support uses other than low-density residential units.

The City of Challis had a hydrogeologic analysis of the water supply done by Idaho Water Resources Research Institute February 2003. The city also has a copy of a 1999 Hydrologic Investigation of the Garden Creek Watershed and Aquifer done by Brockway Engineering P.L.L.C.

Recommendations were made that The City of Challis should monitor upstream water use in order to assess potential sources of contamination or

infringement on their water right. The reports also stated Garden Creek Valley Aquifer was not suitable for high demand uses. New upstream water use within the Garden Creek drainage will likely impact Challis.

It is the responsibility of the City of Challis to develop a source water protection program to ensure water quality and protect valuable water supply resources.

It is the Custer County Commissioners' responsibility to work with The City of Challis to implement planning and zoning that leads us in the right direction.

Once a Building is connected to water and sewer it becomes the responsibility of The District Health Department, Idaho Department of Water Resources and Idaho Department of Environmental Quality to make sure all Idaho Statutes, Permits and State regulations are followed.

As a member of this community it is my responsibility to work with city and county official to maintain the quality of life we enjoy in Challis.

I have volunteered to help the City of Challis develop a Source Water Protection Plan.

The Custer County Commissioners are working on planning and zoning.

After extensive research and hours of phone calls, I feel District Seven Health Department, Idaho Department of Water Resources and Idaho Department of Environmental Quality are not doing their best to protect human health and preserve the quality of the water for use and enjoyment today and in the future for The City of Challis..

As Governor of the State of Idaho, I feel it is your responsibility to make sure your departments are following procedures set by the State Of Idaho.

Sincerely,

Bonnie Rowles

Enclosures

Living Waters Retreat

Cc: City of Challis
Custer County Commissioners

Gary Skinner

1. Domestic water right .04 Domestic w/condit

Mayor's Letter

1. Using more than his allowance under the domestic right
2. No measuring Device, but promises to get them
   Water use exceeds permit but not metering
3. Feels not meeting the conditions of his water right.

Additional building being connected to water systems.

IDAHO DEPARTMENT OF WATER RESOURCES

Water Right Report 72-16274

WATER RIGHT NUMBER: 72-16274

Owner Type	Name and Address
Current Owner	FIRST FRUITS FOUNDATION PO BOX 1190 CHALLIS, ID 83226 (208)879-2729
Original Owner	CHRISTOPHER W JAMES TRUST CHRISTOPHER JAMES TRUSTEE PO BOX 510 CHALLIS, ID 83226 (208)879-4560

Priority Date: 08/01/1965

Basis: Decreed

Status: Active

Source	Tributary
SPRING	GARDEN CREEK

Beneficial Use	From To	Diversion Rate	Annual Volume
DOMESTIC	1/01 to 12/31	0.040 CFS	
	Total Diversion:	0.040 CFS	

Location of Point(s) of Diversion

SPRING NE1/4SE1/4NW1/4 Sec. 2, Twp 13N, Rge 18E, B.M.

CUSTER County

Place of Use

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	
13N	18E	2					X												
							L 3												

Conditions of Approval:

1. N11 THE QUANTITY OF WATER DECREED FOR THIS WATER RIGHT IS NOT A DETERMINATION OF HISTORICAL BENEFICIAL USE.
2. N13 THE QUANTITY OF WATER UNDER THIS RIGHT SHALL NOT EXCEED 13,000 GALLONS PER DAY.

Remarks:

1. Explanatory DOMESTIC USE IS: TWO CABINS, ONE SHOWER HOUSE AND LAWN

IDAHO DEPARTMENT OF WATER RESOURCES

Water Right Report 72-16274

Comments:

1. CHRISTEN 2/16/1994 COPIED FROM REMARKS
Comment: PRIORITY DATE AMENDED ON 2-4-94. KKC

2. KCHRISTE 8/19/1994 OWNERSHIP CHANGE
Comment: CHRISTOPHER JAMES PLACED THE PROPERTY RELATING TO THIS USE INTO THE TRUST WITH HIMSELF AS TRUSTEE. OWNERSHIP CHANGED ON 8-19-94. KKC

Dates and Other Information:

Licensed Date:
Decreed Date: 10/3/1997
Water Supply Bank Enrollment Accepted:
Water Supply Bank Enrollment Removed:
Enlargement Use Priority Date:
Enlargement Statute Priority Date:
State or Federal: S
Owner Name Connector:
Water District Number:
Generic Max Rate Per Acre:
Generic Max Volume Per Acre:
Decree Defendant:
Decree Plaintiff:
Civil Case Number: 39576
Judicial District: FIFTH
Swan Falls Trust or Nontrust:
Swan Falls Dismissed:
DLE Act Number:
Carey Act Number:
Mitigation Plan: False

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Department of Water Resources
Southern Region

Living Waters Ranch
Phase 1 Wastewater System – 2002

Jan 02	Pump #1	14600 – 14372 =	228 min
	Pump #2	17136 – 16891 =	245 min
	(1/5 – 2/2) 29 Days		473 min @ 41 gpm = 19,393 gal
			668 gpd
Feb 02	Pump #1	14875 – 14600 =	275 min
	Pump #2	17427- 17136 =	291 min
	(2/2 – 2/28) 26 Days		566 min @ 41 gpm = 23,206 gal
			892 gpd
March 02	Pump #1	15543 –14875 =	668 min
and	Pump #2	18063 – 17427 =	636 min
April 02	(2/28 – 4/29) 61 Days		1,304 min @ 41 gpm = 53,464 gal
			876 gpd
May 02	Pump #1	16310 – 15543 =	767 min
	Pump #2	18799 – 18063 =	736 min
	(4/29 – 5/27) 28 Days		1,503 min. @ 41 gpm = 61,623 gal
			2,200 gpd
June 02	Pump #1	17380 – 16310 =	1,070 min
	Pump #2	19881 – 18799 =	1,082 min
	(5/27 – 6/28) 31 Days		2,152 min @ 41 gpm = 88,232 gal
			2,846 gpd
July 02	Pump #1	18706 – 17380 =	1,326 min
	Pump #2	21174 – 19881 =	1,293 min
	(6/28 – 7/29) 31 Days		2,619 min @ 41 gpm = 107,379 gal
			3,463 gpd
Aug 02	Pump #1	19344 – 18706 =	638 min
	Pump #2	21814 – 21174 =	640 min
	(7/29 – 8/30) 31 Days		1,278 min @ 41gpm = 52,398 gal
			1,690 gpd

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Department of Water Resources
Southern Region

Sept. 02	Pump #1	20070 – 19344 =	726 min
	Pump #2	22582 – 21841 =	741 min
	(8/30 – 9/30) 31 Days		1,467 min @41 gpm = 60,147 gal
			1,940 gpd
Oct 02	Pump #1	20809 – 20070 =	739 min
	Pump #2	23345 – 22582 =	763 min
	(9/30 – 11/1) 33 Days		1,502 min @ 41 gpm = 61,582 gal
			1,924 gpd
Nov 02	Pump #1	21343 – 20809 =	534 min
	Pump #2	23862 – 23345 =	517 min
	(11/1 – 11/25) 24 Days		1,051 min @ 41gpm = 43,091 gal
			1,795 gpd
Dec 02	Pump #1	21617 – 21343 =	274 min
	Pump #2	24141 – 23862 =	279 min
	(11/25 – 12/30) 35 Days		553 min @ 41gpm = 22,673 gal
			647 gpd

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Department of Water Resources
Southern Region

Living Waters Ranch
Phase I Sewer System Log

DATE 2003	EVENT COUNTER	ELAPSED TIME METER	HIGH LEVEL ALARM	INIT.	COMMENTS
	1. 001299	0016310			
5/27	2. 001336	0018799	000074	WK	
	1. 001303	0016369			
6/3	2. 001340	0018853	000082	WK	
	1. 001324	0016373			
6/17	2. 001342	0018859	000082	WK	
	1. 001315	0016536			
6/10	2. 001353	0019022	000082	WK	
	1. 001341	0016907			
6/18	2. 001378	0019394	000082	WK	
	1. 001256	0017055			
6/24	2. 001338	0019540	000082	WK	
	1. 001360	0017188			
6/24	2. 001397	0019673	000082	WK	
	1. 001373	0017380			
6/28	2. 001411	0019881	000082	WK	
	1. 001382	0017514			
7/1	2. 001419	0019999	000082	WK	
	1. 001393	0017677			
7/8	2. 001431	0020168	000082	WK	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
	1. 001415	0018002			
7/15	2. 001452	0020479	000082	WK	
	1. 001437	0018328			
7/22	2. 001474	0020805	000082	WK	
	1. 001452	0018617			Lot of water run in and pumped out for test - Night before
7/26	2. 001488	0021089	000082	WK	
	1. 001458	0018706			
7/29	2. 001494	0021174	000082	WK	
	1. 001468	0018854			
8/2	2. 001503	0021307	000082	WK	
	1. 001475	0018957			
8/5	2. 001511	0021425	000082	WK	
	1. 001479	0019007			
8/9	2. 001514	0021461	000082	WK	

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Department of Water Resources
Southern Region

Living Waters Ranch
Phase I Sewer System Log

DATE 2002	EVENT COUNTER	ELAPSED TIME METER	HIGH LEVEL ALARM	INIT.	COMMENTS
10/16	1: 001594	0020625			
	2: 001628	0023124	000082	WIC	
10/21	1: 001597	0020662			
	2: 001631	0023168	000082	WIC	
10/25	1: 001601	0020711			
	2: 001635	0023228	000082	WIC	
11/1	1: 001608	0020809			
	2: 001643	0023345	000082	WIC	
11/4	1: 001611	0020927			
	2: 001651	0023460	000082	WIC	
11/8	1: 001618	0020957			
	2: 001653	0023481	000082	WIC	
11/11	1: 001621	0021001			
	2: 001655	0023511	000082	WIC	
11/18	1: 001631	0021149			
	2: 001665	0023656	000082	WIC	
11/25	1: 001644	0021343			
	2: 001678	0023862	000082	WIC	
12/2	1: 001649	0021409			
	2: 001684	0023927	000082	WIC	
12/9	1: 001652	0021450			
	2: 001686	0023957	000082	WIC	
12/11	1: 001654	0021480			
	2: 001689	0023992	000082	WIC	
12/23	1: 001660	0021551			
	2: 001694	0024066	000082	WIC	
12/30	1: 001665	0021617			
	2: 001699	0024141	000082	WIC	
	1:				
	2:				
	1:				
	2:				
	1:				
	2:				
	1:				
	2:				

1 of 2 for 2002

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AUG 12 2003

Department of Water Resources
Southern Region

Living Waters Ranch
Phase I Sewer System Log

DATE 2002	EVENT COUNTER	ELAPSED TIME METER	HIGH LEVEL ALARM	INIT.	COMMENTS
1/17	1. 001134 2. 001139	0014372 0016891	000059	R.B.	
1/21	1. 001177 2. 001169	0014510 0017056	000064	RB	
2/21	1. 001183 2. 001175	0014600 0017136	000064	RB	
2/19	1. 001226 2. 000170	0015256 0000233	000064	RB	
2/26	1. 001200 2. 001191	0014830 0018885	000064	RB	
2/28	1. 001231 2. 001195	0018879 0017427	000064	RB	
3/4	1. 001211 2. 001203	0014976 0017544	000064	RB	
4/8	1. 001234 2. 001224	0015292 0017839	000064	WK	(NEW EMPLOYEE)
4/22	1. 001241 2. 001230	0015394 0017928	000064	WK	
4/26	1. 001242 2. 001231	0015408 0017943	000064	WK	
4/29	1. 001251 2. 001239	0015543 0018063	000064	WK	
5/3	1. 001256 2. 001245	0015678 0018151	000064	WK	
5/6	1. 001264 2. 001253	0015738 0018270	000064	WK	
5/9	1. 001266 2. 001254	0015770 0018285	000064	WK	
5/13	1. 001276 2. 001267	0015970 0018478	000064	WK	
5/16	1. 001293 2. 001277	0016074 0018553	000064	WK	
5/20	1. 001292 2. 001282	0016209 0018692	000064	WK	
5/24	1. 001296 2. 001333	0016265 0018758	000074	WK	

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Department of Water Resources
Southern Region

2 of 2

Living Waters Ranch
Phase I Sewer System Log

DATE 2002	EVENT COUNTER	ELAPSED TIME METER	HIGH LEVEL ALARM	INIT.	COMMENTS
8/12	1. 001481	0019036			
	2. 001517	0021501	000082	WK	
8/15	1. 001484	0019081			
	2. 001520	0021537	000082	WK.	
8/19	1. 001493	0019205			
	2. 001528	0021656	000082	WK	
8/26	1. 001499	0019283			
	2. 001534	0021745	000082	WK	
8/30	1. 001504	0019344			
	2. 001539	0021814	000082	WK	
9/2	1. 001507	0019389			
	2. 001543	0021871	000082	WK	
9/6	1. 001512	0019463			
	2. 001548	0021945	000082	WK.	
9/9	1. 001519	0019561			
	2. 001553	0022019	000082	WK.	
9/13	1. 001525	0019684			
	2. 001562	0022153	000082	WK.	
9/16	1. 001536	0019795			
	2. 001570	0022271	000082	WK	
9/20	1. 001539	0019827			
	2. 001573	0022316	000082	WK	
9/23	1. 001545	0019916			
	2. 001579	0022404	000082	WK.	
9/27	1. 001542	0019932			
	2. 001581	0022434	000082	WK.	
9/30	1. 001556	0020070			
	2. 001591	0022582	000082	WK.	
10/4	1. 001566	0020217			
	2. 001600	0022716	000082	WK.	
10/9	1. 001578	0020395			
	2. 001613	0022909	000082	WK	
10/11	1. 001579	0020409			
	2. 001614	0022916	000082	WK	
10/14	1. 001586	0020513			
	2. 001621	0023020	000082	WK	

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MAR 0 5 2004
Department of Water Resources

Idaho Department of Water Resources Meeting March 1, 2004

Regarding: Water Right Application # 72-16624

The application was made by Firstfruits Foundation, the owner of the land and the water rights. Firstfruits Foundation leases the property and its water rights to Living Waters Ranch, Inc. For the sake of clarification when Living Waters Ranch is mentioned in the following, it also is inclusive of Firstfruits Foundation.

The purpose of Firstfruits Foundation / LWR in applying for this water right is to transfer the use to its allowed 13,000 gpd as allowed by state law. The quality of the water is more than suspect. For the last couple of seasons LWR has had to treat its water for the 2 lean summer months. With increased water use, a small water treatment unit will need to be added. As a solution, the artesian well source will provide both the quality and the quantity of water to meet the needs of LWR.

1. Will the proposed appropriation injure other water rights?

Living Waters Ranch (LWR) currently uses Well #2 as its water supply. Its average daily use is approximately 6,000 gpd, while LWR is allowed by state law to use 13,000 gpd. Please see Attachment #1. When the proposed pipeline from the artesian well is completed, LWR will abandon Well #2. Currently, the artesian well is spilling on the ground 14,000 gpd. That spillage would cease with the overage being kept in the aquifer. The effect to local water rights is miniscule. An argument can be made that they are improved by the 7,000 gpd that are not being spilt on the ground. For the water rights downstream there is no change. Approximately 60% to 70% of the water used is returned to the aquifer through LWR's leach fields.

Please see Attachment#2, which speaks of LWR's 6,000 gpd current usage as compared to Garden Creek's flow of 3,200,000 gpd. That works out to about 2/10 of 1% of its flow. Our use is insignificant.

2. Is the water supply sufficient for the purpose for which it is sought to be appropriated?

The artesian well currently flows at a rate slightly above the maximum rate allowed for LWR's use. LWR's state allowed use is 13,000 gpd. The artesian well is currently pouring out more than 10 gpm, which computes to 14,400 gpd.

3. Was the application made in good faith or for delay or speculative purposes?

This application was made in good faith. At approximately the same time last November, LWR made application with the BLM for a permit to transport the water to the ranch. LWR also activated electric service to the site and solicited bids for construction.

4. Does the applicant have sufficient financial resources with which to complete the proposed project?

Please see Attachment #3, which shows a balance of $169,303.06 in its Wells Fargo Savings account. Firstfruits Foundation has additional accounts.

Department of Water Resources
APPLICANT'S
Exhibit 4 Letter
Date Admitted 4/6/04

applicant's
Exhibits

5. Is the proposed appropriation in the local public interest, which is defined as the affairs of the people in the area directly affected by the proposed use?

DEQ and District 7 Health have strongly suggested that LWR secures a better drinking water source than the shallow 63' Well #2. Over the last 2 years LWR has had to treat our water to keep it within the Public Water Supply requirements. (See Attachment #4)

The neighbors just west or above the ranch are the Klefmans. Wayne is employed year round, while his wife, Sharlene, is employed full time during the season. The ranch's total expenses are slightly above $300,000. The majority of those monies are spent locally. Its payroll is in excess of $125,000. LWR employed this last year 22 people. LWR contributes much to the economy of the community. LWR had more than 3,000 visitors this last year. They spend money coming and going. The merchants, the golf course, gas stations, the markets, the Hot Springs and businesses benefit from our guests.

Many of LWR and its staff make considerable contributions of time, talent, and money to the community. Such contributions are Challis Volunteer Ambulance Service, North Custer Hospital District board, Challis Assisted Living Facility, Challis Arts Council, North Custer Historical Society, Challis Volunteer Fire Department, District 181 School Board, Custer Assembly of God, Calvary Outreach, and much more.

6. Is the proposed use contrary to conservation of water resources within the state of Idaho?

LWR is not proposing an increase to our allowed 13,000 gpd. LWR proposes a new source of its allowed (implied) water right.

Furthermore, LWR has approximately 4,000 feet on Garden Creek. Let's convert that to 10 ranchettes having 400 feet of creek frontage. Each ranchette would be allowed a maximum of 5,000 gpd. Instead of potentially having a maximum usage of 50,000 gpd (10 x 5,000 gpd), LWR has a maximum usage of 13,000 gpd.

Please see Attachment #2 for my letter in response to Mr. Yeo's protest. I addressed the % of water LWR was currently using to the whole flow of Garden Creek. It worked out to less than 2/10th of 1% and please remember that approximately 60% to 70% of our water use is returned to the aquifer through LWR's excellent septic and leach system.

In conclusion, I believe that LWR request for the water right on the Artesian Well will benefit the ranch's quality and quantity of water. This, in turn, will benefit the community by insuring the jobs and economic base that LWR provides.

Yours truly,

Christopher W. James

Christopher W. James, trustee of Firstfruits Foundation and president of LWR, Inc.

RECEIVED
APR 14 2004
Department of Water Resources

Living Waters Ranch
Well #2 Meter Reading –2004

Date	End	Start	Gal/Mth	Days	Gal/Day
Jan 2004	10,634,410 –	10,474,910 =	159,500	31	5,145
Feb 2004	10,854,350 –	10,634,410 =	219,940	28	7,855
March 2004	11,073,110 –	10,854,350 =	218,760	31	7,056

Attachment 1

Living Waters Ranch
Well #2 Meter Reading – 2003

Date	End	Start	Gal/mth	Days	Gal/day
Jan 2003	8478320	– 8329550 =	148,770	31 =	4800
Feb 2003	8643160	- 8478320 =	164,840	28 =	5887
Mar 2003	8802950	- 8643160 =	159,790	31 =	5155
Apr 2003	8957150	- 8802950 =	154,200	30 =	5140
May 2003	9150310	- 8957150 =	193,160	31 =	6231
Jun 2003	9346000	- 9150310 =	195,690	30 =	6523
Jul 2003	9576560	- 9346000 =	208.680	31 =	6732
Aug 2003	9722790	- 9576560 =	146,230	31 =	4717
Sep 2003	9964970	- 9722790 =	242,180	30 =	8073
Oct 2003	10158660	- 9964970 =	252,350	31 =	8140
Nov 2003	10299070	– 10158660 =	140,410	30 =	4680
Dec 2003	10474910	- 10299070 =	175,850	31 =	5672

Department of Water Resources
APPLICANT'S
Exhibit
Attach. 1
Date Admitted 4/6/04

Living Waters Ranch
Well #2 Meter Readings – 2002

Jan 02	6679710 – 6543330 =	136,380 gal	
Feb 02	6791760 – 6679710 =	112,050 gal	
March 02	6833480 – 6791760 =	41,720 gal	
April 02	7032680 – 6833480 =	199,200 gal	
May 02	7191440 – 7032680 =	158,760 gal	
June 02	7355470 – 7191440 =	164,030 gal	
July 02	7531530 – 7355470 =	176,060 gal	5679 gpd
Aug 02	7682910 – 7531530 =	151,380 gal	
Sept 02	7837750 – 7682910 =	154,840 gal	
Oct 02	7984640 – 7837750 =	146,890 gal	
Nov 02	8157060 – 7984640 =	172,420 gal	
Dec 02	8329550 – 8157066 =	172,484 gal	
	Total	1,786,214 gal	

Living Waters Ranch
Well #2 Meter Readings – 2001

Jan 01	4887775 – 4784320 =	103,455 gal	
Feb 01	5028050 – 4887775 =	140,275 gal	
March 01	5171430 – 5028050 =	143,380 gal	
April 01	5344270 – 5171430 =	172,840 gal	
May 01	5474680 – 5344270 =	130,410 gal	
June 01	5627520 – 5474680 =	152,840 gal	
July 01	5825560 – 5627520 =	198,040 gal	6388 gpd
Aug 01	6011100 – 5825560 =	185,540 gal	
Sept 01	6137530 – 6011100 =	126,430 gal	
Oct 01	6270290 – 6137530 =	132,760 gal	
Nov 01	6432610 – 6270290 =	162,320 gal	
Dec 01	6543330 – 6432610 =	110,720 gal	
	Total	1,759,010 gal	

Attachment 2

Firstfruits Foundation
dba Living Waters Ranch
P O Box 510, Challis, ID 83226
208-879-4560, fax 879-4902, cell (IF) 339-4560

September 5, 2003

Karl Dreher, Director
Idaho Department of Water Resources
1301 N Orchard
Boise, ID 83706

Jim Stanton
Idaho Dept. of Water Resources
1341 Fillmore St, Suite 200
Twin Falls, ID 83301-3380

Regarding: Letter of Protest from Jeffrey J. Yeo, Dated 9/1/03

Dear Mr. Dreher and Mr. Stanton:

This letter is in response to Mr. Yeo's Protest dated 9/1/03. I will be following the outline of his letter and will address points he made, respectively.

The study that Charles Brockway prepared for Paris Almond spoke of the finite nature of the Garden Creek Aquifer. That is true. Mr. Brockway addressed the Garden Creek Annual Runoff; he measured its Flow; he computed Aquifer Runoff. He did not attempt to estimate the Total Amount of Water in the Aquifer. Both the Total Amount of Water in the Aquifer and the measurement of the creek's Flow are most important as to determining how much water there is in the drainage to support people, livestock, and its wildlife.

Mr. Brockway recorded flows on Garden Creek for 3 different dates from Sept 1998 to Jan 1999. I believe this is fairly representative of the creek for that time of the year. At the various measuring points he measures a low near 5 cfs to a high of 8 cfs. 5 cfs is equal to 2250 gpm or 3,240,000 gallons/day. At Living Waters Ranch we are still pumping less than 6,000 gpd when we are allowed 13,000 gpd. Our 6,000 gpd represents less than 2/10ths of 1% (6,000/3,240,000) of the lower recorded flow for Garden Creek.

Many studies have been done for equating the return of water back to the aquifer from leach fields. I am not sure of the exact figure. It most likely varies. If I remember correctly, 60% of the water going into a leach field passes through into the aquifer. If that is true, there is a 40% loss of water through evaporation. But how much of that water would have been evaporated naturally through its runoff and the various beaver ponds along the creek. Currently on Garden Creek there are beaver ponds that take up 2 to 3 acres. How much evaporation is lost through those beaver ponds? The point here is less than half of the water for human use is lost; the majority returns to the aquifer.

Department of Water Resources
APPLICATION
Attach. 2
Date Rec'd 4/6/04

A good question is how many people could Garden Creek support? The normal daily water usage for a person is 100 gpd. Let's divide the daily Flow by 100 gpd. That is 3,240,000 gallons divided by 100 gpd. Does that mean that Garden Creek could support 32,400 people? Those measurements were for the fall and winter after the first big freeze that forces the trees into hibernation. Right now in early September the creek flow is at the lowest of the year. I would guess the flow to be 2 ½ to 3 cfs. This would translate to half as many people (16,200) to use up all the flow. Of course, that would take all the water out of the creek. However, if 60% is returned to the aquifer (and the creek) through the leach fields, then there would probably be more than enough water for Challis and Round Valley.

My reasoning is likely flawed in some way, but the principle is correct. Personally, I do not advocate that the Garden Creek Drainage plan to accommodate over several thousand people. However, the point made is that our drainage could easily support more people. Curbs on development would serve only a small vocal number of isolationists.

One problem that our county has not faced is adopting state-mandated Planning and Zoning. This is to our shame. There has been a committee that has worked hard to develop a comprehensive plan. I do not know what has happened to that. I only know that nothing has been adopted.

In the third paragraph Mr. Yeo spoke of "Water being pumped continuously onto the ground from the well for weeks afterward." The water was not being pumped. It had been flowing freely for years since its abandonment in the early 1980s. Rex Berry did install an electric meter. The well was tested by Joe Chester for its capabilities. Joe also collared the old well head with a 1" line to move the **artesian** runoff away from the well head. I have done nothing illegal. Firstfruits Foundation and I own the Dougherty Spring water right that runs next to the artesian well. I own the mineral rights to the property in question and the old mine site. I believe I have not only a right to oversee and evaluate the property, but also a responsibility to do so.

For your interest I am enclosing 2 letters that suggest that LWR would be wise to secure a better water source than its 75' well. In summary, I believe the Protest is without merit and would appreciate your OK'ing the application for the water right.

Thank you very much.

Yours Truly,

Christopher W. James, Firstfruits Foundation, and Living Waters Ranch.

Enclosures: Letter from William Teuscher, Idaho Falls office of IDEQ, March 3, 2003; letter from Kellye Eager, District 7 Health dated 2/14/03
Cc: Jeffrey J Yeo

Attachment 3

WELLS FARGO

3,159

WELLS FARGO BANK NORTHWEST, N.A.
CUSTER COUNTY (CHALLIS)
P.O. BOX 6995
PORTLAND, OR 97228-6995

Account Number: 263-0286320
Statement End Date: 09/30/03

FIRSTFRUITS FOUNDATION
PO BOX 1190
CHALLIS ID 83226-1190

If you have any questions about this statement or your accounts, call: 800-225-5935 (1-800-CALL-WELLS).

Your Accounts at a Glance

Account Type	Beginning Balance	Deposits/ Credits	Withdrawals/ Debits	Ending Balance
Business Market Rate 263-0286320	169,226.54	76.52	0.00	169,303.06

News from Wells Fargo

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- ***Access credit when you need it***
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- ***Track expenses with quarterly management reports***
- ***Benefit from the optional BusinessMiles program and you will earn valuable points toward air travel, merchandise and gift certificates.***

Call 1-800-359-3557 extension 427 or visit wellsfargospecial.com and enter keyword: Bcard for more information on how a Wells Fargo Visa Business Card can help your business.

Business Market Rate 263-0286320

Firstfruits Foundation

Date	Transaction Detail	Deposits/ Credits	Withdrawals/ Debits	Ending Balance
Aug 31	Beginning Balance			169,226.54
Sep 30	Interest Payment	76.52		169,303.06
Sep 30	Ending Balance			169,303.06

Interest Summary

Annual Percentage Yield Earned this period	0.55%
Interest paid during this period	76.52
Interest earned for this statement period	76.51
Year-to-date interest and bonuses paid	621.23

Attach. 3 10
4/6/04

Continued on next page

Attachment 4a

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

900 North Skyline, Suite B • Idaho Falls, Idaho 83402-1718 • (208) 528-2650

Dirk Kempthorne, Governor
C. Stephen Allred, Director

March 3, 2003

Gloria Jakovak
BLM Land Specialist
South US 93 Highway
Salmon ID 83467

RE: Living Waters Ranch Public Water System

Dear Ms. Jakovak:

I have been asked to contact you by Mark Bryan, Manager of Living Water Ranch, about their request to run a water transmission line through BLM property. We support water systems like Living Waters Ranch to obtain the highest water quality source possible.

Living Waters Ranch has a history of contamination with its current water supply. Since being activated as a public water system in 1998, the system has had water quality issues and has been in violation.

Because the system must met drinking water standards set by the Environmental Protection Agency (EPA), we support the Living Waters Ranch efforts in securing an easement for the water transmission line to better their public water supply.

Please contact our office if you have any question (208) 528-2650.

Sincerely,

William Teuscher PE
DEQ IFRO

Cc: Richard Horne/Kellye Eager D7H IF.
Christopher James, President- Living Waters Ranch PO Box 510 Challis, ID 83226
Mark Bryan, Manager- Living Waters Ranch

BLM LIVING WATERS RANCH COOR.

Department of Water Resources
APPLICANT'S
Attach 4a
Date Admitted 4/6/04

Attachment 46

DISTRICT SEVEN HEALTH DEPARTMENT

PROMOTING THE HEALTH OF PEOPLE AND THEIR ENVIRONMENT

Main Office
254 E Street
Idaho Falls, ID 83402-3597
Phone (208) 522-0310
Fax (208) 525-7063

February 14, 2003

Gloria Jakovak
BLM Land Specialist
South US 93 Highway
Salmon, ID 83467

RE: Living Waters Ranch Public Water System

Dear Ms. Jakovak:

I have been asked to contact you by Mark Bryan, Manager of Living Water Ranch, about their request to run a water transmission line through BLM property. We support water systems like Living Waters Ranch to obtain the highest water quality source possible.

Living Waters Ranch has a history of contamination with its current water supply. Since being activated as a public water system in 1998, the system has accrued seven Maximum Contaminant Level (MCL) violations due to bacteriological contamination.

Because the system must met drinking water standards set by the Environmental Protection Agency (EPA), we support the Living Waters Ranch efforts in securing an easement for the water transmission line to better their public water supply.

Our file for the system is open for public review. Please contact our office for record assistance or if you have any questions. The number is (208) 523-5382.

Sincerely,

Kellye Eager
REHS

Cc: Richard Horne, Environmental Health Director
Willie Teuscher, DEQ- Idaho Falls
Christopher James, President- Living Waters Ranch
Mark Bryan, Manager- Living Waters Ranch

Department of Water Resources
APPLICANT'S
Exhibit Attach. 46
Date Admitted 4/6/04

Att #5

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

SOUTHERN REGION

DIRK KEMPTHORNE
Governor
KARL J. DREHER
Director

May 29, 2002

Catherine Becker, Mayor
City of Challis
PO Box 587
211 Main Street
Challis, ID 83226

EXHIBIT
Attach. 5 AP
Date Admitted 4/6/04

Dear Ms. Becker:

You recently contacted the Department regarding the development of Living Waters Ranch and possible impacts on the water supply for the City of Challis. The Department has reviewed the Living Waters Ranch development in the past, and would like to make the following comments for your consideration.

Several more some under First Fruits Foundation some under Christopher James

Irrigation water for the Living Waters Ranch development is provided by water diverted from Garden Creek. Decreed water rights 72-106J, 72-109J, and 72-10486C authorize the diversion of water from Garden Creek for irrigation of approximately 13.2 acres of land. I have included proof reports of these water rights for your reference. These decreed rights have been used to irrigate the property prior to the development of the Living Waters Ranch for many years.

Groundwater diverted from two wells on the property provides culinary water for the development. A 35,000 gallon elevated water storage tank is part of the groundwater distribution system and is used to stabilize fluctuating water demands and provide water for fire protection. There are no recorded water rights for the use of groundwater from these two wells. However, Idaho water law allows for the diversion and use of groundwater without a recorded water right if the diversion and use of water falls within the "domestic use" limitations of §42-111, IDAHO CODE. I have included a copy of this section of code for your reference. Please note that "Part A" of §42-111, IDAHO CODE, allows for the diversion and use of up 13,000 gallons of water per day for "organization camps".

It should also be noted that Living Waters Ranch filed an Application for Permit, 72-7562, on July 30, 1998. This application was for the diversion of 0.40 cfs of groundwater from a new well to be drilled on the property for year round "domestic uses". Information in the file indicates that the existing two wells at the development provide sufficient volume for ultimate buildout, but additional instantaneous diversion capacity is desired to meet peak water use demands and fire protection needs. The application had been approved by preliminary order, but further action regarding this permit was halted due to the implementation of the moratorium resulting from the Supreme Court ruling regarding the Federal Government's water rights in the wilderness areas.

Examination of past water use reports for the Living Waters Ranch revealed that in the summer months, groundwater use has averaged between 13.5 and 18.0 gallons per camper per day. While the number of campers that visit the development more than likely varies from week to week throughout the year, using the 13.5 and 18.0 gallons per camper per day averages, and a maximum authorized groundwater diversion per day of 13,000 gallons, the wells could legally provide water for anywhere from 720 to 960 campers in a single day. In addition, if the water storage tank is utilized to provide water for peak demands, it could be possible that the development could provide water for even more campers and still be diverting less than the 13,000 gallons per day of groundwater allowed by §42-111, IDAHO CODE. While the use of groundwater at the Living Waters Ranch has more than likely increased over historical groundwater use amounts on the property, the diversion and use of groundwater appears to fall well within the amounts that are allowed by §42-111, IDAHO CODE.

Department records indicate that the groundwater and surface water in the Garden Creek drainage upstream from Challis are hydraulically connected. This means that water use from Garden Creek could potentially affect groundwater in the drainage and groundwater use in the drainage could potentially affect Garden Creek flows. Garden Creek gains water from the aquifer in some reaches and loses water to the aquifer in other reaches.

As previously mentioned, water from Garden Creek is used to irrigate the Living Waters Ranch property and was used to irrigate the property prior to the Living Waters Ranch development for many years. As the Living Waters Ranch has been developed, historically irrigated ground on the property has been removed from irrigation due to the construction of buildings, driveways, etc. This has resulted in a decrease in the actual amount of irrigated acres on the property. It could be possible that the reduction in irrigated acres from historical amounts has resulted in less water loss from the Garden Creek drainage as compared to historical levels prior to the Living Waters Ranch development. So while, the use of groundwater may have increased (but still within legal limits), the use of Garden Creek water may have decreased, which may result in a less dramatic affect, if any, on the Garden Creek drainage.

Examination of Department records indicates that there are several wells located within the Garden Creek drainage between the City of Challis and the Living Waters Ranch development. Unfortunately, there is not a lot of information regarding the annual diversion and use of water from these other wells within the Garden Creek drainage. Due to past Department investigations regarding the Living Waters Ranch development, we have some records for groundwater use at that particular development.

In summary, the water use at the Living Waters Ranch development appears to be in compliance with Idaho water law. Possible impacts, if any, the development may have upon the City of Challis water supply will be difficult to determine without doing an extensive hydrological analysis of the entire Garden Creek drainage. This analysis may have to include investigation of weather and runoff events in the drainage, geological analysis of the drainage and underlying aquifer, analysis of all diversions from and all uses of Garden Creek and ground water in the basin, including extensive research and field investigations.

You indicated in your letter that the City of Challis is in the process of obtaining a geological/hydrogeological study of the area. The Department has records that may be helpful as a starting point in the analysis including water right records and well logs that are available if needed.

If you have any questions, or if we can be of any further assistance, feel free to contact our office at your convenience.

Sincerely,

Corey Skinner, PE
Water Rexource Engineer

Enclosures

June 2003 2,220 gallons for the month
2 Adults ÷30 days = 74 gpd
37 gpd per person

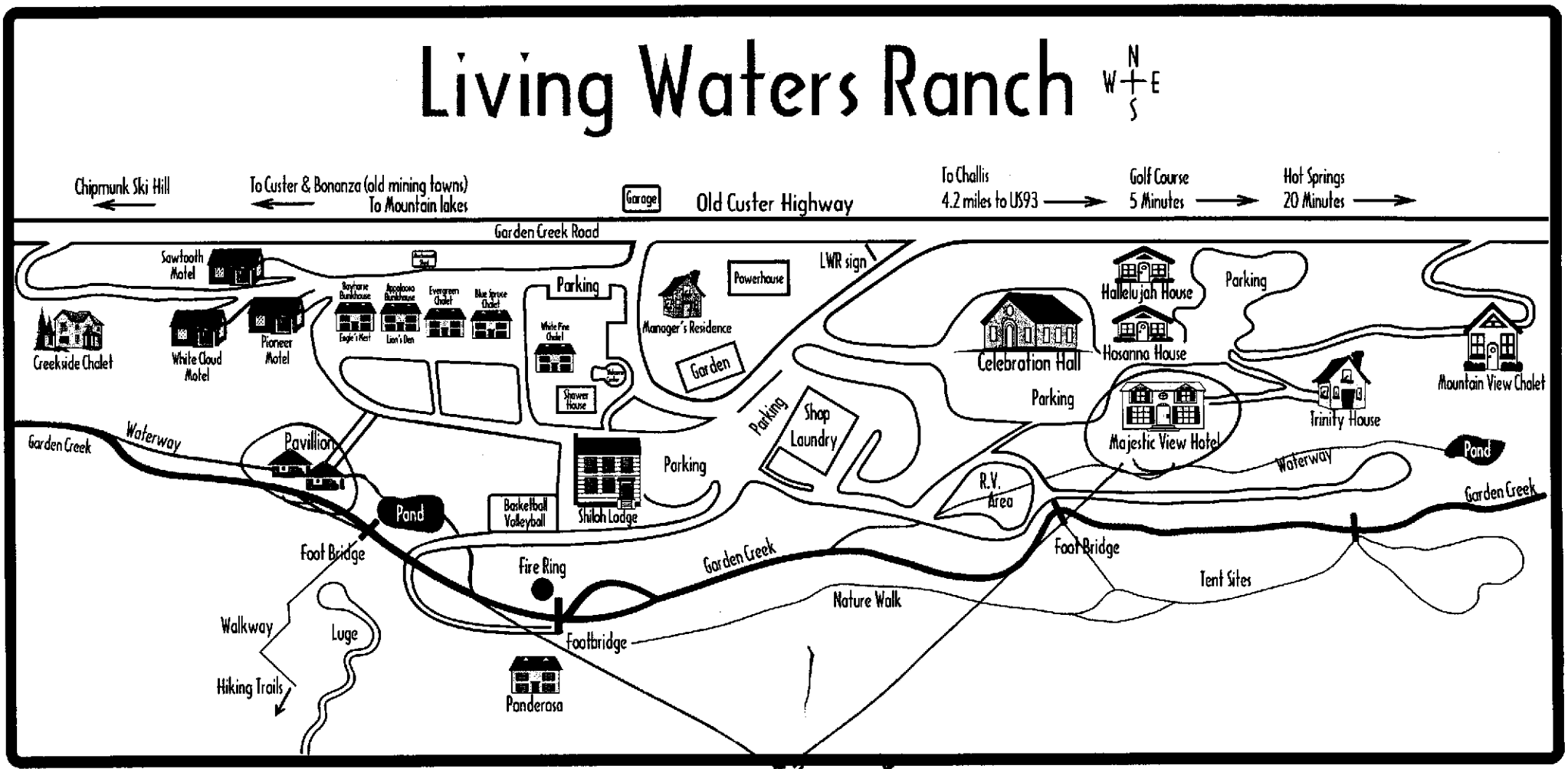
37 x 720 26,640 = 13,640 gpd over

37 x 351 people = 12,987 gpd
May people staying
37. Very conservative figures

AH #6

Living Waters Ranch

N W E S



not found

Attach 6

4/6/04

Idaho Department of Water Resources Meeting March 1, 2004

Regarding: Water Right Application # 72-16625

The application was made by Firstfruits Foundation, the owner of the land and the water rights. Firstfruits Foundation leases the property and its water rights to Living Waters Ranch, Inc. For the sake of clarification when Living Waters Ranch is mentioned in the following, it also is inclusive of Firstfruits Foundation.

The request of the water right was to put water into an old waste water pond that has been reconditioned to make the grounds more attractive. The old waste water pond has been there for more than 25 years.

1. Will the proposed appropriation injure other water rights?

   By running water from the old northern diversion into the pond, it will add approximately 3,000sq.ft. of surface to the natural creek bed area. There will be a minimal amount of evaporation loss.

   One to one and half miles below the pond on a neighbor's property, a number of beavers have constructed ponds that cause 50 to 100 times more evaporation than LWR's proposed pond.

2. Is the water supply sufficient for the purpose for which it is sought to be appropriated?

   Yes, it is.

3. Was the application made in good faith or for delay or speculative purposes?

   This application was made in good faith. To prove the minimal loss of water, LWR went to the effort of building a weir below the waterfall coming from the pond.

4. Does the applicant have sufficient financial resources with which to complete the proposed project?

   Please see Attachment #1, which shows a balance of $169,303.06 in its Wells Fargo Savings account.

Department of Water Resources
APPLICANT'S
Exhibit 2. letter
Date Admitted 4/6/04

5. Is the proposed appropriation in the local public interest, which is defined as the affairs of the people in the area directly affected by the proposed use?

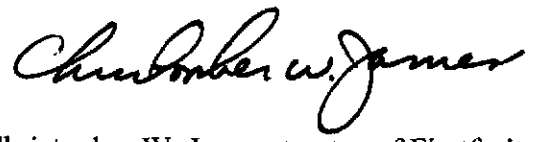
LWR served more than 3,000 guests this last year. Not only those staying at LWR were blessed by the pond, but also many people from town. This last year LWR gratuitously sponsored a fund-raising dinner for the CALF. LWR hosted 2 funerals. This year and last year LWR hosted the EMT Appreciation Dinner. All those using the facility were blessed by the pleasant and attractive landscaping.

6. Is the proposed use contrary to conservation of water resources within the state of Idaho?

No, I do not believe so.

In conclusion, I believe that LWR request for the water right for the pond will benefit the ranch's beauty. This, in turn, will benefit the community by drawing more people to the community to support economic base.

Yours truly,



Christopher W. James, trustee of Firstfruits Foundation and president of LWR, Inc.

3,159

WELLS FARGO BANK NORTHWEST, N.A.
CUSTER COUNTY (CHALLIS)
P.O. BOX 6995
PORTLAND, OR 97228-6995

Account Number: 263-0286320
Statement End Date: 09/30/03

Attachment 1

FIRSTFRUITS FOUNDATION
PO BOX 1190
CHALLIS ID 83226-1190

If you have any questions about this statement or your accounts, call: 800-225-5935 (1-800-CALL-WELLS).

Your Accounts at a Glance

Account Type	Beginning Balance	Deposits/ Credits	Withdrawals/ Debits	Ending Balance
Business Market Rate 263-0286320	169,226.54	76.52	0.00	169,303.06

News from Wells Fargo

The Wells Fargo Visa Business Card is a convenient source of credit that gives your business the control and flexibility you need. Your Wells Fargo(R) Business Card gives you:

- ***Access credit when you need it***
- ***Get cash from over 800,000 ATMs worldwide***
- ***Control how much credit is authorized for each employee***
- ***Track expenses with quarterly management reports***
- ***Benefit from the optional BusinessMiles program and you will earn valuable points toward air travel, merchandise and gift certificates.***

Call 1-800-359-3557 extension 427 or visit wellsfargospecial.com and enter keyword: Bcard for more information on how a Wells Fargo Visa Business Card can help your business.

Business Market Rate 263-0286320

Firstfruits Foundation

Date	Transaction Detail	Deposits/ Credits	Withdrawals/ Debits	Ending Balance
Aug 31	Beginning Balance			169,226.54
Sep 30	Interest Payment	76.52		169,303.06
Sep 30	Ending Balance			169,303.06

Interest Summary

Annual Percentage Yield Earned this period	0.55%
Interest paid during this period	76.52
Interest earned for this statement period	76.51
Year-to-date interest and bonuses paid	621.23

Department of Water Resources
APPLICANT'S
Exhibit Attach 1
Date Admitted 4/6/04

Continued on next page

L. Glen Saxton

TO: PARTIES INTERESTED IN WATER RIGHT APPLICATIONS

NO. 72-16624 & NO. 72-16625

ATTACHED ARE 2 LETTERS. THE FIRST ONE IS A LETTER FROM ALLEN MERRITT FROM IDWR IDENTIFYING THE PRINCIPLE ITEMS THAT THE DEPARTMENT WILL CONSIDER IN EITHER APPROVING OR DENYING AN APPLICATION OF AMENDMENT FOR THE TWO WATER RIGHT APPLICATIONS. THE SECOND LETTER IS LIVING WATERS RANCH'S & FIRSTFRUITS'S RESPONSE TO THE THREE CRITERIA POINTS.

RESPECTFULLY SUBMITTED,

CHRISTOPHER JAMES, LIVINGWATERS RANCH / FIRSTFRUITS FOUNDATION

Department of Water Resources
APPLICANT'S
Exhibit 3
Date Admitted 8/10/09

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

SOUTHERN REGION

DIRK KEMPTHORNE
Governor

KARL J. DREHER
Director

July 30, 2004

FIRSTFRUITS FOUNDATION/CHRISTOPHER W JAMES TRUST
CHRISTOPHER JAMES TRUSTEE
PO BOX 510
CHALLIS ID 83226

RE: Application Nos. 72-16624 & 72-16625

Dear Mr. James:

Enclosed is a copy of an additional protest filed against the above referenced applications. The Department suggests you contact the protestant(s) &/or their legal counsel directly to determine the exact nature of the protest(s) and, if possible, to resolve the matter.

At the **Hearing scheduled for 9:00 a.m. on August 10, 2004 at the Custer County Courthouse**, the following are the principal items the Department will consider in either approving or denying an application for amendment of a permit (Section 42-211, IDAHO CODE):

1) Will the change result in the diversion and use of more water than originally permitted?

2) Will the rights of others be adversely affected by the change?

3) Is the proposed change in the local public interest, where local public interest is defined as the affairs of the people in the area directly affected by the proposed use?

If you have any questions or if this office can be of further assistance, please feel free to contact us.

Very truly yours,

Allen D. Merritt, P.E.
Southern Region Manager

AM:MB
Enclosure(s)

Living Waters Ranch / Firstfruits Foundation
P O Box 510, Challis, ID 83226
208-879-2729, fax 879-4902

August 9, 2004

L. Glen Saxton
Idaho Department of Water Resources
P O Box 83720
Boise, ID 83720-0098

RE: Reasons for accepting amendments to No. 72-16624 and No. 72-16625

Dear Mr. Saxton,

Water right application for No. 72-16624 was amended to follow the rules laid down by the IDEQ for Public Water Supplies that we have a backup system. (A copy of law was previously supplied as evidence). The amendment was not asking for additional water. It was asking for a replacement with its separate diversion when a backup was ever needed. There will therefore be no adverse affects to the rights of others. If Living Waters Ranch were forced to close, the community would lose a good benefactor through jobs, holding community events at the facility, and much more. I appreciate your kind consideration.

Water right application for No. 72-16625 was amended to increase amount of flow due to evidence of algae forming in pond at the 0.2 cfs that was preliminarily approved at a previous order. The surface area of the pond will not change and will thereby not increase evaporation. No more water will be lost. Therefore, no rights of other users will be affected. Part of the reason some 3,000 people come to Living Waters Ranch yearly is to appreciate its beautiful grounds with its plants, trees, creek, birds, etc.

Eleven days ago the water to the pond was cut off. Why was it? I was of the understanding that your preliminary order as a non-consumptive water right was put into affect and LWR was cleared to have 0.2 cfs flow through the diversion to the pond. Please explain.

Yours Truly,

Christopher W. James, Trustee of Firstfruits Foundation

Cc: L. Glen Saxton
Bonnie Rowles
Jeffrey Yeo
Bob Andrews
City of Challis
Custer County Commissioners

Living Waters Ranch
PO Box 1190
Challis, ID 83226
208-879-28888

RECEIVED
JUL 2 1 2004
Department of Water Resources
Southern Region

To: Interested Parties

July 20, 2004

Re: Additional Evidence for Permit Nos. 72-16624 and 72-16625 in the name of Firstfruits Foundation and the Christopher James Trust.

Dear Interested Parties,

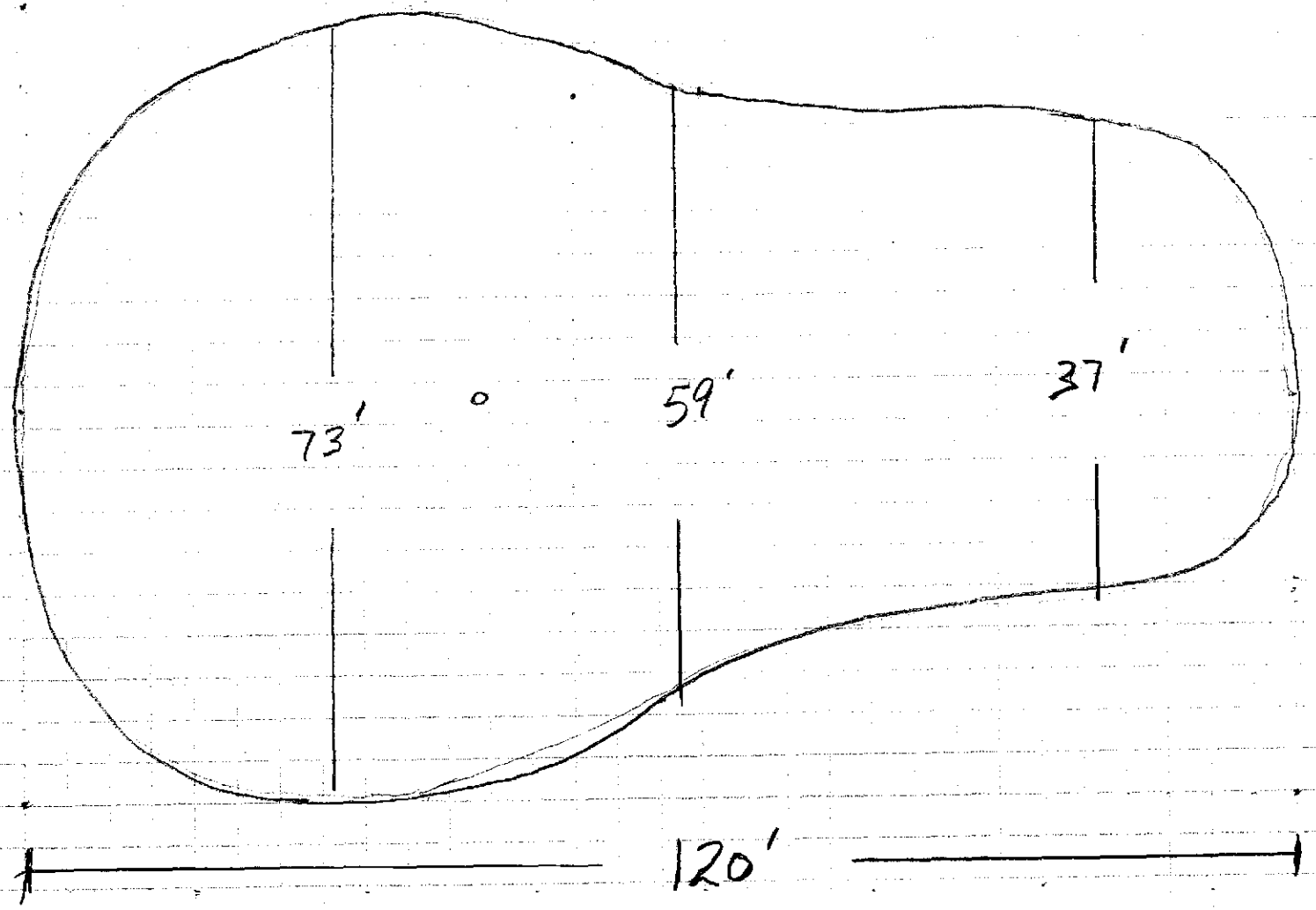
I am submitting additional evidence for the hearing scheduled for August 10, 2004. Included are dimensions and a photograph of the aesthetic storage pond under application 72-16625. Also I am including updated meter readings for Well #2 under application 72-16624.

Sincerely,

Mark Bryan
Manager, Living Waters Ranch
Mark Bryan
Encl: 1
L. Glen Saxton, P. E., Hearing Officer
Allen Merritt, IWDR
Firstfruits Foundation, Christopher James
Marion McDaniel, Challis City Council President
Don and Bonnie Rowles
Jeffrey Yeo
Bob Andrews

Department of Water Resources
APPLICANT'S
Exhibit 4
Date Admitted 8/10/04

LIVING WATERS RANCH
AESTHETIC STORAGE POND
ONE INCH = 16 FEET
ONE SQUARE = 4 FEET

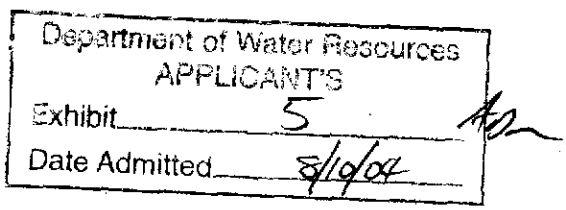


APPROXIMATE
304' CIRCUMFERENCE



Living Waters Ranch
Well #2 Meter Reading –2004

Date	End	Start	Gal/Mth	Days	Gal/Day
Jan 2004	10,634,410 –	10,474,910 =	159,500	31	5,145
Feb 2004	10,854,350 –	10,634,410 =	219,940	28	7,855
March 2004	11,073,110 –	10,854,350 =	218,760	31	7,056
April 2004	11,264,980 -	11,073,110 =	191,870	30	6,395
May 2004	11,410,410 –	11,264,980 =	145,430	31	4,691
June 2004	11,643,730 –	11,410,410 =	233,320	30	7,777



8/10/09
208

Don Roulos – Cross

"Not use any ground water from existing well @ Mtn View" What did you mean?

Intend to use acquired surface water right? Yes

0.06 cfs Thru Fountain

0.39 " " Creek Diversion

Pond: 7 to 8 ft Deep Max

Wants actual

I Believe: 14,000* gals in Pond (Roulos)

JSH * The pond would only be 20'x20'x5' if this True!

Actual Pond: 59'x 110'x 5'x 7.48 gals/ft³ ≈ 243,000 gals

Department of Water Resources
APPLICANT'S
Exhibit 6
Date Admitted 6/10/09

Hydrologic Investigation of the Garden Creek Watershed and Aquifer

Prepared for:

Rosholt, Robertson, and Tucker
Twin Falls, Idaho

February 11, 1999

GIFT to the CITY of CHALLIS from PARIS ALMOND AUGUST 11, 2000

Bonnie Poole

For information concerning this report, contact
Charles G. Brockway
Charles E. Brockway

BROCKWAY ENGINEERING PLLC

CHARLES E. BROCKWAY, PH.D., P.E.
CHARLES G. BROCKWAY, PH.D., P.E.
JEFFREY S. RAU, P.E.

2016 NORTH WASHINGTON, SUITE 4
TWIN FALLS, IDAHO 83301

Department of Water Resources
PROTESTANT'S
Exhibit A
Date Admitted 9/6/04

Protestant's
Exhibits

COPY

Hydrologic Investigation of the Garden Creek Watershed and Aquifer

---

Brockway Engineering, PLLC

February 8, 1999

Introduction

The Garden Creek drainage basin is located west of Challis, Idaho, and is tributary to the Salmon River. The valley immediately west of Challis is largely undeveloped, with the primary uses being agriculture and very sparsely-placed domestic single-family residences. Garden Creek supplies water for most of the irrigated land via several surface water rights on the creek. The water supply for all current domestic residences and any future developments will be provided by individual groundwater wells. No irrigation wells are believed to be located in the valley.

Recent increases in development of the valley, in particular the Living Waters Ranch retreat facility owned by Mr. Christopher James, have prompted questions about the capacity of the local aquifer to support uses other than low-density residential units. The purpose of this report is to 1) describe the hydrologic and hydrogeologic characteristics of the groundwater and surface water systems of the Garden Creek valley within a reach extending from the Salmon River

upstream to approximately 5 miles west of Challis; and 2) determine the impact of groundwater pumping by the proposed Living Water Ranch facility located 4 miles west of Challis on both the aquifer and surface water systems.

General Watershed Hydrology and Runoff Estimates

The Garden Creek drainage encompasses an area of 36.5 square miles. The drainage area was calculated by delineating the basin on a 1:100000 scale topographic map prepared by the Idaho Transportation Department. Figure 1 shows the watershed and the location of the study reach. Garden Creek originates near Buster Lake at an elevation of about 9020 feet above MSL, and flows generally in an easterly or northeasterly direction until its confluence with the Salmon River approximately 2 miles east of Challis. The total length of the main stem is 14.2 miles. The creek flows through the city of Challis, and is used by the city for a portion of its potable water supply: a diversion from the creek and two filtration ponds are located 1 mile west of the city.

The basin is a high mountain drainage, with runoff and groundwater recharge patterns dominated by snowmelt and occassional rain-on-snow events. The average elevation of the basin is 7280 feet above MSL.

No systematic observations have been made of the discharge in Garden Creek or annual runoff from the basin. However, the total runoff yield from the basin may be estimated by making comparisons with other small mountainous basins within the same region and with approximately the same elevation and

mean annual precipitation. Reasonably similar basins should exhibit similar hydrologic responses: the runoff should scale directly with area and precipitation, and may also be affected by terrain elevation. To make this comparison, observational records published by the U.S. Geological Survey were researched for basins with similar characteristics for which mean annual runoff has been computed, and for which the period of record was long enough to accurately establish the mean annual runoff (at least 20 years). These sites are listed in Table 1, along with the drainage area and observed mean annual runoff for the period of record. Copies of the USGS data are provided in Appendix A. All basins are located within the Salmon River drainage, except for the North Fork Big Lost River basin.

Table 1. Characteristics of basins in the vicinity of Garden Creek and with similar characteristics. Source: USGS (1996).

Basin	Drainage area (sq. miles)	Mean annual runoff (ac-ft)
Garden Creek	36.5	??
Valley Cr at Stanley	147.0	145400
Thompson Cr near Clayton	29.1	12290
Bruno Cr near Clayton	6.3	905
Squaw Cr below Bruno Cr	79.0	23930
E Fork of S Fork Salmon R nr Stibnite	19.6	17300
N Fork Big Lost R at Wild Horse nr Chilly	114.0	75060
Challis Cr near Challis	89.0	31860

It was found that the drainage area is a good predictor of the mean annual runoff for these basins. The drainage area – runoff data are plotted in Figure 2, demonstrating an unambiguous relationship between the two parameters. A fitted curve is also shown on Figure 2. From this best-fit line, the estimated mean annual runoff from Garden Creek, based on its drainage area of 36.5 square miles, is 13,530 acre-feet. This equates to an average discharge in Garden Creek of 18.7 cfs.

Peak annual discharge and extreme discharge events are governed by snowmelt and rain-on-snow occurrences. Because no observational record is available, statistical distribution fitting methods cannot be used to estimate peak discharge on Garden Creek. However, peak discharges for various frequency have been calculated for the gauges in Table 1 (USGS, 1990), and the relationship between drainage area and 100-year flow is nearly linear (see Figure 3). Using the best-fit line, the estimated 100-year flow for Garden Creek is 583 cfs.

Recent Streamflow Measurements of Reach Gain and Loss

For the present study, field measurements of the discharge in Garden Creek were made in September 1998, November 1998, and January 1999. Figure 4 is a map showing the location of the streamflow measurement points. The flow measurements were made with a Pygmy current meter using standard open-

channel measurement techniques outlined by the U.S. Bureau of Reclamation (1967). All measurements were rated at least "good" according to USBR standards, which corresponds to an estimated error of 5% or less. Calculations are provided in Appendix B.

The October and November measurements were made a two points: MP1 is in the west portion of the James property near the corrals; MP2 is at the Almond pump house at the east edge of Section 35. More closely-spaced measurements were made in January, ranging from upstream of the James property downstream to below the Highway 93 crossing in Challis. In particular, measurements were made directly upstream and downstream of the James property since discharge from the aquifer was visible and audible in this reach (see section below). Access to the James property was not allowed during January, so the MP1 measurement point could not be accessed at this time. A summary of the measured discharge in the creek is provided in Table 2.

Table 2. Discharge in Garden Creek measured in 1998 and 1999 (cubic feet per second)

Location	Description	9/23/98	11/10/98	1/21/99
MP0	Upstream of James			4.77
MP1	James corral	7.78	6.09	*
MP1A	Downstream of James			6.34
MP2	Almond pump house	7.24	5.26	6.19
MP3	Road crossing		8.21	5.60
MP4	Challis diversion			5.58
MP5	Highway 93 crossing			4.96

* Access not allowed

The January 1999 measurements should be considered the most definitive and reliable for estimating reach gains and losses, since they were made long after irrigation of the valley had ceased and during a cold period when inflow from side drainages was nonexistent; reach gains from surface runoff and base flow should therefore be nearly zero. To verify that surface inflow from irrigation and from the small side drainages in the reach was zero, visual inspections were made of all points that were reasonably accessible. No trace of water was found in any side drainage.

The earlier 1998 measurements may reflect some residual effects of irrigation. For example, the 3 cfs gain from MP2 to MP3 on 11/10/98 was observed even after irrigation had ceased; it is possible that base flow was still entering the stream during November and had not yet receded to background levels.

Figure 5 is a schematic of the study area, showing all streamflow measuring points and groundwater wells. This schematic is not to scale, but serves to provide a graphical summary of all data collected.

Hydrogeologic Setting

The geologic composition of the Garden Creek basin and valley aquifer was investigated. The chief sources of information about subsurface conditions were well logs obtained from the Idaho Department of Water Resources. The

locations of the logs use in this study are shown in Figure 4, and the logs themselves are provided in Appendix C.

The Garden Creek valley is narrow (less than 0.5 mile in width), and bounded on either side by formations which are generally volcanic in origin. These volcanic formations are wind-eroded and are underlain by regional granitic formations. The composition of the valley floor is generally broken volcanic material, with occasional shale layers and thin stream-deposited clay, gravel, and sand in the upper layers. No evidence of massive bedrock was found, even to depths of 400 feet. A generalized geologic cross-section of the valley from north to south is provided in Figure 6.

The fractured volcanic rock contains water, and provides the source for the several domestic wells in the valley and for the wells supplying the Living Waters Ranch. No clay layers or other confining layers are evident in any of the drilling records, indicating that the aquifer is an unconfined system. The depth from which water is drawn by a well should have little influence on the well's impact on the aquifer.

Closer to the Salmon River, beginning just east of Garden Creek Road crossing, greater amounts of gravels and sands are prevalent. In the region east of Challis to the Salmon River, the aquifer is composed almost completely of river-deposited alluvium.

In the Salmon River alluvium, drillers logs indicate the presence of substantial but non-continuous clay layers at approximately 150 to 250 feet below ground surface, which are probably insufficient in scale to act as confining layers. Likewise, above Challis, none of the driller's logs indicate the presence of

confining layers which may stratify the aquifer. Bedrock in the Salmon River alluvium is found at approximately 290 to 300 feet.

According to drilling records, static water levels in wells west of the Garden Creek Road crossing range from 20 feet to 60 feet, depending on the proximity of the well to the creek. East of the road crossing, water levels in the Salmon River alluvium generally range from 10 feet to 80 feet.

Aquifer Yield Computation

Yields from the Garden Creek valley aquifer above Challis are generally very low and spatially variable. Pumping tests conducted at the time of drilling indicate yields ranging from 4 gpm to 25 gpm, with drawdowns of 25 feet to 418 feet. Using the specific capacity of the wells as a guide, aquifer transmissivity was estimated to range from 20 gpd / ft to 1000 gpd / ft, with an average of 413 gpd / ft (Thomasson et al., 1960; USBR, 1977). The saturated depth of the aquifer is not known with certainty, but drilling records indicate it is likely greater than 400 feet. Assuming a depth of 500 feet, the hydraulic conductivity of the aquifer is approximately 0.8 gpd / ft^2. This value corresponds well with the expected transmissivity given the known aquifer composition of tightly-fractured volcanic material.

The valley aquifer is likely limited in extent by the volcanic formations flanking the valley on the north and south. A few records of wells drilled outside the valley aquifer indicate essentially solid volcanic or granitic rock with few fractures.

Groundwater flow will therefore be essentially parallel to the creek, following the long axis of the valley. The predominant water supply for the aquifer is likely deep percolation from rainfall and snowmelt within the Garden Creek watershed which does not appear as surface runoff. Some of this percolating water may reach deeper layers of fractured rock aquifer, and may not directly supply the valley aquifer system.

The total groundwater discharge through the valley aquifer is one indicator of the average volume of recharge which directly percolates to the aquifer. The discharge in the vicinity of the James and Almond properties was computed using the aquifer transmissivity estimates from the well pumping tests and an estimated gradient of the water table. It is assumed that the one-dimensional Darcy equation is valid for this case, and that the aquifer is reasonably uniform in lateral extent and permeability, so that average values can be used to estimate the discharge. The average width of the aquifer is approximately 900 feet, as measured from USGS 7.5-minute topographic maps. The average gradient of the water table may be approximated by the average terrain slope, since the drilling records showed that the depth to water from the ground surface does not vary substantially through the valley. The average gradient was calculated to be 0.040 ft/ft. Using the Darcy equation with the average transmissivity of 413 gpd/ft, the total discharge through the aquifer was calculated to be 14,900 gallons per day, or 16.7 acre-feet per year. This estimate has an error of approximately +/- 20% due to uncertainties in the estimates of aquifer parameters and water table gradient.

This analysis shows that the aquifer is a very low-yielding water source, which will provide a water supply only for minor uses such as domestic residences. Additional development which results in consumptive use from the aquifer greater than the estimated groundwater discharge would result in long-term depletion of the available water.

Groundwater – Surface Water Elevations

In order to substantiate the measured stream gains and losses, the relative elevations of the groundwater table and surface water in Garden Creek were determined. An elevation survey was conducted in January 1999. For each of the four wells in Figure 5 not owned by Mr. James, a level circuit was run from the measuring point on the well (usually the top of casing) to the adjacent water surface in the creek, ensuring that the line between the creek and the well was perpendicular to the creek. Depth to water in each well from the measuring point was measured with an electric probe. For the James wells, depth to water was measured in September 1998 with an electric probe, and elevations of the wells and the creeks were taken from a site plan with topographic contours prepared by Mr. James' consultant, HEDCO, Inc., and provided to Brockway Engineering.

This methodology is intended to determine how closely the groundwater elevation corresponds to the creek elevation at various points, and whether a component of groundwater flow exists toward or away from the creek.

The results of the elevation survey are summarized in Table 3 and illustrated on Figure 5. The groundwater elevation at all points is within 10 feet of the water surface elevation in the creek. The numbers beside the wells in Figure 5 indicate whether the groundwater is higher or lower than the creek. A negative sign means that groundwater is lower and there is a component of flow away from the creek; a positive sign means that groundwater is higher and there is a component of flow toward the creek. The arrows represent only whether a component of flow exists toward or away from the creek, and are not meant to indicate the overall groundwater flow gradient direction, which is generally parallel to the creek.

Table 3. Summary of groundwater and Garden Creek elevations; wells are listed from upstream to downstream.

Well	Map No.	Depth to water from MP (feet)	GW elev. relative to adjacent creek elev. (feet)
Hale	1NL	29.01	-4.5
James – West	4	27.74	-4.7
James – East	2NL	26.70	+4.3
Old Stark	3NL	20.20	+8.8
Weinrich	3	37.47	+3.6
Almond	2	44.62	-3.7
Junkyard Shop	4NL	27.01	-7.7

The surveyed elevation differences corroborate the streamflow measurements. In reaches where a loss was measured, the groundwater elevation is lower than the creek. Across the James property where a gain was measured, the groundwater elevations are above the creek. Between the Weinrich well and the Almond well, the creek switches from a gaining regime to a losing regime. The hatched region on Figure 5 indicates the estimated location of the gaining reach; all other reaches within the study area were either losing reaches or showed no gain or loss.

Water Requirements for the Proposed Development

The development being pursued by Mr. James is a nondenominational family retreat and campground facility. The facility provides overnight lodging, meals, and recreation for families and church groups. A site visit with Mr. James was made on September 23, 1998 to confirm the extent of the development. A panoramic photo of the development is provided in Appendix D, which shows nearly the entire extent except for the west end.

The project is located approximately 4 miles west of Challis on Garden Creek road on a 73-acre parcel. The main components include an 8500-ft^2 chapel designed to accommodate 450 people, a 5000-ft^2 lodge with a sleeping capacity of 50 persons, a commercial kitchen within the lodge which can serve about 200 people per meal, and a shop. In addition to the common facilities, approximately 9 self-contained overnight units are located on the property. The units consist of

bedrooms, bathrooms, and shower facilities. According to Mr. James, the development is proposed in two phases, with the maximum overnight capacity of Phase I being 170 persons. Phase 2 would involve additional living units, and would bring the maximum overnight capacity to 250 persons.

Water is supplied to all facilities on the property via a central water system currently supplied by two groundwater wells, each with a maximum yield of about 10 to 12 gpm. An elevated storage tank with a capacity of 35,000 gallons is complete and has been filled once and tested with water from the wells.

According to Mr. James, the water use for the facility is highly seasonal, reaching a maximum in July or August and a low point during the winter. Also, water use will be higher on weekends. These are a reasonable assumptions given the nature of the facility. The chapel / auditorium facility seats 450 persons, although a large portion of these will not be overnight guests and thus will have a lower water requirement.

Irrigation on the facility is substantial, but is supplied with water from Garden Creek under existing surface water rights held by Mr. James. No irrigation water will be supplied by the wells.

The most appropriate method of estimating average and peak water demands for substantial facilities such as the James development is to utilize typical per-capita daily volumes for various uses and apply appropriate peaking factors. Published per-capita volumes are available from several sources. The Land Development Handbook (1996) provides the following daily volumes for various facilities:

Motels	65 gpcd
Restaurants	50 gpd / seat
Residential dwellings	100 gpcd
Auditoriums	5 gpd / seat

The Idaho Department of Water Resources also publishes typical water uses. A portion of the IDWR Field Examiner's Handbook is provided in Appendix E; some of the pertinent suggested volumes are provided below:

Apartments, multiple family	60 gpd / resident
Resort camps, day & night	50 gpd / camper
Luxury camps	100 to 150 gpd / camper
Cottages with seasonal occupancy	50 gpd / resident
Motels with bed and toilet	40 gpd / bed
Restaurants with toilet	7 to 10 gpd / patron
Theaters	5 gpd / seat

Usage in the overnight units will likely be somewhat less than the 100 gpcd typically used for normal residential dwellings. A reasonable value based on published data is 50 gpcd for the overnight units, and 5 gpd / seat for the auditorium. The average daily volume, computed for the facility after the full build-out of Phase 2 and with the facility at maximum capacity, will be

Q (avg. daily) = 50 gpcd (250 persons) + 5 gpcd (450 seats)

= 14750 gpd

= 10.2 gpm

This is substantially more than the 5000 gpd for which the on-site disposal system is apparently designed. To determine peak day usage, a peaking factor of 2.0 was applied to the average daily demand to yield 29,500 gpd or 20.5 gpm. A peak hourly factor of 6.0 was applied to the average daily demand to yield a maximum instantaneous flow requirement of 61.5 gpm. These peak rates will occur only rarely and only during the hottest summer days when the facility is at maximum capacity.

The average annual usage is computed by accounting for the seasonal variation in facility usage and the fact that full occupancy occurs only rarely. Assuming that the average occupancy is 50% of capacity during the summer months and 20% of capacity during the winter months, the total annual usage is

Q (avg. annual) = 14750 gpd (180 days) (0.50) + 14750 (180 days) (0.20)

= 1.86 million gallons

= 5.70 acre-feet

The consumptive use volume for the facility is estimated to be 25% of the total water demand, based on typical domestic consumption. Thus, the average annual consumptive use volume is 5.70 ac-ft x 0.25 = 1.43 ac-ft.

As discussed above, a 35,000-gallon elevated storage tank has been constructed on the property. Based on the water demand calculations, this volume is sufficient to store the entire peak day water demand volume and to supply the maximum instantaneous flow rates for the facility. Therefore, to

supply the potable water requirements, it is not necessary to divert to the tank from the wells at a rate greater than the peak daily demand, or 20.5 gpm (0.046 cfs). However, from an operational standpoint, it is not desirable to allow the well pumps to operate 24 hrs/day during the peak demand periods. Adopting a maximum 12-hour run time, a reasonable maximum flow rate from the wells would be 41 gpm (0.091 cfs).

Implications of Groundwater Pumping

The data acquired for this study strongly suggests that an interconnection exists between the Garden Creek valley aquifer and the surface water in Garden Creek. Streamflow measurements indicate significant gains or losses in the creek, and surveyed groundwater elevations corroborate the streamflow measurements. Moreover, discharge from groundwater was visible and audible at the base of the talus slope below the new chapel on Mr. James' property – this is within the reach identified as gaining by the measurements.

Because a groundwater – surface water interconnection exists, a withdrawal of groundwater and a depletion of the groundwater by consumptive use of a domestic, commercial, irrigation, or other facility will likely result in some corresponding reduction of the discharge in Garden Creek. This reduction may affect the delivery schedule of surface water rights in the creek downstream of the James property. Also, Garden Creek is tributary to the Salmon River, so that

any reduction in Garden Creek discharge will result in a reduction in the flow in the Salmon River.

It should be noted that the depletion of groundwater and surface water by Mr. James' facility may not be measurable in the short-term. However, the estimated consumptive use of 1.43 acre-feet per year is a significant fraction of the total estimated groundwater discharge of the valley aquifer (16.7 acre-feet per year). Over longer periods, this depletion would result in decreased groundwater discharge and an overall lowering of the water table. Because the reach gain and loss in Garden Creek is a function of the gradient between the surface water and groundwater, a lowering of the water table would result in diminished reach gains and increased reach losses.

The above analysis was performed during a period of above-average water years. During extended drought periods, basin recharge declines and the groundwater discharge could be substantially reduced. Depletion of the groundwater during these times could exacerbate the effect on reach gains and losses.

Findings and Conclusions

Based on the data collected on the Garden Creek watershed and aquifer, and the analysis described in this report, the following conclusions are drawn:

1. The Garden Creek valley aquifer is composed chiefly of broken volcanic material, with an estimated transmissivity of 413 gpd / ft. No evidence of confining layers was found from available geologic information. Yields from wells in the aquifer are low, ranging from 4 gpm to 20 gpm. The aquifer is not suitable for high-demand uses such as irrigation, and is marginally suitable for domestic residences and other low-use facilities.

2. The direction of groundwater flow is generally parallel to Garden Creek. The total groundwater discharge through the aquifer is estimated to be 14,900 gallons per day, or 16.7 acre-feet per year.

3. A comparison was made of the elevation of the aquifer water table and the adjacent elevation of the water surface in Garden Creek. It was found that the groundwater elevation ranges from 8.8 feet above the creek to 7.7 feet below the creek. These measurements indicate that components of groundwater flow toward and away from the creek exist within the study reach.

4. Concurrent streamflow measurements in Garden Creek were made to determine reach gains and losses. Within the study reach, Garden Creek is generally a losing stream. However, a significant gain was measured within a reach roughly corresponding to the east portion of the James property. This is the same location where the groundwater was found to be above the creek. The groundwater was found to be below the creek at the locations of the losing reaches. Therefore, the reach gain / loss

measurements were corroborated by the groundwater elevation measurements.

5. Visual and audible discharge from a talus slope was encountered near the east end of the James property, providing further evidence that groundwater feeds Garden Creek in this reach.

6. A water requirements analysis was made of the Living Waters Ranch development. Based on information provided by the owner and an on-site inspection of the development, the daily water demand for the facility is approximately 14,750 gpd at maximum capacity after full build-out, which is significantly more than 5000 gpd design capacity of the sewage disposal system. The average annual usage, accounting for seasonal occupancy rates, is estimated to be 1.86 million gallons, or 5.70 acre-feet. The maximum required diversion rate for the facility is 41 gpm (0.091 cfs), which is significantly less than the diversion rate of 180 gpm (0.40 cfs) requested by Mr. James. The above amounts do not fall within the Part B domestic definition (I.C. 42-111) for non-residential use. Consumptive use of the facility is estimated at 1.43 acre-feet per year. This is the amount by which the Garden Creek valley aquifer will be depleted.

7. Because an interconnection between groundwater and surface water exists, a depletion of groundwater by the Living Waters Ranch facility will result in some decrease in the discharge in Garden Creek. The estimated consumptive use of the facility is a significant percentage (about 9%) of

the total groundwater discharge. The long-term impact on the aquifer will likely be a lowering of the water table and a corresponding decrease in reach gains and increase in reach losses.

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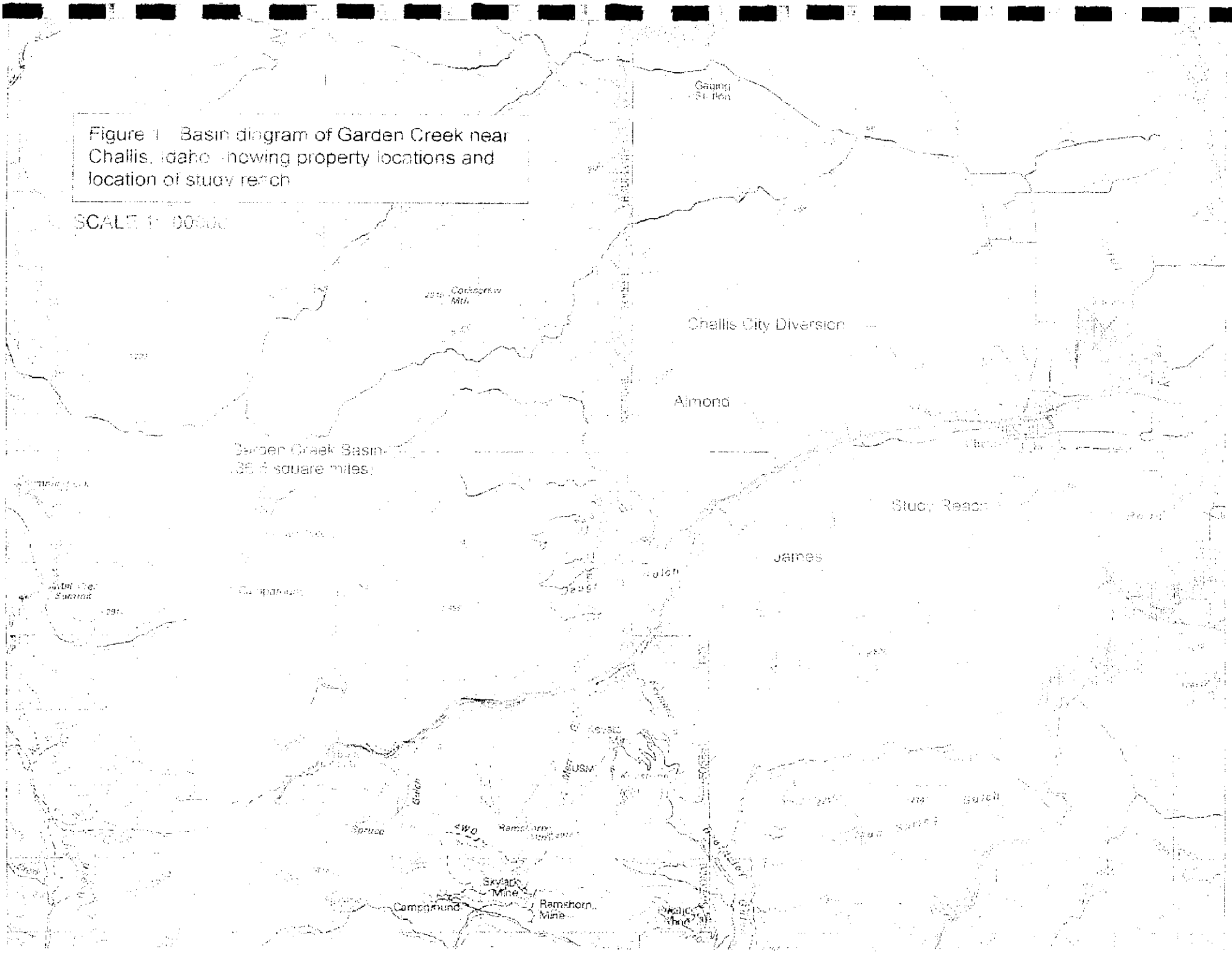


Figure 1. Basin diagram of Garden Creek near Challis, Idaho showing property locations and location of study reach

SCALE 1:100000

Figure 2. Estimation of mean annual runoff from Garden Creek using nearby basins with similar characteristics.

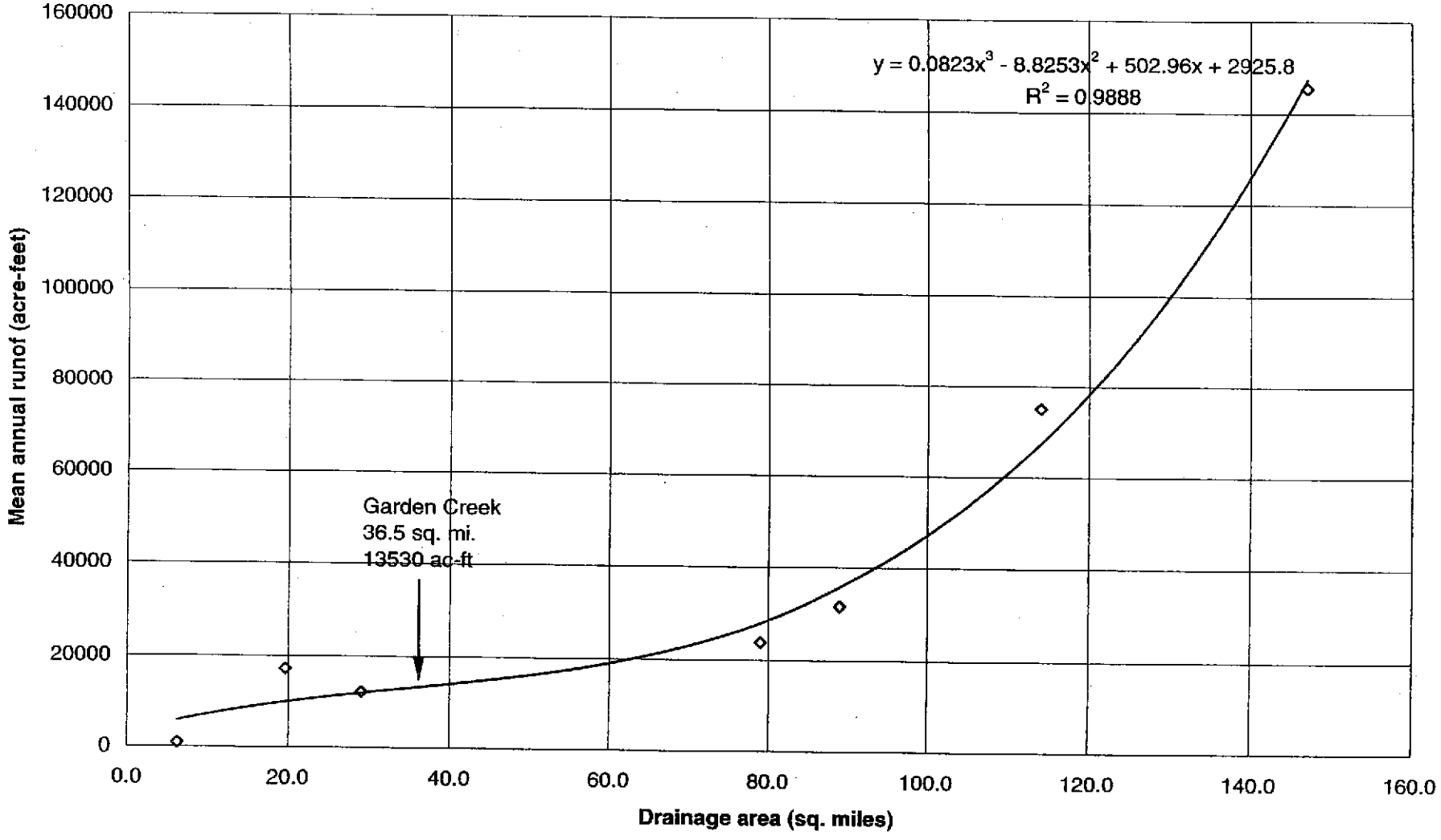
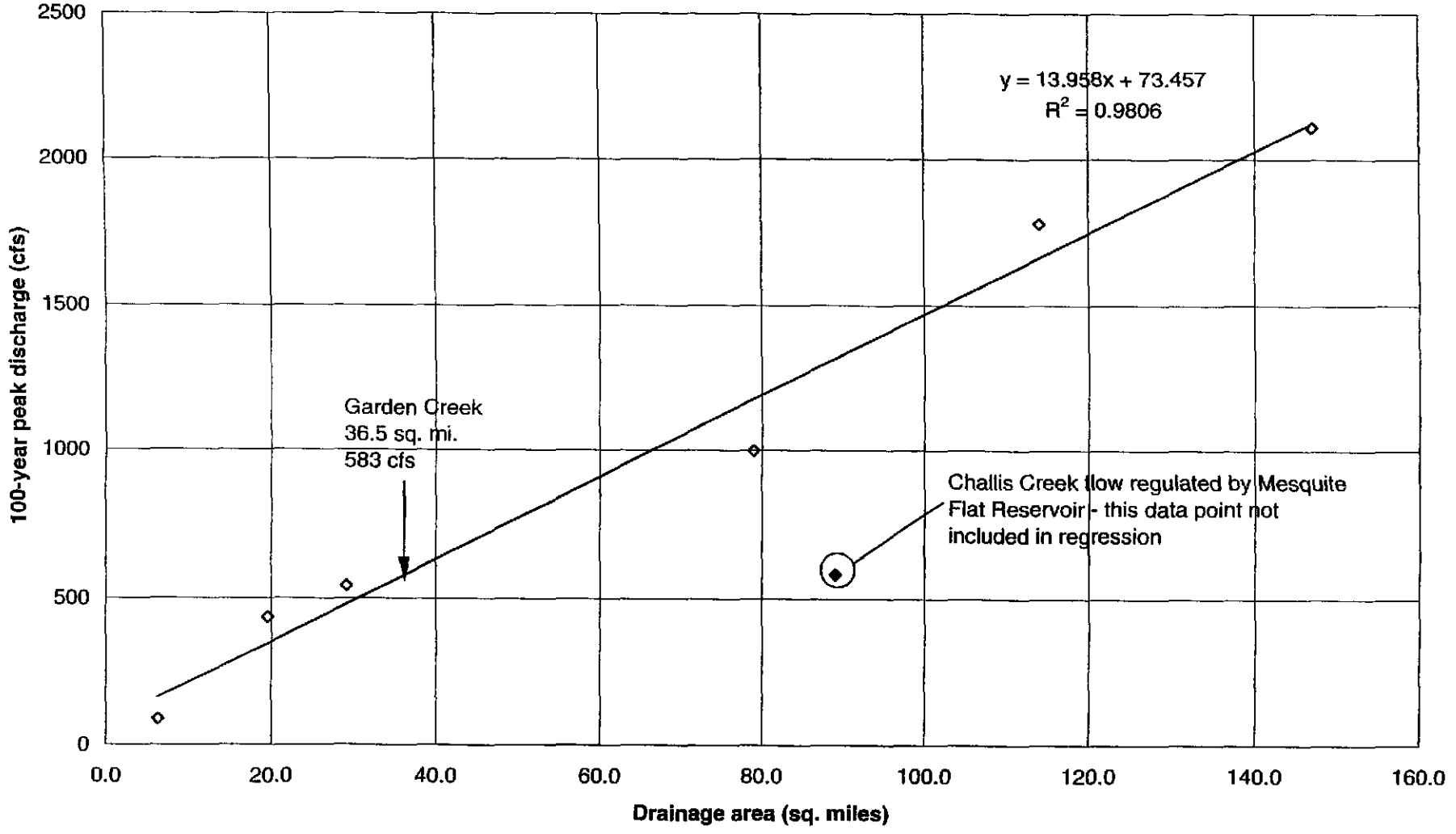


Figure 3. Estimation of 100-year peak discharge from Garden Creek using nearby basins with similar characteristics.



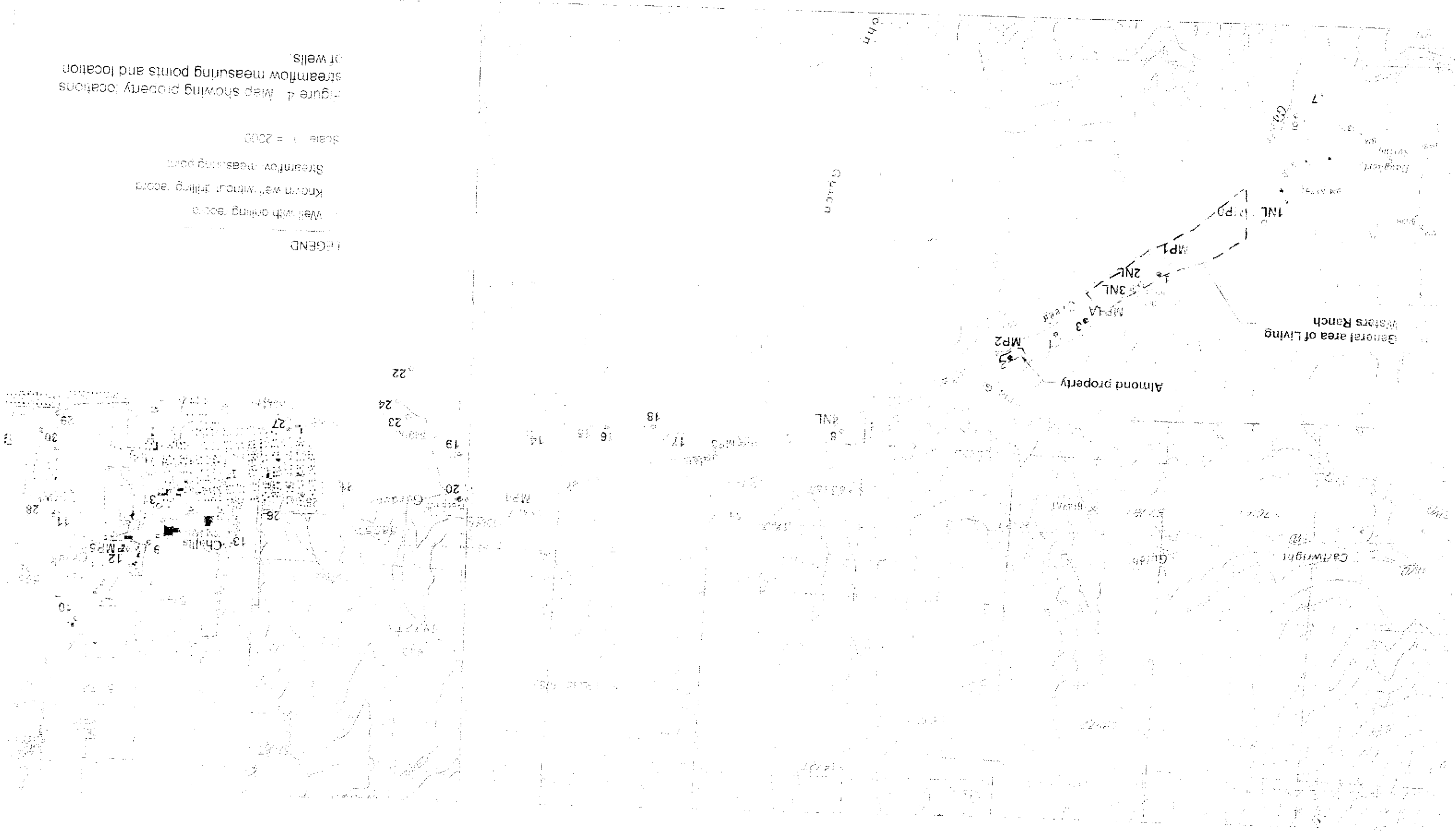


Figure 4 Map showing property locations streamflow measuring points and location of wells.

LEGEND

Well with ranking score

Known well without ranking score

Streamflow measuring point

Scale 1 = 2000

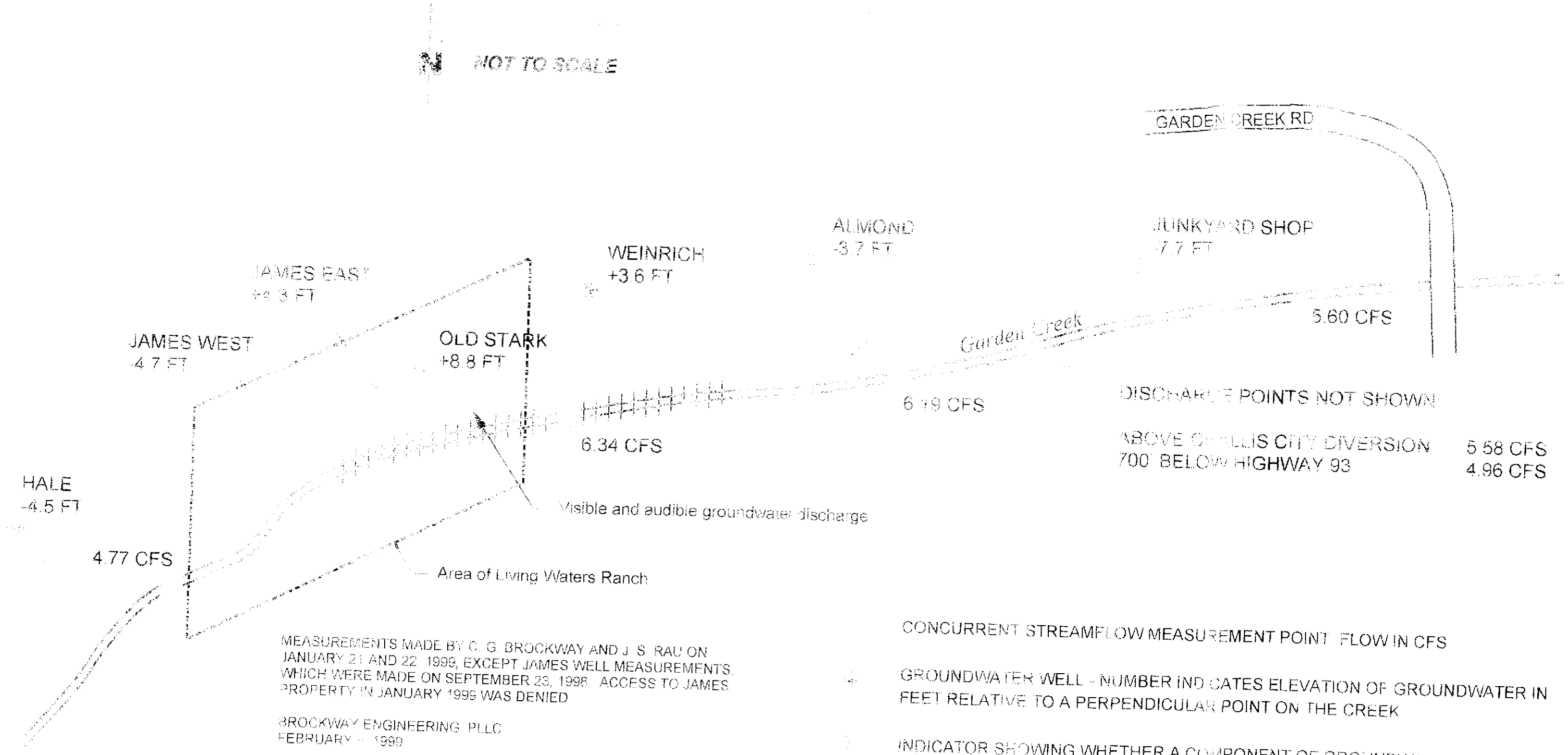


Figure 5. A schematic summarizing groundwater and surface water measurements in Garden Creek above Challis, Idaho.

Appendix A
USGS Streamflow Data

13295000 VALLEY CREEK AT STANLEY, ID

LOCATION.--Lat 44°13'21", long 114°55'49", in SE¼NW¼SW¼ sec.3, T.10 N., R.13 E., Custer County, Challis National Forest, Hydrologic Unit 17060201, on left bank at mile 0.2, 0.5 mi northeast of Stanley, and 0.8 mi southwest of Lower Stanley.

DRAINAGE AREA.--147 mi^2. Mean elevation, 7,400 ft.

PERIOD OF RECORD.--December 1910 to April 1911 (gage heights only), May 1911 to October 1913, May 1921 to December 1971, April to September 1972, October 1992 to current year.

REVISED RECORDS.--WSP 362: 1911-12. WSP 1567: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,221.81 ft above sea level. Prior to May 28, 1911, nonrecording gage at site 0.2 mi upstream, and May 28, 1911 to Oct. 31, 1913, at site 0.8 mi upstream, at different datums. May 2, 1921 to Apr. 30, 1949, nonrecording gage at present site and datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Diversions above station for irrigation of about 3,000 acres (1966 determination). Water-quality records for water years 1959, 1971-72 are published in reports of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,000 ft^3/s May 24, 1956; maximum gage height, 4.4 ft, May 29, 1921; minimum daily, 34 ft^3/s Aug. 28, 1994.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 1	0430	686	2.29	May 18	0345	*1,740	3.59
May 1	1915	699	2.31	May 28	0700	1,030	2.79
				June 10	0915	1,520	3.36

Minimum, 44 ft^3/s Nov. 2, gage height, 0.58 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	69	508	e120	e80	e80	104	549	745	746	279	111
2	84	61	370	e120	e80	e80	114	491	762	816	263	110
3	114	68	229	e110	e75	e85	114	414	839	877	251	114
4	131	68	194	e110	e75	e85	116	392	961	906	237	114
5	107	80	125	e100	e90	93	122	378	1120	911	224	113
6	102	78	e120	e100	147	90	137	376	1160	826	210	116
7	100	82	e120	e100	171	88	166	423	1140	725	199	111
8	98	103	e120	e100	184	87	213	444	1220	679	191	106
9	97	211	e130	e100	201	88	269	458	1400	670	182	105
10	95	118	148	101	190	92	315	471	1460	672	176	103
11	99	173	168	e100	165	95	309	491	1400	664	173	103
12	132	354	317	e95	141	98	283	577	1310	625	168	103
13	111	239	339	e95	133	98	250	685	1220	592	167	103
14	102	216	273	e110	128	95	238	951	1180	561	168	103
15	100	181	239	121	121	96	248	1220	1220	540	168	115
16	96	153	e170	e110	120	94	294	1330	1260	517	162	136
17	95	139	e120	e100	111	98	306	1400	1260	489	157	125
18	151	135	e110	e90	109	94	264	1540	1230	487	154	117
19	115	133	e110	e100	107	96	235	1210	1060	455	150	113
20	102	122	e100	e110	106	100	228	1000	927	415	147	112
21	101	110	e110	e100	102	104	213	893	843	383	145	107
22	96	116	e100	e95	99	108	213	873	787	365	141	104
23	91	112	e95	e90	92	105	282	787	729	349	134	103
24	93	133	e95	e90	e85	101	491	695	762	338	131	103
25	90	177	e95	e95	e85	94	446	667	775	330	129	101
26	100	185	e95	e95	e85	97	474	732	729	323	127	99
27	96	143	e100	e95	e80	97	441	780	761	313	124	99
28	90	137	e110	e95	e80	101	378	970	774	302	123	99
29	91	159	e110	e95	e80	97	409	922	744	320	121	96
30	89	343	e120	e90	---	94	495	856	722	328	118	94
31	84	---	e130	e90	---	95	---	789	---	300	113	---
TOTAL	3136	4398	5170	3122	3322	2925	8167	23764	30500	16824	5232	3238
MEAN	101	147	167	101	115	94.4	272	767	1017	543	169	108
MAX	151	354	508	121	201	108	495	1540	1460	911	279	136
MIN	84	61	95	90	75	80	104	376	722	300	113	94
AC-FT	6220	8720	10250	6190	6590	5800	16200	47140	60500	33370	10380	6420
CFSM	.69	1.00	1.13	.69	.78	.64	1.85	5.21	6.92	3.69	1.15	.73
IN.	.79	1.11	1.31	.79	.84	.74	2.07	6.01	7.72	4.26	1.32	.82

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1996, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	98.4	98.4	90.5	81.7	81.5	85.2	211	561	643	285	117	93.0
MAX	181	178	202	138	163	158	417	1026	1157	717	244	151
(WY)	1963	1928	1942	1965	1963	1934	1943	1956	1911	1943	1943	1965
MIN	56.4	57.4	54.8	50.0	54.5	65.0	87.9	277	167	61.5	42.4	39.7
(WY)	1993	1993	1932	1930	1993	1912	1955	1994	1926	1994	1994	1994

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1911 - 1996	
ANNUAL TOTAL	87407		109798			
ANNUAL MEAN	239		300		201	
HIGHEST ANNUAL MEAN					317	1956
LOWEST ANNUAL MEAN					101	1994
HIGHEST DAILY MEAN	1020	Jun 6	1540	May 18	1900	May 24 1956
LOWEST DAILY MEAN	45	Jan 23	61	Nov 2	34	Aug 28 1994
ANNUAL SEVEN-DAY MINIMUM	55	Jan 20	72	Nov 1	35	Aug 31 1994
ANNUAL RUNOFF (AC-FT)	173400		217800		145400	
ANNUAL RUNOFF (CFSM)	1.63		2.04		1.37	
ANNUAL RUNOFF (INCHES)	22.12		27.79		18.55	
10 PERCENT EXCEEDS	657		797		550	
50 PERCENT EXCEEDS	122		129		100	
90 PERCENT EXCEEDS	72		90		66	

e Estimated

SALMON RIVER BASIN

13297330 THOMPSON CREEK NEAR CLAYTON, ID

LOCATION.--Lat 44°16'01", long 114°30'48", in NE¼NE¼SE¼ sec.24, T.11 N., R.16 E., Custer County, Hydrologic Unit 17060201, on right bank, 1.2 mi upstream from mouth, 2.2 mi below Pat Hughes Creek, and 5.7 mi west of Clayton.

DRAINAGE AREA.--29.1 mi^2.

PERIOD OF RECORD.--November 1972 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,700 ft above sea level, from topographic map. Prior to June 13, 1982, recording gage at site 200 ft upstream at datum 2 ft higher.

REMARKS.--Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 340 ft^3/s June 8, 1996, gage height, 3.83 ft; minimum, 1.0 ft^3/s Mar. 16, 1980, gage height, 3.73 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 80 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 15	0230	238	3.42	May 28	2400	135	3.03
				June 8	2315	*340	*3.83

Minimum, 2.3 ft^3/s Nov. 2, gage height, 1.79 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.8	3.7	18	7.2	e5.0	e8.5	15	44	109	43	13	7.0
2	5.7	2.9	20	7.1	e4.5	e9.0	16	45	117	46	13	6.9
3	6.9	3.6	16	7.1	e4.0	10	16	44	140	46	13	6.8
4	7.2	4.1	14	7.0	6.4	10	16	41	175	44	13	6.7
5	6.5	5.5	e10	6.8	6.3	9.9	17	40	208	39	12	7.0
6	6.5	5.1	e9.5	6.7	6.5	9.5	19	39	207	34	12	7.1
7	6.3	4.9	e9.0	6.6	7.1	9.5	26	41	193	31	11	6.8
8	6.2	5.1	e8.5	6.7	8.5	10	38	46	238	29	11	6.2
9	6.2	6.6	e8.5	6.6	8.5	11	52	49	243	28	10	6.0
10	6.2	5.5	9.7	6.6	8.2	12	62	53	225	27	10	5.9
11	6.1	7.9	9.4	e6.0	e8.0	13	53	58	189	27	9.7	6.1
12	6.5	10	11	e5.5	e8.0	13	48	79	158	25	9.5	6.1
13	6.3	8.8	12	e5.0	e8.0	13	43	109	141	25	9.7	6.1
14	6.2	10	11	e5.5	9.2	13	39	161	132	24	9.4	6.1
15	6.2	10	11	7.0	10	13	38	205	136	23	9.3	6.4
16	6.0	9.4	10	6.7	e10	14	39	190	131	22	9.2	6.6
17	6.0	9.0	8.3	6.6	12	15	38	187	120	22	9.1	6.4
18	7.7	8.6	e7.5	e6.0	13	15	36	180	102	21	8.7	6.2
19	6.8	8.3	e7.0	6.9	13	16	34	155	80	20	8.8	6.1
20	6.4	7.8	e6.5	6.8	13	18	33	127	71	19	8.6	6.0
21	6.2	7.4	e6.5	6.4	12	20	31	110	63	19	8.5	5.8
22	6.0	6.8	e6.0	5.6	12	21	30	105	58	18	8.4	5.6
23	5.5	6.6	e6.0	e5.5	12	21	30	98	54	17	8.2	5.5
24	5.7	7.1	e5.5	e6.0	12	20	38	91	56	16	8.0	5.6
25	5.3	8.1	e5.5	e5.5	e10	e15	40	87	54	16	8.1	5.4
26	5.8	8.6	e6.0	e5.5	e9.5	e15	40	94	51	16	8.0	5.5
27	5.6	8.1	e6.0	e5.5	e9.0	17	41	104	51	15	8.0	5.8
28	5.5	8.0	e6.0	e5.5	e8.5	16	40	124	48	14	7.8	5.7
29	5.5	8.1	e6.0	6.0	e8.0	15	40	122	44	15	7.3	5.7
30	5.4	12	e6.5	e5.5	---	15	41	114	42	14	7.1	5.7
31	5.2	---	7.6	e5.0	---	15	---	111	---	13	6.9	---
TOTAL	189.4	217.6	284.5	192.4	262.2	432.4	1049	3053	3636	768	296.3	184.8
MEAN	6.11	7.25	9.18	6.21	9.04	13.9	35.0	98.5	121	24.8	9.56	6.16
MAX	7.7	12	20	7.2	13	21	62	205	243	46	13	7.1
MIN	5.2	2.9	5.5	5.0	4.0	8.5	15	39	42	13	6.9	5.4
AC-FT	376	432	564	382	520	858	2080	6060	7210	1520	588	367
CFSM	.21	.25	.32	.21	.31	.48	1.20	3.38	4.16	.85	.33	.21
IN.	.24	.28	.36	.25	.34	.55	1.34	3.90	4.65	.98	.38	.24

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1996, BY WATER YEAR (WY)

MEAN	4.83	5.03	4.68	4.31	4.65	7.86	23.9	59.4	59.3	17.5	6.79	5.05
MAX	8.07	14.0	11.9	10.3	9.91	25.5	60.1	125	168	43.9	15.3	9.90
(WY)	1985	1984	1984	1984	1984	1986	1986	1982	1974	1982	1984	1984
MIN	2.87	2.47	2.85	2.46	2.24	3.13	5.34	7.88	9.56	3.45	2.14	2.07
(WY)	1980	1980	1980	1980	1980	1977	1975	1977	1994	1994	1977	1994

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1973 - 1996	
ANNUAL TOTAL	7309.7		10565.6			
ANNUAL MEAN	20.0		28.9		17.0	
HIGHEST ANNUAL MEAN					32.3	1974
LOWEST ANNUAL MEAN					4.70	1977
HIGHEST DAILY MEAN	125	Jun 4	243	Jun 9	310	Jun 16 1974
LOWEST DAILY MEAN	2.3	Jan 17	2.9	Nov 2	1.4	Nov 21 1979
ANNUAL SEVEN-DAY MINIMUM	2.4	Jan 14	4.3	Nov 1	1.6	Aug 18 1977
ANNUAL RUNOFF (AC-FT)	14500		20960		12290	
ANNUAL RUNOFF (CFSM)	.69		.99		.58	
ANNUAL RUNOFF (INCHES)	9.34		13.51		7.92	
10 PERCENT EXCEEDS	64		88		46	
50 PERCENT EXCEEDS	8.8		9.9		6.0	
90 PERCENT EXCEEDS	4.1		5.6		3.1	

e Estimated

SALMON RIVER BASIN

13297350 BRUNO CREEK NEAR CLAYTON, ID

LOCATION.--Lat 44°17'56", long 114°26'50", in SW¼NE¼ sec.8, T.11 N., R.17 E., Custer County. Hydrologic Unit 17060201. U.S. Bureau of Land Management lands, on left bank, 0.2 mi upstream from mouth, and 4.8 mi northwest of Clayton.

DRAINAGE AREA.--6.29 mi^2.

PERIOD OF RECORD.--April 1971 to current year.

REVISED RECORDS.--WDR ID-76-1: 1974-75(P).

GAGE.--Water-stage recorder and cipolletti weir since 1978. Elevation of gage is 5,840 ft above sea level, from topographic map.

REMARKS.--Records poor. Flow affected at times by diversions from stream or by return flow from ground-water pumpage at mine about 2 mi upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42 ft^3/s May 31, 1972, gage height, 2.45 ft, prior to installation of cipolletti weir in 1978; maximum gage height, 3.21 ft, June 2, 3, 1986; periods of no flow occurred Dec. 14, 1980 to Feb. 20, 1981, Mar. 4 to Apr. 10, 1982, Aug. 6-12, 1990, Oct. 18-21, 1990, Apr. 18-20, 1991, Aug. 9-16, 31, Sept. 1, 4, 8-23, 1992.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10 ft^3/s May 29, gage height, 2.96 ft; minimum daily, 0.12 ft^3/s Oct. 18 to Nov. 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.15	.12	.28	e.30	e.20	e.25	e.50	.86	5.8	2.3	.85	.29
2	.15	.12	.32	e.30	e.20	e.25	e.50	1.0	6.1	2.2	.75	.27
3	.17	.12	.34	e.30	e.20	e.25	e.50	1.1	5.8	2.1	.68	.27
4	.16	.12	.31	e.25	e.20	e.30	.51	1.1	5.0	1.9	.63	.50
5	.17	.12	.30	e.25	e.20	e.30	.52	1.2	6.8	1.8	.55	.71
6	.17	.12	.27	e.25	e.20	e.30	.55	1.2	6.6	1.8	.51	.41
7	.17	.12	.25	e.25	e.25	e.30	.57	1.2	6.4	1.7	.48	.33
8	.18	.13	.25	e.25	e.25	e.35	.60	1.2	6.5	1.6	.46	.30
9	.18	.17	.27	e.25	e.25	e.40	.68	1.2	6.3	1.5	.45	.29
10	.18	.18	.27	e.25	e.30	e.40	.80	1.3	5.8	1.5	.43	.27
11	.18	.20	.24	e.25	e.25	e.40	.91	1.5	5.3	1.5	.43	.24
12	.18	.22	.28	e.20	e.25	e.40	.96	1.9	4.7	1.4	.42	.24
13	.18	.24	.31	e.20	e.25	e.40	.96	2.9	4.4	1.4	.40	.24
14	.18	.24	.34	e.25	e.25	e.40	.91	4.2	5.0	1.4	.39	.24
15	.18	.23	.32	e.30	e.25	e.40	.90	5.3	5.3	1.3	.38	.24
16	.18	.22	e.35	e.30	e.25	e.40	.90	5.9	5.1	1.4	.38	.24
17	.16	.21	e.35	e.25	e.25	e.40	.89	6.7	4.7	1.5	.38	.24
18	.12	.18	e.35	e.30	e.30	e.45	.89	8.1	4.8	1.3	.38	.24
19	.12	.18	e.25	e.25	e.30	e.45	.85	6.7	4.6	1.3	.38	.24
20	.12	.18	e.25	e.25	e.35	e.40	.84	5.5	4.4	1.3	.38	.22
21	.12	.18	e.25	e.25	e.35	e.40	.84	4.8	5.3	1.2	.38	.21
22	.12	.18	e.25	e.25	e.30	e.40	.84	4.4	4.6	1.2	.36	.21
23	.12	.18	e.20	e.25	e.30	e.40	.83	4.0	3.9	1.2	.32	.22
24	.12	.18	e.20	e.25	e.30	e.35	.87	3.6	4.1	1.2	.30	.22
25	.12	.19	e.25	e.25	e.25	e.35	.91	3.5	3.9	1.1	.30	.22
26	.12	.18	e.25	e.25	e.25	e.40	1.4	4.1	3.4	1.1	.30	.22
27	.12	.18	e.25	e.25	e.25	e.45	2.0	5.4	3.1	1.0	.30	.20
28	.12	.19	e.25	e.25	e.25	e.45	1.6	6.8	2.9	1.0	.30	.20
29	.12	.18	e.30	e.20	e.20	e.50	1.2	6.9	2.6	1.0	.30	.18
30	.12	.23	e.30	e.20	---	e.50	.72	6.3	2.5	1.0	.30	.18
31	.12	---	e.30	e.20	---	e.50	---	5.9	---	.94	.30	---
TOTAL	4.60	5.29	8.70	7.80	7.40	11.90	25.95	115.76	145.7	44.14	13.17	8.08
MEAN	.15	.18	.28	.25	.26	.38	.86	3.73	4.86	1.42	.42	.27
MAX	.18	.24	.35	.30	.35	.50	2.0	8.1	6.8	2.3	.85	.71
MIN	.12	.12	.20	.20	.20	.25	.50	.86	2.5	.94	.30	.18
AC-FT	9.1	10	17	15	15	24	51	230	289	88	26	16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1996, BY WATER YEAR (WY)

MEAN	.41	.40	.41	.34	.41	.47	1.27	4.76	5.31	1.32	.53	.39
MAX	1.18	1.25	1.57	1.27	1.86	1.25	3.44	13.9	18.6	4.47	1.39	1.17
(WY)	1985	1984	1981	1984	1982	1984	1974	1971	1971	1982	1982	1984
MIN	.12	.11	.11	.000	.087	.19	.35	.25	.13	.11	.027	.026
(WY)	1993	1978	1995	1981	1981	1995	1990	1994	1994	1994	1992	1992

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1971 - 1996	
ANNUAL TOTAL	279.30		398.49			
ANNUAL MEAN	.77		1.09		1.25	
HIGHEST ANNUAL MEAN					3.27	1982
LOWEST ANNUAL MEAN					.22	1994
HIGHEST DAILY MEAN	5.1	Jun 6	8.1	May 18	32	May 31 1972
LOWEST DAILY MEAN	.10	Jan 1	.12	Oct 18	.00	Dec 14 1980
ANNUAL SEVEN-DAY MINIMUM	.10	Jan 1	.12	Oct 18	.00	Dec 14 1980
ANNUAL RUNOFF (AC-FT)	554		790		905	
10 PERCENT EXCEEDS	2.7		4.1		3.4	
50 PERCENT EXCEEDS	.20		.31		.41	
90 PERCENT EXCEEDS	.12		.18		.15	

e Estimated

SALMON RIVER BASIN

13297355 SQUAW CREEK BELOW BRUNO CREEK, NEAR CLAYTON, ID

LOCATION.--Lat 44°17'26", long 114°28'14", in SW¼SW¼SW¼ sec.9, T.11 N., R.17 E., Custer County, Hydrologic Unit 17060201, on left bank, 3 mi upstream from mouth and 4.5 mi northwest of Clayton.

DRAINAGE AREA.--79.0 mi^2.

PERIOD OF RECORD.--October 1972 to current year.

REVISED RECORDS.--WDR ID-76-1: 1975(P).

GAGE.--Water-stage recorder. Elevation of gage is 5,710 ft above sea level, from topographic map. Prior to June 12, 1974, at datum 2.46 ft higher.

REMARKS.--Records fair except for estimated daily discharges and discharges Mar. 27 to May 20, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 755 ft^3/s May 29, 1986, gage height, 6.31 ft; minimum, 3.3 ft^3/s Mar. 11, 1979, gage height, 2.49 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 180 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 9	2045	198	4.73	June 4	1915	*553	*5.70
May 14	1845	324	5.25	June 8	2130	*553	*5.70

Minimum, 4.1 ft^3/s Nov. 1, gage height, 2.83 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	7.5	26	e10	e7.0	e10	31	76	196	145	27	13
2	11	e7.0	25	e10	e7.0	e10	33	75	210	148	25	13
3	13	e7.0	20	e10	e6.5	e15	33	68	299	144	25	13
4	14	e7.5	19	e10	e6.5	e15	35	64	374	138	25	13
5	13	11	e20	e10	e9.0	e15	40	64	431	125	23	13
6	13	11	e15	e10	e10	e15	51	58	378	111	23	14
7	12	11	e15	e10	e15	e15	69	62	376	99	22	13
8	12	11	e15	e10	e15	e15	92	71	448	91	21	13
9	11	14	e15	e10	e15	e20	137	78	442	83	20	13
10	11	13	19	e10	e15	e20	124	87	467	77	20	12
11	12	15	19	e10	e15	e20	97	105	416	72	19	12
12	13	19	20	e10	e15	e20	84	143	395	67	19	12
13	12	15	23	e9.5	e15	e20	73	200	389	63	19	12
14	12	16	19	e10	e15	e20	65	290	361	58	18	12
15	12	15	18	e10	e15	e20	62	260	336	55	18	13
16	12	14	17	e10	e15	e20	64	259	317	53	17	14
17	12	14	e15	e10	e15	e20	64	260	321	70	17	13
18	17	14	e10	e9.0	e15	e20	61	250	314	52	17	13
19	13	13	e10	e10	e20	e25	58	212	266	45	17	13
20	13	13	e10	e10	e20	e25	57	195	240	41	16	13
21	14	12	e10	e10	20	e30	55	191	221	38	16	12
22	13	12	e10	e10	20	e30	53	172	194	36	16	12
23	11	12	e9.5	e10	e15	e30	54	166	176	34	15	12
24	12	13	e9.5	e10	e15	e25	70	158	185	33	15	12
25	11	16	e9.0	e10	e15	e25	65	157	191	31	15	12
26	12	16	e9.5	e10	e10	e25	68	172	175	30	14	12
27	11	e10	e9.5	e10	e10	26	72	184	174	29	15	12
28	11	14	e9.5	e10	e10	27	69	235	164	28	15	12
29	11	14	e9.5	e10	e10	26	71	226	152	40	14	12
30	11	19	e10	e10	---	26	98	204	146	33	14	12
31	9.7	---	e15	e8.5	---	28	---	189	---	29	13	---
TOTAL	375.7	386.0	461.0	307.0	391.0	658	2005	4931	8754	2098	570	377
MEAN	12.1	12.9	14.9	9.90	13.5	21.2	66.8	159	292	67.7	18.4	12.6
MAX	17	19	26	10	20	30	137	290	467	148	27	14
MIN	9.7	7.0	9.0	8.5	6.5	10	31	58	146	28	13	12
AC-FT	745	766	914	609	776	1310	3980	9780	17360	4160	1130	748
CFSM	.15	.16	.19	.13	.17	.27	.85	2.01	3.69	.86	.23	.16
IN.	.18	.18	.22	.14	.18	.31	.94	2.32	4.12	.99	.27	.18

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1996, BY WATER YEAR (WY)

MEAN	10.5	10.7	10.0	9.27	9.47	14.6	40.3	110	124	34.6	12.7	10.5
MAX	17.1	21.9	18.0	16.8	16.3	35.6	86.0	247	312	94.7	22.2	18.3
(WY)	1985	1984	1984	1984	1984	1986	1986	1976	1974	1982	1982	1984
MIN	5.01	5.88	6.53	6.18	6.41	7.84	12.4	17.7	16.6	6.90	5.38	5.10
(WY)	1992	1995	1990	1995	1994	1977	1975	1977	1994	1994	1977	1994

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1973 - 1996	
ANNUAL TOTAL	14757.7		21313.7			
ANNUAL MEAN	40.4		58.2		33.0	
HIGHEST ANNUAL MEAN					62.7	1982
LOWEST ANNUAL MEAN					10.9	1977
HIGHEST DAILY MEAN	278	Jun 3	467	Jun 10	640	Jun 16 1974
LOWEST DAILY MEAN	5.0	Jan 2	6.5	Feb 3	3.8	Nov 26 1981
ANNUAL SEVEN-DAY MINIMUM	5.4	Jan 17	7.8	Jan 30	4.2	Sep 6 1977
ANNUAL RUNOFF (AC-FT)	29270		42280		23930	
ANNUAL RUNOFF (CFSM)	.51		.74		.42	
ANNUAL RUNOFF (INCHES)	6.95		10.04		5.68	
10 PERCENT EXCEEDS	147		186		85	
50 PERCENT EXCEEDS	15		16		12	
90 PERCENT EXCEEDS	7.5		10		6.9	

e Estimated

SALMON RIVER BASIN

13311000 EAST FORK OF SOUTH FORK SALMON RIVER AT STIBNITE, ID

LOCATION.--Lat 44°54'21", long 115°19'42", in SE¼SW¼SE¼ sec.11, T.18 N., R.9 E., Valley County, Payette National Forest, Hydrologic Unit 17060208, on right bank, 1,200 ft downstream from Meadow Creek.

DRAINAGE AREA.--19.6 mi^2.

PERIOD OF RECORD.--July 1928 to November 1941, December 1941 to September 1943 (fragmentary records only), October 1982 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,460 ft above sea level, from topographic map. Prior to Sept. 18, 1929, staff gage at site 1,090 ft upstream at different datum. Sept. 18, 1929 to Sept. 7, 1943, at site 1,100 ft upstream at different datum.

REMARKS.--Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 394 ft^3/s May 31, 1986, gage height, 7.11 ft; minimum recorded, 2.0 ft^3/s Oct. 29, 1936, gage height, 1.71 ft, site and datum then in use.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 18	0130	192	6.32	June 9	1730	*344	*6.92

Minimum daily, 8.0 ft^3/s Nov. 1-3, Dec. 27, Jan. 31.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.7	e8.0	41	11	8.6	8.8	10	29	100	115	27	14
2	9.4	e8.0	24	11	8.6	8.9	10	28	114	117	26	14
3	12	e8.0	20	11	8.6	8.5	10	27	148	113	25	14
4	11	e9.0	17	11	8.3	8.5	9.8	24	201	109	25	14
5	11	10	e16	11	8.5	8.5	10	25	228	101	24	14
6	11	9.9	e11	11	8.4	8.5	11	25	220	91	23	14
7	11	10	15	11	9.5	8.5	13	25	247	84	23	14
8	11	13	e13	11	12	8.6	17	27	289	79	22	14
9	10	16	15	11	14	8.8	23	28	311	72	21	13
10	12	11	15	11	11	9.0	28	29	304	67	21	13
11	13	14	14	10	11	9.3	28	33	282	63	20	15
12	17	17	31	10	10	9.4	26	53	261	61	19	15
13	13	13	25	10	10	8.9	24	67	252	58	19	15
14	13	14	19	10	9.6	8.9	23	102	253	54	20	15
15	13	13	18	11	9.5	8.9	23	134	259	51	19	16
16	13	12	16	10	9.9	8.9	25	142	269	49	18	15
17	14	12	e14	9.9	10	8.9	24	151	258	47	18	15
18	21	14	e13	e9.0	11	9.1	22	164	224	47	19	14
19	14	13	e14	10	10	9.3	21	134	185	45	18	14
20	13	12	e14	9.8	10	9.5	20	112	160	43	18	14
21	13	11	14	9.9	10	10	20	99	160	42	17	14
22	12	11	e12	9.6	9.5	11	20	94	144	41	16	14
23	11	11	e11	9.4	9.2	11	24	84	128	38	16	14
24	11	13	e10	9.6	9.9	e10	41	77	137	34	16	16
25	11	19	e10	9.4	9.8	e9.0	29	78	122	33	16	15
26	11	15	e9.0	9.4	9.7	e10	28	86	120	32	15	15
27	11	13	e8.0	9.4	e10	9.9	27	98	120	31	15	14
28	11	13	e11	9.4	e9.0	10	25	109	115	30	16	14
29	11	15	e10	9.4	9.1	e10	26	111	110	33	15	13
30	11	24	e11	e9.0	---	10	28	102	111	31	15	13
31	9.1	---	11	e8.0	---	10	---	98	---	29	14	---
TOTAL	374.2	381.9	482.0	312.2	284.7	288.6	645.8	2395	5835	1840	596	428
MEAN	12.1	12.7	15.5	10.1	9.82	9.31	21.5	77.3	194	59.4	19.2	14.3
MAX	21	24	41	11	14	11	41	164	311	117	27	16
MIN	9.1	8.0	8.0	8.0	8.3	8.5	9.8	24	100	29	14	13
AC-FT	742	757	956	619	565	572	1280	4750	11570	3650	1180	849
CFSM	.62	.65	.79	.51	.50	.47	1.10	3.94	9.92	3.03	.98	.73
IN.	.71	.72	.91	.59	.54	.55	1.23	4.55	11.07	3.49	1.13	.81

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1996, BY WATER YEAR (WY)

MEAN	10.1	9.59	7.98	7.10	6.89	8.13	20.4	70.0	92.9	30.5	13.5	10.5
MAX	18.4	20.5	15.5	10.1	9.82	20.0	64.9	113	206	72.3	30.8	18.9
(WY)	1983	1942	1996	1996	1996	1934	1934	1936	1933	1984	1983	1983
MIN	5.46	5.87	4.00	4.95	4.77	5.61	7.27	35.1	22.8	9.68	6.55	6.08
(WY)	1989	1989	1934	1989	1989	1991	1929	1991	1992	1931	1931	1988

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1928 - 1996	
ANNUAL TOTAL	11524.6		13863.4			
ANNUAL MEAN	31.6		37.9		23.9	
HIGHEST ANNUAL MEAN					37.9	1996
LOWEST ANNUAL MEAN					14.0	1992
HIGHEST DAILY MEAN	195	Jun 5	311	Jun 9	348	May 31 1986
LOWEST DAILY MEAN	5.8	Jan 28	8.0	Nov 1	3.8	Jan 8 1993
ANNUAL SEVEN-DAY MINIMUM	6.1	Jan 24	8.4	Jan 31	4.0	Nov 29 1933
ANNUAL RUNOFF (AC-FT)	22860		27500		17300	
ANNUAL RUNOFF (CFSM)	1.61		1.93		1.22	
ANNUAL RUNOFF (INCHES)	21.87		26.31		16.55	
10 PERCENT EXCEEDS	109		111		64	
50 PERCENT EXCEEDS	13		14		10	
90 PERCENT EXCEEDS	7.0		9.3		6.0	

e Estimated

13120000 NORTH FORK BIG LOST RIVER AT WILD HORSE, NEAR CHILLY, ID

LOCATION.--Lat 43°55'59", long 114°06'47", in NE¼SE¼ sec.17, T.7 N., R.20 E., Custer County, Hydrologic Unit 17040218, in Challis National Forest, on right bank 0.2 mi upstream from East Fork, 2 mi downstream from Wild Horse damsite, and 16 mi southwest of Chilly.

DRAINAGE AREA.--114 mi^2. Mean elevation, 8,540 ft.

PERIOD OF RECORD.--March 1944 to current year. Prior to October 1967, published as "Big Lost River at Wild Horse, near Chilly".

GAGE.--Water-stage recorder. Elevation of gage is 6,820 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are fair. There are several small ranch diversions upstream for local irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,440 ft^3/s May 30, June 1, 1986, gage height, 5.85 ft; minimum, 4.9 ft^3/s Feb. 17, 1988, gage height, 0.92 ft, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 16	2100	661	4.13	June 10	0115	*1200	*5.12

Minimum, 11 ft^3/s Jan. 18, gage height, 1.06 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	34	40	27	e20	e20	33	85	289	336	97	46
2	54	30	38	29	e20	e25	34	94	327	e380	93	45
3	56	e30	e25	30	e20	25	32	89	409	e420	90	44
4	57	31	34	28	e25	27	32	86	563	e410	85	43
5	53	e30	23	28	e25	26	33	86	698	e380	78	42
6	52	33	e25	26	25	25	40	83	638	e350	75	44
7	52	34	e20	e25	26	24	54	88	673	e320	72	43
8	50	35	e20	e25	27	25	71	96	852	e310	70	42
9	49	37	28	e25	27	26	107	107	1070	e300	68	41
10	47	35	32	e25	24	26	131	120	1030	e280	67	39
11	46	36	33	26	23	27	103	140	861	270	65	39
12	47	40	38	26	25	27	92	214	746	249	65	42
13	46	38	41	26	26	26	81	299	663	232	65	41
14	45	38	33	26	26	25	74	425	679	216	66	40
15	45	37	35	28	25	26	73	492	720	210	67	42
16	44	37	34	28	25	26	74	556	698	198	64	48
17	44	36	22	26	26	26	69	572	672	187	62	46
18	44	36	22	19	27	25	66	536	555	178	61	45
19	42	36	e20	26	27	26	59	452	453	170	59	44
20	41	35	e20	27	25	30	60	377	386	150	57	43
21	42	34	e20	27	25	34	56	332	355	136	55	42
22	41	34	23	24	e20	35	55	311	348	128	53	41
23	39	33	23	24	e20	32	56	289	335	125	52	40
24	40	34	23	e25	e20	30	83	262	340	122	50	40
25	40	35	24	23	22	27	74	235	346	117	49	39
26	40	35	23	e20	22	27	74	240	333	116	48	39
27	39	31	23	25	e25	28	76	273	328	111	49	38
28	38	33	24	26	e20	29	70	342	310	107	50	37
29	39	33	24	26	e20	28	71	358	291	117	49	36
30	38	35	26	e25	---	26	76	329	303	115	48	36
31	38	---	28	e20	---	28	---	297	---	102	46	---
TOTAL	1404	1035	844	791	688	837	2009	8265	16271	6842	1975	1248
MEAN	45.3	34.5	27.2	25.5	23.7	27.0	67.0	267	542	221	63.7	41.6
MAX	57	40	41	30	27	35	131	572	1070	420	97	48
MIN	38	30	20	19	20	20	32	83	289	102	46	36
AC-FT	2780	2050	1670	1570	1360	1660	3980	16390	32270	13570	3920	2480
CFSM	.40	.30	.24	.22	.21	.24	.59	2.34	4.76	1.94	.56	.36
IN.	.46	.34	.28	.26	.22	.27	.66	2.70	5.31	2.23	.64	.41

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1996, BY WATER YEAR (WY)

MEAN	38.7	31.7	26.0	24.0	21.9	22.5	62.6	278	415	201	72.6	47.4
MAX	63.5	117	88.2	79.6	70.9	62.1	153	584	848	602	178	122
(WY)	1984	1984	1984	1984	1984	1984	1969	1958	1965	1995	1965	1985
MIN	21.5	18.6	14.1	14.1	14.7	14.3	17.2	66.2	118	52.5	27.6	21.4
(WY)	1989	1993	1993	1991	1961	1977	1955	1977	1992	1994	1992	1992

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1944 - 1996	
ANNUAL TOTAL	65296		42209			
ANNUAL MEAN	179		115		104	
HIGHEST ANNUAL MEAN					184	1965
LOWEST ANNUAL MEAN					50.1	1992
HIGHEST DAILY MEAN	1270	Jun 5	1070	Jun 9	1360	Jun 1 1986
LOWEST DAILY MEAN	18	Jan 4	19	Jan 18	9.5	Dec 22 1990
ANNUAL SEVEN-DAY MINIMUM	18	Jan 1	21	Feb 22	11	Dec 21 1990
ANNUAL RUNOFF (AC-FT)	129500		83720		75060	
ANNUAL RUNOFF (CFSM)	1.57		1.01		.91	
ANNUAL RUNOFF (INCHES)	21.31		13.77		12.35	
10 PERCENT EXCEEDS	618		337		304	
50 PERCENT EXCEEDS	47		41		37	
90 PERCENT EXCEEDS	20		25		19	

e Estimated

13-2990. Challis Creek near Challis, Idaho

Location.--Lat 44°34'20", long 114°18'20", in sec.2, T.14 N., R.18 E., on left bank 0.1 mile downstream from Eddy Creek, 6 miles northwest of Challis, and at mile 6.5.

Drainage area.--85 sq mi, approximately. Mean altitude, 7,830 ft.

Records available.--October 1943 to August 1963 (discontinued).

Gage.--Water-stage recorder. Datum of gage is 5,369.3 ft above mean sea level (levels by Topographic Division). Prior to Sept. 27, 1944, staff gage and Sept. 27, 1944, to Nov. 10, 1948, water-stage recorder, at site 350 ft downstream at datum 0.64 ft lower. Nov. 11, 1948, to Aug. 11, 1956, water-stage recorder at present site at datum 0.64 ft lower.

Average discharge.--19 years (1943-62), 43.9 cfs (31,780 acre-ft per year); 15-year base period (1947-62), 44.8 cfs.

Extremes.--Maximum and minimum discharges for October 1961 to August 1963 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	June 2, 3, 1961	163	3.74	Mar. 28, 1961	5.4	2.40
1962	June 20, 1962	197	3.87	Dec. 10, 11, 1961	a 5.5	-
1963	June 14, 1963	239	4.23	Jan. 12, 1963	a 5.8	-

a Minimum daily.

1943-63: Maximum discharge, 508 cfs June 1, 1956; maximum gage height, 6.30 ft May 24, 1956 (datum then in use); minimum discharge, 4.7 cfs Mar. 11, 1960 (gage height, 2.34 ft).

Remarks.--Records good except those for winter periods, which are fair. Diversions above station for irrigation. Flow partly regulated since 1954 by Mesquite Flat Reservoir (capacity, 1,054 acre-ft).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	16	16	16	9.1	7.8	6.5	7.4	17	138	48	36	23
2	16	15	18	9.1	7.8	6.5	8.7	19	159	46	36	24
3	16	17	17	8.6	7.4	6.4	12	19	159	46	35	22
4	15	15	15	8.0	7.4	6.4	13	22	159	55	34	21
5	15	15	12	8.4	7.4	6.6	12	22	153	56	33	21
6	15	16	10	9.0	7.4	7.0	11	22	146	51	35	21
7	16	19	11	9.1	8.2	6.6	11	21	142	46	33	21
8	16	17	11	8.7	7.4	6.4	11	21	140	42	32	21
9	17	14	12	8.7	7.4	6.5	11	21	136	41	32	21
10	18	15	12	8.7	11	6.4	11	24	133	39	31	22
11	19	17	12	8.7	10	6.4	11	27	127	38	30	21
12	19	17	12	8.7	9.1	6.8	12	30	122	38	31	21
13	19	17	12	8.7	8.2	7.4	11	30	110	38	33	20
14	17	16	13	8.7	7.8	8.2	12	32	102	48	34	20
15	17	15	12	8.7	7.8	8.2	12	38	96	48	32	21
16	17	15	11	8.2	7.8	8.2	13	36	90	46	32	21
17	16	15	10	7.8	7.4	7.8	14	38	87	46	29	21
18	15	16	11	7.8	7.4	7.4	16	40	82	45	29	20
19	15	14	11	7.4	7.4	7.8	15	41	75	42	29	19
20	15	14	11	7.0	7.8	7.8	14	41	75	40	28	18
21	15	15	11	6.4	8.2	7.8	14	47	72	40	29	20
22	14	13	11	6.6	7.8	7.8	14	52	70	40	27	20
23	14	15	10	6.8	7.4	7.8	14	60	68	40	29	19
24	13	16	10	7.0	7.0	8.2	13	67	65	39	29	19
25	14	16	10	7.2	7.0	7.8	14	76	61	40	30	19
26	14	15	10	6.8	7.0	7.4	14	85	60	41	30	19
27	14	14	10	6.4	6.5	7.0	14	94	57	41	28	18
28	14	12	9.5	7.0	6.5	7.4	15	96	56	38	28	18
29	14	13	8.7	8.0	------	7.4	15	99	54	38	26	18
30	13	14	8.5	10	------	7.4	15	124	51	38	22	17
31	15	------	9.0	10	------	7.4	------	131	------	38	21	------
TOTAL	483	458	356.7	251.3	217.3	224.7	380.1	1,492	3,045	1,332	943	606
MEAN	15.6	15.3	11.5	8.11	7.76	7.25	12.7	48.1	102	43.0	30.4	20.2
MAX	19	19	18	10	11	8.2	16	131	159	56	36	24
MIN	13	12	8.5	6.4	6.5	6.4	7.4	17	51	38	21	17
AC-FT	958	908	708	498	431	446	754	2,960	6,040	2,640	1,870	1,200

CAL YR 1960: TOTAL 10,603.3 MEAN 29.0 MAX 126 MIN 8.0 AC-FT 21,030
WAT YR 1961: TOTAL 9,789.1 MEAN 26.8 MAX 159 MIN 6.4 AC-FT 19,420

13120000 NORTH FORK BIG LOST RIVER AT WILD HORSE, NEAR CHILLY, ID

LOCATION.--Lat 43°55'59", long 114°06'47", in NE¼SE¼ sec.17, T.7 N., R.20 E., Custer County, Hydrologic Unit 17040218, in Challis National Forest, on right bank 0.2 mi upstream from East Fork, 2 mi downstream from Wild Horse damsite, and 16 mi southwest of Chilly.

DRAINAGE AREA.--114 mi².

PERIOD OF RECORD.--March 1944 to September 1990. Prior to October 1967, published as "Big Lost River at Wild Horse, near Chilly."

GAGE.--Water-stage recorder. Elevation of gage is 6,820 ft above sea level, from topographic map.

REMARKS.--There are several small ranch diversions upstream for local irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,440 ft³/s May 30, June 1, 1986, gage height, 5.85 ft; minimum, 4.9 ft³/s Feb. 17, 1988, gage height, 0.92 ft, result of freezeup.

Summary of monthly and annual discharges, 1945-90

Month	Maximum (ft³/s)	Minimum (ft³/s)	Mean (ft³/s)	Standard deviation (ft³/s)	Coefficient of variation	Percentage of annual runoff
October	64	22	40	11	0.27	3.2
November	117	19	33	14	0.44	2.6
December	88	17	27	11	0.40	2.1
January	80	15	25	9.8	0.40	2.0
February	71	15	22	8.1	0.37	1.8
March	62	14	23	8.4	0.37	1.8
April	153	17	65	35	0.54	5.2
May	584	66	284	121	0.43	22.7
June	848	156	415	162	0.39	33.2
July	506	57	196	101	0.51	15.7
August	178	30	72	29	0.41	5.8
September	122	22	48	20	0.42	3.9
Annual	184	52	104	32	0.31	100

Magnitude and frequency of annual low flow, based on period of record 1945-91

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent					
	2 50%	5 20%	10 10%	20 5%	50 2%	100# 1%
1	16	14	13	12	11	9.9
3	17	15	13	12	11	11
7	17	15	14	13	12	12
14	18	16	15	14	13	13
30	19	16	15	15	14	14
60	19	18	17	17	17	17
90	20	18	18	18	18	18
120	21	19	18	18	18	18
183	25	22	21	20	20	20

Magnitude and frequency of instantaneous peak flow, based on period of record 1945-90

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedance probability, in percent					
2 50%	5 20%	10 10%	25 4%	50 2%	100 1%
732	1,020	1,210	1,440	1,610	1,780

Magnitude and frequency of annual high flow, based on period of record 1945-90

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedance probability, in percent					
	2 50%	5 20%	10 10%	25 4%	50 2%	100# 1%
1	670	937	1,120	1,340	1,510	1,690
3	628	881	1,050	1,270	1,440	1,610
7	574	809	968	1,170	1,320	1,480
15	511	719	857	1,030	1,160	1,290
30	441	608	715	847	942	1,040
60	358	490	573	673	744	812
90	291	396	459	534	586	636

Duration table of daily mean flow for period of record 1945-90

Discharge, in ft³/s, which was exceeded for indicated percentage of time																
1%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%	99.5%	99.9%
760	435	305	212	148	75	50	38	31	26	23	20	18	17	15	14	13

Length of record used in calculation may yield unreliable values for this column.

13311000 EAST FORK SOUTH FORK SALMON RIVER AT STIBNITE, ID

LOCATION.—Lat 44°54'21", long 115°19'42", in SE¼ SW¼ SW¼ sec.11, T.18 N., R.9 E., Valley County, Hydrologic Unit 17060208, Payette National Forest, on right bank 1,200 ft downstream from Meadow Creek.

DRAINAGE AREA.—19.6 mi².

PERIOD OF RECORD.—July 1928 to November 1941, December 1941 to September 1943 (fragmentary records only), October 1982 to September 1990.

GAGE.—Water-stage recorder. Elevation of gage is 6,460 ft above sea level, from topographic map. Prior to Sept. 18, 1929, nonrecording gage at site 1,090 ft upstream at different datum. Sept. 18, 1929, to Sept. 7, 1943, at site 1,100 ft upstream at different datum.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 394 ft³/s May 31, 1986, gage height, 7.11 ft; minimum recorded, 2.0 ft³/s Oct. 29, 1936, gage height, 1.71 ft, site and datum then in use.

Summary of monthly and annual discharges, 1929-41, 1983-90

Month	Maximum (ft³/s)	Minimum (ft³/s)	Mean (ft³/s)	Standard deviation (ft³/s)	Coefficient of variation	Percentage of annual runoff
October	18	5.5	10	3.3	0.32	3.6
November	20	5.9	9.4	3.0	0.32	3.3
December	12	4.0	8.0	1.9	0.24	2.8
January	9.0	4.9	7.2	1.2	0.16	2.5
February	8.3	4.8	6.9	0.91	0.13	2.3
March	20	5.9	8.2	3.1	0.37	2.9
April	65	7.3	22	12	0.56	7.7
May	113	41	72	20	0.28	25.3
June	206	25	91	53	0.59	31.6
July	72	9.7	28	17	0.62	9.7
August	31	6.6	13	5.4	0.41	4.6
September	19	6.1	11	3.2	0.30	3.7
Annual	37	15	24	6.7	0.28	100

Magnitude and frequency of annual low flow, based on period of record 1930-41, 1984-91

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent					
	2 50%	5 20%	10 10%	20 5%	50# 2%	100# 1%
1	5.7	4.8	4.4	4.1	3.7	3.5
3	5.9	5.1	4.6	4.2	3.8	3.6
7	6.2	5.3	4.8	4.3	3.9	3.6
14	6.4	5.4	4.9	4.4	4.0	3.7
30	6.5	5.5	5.0	4.5	4.0	3.7
60	6.6	5.7	5.1	4.7	4.2	3.9
90	6.8	5.9	5.4	5.1	4.6	4.3
120	7.2	6.3	5.8	5.4	5.0	4.7
183	7.9	6.8	6.3	5.9	5.5	5.3

Magnitude and frequency of instantaneous peak flow, based on period of record 1929-41, 1983-90

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedance probability, in percent					
2 50%	5 20%	10 10%	25 4%	50 2%	100 1%
179	254	301	357	397	436

Magnitude and frequency of annual high flow, based on period of record 1929-41, 1983-90

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedance probability, in percent					
	2 50%	5 20%	10 10%	25 4%	50# 2%	100# 1%
1	152	225	279	343	374	409
3	147	218	270	323	352	395
7	135	202	253	305	334	389
15	122	177	219	277	313	354
30	105	148	176	218	249	282
60	81	111	130	155	173	190
90	64	85	99	116	128	140

Duration table of daily mean flow for period of record 1929-41, 1983-90

Discharge, in ft³/s, which was exceeded for indicated percentage of time															
1%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%	99.5%	99.9%
186	98	63	42	28	17	13	10	8.9	8.1	7.4	6.6	6.2	5.2	4.8	4.5	4.1

Length of record used in calculation may yield unreliable values for this column.

13299000 CHALLIS CREEK NEAR CHALLIS, ID

LOCATION.—Lat 44°34'20", long 114°18'20", in sec.2, T.14 N., R.18 E., Custer County, Hydrologic Unit 17060201, on left bank 0.1 mi downstream from Eddy Creek, 6 mi northwest of Challis, and at mile 6.5.

DRAINAGE AREA.—89 mi², approximately. Mean elevation, 7,830 ft.

PERIOD OF RECORD.—October 1943 to August 1963.

GAGE.—Water-stage recorder. Datum of gage is 5,369.3 ft above sea level (levels by Topographic Division). Prior to Sept. 27, 1944, staff gage, and Sept. 27, 1944 to Nov. 10, 1948, water-stage recorder at site 350 ft downstream at datum 0.64 ft lower. Nov. 11, 1948, to Aug. 11, 1956, water-stage recorder at present site at datum 0.64 ft lower.

REMARKS.—Diversions above station for irrigation. Flow partly regulated since 1954 by Mosquito Flat Reservoir (capacity, 1,054 acre-ft).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 508 ft³/s June 1, 1956; maximum gage height, 6.30 ft, May 24, 1956 (datum then in use); minimum, 4.7 ft³/s Mar. 11, 1960, gage height, 2.34 ft.

Summary of monthly and annual discharges, 1944-62

Month	Maximum (ft³/s)	Minimum (ft³/s)	Mean (ft³/s)	Standard deviation (ft³/s)	Coefficient of variation	Percentage of annual runoff
October	28	15	22	3.9	0.17	4.2
November	22	14	19	2.5	0.13	3.6
December	20	7.8	15	3.1	0.20	2.9
January	17	8.1	13	2.8	0.21	2.4
February	17	7.7	12	2.7	0.22	2.3
March	26	7.3	14	4.2	0.30	2.6
April	74	11	29	15	0.50	5.6
May	226	48	112	61	0.54	21.3
June	285	87	157	59	0.38	29.9
July	117	35	68	20	0.30	12.8
August	56	21	39	9.6	0.25	7.4
September	35	17	26	5.1	0.20	5.0
Annual	70	27	44	11	0.26	100

Magnitude and frequency of annual low flow, based on period of record 1945-63

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent					
	2 50%	5 20%	10 10%	20 5%	50# 2%	100# 1%
1	9.7	7.6	6.6	5.8	5.0	4.5
3	10	7.8	6.8	6.0	5.1	4.6
7	10	8.2	7.1	6.3	5.4	4.9
14	11	8.3	7.3	6.4	5.6	5.1
30	11	8.8	7.8	7.0	6.2	5.7
60	12	9.4	8.5	7.7	6.9	6.4
90	12	10	8.8	7.9	7.0	6.4
120	13	11	9.5	8.6	7.6	7.0
183	16	13	12	11	9.9	9.1

Magnitude and frequency of instantaneous peak flow, based on period of record 1944-62

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedance probability, in percent					
2 50%	5 20%	10 10%	25 4%	50 2%	100 1%
250	348	409	482	533	582

Magnitude and frequency of annual high flow, based on period of record 1944-62

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedance probability, in percent					
	2 50%	5 20%	10 10%	25 4%	50# 2%	100# 1%
1	231	324	389	464	516	545
3	226	313	374	441	500	523
7	215	308	357	424	453	488
15	195	277	337	412	425	456
30	170	236	281	341	387	435
60	134	181	213	253	283	313
90	109	144	167	196	218	241

Duration table of daily mean flow for period of record 1944-62

Discharge, in ft³/s, which was exceeded for indicated percentage of time																
1%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%	99.5%	99.9%
291	161	111	78	58	39	27	22	19	16	14	12	9.7	8.1	7.4	6.9	6.3

Length of record used in calculation may yield unreliable values for this column.

13297355 SQUAW CREEK BELOW BRUNO CREEK, NEAR CLAYTON, ID

LOCATION.—Lat 44°17'26", long 114°28'14", in SW¼ SW¼ SW¼ sec.9, T.11 N., R.17 E., Custer County, Hydrologic Unit 17060201, on left bank 3 mi upstream from mouth and 4.5 mi northwest of Clayton.

DRAINAGE AREA.—79.0 mi².

PERIOD OF RECORD.—October 1972 to September 1990.

REVISED RECORDS.—WDR ID-76-1: 1975(P).

GAGE.—Water-stage recorder. Elevation of gage is 5,710 ft above sea level, from topographic map. Prior to June 12, 1974, at datum 2.46 ft higher.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 755 ft³/s May 29, 1986, gage height, 6.31 ft; minimum, 3.3 ft³/s Mar. 11, 1979, gage height, 2.49 ft.

Summary of monthly and annual discharges, 1973-90

Month	Maximum (ft³/s)	Minimum (ft³/s)	Mean (ft³/s)	Standard deviation (ft³/s)	Coefficient of variation	Percentage of annual runoff
October	17	6.9	11	3.3	0.29	2.8
November	22	7.0	11	3.8	0.33	2.8
December	18	6.5	10	3.3	0.32	2.6
January	17	6.8	9.8	3.0	0.30	2.4
February	16	6.6	9.5	2.5	0.26	2.4
March	36	7.8	14	6.3	0.44	3.5
April	86	12	42	19	0.46	10.4
May	247	18	115	62	0.54	28.3
June	312	21	123	89	0.72	30.4
July	95	8.6	34	24	0.72	8.5
August	22	5.4	13	5.6	0.43	3.2
September	18	5.7	11	3.9	0.36	2.7
Annual	63	11	34	15	0.45	100

Magnitude and frequency of annual low flow, based on period of record 1974-91

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent					
	2 50%	5 20%	10 10%	20 5%	50# 2%	100# 1%
1	5.6	4.4	4.0	3.7	3.4	3.2
3	6.1	4.9	4.3	4.0	3.7	3.4
7	6.6	5.3	4.7	4.3	4.0	3.7
14	7.0	5.7	5.1	4.7	4.4	4.1
30	7.6	6.2	5.5	5.1	4.6	4.4
60	8.3	6.8	6.1	5.7	5.2	4.9
90	8.6	7.1	6.5	6.1	5.6	5.4
120	9.0	7.4	6.8	6.3	5.8	5.6
183	9.7	7.8	7.0	6.4	5.9	5.7

Magnitude and frequency of instantaneous peak flow, based on period of record 1973-90

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedance probability, in percent					
2 50%	5 20%	10 10%	25 4%	50 2%	100 1%
292	472	597	758	879	999

Magnitude and frequency of annual high flow, based on period of record 1973-90

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedance probability, in percent					
	2 50%	5 20%	10 10%	25 4%	50# 2%	100# 1%
1	227	400	513	647	739	824
3	214	370	466	574	644	706
7	195	335	420	513	573	625
15	169	286	357	435	486	530
30	144	241	300	366	408	446
60	113	184	228	278	311	341
90	89	144	179	221	249	275

Duration table of daily mean flow for period of record 1973-90

Discharge, in ft³/s, which was exceeded for indicated percentage of time															
1%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%	99.5%	99.9%
304	149	87	57	39	20	16	13	12	9.9	8.2	7.2	6.5	5.8	5.3	4.8	4.1

Length of record used in calculation may yield unreliable values for this column.

13297350 BRUNO CREEK NEAR CLAYTON, ID

LOCATION.—Lat 44°17'56", long 114°26'50", in SW¼ NE¼ sec.8, T.11 N., R.17 E., Custer County, Hydrologic Unit 17060201, U.S. Bureau of Land Management lands, on left bank 0.2 mi upstream from mouth, and 4.8 mi northwest of Clayton.

DRAINAGE AREA.—6.29 mi².

PERIOD OF RECORD.—April 1971 to September 1990.

REVISED RECORDS.—WDR ID-76-1: 1974-75(P).

GAGE.—Water-stage recorder and cipolletti weir since 1978. Elevation of gage is 5,840 ft above sea level, from topographic map.

REMARKS.—Flow affected at times by diversions from stream or by return flow from ground-water pumpage at mine about 2 mi upstream.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 42 ft³/s May 31, 1972, gage height, 2.45 ft; no flow Dec. 14, 1980, to Feb. 20, 1981, Mar. 4 to Apr. 10, 1982.

Summary of monthly and annual discharges, 1972-90

Month	Maximum (ft³/s)	Minimum (ft³/s)	Mean (ft³/s)	Standard deviation (ft³/s)	Coefficient of variation	Percentage of annual runoff
October	1.2	0.14	0.49	0.28	0.58	2.8
November	1.3	0.11	0.47	0.28	0.60	2.7
December	1.6	0.13	0.47	0.37	0.78	2.7
January	1.3	0.00	0.39	0.27	0.71	2.3
February	1.9	0.09	0.46	0.42	0.91	2.7
March	1.3	0.20	0.52	0.29	0.55	3.0
April	3.4	0.35	1.5	0.93	0.63	8.6
May	13	0.37	5.2	4.1	0.78	30.3
June	15	0.27	5.4	5.3	0.99	31.4
July	4.5	0.17	1.3	1.2	0.89	7.7
August	1.4	0.05	0.56	0.42	0.75	3.3
September	1.2	0.13	0.43	0.29	0.68	2.5
Annual	3.3	0.24	1.4	0.95	0.66	100

Magnitude and frequency of annual low flow, based on period of record 1973-91

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent					
	2 50%	5 20%	10 10%	20 5%	50# 2%	100# 1%
1	0.13	0.00	0.00	0.00	0.00	0.00
3	0.14	0.00	0.00	0.00	0.00	0.00
7	0.15	0.00	0.00	0.00	0.00	0.00
14	0.19	0.05	0.00	0.00	0.00	0.00
30	0.21	0.11	0.07	0.00	0.00	0.00
60	0.25	0.13	0.09	0.00	0.00	0.00
90	0.26	0.16	0.11	0.09	0.06	0.05
120	0.31	0.21	0.16	0.13	0.11	0.09
183	0.35	0.23	0.18	0.15	0.11	0.10

Magnitude and frequency of instantaneous peak flow, based on period of record 1972-90

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedance probability, in percent					
2 50%	5 20%	10 10%	25 4%	50 2%	100 1%
9.9	23	35	53	69	87

Magnitude and frequency of annual high flow, based on period of record 1972-90

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedance probability, in percent					
	2 50%	5 20%	10 10%	25 4%	50# 2%	100# 1%
1	8.2	19	27	38	46	53
3	8.0	18	26	35	42	48
7	7.4	17	23	31	36	41
15	6.5	15	21	28	33	38
30	5.6	12	17	23	27	30
60	4.2	9.2	13	18	22	25
90	3.2	7.0	9.9	14	17	19

Duration table of daily mean flow for period of record 1972-90

Discharge, in ft³/s, which was exceeded for indicated percentage of time															
1%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%	99.5%	99.9%
17	6.9	3.6	2.0	1.4	0.82	0.60	0.48	0.40	0.32	0.25	0.17	0.12	0.04	0.01	0.00	0.00

Length of record used in calculation may yield unreliable values for this column.

13297330 THOMPSON CREEK NEAR CLAYTON, ID

LOCATION.—Lat 44°16'01", long 114°30'48", in NE¼, NE¼, SE¼, sec.24, T.11 N., R.16 E., Custer County, Hydrologic Unit 17060201, on right bank 1.2 mi upstream from mouth, 2.2 mi below Pat Hughes Creek, and 5.7 mi west of Clayton.

DRAINAGE AREA.—29.1 mi².

PERIOD OF RECORD.—November 1972 to September 1990.

GAGE.—Water-stage recorder. Datum of gage is 5,700 ft above sea level, from topographic map. Prior to June 13, 1982, recording gage at site 200 ft upstream at datum 2 ft higher.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 332 ft³/s June 16, 1974, gage height, 5.61 ft from floodmark; minimum, 1.0 ft³/s Mar. 16, 1980, gage height, 3.73 ft.

Summary of monthly and annual discharges, 1973-90

Month	Maximum (ft³/s)	Minimum (ft³/s)	Mean (ft³/s)	Standard deviation (ft³/s)	Coefficient of variation	Percentage of annual runoff
October	8.1	2.9	5.1	1.5	0.29	2.4
November	14	2.5	5.3	2.6	0.48	2.6
December	12	2.8	4.8	2.0	0.42	2.3
January	10	2.5	4.5	2.0	0.44	2.2
February	9.9	2.2	4.5	1.9	0.43	2.1
March	26	3.1	7.7	5.1	0.66	3.7
April	60	5.3	26	15	0.56	12.4
May	125	7.9	61	31	0.51	29.2
June	168	11	60	44	0.73	28.7
July	44	4.7	18	12	0.68	8.6
August	15	2.1	6.9	3.2	0.46	3.3
September	9.9	2.3	5.3	1.9	0.36	2.5
Annual	32	4.7	17	8.0	0.46	100

Magnitude and frequency of annual low flow, based on period of record 1974-91

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent					
	2 50%	5 20%	10 10%	20 5%	50# 2%	100# 1%
1	2.5	1.8	1.6	1.4	1.2	1.1
3	2.8	2.1	1.8	1.6	1.4	1.3
7	3.1	2.4	2.1	1.8	1.6	1.5
14	3.3	2.6	2.2	2.0	1.7	1.5
30	3.5	2.7	2.4	2.1	1.9	1.7
60	3.7	2.9	2.6	2.3	2.0	1.9
90	3.8	3.0	2.7	2.5	2.3	2.1
120	4.0	3.1	2.8	2.6	2.3	2.2
183	4.3	3.4	3.0	2.8	2.5	2.4

Magnitude and frequency of instantaneous peak flow, based on period of record 1973-90

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedance probability, in percent					
2 50%	5 20%	10 10%	25 4%	50 2%	100 1%
135	233	303	397	469	542

Magnitude and frequency of annual high flow, based on period of record 1973-90

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedance probability, in percent					
	2 50%	5 20%	10 10%	25 4%	50# 2%	100# 1%
1	116	211	278	363	425	484
3	109	197	257	331	384	435
7	99	178	232	297	343	387
15	85	146	186	232	263	291
30	72	119	147	179	199	217
60	60	94	114	134	146	156
90	48	76	92	111	122	133

Duration table of daily mean flow for period of record 1973-90

Discharge, in ft³/s, which was exceeded for indicated percentage of time															
1%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%	99.5%	99.9%
147	76	49	33	23	11	7.5	6.1	5.2	4.5	3.8	3.2	2.8	2.4	2.2	1.9	1.6

Length of record used in calculation may yield unreliable values for this column.

13295000 VALLEY CREEK AT STANLEY, ID

LOCATION.—Lat 44°13'21", long 114°55'49", in SE¼ NW¼ SW¼ sec.3, T.10 N., R.13 E., Custer County, Challis National Forest, Hydrologic Unit 17060201, on left bank at mile 0.2, 0.5 mi northeast of Stanley, and 0.8 mi southwest of Lower Stanley.

DRAINAGE AREA.—147 mi². Mean elevation, 7,400 ft.

PERIOD OF RECORD.—December 1910 to April 1911 (gage heights only), May 1911 to October 1913, May 1921 to December 1971, April to September 1972 (discontinued). Monthly discharge only for some periods, published in WSP 1317.

REVISED RECORDS.—WSP 362: Water years 1911-12. WSP 1567: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 6,221.81 ft above sea level. Prior to May 28, 1911, nonrecording gage at site 0.2 mi upstream and May 28, 1911, to Oct. 31, 1913, at site 0.8 mi upstream, at different datums. May 2, 1921, to Apr. 30, 1949, nonrecording gage at present site and datum.

REMARKS.—Diversions above station for irrigation of about 3,000 acres (1966 determination).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 2,000 ft³/s May 24, 1956; maximum gage height, 4.4 ft, May 29, 1921; minimum, 40 ft³/s (estimated) Nov. 17-30, 1929, Dec. 8-13, 1932.

Summary of monthly and annual discharges, 1912-13, 1922-71

Month	Maximum (ft³/s)	Minimum (ft³/s)	Mean (ft³/s)	Standard deviation (ft³/s)	Coefficient of variation	Percentage of annual runoff
October	181	64	100	26	0.26	4.2
November	178	61	100	23	0.23	4.1
December	202	55	90	28	0.31	3.8
January	138	50	82	18	0.22	3.4
February	163	58	82	18	0.22	3.4
March	158	65	85	14	0.16	3.5
April	417	88	212	84	0.40	8.8
May	1,030	311	555	183	0.33	23.1
June	1,060	167	617	228	0.37	25.7
July	717	82	273	140	0.51	11.4
August	244	52	113	44	0.39	4.7
September	151	49	93	23	0.25	3.9
Annual	317	115	200	50	0.25	100

Magnitude and frequency of annual low flow, based on period of record 1913, 1923-71

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent					
	2 50%	5 20%	10 10%	20 5%	50 2%	100 1%
1	60	51	46	43	39	35
3	62	52	47	43	39	36
7	64	54	48	44	40	37
14	66	55	50	45	41	38
30	70	59	53	49	45	42
60	74	63	58	55	51	48
90	77	66	61	58	54	51
120	79	69	64	60	57	55
183	86	74	68	64	60	57

Magnitude and frequency of instantaneous peak flow, based on period of record 1912-13, 1922-71

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedance probability, in percent					
2 50%	5 20%	10 10%	25 4%	50 2%	100 1%
989	1,330	1,540	1,780	1,950	2,110

Magnitude and frequency of annual high flow, based on period of record 1912-13, 1922-71

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedance probability, in percent					
	2 50%	5 20%	10 10%	25 4%	50 2%	100 1%
1	926	1,220	1,400	1,600	1,740	1,870
3	874	1,150	1,310	1,510	1,640	1,760
7	821	1,090	1,240	1,430	1,560	1,680
15	756	1,000	1,150	1,320	1,430	1,540
30	687	902	1,030	1,180	1,280	1,380
60	593	767	869	986	1,070	1,140
90	496	640	724	821	886	948

Duration table of daily mean flow for period of record 1912-13, 1922-71

Discharge, in ft³/s, which was exceeded for indicated percentage of time															
1%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%	99.5%	99.9%
1,070	731	530	393	290	153	116	100	91	84	77	68	63	55	51	48	42

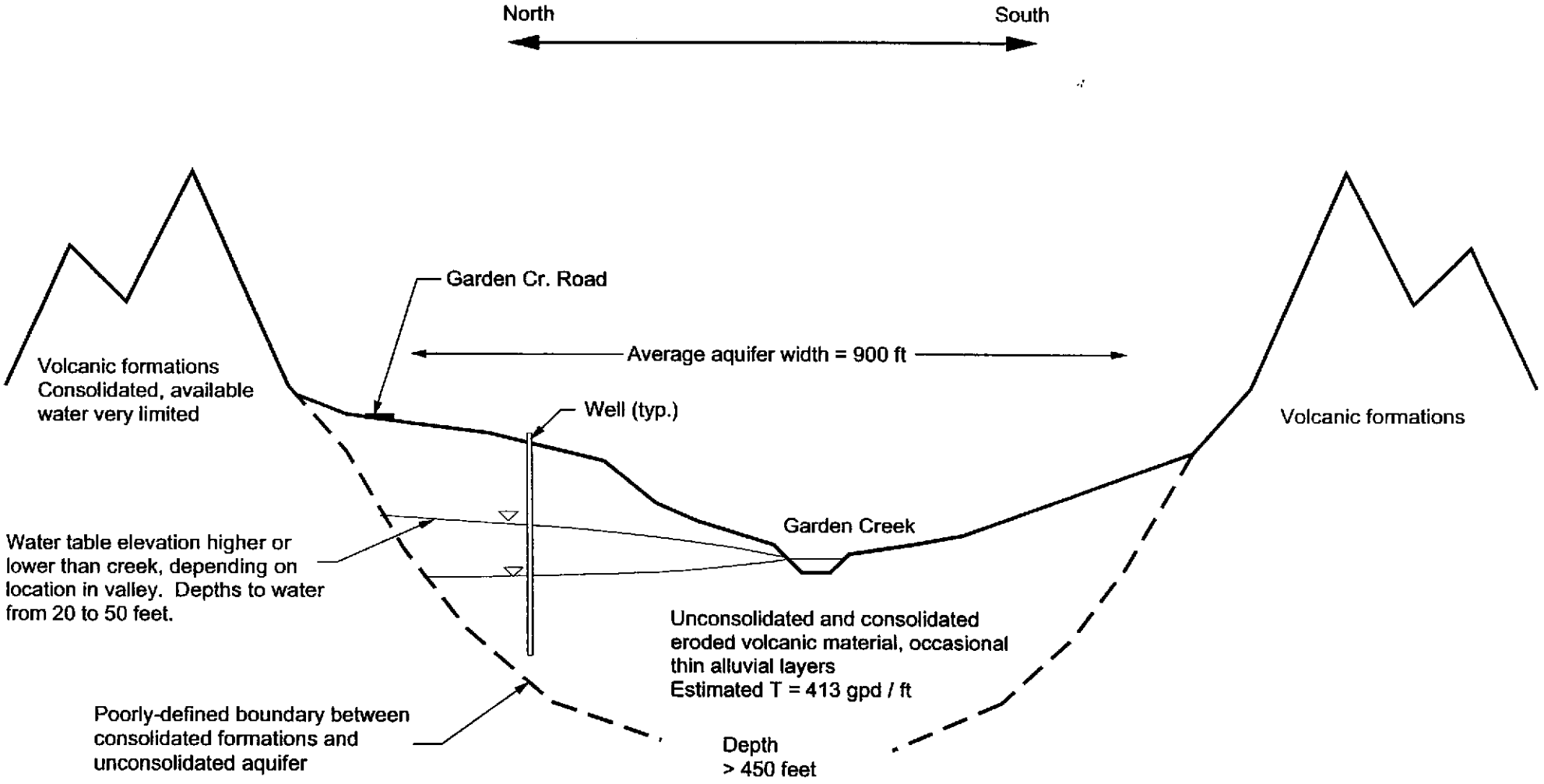


Figure 6. Generalized north-south geologic cross-section of the Garden Creek valley in the vicinity of the James property (NOT TO SCALE).

Appendix B
Current Meter Calculations

CURRENT METER CALCULATIONS

Party: CGB / JSR *Date:* 9/23/98
Meter: Pygmy *Time:* 16:40
Location: Garden Creek at James corrals nr rock outcrop
Remarks:

						BuRec method:	
Station	Dist	Depth	Time	Rev-0.6	Velocity	dA	dQ
1-B	1.65	0.00	50	0	0.00		
2	3.00	0.21	50	19	0.38	0.25	0.09
3	4.00	0.39	50	19	0.38	0.39	0.15
4	5.00	0.40	50	22	0.44	0.40	0.18
6	6.00	0.61	50	32	0.64	0.61	0.39
8	7.00	0.78	50	34	0.68	0.78	0.53
9	8.00	0.86	50	56	1.12	0.86	0.96
10	9.00	0.99	50	41	0.82	0.99	0.81
11	10.00	0.85	50	21	0.42	0.85	0.36
12	11.00	1.00	50	56	1.12	1.00	1.12
13	12.00	0.91	50	45	0.90	0.91	0.82
14	13.00	0.85	50	38	0.76	0.85	0.65
15	14.00	0.74	50	32	0.64	0.74	0.47
16	15.00	0.67	50	30	0.60	0.67	0.40
17	16.00	0.61	50	44	0.88	0.61	0.54
18	17.00	0.56	50	20	0.40	0.56	0.22
19	18.00	0.31	50	13	0.26	0.36	0.09
20-B	19.30	0.00	50	0	0.00		

Total Q	7.78	cfs
Total A	10.82	sq. ft.
Avg V	0.72	ft / s

CURRENT METER CALCULATIONS

Party: CGB / JSR *Date:* 1/21/99
Meter: Pygmy *Time:* 13:55
Location: Garden Creek 200' d/s of James east prop line - on A-frame house property
Remarks: Partly cloudy 25 deg. Ice on edges - broke away to measure. Rating: good.

						BuRec method:	
Station	Dist	Depth	Time	Rev-0.6	Velocity	dA	dQ
1-B	2.20	0.00	50	0	0.00		
2	3.00	0.54	50	11	0.22	0.49	0.11
3	4.00	0.30	50	19	0.38	0.30	0.11
4	5.00	0.42	50	22	0.44	0.42	0.18
6	6.00	0.59	50	45	0.90	0.59	0.53
8	7.00	0.61	50	62	1.24	0.61	0.76
9	8.00	0.77	50	81	1.62	0.77	1.25
10	9.00	0.84	50	89	1.78	0.84	1.50
11	10.00	0.75	50	54	1.08	0.75	0.81
12	11.00	0.59	50	22	0.44	0.59	0.26
13	12.00	0.55	50	33	0.66	0.55	0.36
14	13.00	0.65	50	17	0.34	0.65	0.22
15	14.00	0.66	50	13	0.26	0.66	0.17
16	15.00	0.48	50	8	0.16	0.50	0.08
17-B	16.10	0.00	50	0	0.00		

Total Q	6.34	cfs
Total A	7.72	sq. ft.
Avg V	0.82	ft / s

CURRENT METER CALCULATIONS

Party: CGB / JSR *Date:* 1/21/99
Meter: Pygmy *Time:* 15:45
Location: Garden Creek at Almond pump house
Remarks: Partly cloudy 25 deg. Ice on edges - broke away to measure. Rating: good.

						BuRec method:	
Station	Dist	Depth	Time	Rev-0.6	Velocity	dA	dQ
1-B	9.40	0.00	50	0	0.00		
2	10.00	0.25	50	6	0.12	0.20	0.02
3	11.00	0.37	50	5	0.10	0.37	0.04
4	12.00	0.61	50	18	0.36	0.61	0.22
6	13.00	0.71	50	44	0.88	0.71	0.62
8	14.00	0.75	50	69	1.38	0.75	1.04
9	15.00	0.59	50	57	1.14	0.59	0.67
10	16.00	0.66	50	85	1.70	0.66	1.12
11	17.00	0.69	50	60	1.20	0.52	0.62
12	17.50	0.70	50	53	1.06	0.35	0.37
13	18.00	0.66	50	66	1.32	0.50	0.65
14	19.00	0.58	50	24	0.48	0.58	0.28
15	20.00	0.51	50	15	0.30	0.51	0.15
16	21.00	0.50	50	22	0.44	0.50	0.22
17	22.00	0.31	50	22	0.44	0.31	0.14
18	23.00	0.19	50	5	0.10	0.18	0.02
19-B	23.90	0.00	50	0	0.00		

Total Q	6.19	cfs
Total A	7.33	sq. ft.
Avg V	0.84	ft / s

CURRENT METER CALCULATIONS

Party: CGB / JSR *Date:* 1/21/99
Meter: Pygmy *Time:* 16:30
Location: Garden Creek 100' u/s of road crossing at Shannon's
Remarks: Partly cloudy 20 deg. Ice on edges - broke away to measure. Rating: good.

						BuRec method:	
Station	Dist	Depth	Time	Rev-0.6	Velocity	dA	dQ
1-B	3.00	0.00	50	0	0.00		
2	4.00	0.17	50	3	0.06	0.17	0.01
3	5.00	0.36	50	15	0.30	0.36	0.11
4	6.00	0.52	50	6	0.12	0.52	0.06
6	7.00	0.56	50	33	0.66	0.56	0.37
8	8.00	0.71	50	20	0.40	0.71	0.28
9	9.00	0.78	50	8	0.16	0.78	0.12
10	10.00	0.75	50	20	0.40	0.75	0.30
11	11.00	0.78	50	56	1.12	0.78	0.87
12	12.00	0.66	50	42	0.84	0.66	0.55
13	13.00	0.68	50	46	0.92	0.68	0.63
14	14.00	0.79	50	20	0.40	0.79	0.32
15	15.00	0.75	50	14	0.28	0.75	0.21
16	16.00	0.66	50	47	0.94	0.66	0.62
17	17.00	0.64	50	34	0.68	0.64	0.44
18	18.00	0.56	50	38	0.76	0.56	0.43
19	19.00	0.57	50	19	0.38	0.57	0.22
20	20.00	0.43	50	4	0.08	0.43	0.03
21	21.00	0.36	50	4	0.08	0.36	0.03
22-B	22.00	0.00	50	0	0.00		

Total Q	5.60	cfs
Total A	10.73	sq. ft.
Avg V	0.52	ft / s

CURRENT METER CALCULATIONS

Party: CGB / JSR *Date:* 1/21/99
Meter: Pygmy *Time:* 17:50
Location: Garden Creek 100' u/s of Challis city diversion
Remarks: Partly cloudy 20 deg. Ice on edges - broke away to measure. Rating: good.

						BuRec method:	
Station	Dist	Depth	Time	Rev-0.6	Velocity	dA	dQ
1-B	1.70	0.00	50	0	0.00		
2	2.00	0.13	50	0	0.00	0.08	0.00
3	3.00	0.33	50	1	0.02	0.33	0.01
4	4.00	0.41	50	21	0.42	0.41	0.17
6	5.00	0.56	50	27	0.54	0.56	0.30
8	6.00	0.50	50	26	0.52	0.50	0.26
9	7.00	0.67	50	38	0.76	0.67	0.51
10	8.00	0.67	50	27	0.54	0.67	0.36
11	9.00	0.72	50	45	0.90	0.72	0.65
12	10.00	0.58	50	53	1.06	0.58	0.61
13	11.00	0.63	50	37	0.74	0.63	0.47
14	12.00	0.61	50	29	0.58	0.61	0.35
15	13.00	0.74	50	38	0.76	0.74	0.56
16	14.00	0.78	50	30	0.60	0.78	0.47
17	15.00	0.65	50	32	0.64	0.65	0.42
18	16.00	0.66	50	26	0.52	0.66	0.34
19	17.00	0.59	50	4	0.08	0.59	0.05
20	18.00	0.48	50	5	0.10	0.43	0.04
21-B	18.80	0.00	50	0	0.00		

Total Q	5.58	cfs
Total A	9.62	sq. ft.
Avg V	0.58	ft / s

CURRENT METER CALCULATIONS

Party: CGB / JSR *Date:* 1/22/99
Meter: Pygmy *Time:* 11:25
Location: Garden Creek 700' d/s of Hwy 93 crossing
Remarks: Partly cloudy 20 deg. Ice on edges - broke away to measure. Rating: good.

						BuRec method:	
Station	Dist	Depth	Time	Rev-0.6	Velocity	dA	dQ
1-B	2.30	0.00	50	0	0.00		
2	2.60	0.25	50	32	0.64	0.09	0.06
3	3.00	0.49	50	0	0.00	0.34	0.00
4	4.00	0.56	50	35	0.70	0.56	0.39
6	5.00	0.75	50	43	0.86	0.75	0.65
8	6.00	0.82	50	59	1.18	0.62	0.73
9	6.50	0.54	50	62	1.24	0.27	0.33
10	7.00	0.67	50	74	1.48	0.34	0.50
11	7.50	0.70	50	49	0.98	0.35	0.34
12	8.00	0.80	50	12	0.24	0.40	0.10
13	8.50	0.69	50	59	1.18	0.35	0.41
14	9.00	0.70	50	53	1.06	0.53	0.56
15	10.00	0.66	50	50	1.00	0.50	0.50
16	10.50	0.56	50	24	0.48	0.28	0.13
17	11.00	0.64	50	5	0.10	0.48	0.05
18	12.00	0.42	50	28	0.56	0.42	0.24
21-B	13.00	0.00	50	0	0.00		

Total Q	4.96	cfs
Total A	6.26	sq. ft.
Avg V	0.79	ft / s

CURRENT METER CALCULATIONS

LOCATION:	Garden Creek MP #1 (Living Waters Ranch south-southeast of corrals nr rock outcrop)	TIME START:	3:30 PM
DATE:	11/10/98	TIME END:	
HYDROGRAPHER:	C. G. Brockway	GAUGE START:	
METER:	Pygmy	GAUGE END:	0.66
MEASUREMENT NO.:	1		

SECT.	DIST.	DEPTH	REV .6-.2	REV .8	TIME SEC	ANG. CORR.	V1	V2	V SECT.	DELTA AREA	DELTA Q	SUM Q
1-B	0.30	0.00	0		50	1.000	0.00	NM	0.00	0.00	0.00	0.00
2	1.00	0.34	8		50	1.000	0.16	NM	0.16	0.29	0.05	0.05
3	2.00	0.47	32		50	1.000	0.64	NM	0.64	0.47	0.30	0.35
4	3.00	0.58	34		50	1.000	0.68	NM	0.68	0.58	0.39	0.74
5	4.00	0.60	10		50	1.000	0.20	NM	0.20	0.60	0.12	0.86
6	5.00	0.55	34		50	1.000	0.68	NM	0.68	0.55	0.37	1.24
7	6.00	0.72	47		50	1.000	0.94	NM	0.94	0.72	0.68	1.91
8	7.00	0.79	39		50	1.000	0.78	NM	0.78	0.79	0.62	2.53
9	8.00	1.08	68		50	1.000	1.36	NM	1.36	1.08	1.47	4.00
10	9.00	0.98	75		50	1.000	1.50	NM	1.50	0.98	1.47	5.47
11	10.00	0.91	33		50	1.000	0.66	NM	0.66	0.80	0.53	5.99
12	10.75	0.70	7		50	1.000	0.14	NM	0.14	0.70	0.10	6.09
13	12.00	0.28	0		50	1.000	0.00	NM	0.00	0.32	0.00	6.09
14	13.00	0.30	0		50	1.000	0.00	NM	0.00	0.27	0.00	6.09
18-B	13.80	0.00	0		50	1.000	0.00	NM	0.00	0.00	0.00	6.09
									AVG. VEL.		0.75	FPS
									AREA		8.14	SQ FT
									DISCHARGE		**6.09**	**CFS**

*CALIBRATION

FOR N(REV/T)<	0.68	V=	1.00 *N+	0
FOR N(REV/T)>	0.68	V=	1.00 *N+	0

CURRENT METER CALCULATIONS

LOCATION:	Garden Creek MP #2 (Paris Almond property at pump house)	TIME START:	9:00 AM
DATE:	11/10/98	TIME END:	
HYDROGRAPHER:	C. G. Brockway	GAUGE START:	
METER:	Pygmy	GAUGE END:	0.58
MEASUREMENT NO.:	1		

SECT.	DIST.	DEPTH	REV .6-.2	REV .8	TIME SEC	ANG. CORR.	V1	V2	V SECT.	DELTA AREA	DELTA Q	SUM Q
1-B	0.30	0.00	0		50	1.000	0.00	NM	0.00	0.00	0.00	0.00
2	1.00	0.51	22		50	1.000	0.44	NM	0.44	0.43	0.19	0.19
3	2.00	0.57	42		50	1.000	0.84	NM	0.84	0.57	0.48	0.67
4	3.00	0.48	56		50	1.000	1.12	NM	1.12	0.48	0.54	1.21
5	4.00	0.32	61		50	1.000	1.22	NM	1.22	0.32	0.39	1.60
6	5.00	0.46	50		50	1.000	1.00	NM	1.00	0.46	0.46	2.06
7	6.00	0.57	50		50	1.000	1.00	NM	1.00	0.57	0.57	2.63
8	7.00	0.55	61		50	1.000	1.22	NM	1.22	0.55	0.67	3.30
9	8.00	0.51	67		50	1.000	1.34	NM	1.34	0.51	0.68	3.98
10	9.00	0.48	28		50	1.000	0.56	NM	0.56	0.48	0.27	4.25
11	10.00	0.47	50		50	1.000	1.00	NM	1.00	0.47	0.47	4.72
12	11.00	0.43	61		50	1.000	1.22	NM	1.22	0.32	0.39	5.11
13	11.50	0.26	25		50	1.000	0.50	NM	0.50	0.13	0.07	5.18
14	12.00	0.18	16		50	1.000	0.32	NM	0.32	0.14	0.04	5.22
15	13.00	0.13	15		50	1.000	0.30	NM	0.30	0.13	0.04	5.26
16-B	14.00	0.00	0		50	1.000	0.00	NM	0.00	0.00	0.00	5.26
									AVG. VEL.		0.95	FPS
									AREA		5.56	SQ FT
									DISCHARGE		**5.26**	**CFS**

*CALIBRATION

FOR N(REV/T)<	0.68 V=	1.00 *N+	0	
FOR N(REV/T)>	0.68 V=	1.00 *N+	0	

CURRENT METER CALCULATIONS

Party: CGB / JSR *Date:* 1/21/99
Meter: Pygmy *Time:* 11:30
Location: Garden Creek at u/s James prop line (W. edge Sec. 2)
Remarks: Partly cloudy 25 deg. Ice on edges - broke away to measure. Rating: good - excellent

						BuRec method:	
Station	Dist	Depth	Time	Rev-0.6	Velocity	dA	dQ
1-B	1.70	0.00	50	0	0.00	0.34	
2	3.00	0.52	50	4	0.08	0.60	0.05
3	4.00	0.63	50	20	0.40	0.63	0.25
4	5.00	0.77	50	47	0.94	0.58	0.54
5	5.50	0.82	50	34	0.68	0.41	0.28
6	6.00	0.97	50	56	1.12	0.49	0.54
7	6.50	1.04	50	76	1.52	0.52	0.79
8	7.00	1.00	50	59	1.18	0.75	0.89
9	8.00	1.06	50	39	0.78	1.06	0.83
10	9.00	0.86	50	26	0.52	0.86	0.45
11	10.00	0.50	50	12	0.24	0.50	0.12
12	11.00	0.34	50	4	0.08	0.34	0.03
13	12.00	0.19	50	1	0.02	0.19	0.00
14-B	13.00	0.00	50	0	0.00	0.10	

Total Q	4.77	cfs
Total A	7.35	sq. ft.
Avg V	0.65	ft / s

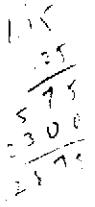
CURRENT METER CALCULATIONS

LOCATION:	Garden Creek MP #3 (at bridge above Keppner property)	TIME START:	5:30 PM
DATE:	11/9/98	TIME END:	
HYDROGRAPHER:	C. G. Brockway	GAUGE START:	
METER:	Pygmy	GAUGE END:	None
MEASUREMENT NO.:	1		

SECT.	DIST.	DEPTH	REV .6-.2	REV .8	TIME SEC	ANG. CORR.	V1	V2	V SECT.	DELTA AREA	DELTA Q	SUM Q
1-B	3.70	0.00	0		50	1.000	0.00	NM	0.00	0.00	0.00	0.00
2	5.00	0.25	15		50	1.000	0.30	NM	0.30	0.29	0.09	0.09
3	6.00	0.30	27		50	1.000	0.54	NM	0.54	0.30	0.16	0.25
4	7.00	0.50	33		50	1.000	0.66	NM	0.66	0.44	0.29	0.54
5	7.75	0.59	52		50	1.000	1.04	NM	1.04	0.44	0.46	1.00
6	8.50	0.69	54		50	1.000	1.08	NM	1.08	0.52	0.56	1.56
7	9.25	0.85	54		50	1.000	1.08	NM	1.08	0.64	0.69	2.24
8	10.00	0.80	58		50	1.000	1.16	NM	1.16	0.60	0.70	2.94
9	10.75	1.05	75		50	1.000	1.50	NM	1.50	0.79	1.18	4.12
10	11.50	1.13	95		50	1.000	1.90	NM	1.90	0.85	1.61	5.73
11	12.25	1.03	80		50	1.000	1.60	NM	1.60	0.77	1.24	6.97
12	13.00	0.94	46		50	1.000	0.92	NM	0.92	0.71	0.65	7.62
13	13.75	0.72	25		50	1.000	0.50	NM	0.50	0.54	0.27	7.89
14	14.50	0.67	15		50	1.000	0.30	NM	0.30	1.09	0.33	8.21
15-B	17.00	0.00	0		50	1.000	0.00	NM	0.00	0.00	0.00	8.21
									AVG. VEL.		1.03	FPS
									AREA		7.96	SQ FT
									DISCHARGE		**8.21**	**CFS**

*CALIBRATION

FOR N(REV/T)<	0.68	V=	1.00	*N+	0
FOR N(REV/T)>	0.68	V=	1.00	*N+	0



CURRENT METER CALCULATIONS

LOCATION:	Garden Creek MP #1 (Living Waters Ranch south-southeast of corrals nr rock outcrop)	TIME START:	4:40 PM
DATE:	9/23/98	TIME END:	
HYDROGRAPHER:	C. G. Brockway	GAUGE START:	
METER:	Pygmy	GAUGE END:	0.68
MEASUREMENT NO.:	1		

SECT.	DIST.	DEPTH	REV .6-.2	REV .8	TIME SEC	ANG. CORR.	V1	V2	V SECT.	DELTA AREA	DELTA Q	SUM Q
1-B	1.65	0.00	0		50	1.000	0.00	NM	0.00	0.00	0.00	0.00
2	3.00	0.21	19		50	1.000	0.38	NM	0.38	0.25	0.09	0.09
3	4.00	0.39	19		50	1.000	0.38	NM	0.38	0.39	0.15	0.24
4	5.00	0.40	22		50	1.000	0.44	NM	0.44	0.40	0.18	0.42
5	6.00	0.61	32		50	1.000	0.64	NM	0.64	0.61	0.39	0.81
6	7.00	0.78	34		50	1.000	0.68	NM	0.68	0.78	0.53	1.34
7	8.00	0.86	56		50	1.000	1.12	NM	1.12	0.86	0.96	2.30
8	9.00	0.99	41		50	1.000	0.82	NM	0.82	0.99	0.81	3.11
9	10.00	0.85	21		50	1.000	0.42	NM	0.42	0.85	0.36	3.47
10	11.00	1.00	56		50	0.980	1.12	NM	1.12	1.00	1.12	4.59
11	12.00	0.91	45		50	0.970	0.90	NM	0.90	0.91	0.82	5.41
12	13.00	0.85	38		50	0.980	0.76	NM	0.76	0.85	0.65	6.06
13	14.00	0.74	32		50	0.970	0.64	NM	0.64	0.74	0.47	6.53
14	15.00	0.67	30		50	0.960	0.60	NM	0.60	0.67	0.40	6.93
15	16.00	0.61	44		50	0.940	0.88	NM	0.88	0.61	0.54	7.47
16	17.00	0.56	20		50	0.940	0.40	NM	0.40	0.56	0.22	7.69
17	18.00	0.31	13		50	1.000	0.26	NM	0.26	0.36	0.09	7.78
18-B	19.30	0.00	0		50	1.000	0.00	NM	0.00	0.00	0.00	7.78
									AVG. VEL.		0.72	FPS
									AREA		10.82	SQ FT
									DISCHARGE		**7.78**	**CFS**

*CALIBRATION

FOR N(REV/T)<	0.68	V=	1.00	*N+	0
FOR N(REV/T)>	0.68	V=	1.00	*N+	0

CURRENT METER CALCULATIONS

LOCATION:	Garden Creek MP #2 (Paris Almond property at pump house)	TIME START:	6:40 PM
DATE:	9/23/98	TIME END:	
HYDROGRAPHER:	C. G. Brockway	GAUGE START:	
METER:	Pygmy	GAUGE END:	0.57
MEASUREMENT NO.:	1		

SECT.	DIST.	DEPTH	REV .6-.2	REV .8	TIME SEC	ANG. CORR.	V1	V2	V SECT.	DELTA AREA	DELTA Q	SUM Q
1-B	1.00	0.00	0		50	1.000	0.00	NM	0.00	0.00	0.00	0.00
2	2.00	0.13	8		50	1.000	0.16	NM	0.16	0.13	0.02	0.02
3	3.00	0.37	13		50	1.000	0.26	NM	0.26	0.37	0.10	0.12
4	4.00	0.61	39		50	1.000	0.78	NM	0.78	0.61	0.48	0.59
5	5.00	0.66	54		50	1.000	1.08	NM	1.08	0.66	0.71	1.31
6	6.00	0.76	62		50	1.000	1.24	NM	1.24	0.76	0.94	2.25
7	7.00	0.51	78		50	1.000	1.56	NM	1.56	0.51	0.80	3.04
8	8.00	0.52	114		50	1.000	2.28	NM	2.28	0.52	1.19	4.23
9	9.00	0.60	67		50	1.000	1.34	NM	1.34	0.60	0.80	5.03
10	10.00	0.60	63		50	1.000	1.26	NM	1.26	0.60	0.76	5.79
11	11.00	0.60	38		50	1.000	0.76	NM	0.76	0.60	0.46	6.25
12	12.00	0.60	35		50	1.000	0.70	NM	0.70	0.60	0.42	6.67
13	13.00	0.52	31		50	1.000	0.62	NM	0.62	0.52	0.32	6.99
14	14.00	0.27	37		50	1.000	0.74	NM	0.74	0.27	0.20	7.19
15	15.00	0.20	10		50	1.000	0.20	NM	0.20	0.20	0.04	7.23
16	16.00	0.10	5		50	1.000	0.10	NM	0.10	0.09	0.01	7.24
18-B	16.70	0.00	0		50	1.000	0.00	NM	0.00	0.00	0.00	7.24
									AVG. VEL.		1.03	FPS
									AREA		7.04	SQ FT
									DISCHARGE		**7.24**	**CFS**

*CALIBRATION

FOR N(REV/T)<	0.68	V=	1.00 *N+	0
FOR N(REV/T)>	0.68	V=	1.00 *N+	0

Appendix C
Well Drilling Records

J Twin Falls

Form 238-7
3/95

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

Use Typewriter or Ballpoint Pen

Tag # C

702423 6143

Office Use Only
Inspected by _____
Twp ____ Rge ____ Sec ____
____1/4 ____1/4 ____1/4
Lat: : : Long: : :

1. DRILLING PERMIT NO. 72-98-3.0006-000
Other IDWR No. D000423

2. OWNER:
Name Jerry & Carol Walsh
Address 51 N Bailey St
City Fallon State NV Zip 89406

3. LOCATION OF WELL by legal description:
Sketch map location must agree with written location.

N / W / E / S

Twp. 14 North ☒ or South ☐
Rge. 18 East ☐ or West ☐ (SE)
Sec. 35 ____ 1/4 SW 1/4 SE 1/4
Gov't Lot ____ County Custer
Lat: : : Long: : :
Address of Well Site Garden Crk Rd
City Challis
(Give at least name of road + Distance to Road or Landmark)

Lt. _____ Blk. _____ Sub. Name _____

4. USE:
☑ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other _____

5. TYPE OF WORK check all that apply (Replacement etc.)
☑ New Well ☐ Modify ☐ Abandonment ☐ Other _____

6. DRILL METHOD
☑ Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other _____

7. SEALING PROCEDURES

SEAL/FILTER PACK Material	From	To	AMOUNT Sacks or (Pounds)	METHOD
Bentonite	1	20	350	Overbore

Was drive shoe used? ☐ Y ☐ N Shoe Depth(s) 30
Was drive shoe seal tested? ☐ Y ☐ N How? _____

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
6"	+1	30	.280	Steel	☒	☐	☒	☐
4.5"	20	226		PVC	☐	☒	☒	☐
					☐	☐	☐	☐

Length of Headpipe _____ Length of Tailpipe _____

9. PERFORATIONS/SCREENS
☒ Perforations Method SAW
☐ Screens Screen Type _____

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
20	226	.18"	500		PVC	☒	☒
						☐	☐
						☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:
50 ft. below ground Artesian pressure _____ lb.
Depth flow encountered _____ ft. Describe access port or control devices: Sanitary well seal

11. WELL TESTS:
☐ Pump ☐ Bailer ☒ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
70		226'	2 hrs

Water Temp. 50° Bottom hole temp. _____
Water Quality test or comments: Clear
Depth first Water Encountered 82

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water Y	Water N
12	0	2	topsoil		X
	2	24	volcanic conglomerate		X
6	24	29	[illegible] boulders		X
	29	50	brown volcanic		X
	50	60	grey volcanic		X
	60	65	broken wet		X
	65	82	hard brown		
	82	85	dark brown	X	
	85	112	dk grey hard		X
	112	200	brown volcanic	X	
	200	215	dk grey		X

RECEIVED
APR 16 1998
Department of Water Resources
Eastern Region
RECEIVED
APR 14 1998
Department of Water Resources
Eastern Region
RECEIVED
MAY 12 1998
Department of Water Resources

Completed Depth 226' (Measurable)
Date: Started 3/28/98 Completed 3/31/98

13. DRILLER'S CERTIFICATION
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Harber Drilling Firm No. 0430
Firm Official Allen Harber Date 9/2/98
and
Supervisor or Operator _____ Date _____
(Sign once if Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES

2

C

879-2501

Form 238-7
1/94

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

Use Typewriter or Ball Point Pen

1. DRILLING PERMIT NO. 72-95-5-0004-000
Other IDWR No.

2. OWNER
Name Mike Slamon
Address Box 1039
City Challis State Id Zip 83226

3. LOCATION OF WELL by legal description:
Sketch map location must agree with written location.

Twp. 14 North ☒ or South ☐
Rge. 16 East ☒ or West ☐
Sec. 35, SE 1/4 SE 1/4
Gov't Lot ____ County Custer

Address of Well Site Garden Creek Rd
(Give at least name of road + Distance to Road or Landmark)
City Challis

Lt. ____ Blk. ____ Sub. Name ____

4. PROPOSED USE:
☒ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other ____

5. TYPE OF WORK
☒ New Well ☐ Modify or Repair ☐ Replacement ☐ Abandonment

6. DRILL METHOD
☐ Mud Rotary ☒ Air Rotary ☐ Cable ☐ Other ____

7. SEALING PROCEDURES

SEAL/FILTER PACK Material	From	To	AMOUNT Sacks or Pounds	METHOD
BENTONITE	0	20	400	OVERBORE

Was drive shoe used? Y ☒ N ☐
Was drive shoe seal tested? Y ☐ N ☐ How? ____

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
6	+1	38	-20	STEEL	☒	☐	☒	☐
4½	27	447	AV	PVC	☐	☒	☒	☐
					☐	☐	☐	☐

Length of Headpipe ____ Length of Tailpipe ____

9. PERFORATIONS/SCREENS
☒ Perforations Method SAW
☐ Screens Screen Type ____

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
27	447	1/8	4320		PVC	☐	☒
						☐	☐
						☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:
27 ft. below ground Artesian pressure ____ lb.
Depth flow encountered ____ ft. Describe access port or control devices: SANITARY WELL SEAL

11. WELL TESTS:
☐ Pump ☐ Bailer ☒ Air ☐ Flowing Artesian

Yield gal/min.	Drawdown	Pumping Level	Time
4		445	2 HRS

4/18

Water Temp. 52 Bottom hole temp. ____
Water Quality test or comments: CLEAR

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water Y	Water N
8	0	5	TOP SOIL		X
	5	20	ROCKY CONGLOMERATE		X
6	20	38	HARD VOLCANIC BROWN		X
	38	70	GREY CONGLOM		X
	70	98	GREY HARD WET	X	
	98	122	BROWN VOLCANIC WET	X	
	122	150	BROWN HARD ROCK		X
	150	178	GREY GRAVELS		X
	178	290	DARK BROWN GRAVELS		X
	290	325	DARK RED BROWN		X
	325	418	DARK GREY BROWN		X
	418	447	HARD BROWN VOLCANIC WET	X	

JUN 19 1995
Department of Water Resources

RECEIVED
MAY 08 1995
Department of Water Resources
Southern Region

MAY 04 1995
Department of Water Resources
Eastern District Office

Completed Depth 445 (Measured)
Date: Started 4/15/95 Completed 4/21/95

13. DRILLER'S CERTIFICATION
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name HARBER DRILLING Firm No. 450
Firm Official Alan Harber Date 4/24/95
and
Supervisor or Operator ____ Date ____
(Sign once if Firm Official & Operator)

Sr. 7965

FORWARD WHITE COPY TO WATER RESOURCES

Form 238-7
9-82

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

USE TYPEWRITER OR BALLPOINT PEN

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

5 3 90

1. WELL OWNER

Name Dan Odlum

Address Challis

Owner's Permit No. 72-87-Z-001 OK hrb

2. NATURE OF WORK

☑ New well ☐ Deepened ☐ Replacement
☐ Abandoned (describe abandonment procedures such as materials, plug depths, etc. in lithologic log)

3. PROPOSED USE

☑ Domestic ☐ Irrigation ☐ Test ☐ Municipal
☐ Industrial ☐ Stock ☐ Waste Disposal or Injection
☐ Other (specify type)

4. METHOD DRILLED

☑ Rotary ☑ Air ☐ Hydraulic ☐ Reverse rotary
☐ Cable ☐ Dug ☐ Other

5. WELL CONSTRUCTION

Casing schedule: ☑ Steel ☐ Concrete ☐ Other

Thickness	Diameter	From	To
250 inches	6⅝ inches +	1 feet	29 feet
inches	inches	feet	feet
inches	inches	feet	feet
inches	inches	feet	feet

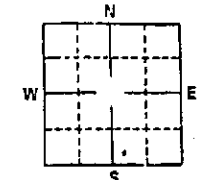
Was casing drive shoe used? ☑ Yes ☐ No
Was a packer or seal used? ☐ Yes ☑ No
Perforated? ☐ Yes ☑ No
How perforated? ☐ Factory ☐ Knife ☐ Torch
Size of perforation ____ inches by ____ inches

Number	From	To
perforations	feet	feet
perforations	feet	feet
perforations	feet	feet

Well screen installed? ☐ Yes ☑ No
Manufacturer's name
Type Model No.
Diameter ___ Slot size ___ Set from ___ feet to ___ feet
Diameter ___ Slot size ___ Set from ___ feet to ___ feet
Gravel packed? ☐ Yes ☑ No ☐ Size of gravel
Placed from feet to feet
Surface seal depth 28 Material used in seal: ☐ Cement grout
☑ Bentonite ☐ Puddling clay ☐
Sealing procedure used: ☐ Slurry pit ☐ Temp. surface casing ☐ Overbore to seal depth
Method of joining casing: ☐ Threaded ☑ Welded ☐ Solvent Weld ☐ Cemented between strata
Describe access port

6. LOCATION OF WELL

Sketch map location must agree with written location.



Subdivision Name
Lot No. ____ Block No. ____
County Custer
SW ¼ SE ¼ Sec. 35, T. 14 N. R. 18 E.W.

7. WATER LEVEL

Static water level 55 feet below land surface.
Flowing? ☐ Yes ☑ No G.P.M. flow
Artesian closed-in pressure ____ p.s.i.
Controlled by: ☐ Valve ☐ Cap ☐ Plug
Temperature ____ °F. Quality
Describe artesian or temperature zones below.

8. WELL TEST DATA

☐ Pump ☐ Bailer ☑ Air ☐ Other

Discharge G.P.M.	Pumping Level	Hours Pumped
4		2

9. LITHOLOGIC LOG

Bore Diam.	Depth From	Depth To	Material	Water Yes	Water No
6	0	2	Soil + Boulders		
6	2	19	Clay + Boulder		
6	19	22	Gravel		
6	22	28	Clay + Boulder		
6	28	114	Black + Brown Rhylite		
6	114	334	Blue Green Rhylite	=	
6	334	420	Slate + Sandstone	=	

RECEIVED
SEP 03 1987
Department of Water Resources
Southern Region Office
Department of Water Resources

10.

Work started 7-28-87 finished 7-30-87

11. DRILLERS CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Hollingshead Drilling Firm No. 35
Address Mt. Home Date 7-31-87
Signed by (Firm Official)
and
(Operator) Ken Kal

USE ADDITIONAL SHEETS IF NECESSARY — FORWARD THE WHITE COPY TO THE DEPARTMENT

4
James West

Form 238-7
3/95

879-2729

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

Use Typewriter or Ballpoint Pen

ID # D0004225

Office Use Only
Inspected by _____
Twp ____ Rge ____ Sec ____
____1/4 ____1/4 ____1/4
Lat: : : Long: : :

1. DRILLING PERMIT NO. 72-97-5-0021-000
Other IDWR No. _____

2. OWNER:
Name First Fruits Foundation % Christopher James
Address PO Box 1190
City Challis State ID Zip 83226

3. LOCATION OF WELL by legal description:
Sketch map location must agree with written location.

N / W / E / S

Twp. 13 North ☑ or South ☐
Rge. 18 East ☑ or West ☐
Sec. 2 ____ 1/4 NE (10 acres) 1/4 NW (40 acres) 1/4 (160 acres)
Gov't Lot ____ County Custer
Lat: : : Long: : :
Address of Well Site 4.3 mile up Garden Creek Rd City Challis
(Give at least name of road + Distance to Road or Landmark)

Lt. _____ Blk. _____ Sub. Name _____

4. USE:
☑ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other _____

5. TYPE OF WORK check all that apply (Replacement etc.)
☑ New Well ☐ Modify ☐ Abandonment ☐ Other _____

6. DRILL METHOD
☑ Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other _____

7. SEALING PROCEDURES

SEAL/FILTER PACK Material	From	To	AMOUNT Sacks or Pounds	METHOD
Bentonite	0	20	350	overbore

Was drive shoe used? ☑ Y ☐ N Shoe Depth(s) 20'
Was drive shoe seal tested? ☐ Y ☑ N How? _____

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
6"	1	30	250	Steel	☑	☐	☑	☐
4½"	12	63		PVC	☐	☑	☐	☑
					☐	☐	☐	☐

Length of Headpipe _____ Length of Tailpipe _____

9. PERFORATIONS/SCREENS
☑ Perforations Method Saw
☐ Screens Screen Type _____

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
40	60	1/8"	300		PVC	☐	☑
						☐	☐
						☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:
38 ft. below ground Artesian pressure _____ lb.
Depth flow encountered _____ ft. Describe access port or control devices: Sanitary well Seal

11. WELL TESTS:
☐ Pump ☐ Bailer ☑ Air ☐ Flowing Artesian

Yield gal/min.	Drawdown	Pumping Level	Time
11		63	2 hrs

Water Temp. 51° Bottom hole temp. _____
Water Quality test or comments: Clear
Depth first Water Encountered 40

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water Y	Water N
12"	0	12	brown clay		☑
	12	30	volcanic rock		☑
6"	20	40	dark gray volcanic		☑
	40	45	brown volcanic	☑	
	45	50	dark gray		☑
	50	63	brown		☑

RECEIVED
NOV 18 1997
Department of Water Resources
Southern Region

RECEIVED
DEC 22 1997
Department of Water Resources

Completed Depth 63' (Measurable)
Date: Started 10/23/97 Completed 10/24/97

13. DRILLER'S CERTIFICATION
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Harber Drilling Firm No 1430
Firm Official Alan Harber Date 11-9-97
and
Supervisor or Operator _____ Date _____
(Sign once if Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES

James House (dry)

1st well

Form 238-7
1/94

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

Use Typewriter or Ball Point Pen

1. DRILLING PERMIT NO. 22-94-5.0007.000
Other IDWR No.

2. OWNER:
Name Christopher James c/o Ted Strickler
Address Box 191
City Challis State Id Zip 83226

3. LOCATION OF WELL by legal description:
Sketch map location must agree with written location.

N / W / E / S

Twp. 13 North ☐ or South ☐
Rge. 18 East ☒ or West ☐
Sec. 2 ____ 1/4 SW 1/4 NW 1/4
Gov't Lot ____ County

Address of Well Site Garden Creek Rd City Challis
(Give all road name of road + Distance to Road or Landmark)

Lt. ____ Blk. ____ Sub. Name ____

4. PROPOSED USE:
☒ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other

5. TYPE OF WORK
☒ New Well ☐ Modify or Repair ☐ Replacement ☐ Abandonment

6. DRILL METHOD
☐ Mud Rotary ☒ Air Rotary ☐ Cable ☐ Other

7. SEALING PROCEDURES

SEAL/FILTER PACK Material	From	To	AMOUNT Sacks or Pounds	METHOD
BENTONITE	0	20	200	GUERBOS

Was drive shoe used? Yes ☐
Was drive shoe seal tested? Y ☐ No How?

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
12	1	20	250	STEEL	☒	☐	☒	☐
					☐	☐	☐	☐
					☐	☐	☐	☐

Length of Headpipe ____ Length of Tailpipe ____

9. PERFORATIONS/SCREENS
☐ Perforations Method
☐ Screens Screen Type

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
						☐	☐
						☐	☐
						☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:
100 ft. below ground Artesian pressure ____ lb.
Depth flow encountered ____ ft. Describe access port or control devices: Sanitary Well Seal

11. WELL TESTS:
☐ Pump ☐ Bailer ☒ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
1		200	2 hrs

Water Temp. 52 Bottom hole temp.
Water Quality test or comments:

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water Y	Water N
8	0	20	GOLD VOLCANIC ROCK		☐
6	20	75	HARD GRANITE		☐
	75	102	GREY GRANITE		☐
	102	110	BROWN ROCK WET	☐	☐
	110	155	GREY GRANITE		☐
	155	158	BROWN WET	☐	
	158	205	GREY HARD GRANITE		☐

RECEIVED
JUL 18 1994
Department of Water Resources
Southern Region Office

JUL 15 1994
Department of Water Resources
Eastern Region

Completed Depth 205 (Measurable)
Date: Started 7/7/94 Completed 7/8/94

13. DRILLER'S CERTIFICATION
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Harper Drilling Firm No. 430
Firm Official Alan Harper Date 7/12/94
and
Supervisor or Operator ____ Date ____
(Sign once if Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES

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879-5066

Form 238-7
1/94

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

Use Typewriter or Ball Point Pen

1. DRILLING PERMIT NO. 7297.5001 .000
Other IDWR No.

2. OWNER:
Name Jeff Yeo
Address Box 1294
City Challis State ID Zip 83226

3. LOCATION OF WELL by legal description:
Sketch map location must agree with written location.

N / W / E / S

Twp. 13N North ☒ or South ☐
Rge. 18E East ☒ or West ☐
Sec. 3, NE 1/4 SE 1/4
Gov't Lot ____ County Custer

Address of Well Site Garden Creek Rd City Challis
(Give all street names or road + Distance to Road or Landmark)

Lt. ____ Blk. ____ Sub. Name ____

4. PROPOSED USE:
☐ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other ____

5. TYPE OF WORK
☒ New Well ☐ Modify or Repair ☐ Replacement ☐ Abandonment

6. DRILL METHOD
☐ Mud Rotary ☒ Air Rotary ☐ Cable ☐ Other ____

7. SEALING PROCEDURES

SEAL/FILTER PACK Material	From	To	AMOUNT Sacks or Pounds	METHOD
BENTONITE	0	20	500	OVERBORE

Was drive shoe used? Yes ☐ No ☐
Was drive shoe seal tested? Yes ☐ No ☐ How? ____

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
6	+1	56	250	STEEL	☒	☐	☒	☐
4½	24	104		PVC	☐	☒	☒	☐
					☐	☐	☐	☐

Length of Headpipe ____ Length of Tailpipe ____

9. PERFORATIONS/SCREENS
☒ Perforations Method SAW
☐ Screens Screen Type ____

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
60	104	1/8	200		PVC	☐	☒
						☐	☐
						☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:
20 ft. below ground Artesian pressure ____ lb.
Depth flow encountered ____ ft. Describe access port or control devices: Sanitary well seal

11. WELL TESTS:
☐ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
16		104	2 HR

Water Temp. 510 Bottom hole temp. ____
Water Quality test or comments: CLEAR

84

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water Y	Water N
12	0	4	TOP SOIL		X
	4	20	BOULDERS CLAY		X
	20	26	SHALE CLAY WET		X
	26	50	HARD SHALE CLAY		X
	50	64	GREY VOLCANIC ROCK		X
	64	80	BROWN ROCK VOLCANIC		X
	80	90	DARK GREY VOLCANIC	X	
	90	95	GREY HARD	X	
	95	104	VOLCANIC GREY		X

RECEIVED
JUL 09 1997
Department of Water Resources
Eastern Region

RECEIVED
JUL 21 1997
Department of Water Resources

JUL 11 1997
Water Resource

Completed Depth ____ (Measurable)
Date: Started 6/10/97 Completed 6/11/97

13. DRILLER'S CERTIFICATION
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Harber Drilling Firm No. 1430
Firm Official Abby Harber Date 6/13/97
and
Supervisor or Operator ____ Date ____
(Sign once if Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES

6

Form 238-7
3/95

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT
Use Typewriter or Ballpoint Pen

Office Use Only
Inspected by _____
Twp ___ Rge ___ Sec ___
___ 1/4 ___ 1/4 ___ 1/4
Lat: : : Long: : :

1. DRILLING PERMIT NO. 72-96-S-0037 000
Other IDWR No. _____

2. OWNER
Name Michael D. Hansen
Address P.O. Box 737
City Challis State ID Zip 83226

3. LOCATION OF WELL by legal description:
Sketch map location must agree with written location.

N / W / E / S

Twp. 13 North ☒ or South ☐
Rge. 18 East ☒ or West ☐
Sec. 3, ___ 1/4 SE 1/4 SE 1/4
Gov't Lot ___ County Custer
Lat: : : Long: : :
Address of Well Site Garden Creek Rd
City Challis
(Give at least name of road + Distance to Road or Landmark)

Lt. _____ Blk. _____ Sub. Name _____

4. USE:
☒ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other _____

5. TYPE OF WORK check all that apply (Replacement etc.)
☒ New Well ☐ Modify ☐ Abandonment ☐ Other _____

6. DRILL METHOD
☒ Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other _____

7. SEALING PROCEDURES

SEAL/FILTER PACK Material	From	To	AMOUNT Sacks or Pounds	METHOD
BENTONITE	0	20	350	TEMP CASING

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 60
Was drive shoe seal tested? ☐ Y ☒ N How? _____

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
6	+1	60	250	STEEL	☒	☐	☒	☐
4½	2.5	145		PVC	☐	☒	☒	☐
					☐	☐	☐	☐

Length of Headpipe _____ Length of Tailpipe _____

9. PERFORATIONS/SCREENS
☒ Perforations Method Saw
☐ Screens Screen Type _____

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
45	145	1/8	300		PVC	☐	☒
						☐	☐
						☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:
15 ft. below ground Artesian pressure ___ lb.
Depth flow encountered ___ ft. Describe access port or control devices: Sanitary well seal

11. WELL TESTS:
☐ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
25		145	2 hrs

Water Temp. 50° Bottom hole temp. ___
Water Quality test or comments: CLEAR
Depth first Water Encountered 19

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water Y	Water N
8	0	2	TOP SOIL		☒
	2	19	BIG BOULDERS CLAY		☒
6	19	50	SOFT SHALE ROCK	☒	
	50	64	HARD ROCK BROWN		☒
	64	70	BROWN ROCK	☒	
	70	90	GREY HARD		☒
	90	118	GREY BROWN	☒	
	118	120	BROWN	☒	
	120	135	GREY HARD		☒
	135	140	BROWN ROCK	☒	
	140	145	GREY HARD ROCK		☒

RECEIVED
MAY 19 1997
Department of Water Resources
Central Region

RECEIVED
DEC 09 1996
Department of Water Resources
SOUTHWESTERN REGION

NOV 20 1996
Department of Water Resources

Completed Depth 145 (Measurable)
Date: Started 10-21-96 Completed 11-4-96

13. DRILLER'S CERTIFICATION
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Harber Drilling Firm No. 0430
Firm Official Adam Harber Date 11/5/96
and
Supervisor or Operator _____ Date _____
(Sign once if Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES

Form 238-7
4/92

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

USE TYPEWRITER OR BALLPOINT PEN

RECEIVED
DEC 3 0 1993
Department of Water Resources

188 - 4257

1. WELL OWNER
Name Kidley Pearson
Address Box 670, Hailey 83333
Drilling Permit No. 22-93-S 0022-000
Water Right Permit No. _____

2. NATURE OF WORK
☑ New well ☐ Deepened ☐ Replacement
☐ Well diameter increase ☐ Modification
☐ Abandoned (describe abandonment or modification procedures such as liners, screen, materials, plug depths, etc. in lithologic log, section 9.)

3. PROPOSED USE
☑ Domestic ☐ Irrigation ☐ Monitor
☐ Industrial ☐ Stock ☐ Waste Disposal or Injection
☐ Other _____ (specify type)

4. METHOD DRILLED
☑ Rotary ☐ Air ☐ Auger ☐ Reverse rotary
☐ Cable ☐ Mud ☐ Other _____ (backhoe, hydraulic, etc.)

5. WELL CONSTRUCTION
Casing schedule: ☑ Steel ☐ Concrete ☐ Other _____

Thickness	Diameter	From	To
.250 inches	6 inches	+ 1 feet	80 feet
LINER inches	4½ inches	25 feet	185 feet
_____ inches	_____ inches	_____ feet	_____ feet

Was casing drive shoe used? ☑ Yes ☐ No
Was a packer or seal used? ☐ Yes ☑ No
Perforated? LINER ☑ Yes ☐ No SAW
How perforated? ☐ Factory ☐ Knife ☐ Torch ☑ Gun
Size of perforation? ½ inches by 4 inches

Number		From	To
60	perforations	125 feet	185 feet
_____	perforations	_____ feet	_____ feet
_____	perforations	_____ feet	_____ feet

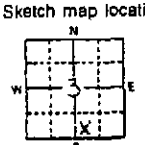
Well screen installed? ☐ Yes ☑ No
Manufacturer _____ Type _____
Top Packer or Headpipe _____
Bottom of Tailpipe _____

Diameter ____ Slot size ____ Set from ____ feet to ____ feet
Diameter ____ Slot size ____ Set from ____ feet to ____ feet
Gravel packed? ☐ Yes ☑ No ☐ Size of gravel _____
Placed from _____ feet to _____ feet

Surface seal depth 20 Material used in seal: ☐ Cement grout
☒ Bentonite ☐ Puddling clay ☐ _____
Sealing procedure used: ☐ Slurry pit
☐ Temp. surface casing ☑ Overbore to seal depth
Method of joining casing: ☐ Threaded ☑ Welded
☐ Solvent Weld ☐ Cemented between strata

Describe access port Sanitary well Seal

6. LOCATION OF WELL
Sketch map location must agree with written location.



Subdivision Name _____
Lot No. _____ Block No. _____
County Custer
Address of Well Site Garden Creek
(give at least name of road)
T. 13 N ☑ or S ☐
SW¼ SE¼ Sec. 3, R. 18 E ☑ or W ☐

7. WATER LEVEL
Static water level 150 feet below land surface.
Flowing? ☐ Yes ☑ No G.P.M. flow _____
Artesian closed-in pressure _____ p.s.i.
Controlled by: ☐ Valve ☐ Cap ☐ Plug
Temperature 57 °F. Quality Good
Describe artesian or temperature zones below.

8. WELL TEST DATA
☐ Pump ☐ Bailer ☑ Air ☐ Other _____

Discharge G.P.M.	Pumping Level	Hours Pumped
20	190	3

40

9. LITHOLOGIC LOG

Bore Diam.	Depth From	Depth To	Material	Water Yes	Water No
8	0	3	TOP SOIL		X
8	3	34	REDDISH BROWN CLAY		X
6	34	36	BROKEN BOULDER		X
	36	78	GREY GUMBO CLAY	X	
	78	115	HARD BROWN ROCK		X
	115	170	BROWN ROCK		X
	170	190	BROWN FRACTURED ROCK	X	

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DEC 15 1993
Department of Water Resources
Eastern District Office

RECEIVED
DEC 17 1993
Department of Water Resources
Southern Region Office

10.
Work started 12/1/93 finished 12/4/93

11. DRILLER'S CERTIFICATION
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.
Firm Name HARBER DRILLING COMPANY Firm No. 430
Address ~~Post Office Box 194~~ Carmen Creek Road ~~CARMEN, ID 83462-01~~ Date 12/6/93
Signed by Drilling Supervisor _____
and
(Operator) _____ (if different than the Drilling Supervisor)

USE ADDITIONAL SHEETS IF NECESSARY — FORWARD THE WHITE COPY TO THE DEPARTMENT

8

Form 238-7
6/91

C

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

Use Typewriter or Ball Point Pen

1. DRILLING PERMIT NO. 42-98-5.0913 ERC
Other IDWR No.

2. OWNER:
Name ROBERT KELLEHER
Address P.O. BOX 312
City CHALLIS State ID Zip 83226

3. LOCATION OF WELL by legal description:
Sketch map location must agree with written location

N

T 14 North ✓ or South
R 18 East or West
Sec 36 1/4 SW 1/4 NE 1/4
Govt Lot County CUSTER

Address of Well Site 3 MI. W. GARDEN CK ROAD
(Give distance from nearest town)

Lot No. Block No. Subd Name

4. PROPOSED USE:
✓ Domestic Municipal Monitor Irrigation
Thermal Injection Other

5. TYPE OF WORK
✓ New Well Modify or Repair Replacement Abandonment

6. DRILL METHOD
Mud Rotary ✓ Air Rotary Cable Other

7. SEALING PROCEDURES

SEAL/FILTER PACK Material	From	To	AMOUNT Sacks or Pounds	METHOD
Bentonite	0	23	12	PUMP

Was drive shoe seal tested? Yes No ✓ How?

8. CASING/LINER:

Diameter	From	To	Casing	Casing	Liner	Steel ✓	Plastic	Welded	Threaded
6	14	23	.250	✓					
5	20	100	.188			✓			

Final location of shoes 23 / 14
Top Packer or Headpipe Bottom Tailpipe

9. PERFORATIONS/SCREENS
Perforations Method
Screens Type Material

From	To	Slot Size	Number	Diameter	Tele/Spline Type	Casing	Liner

10. WELL TESTS:
Pump Bailer ✓ Air Flowing Artesian

Yield (gal/min)	Drawdown	Pumping Depth	Time
7		180	1

Temperature of water Was a water analysis done? Yes No
By whom?
Water Quality (odor, etc.)
Bottom Hole Temperature

11. STATIC WATER LEVEL:
63 ft. below surface Depth artesian flow found
Artesian pressure lb. Describe access port
Describe Controlling Devices:

12. LITHOLOGIC LOG: (Describe repairs or abandonment) W UW

Boring Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	GPM	SWL
6	0	5	TOP SOIL		✓
6	5	15	CLAY & GRAVEL		✓
6	15	17	CLAY (BRN CHERT		✓
6	17	23	CHERT SOFT		✓
6	23	32	CHERT		✓
6	32	160	GRANITE	✓	
6	160	200	GRANITE & QUARTZ	✓	

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SEP 20 1993
Department of Water Resources

Date: Started 9-8-93 Completed 9-9-93

13. DRILLER'S CERTIFICATION
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name WOOD RIVER DRILLING & PUMP Firm No. 765
BOX 837
BELLEVUE, ID 83313
Firm Official Ken Smith Date 9-13-93
and
Supervisor or Operator Date 9-13-93
(Sign once if Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES

BALLPOINT PEN

9

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

R-2

1. WELL OWNER

Name Horne Industrial Inc.

Address 6655 W. Victory Boise, ID 83709

Drilling Permit No. 72-92-C-002

Water Right Permit No. _____

2. NATURE OF WORK

☒ New well ☐ Deepened ☐ Replacement
☐ Well diameter increase
☐ Abandoned (describe abandonment procedures such as materials, plug depths, etc. in lithologic log)

3. PROPOSED USE

☐ Domestic ☐ Irrigation ☐ Test ☐ Municipal
☐ Industrial ☐ Stock ☐ Waste Disposal or Injection
☒ Other Monitoring (specify type)

4. METHOD DRILLED

☒ Rotary ☒ Air ☐ Hydraulic ☐ Reverse rotary
☐ Cable ☐ Dug ☐ Other _____

5. WELL CONSTRUCTION

Casing schedule: ☐ Steel ☐ Concrete ☒ Other PVC

Thickness		Diameter		From		To	
SHC 40	inches	2	inches	+ 1.8"	feet	50.3	feet
_____	inches	_____	inches	_____	feet	_____	feet
_____	inches	_____	inches	_____	feet	_____	feet
_____	inches	_____	inches	_____	feet	_____	feet

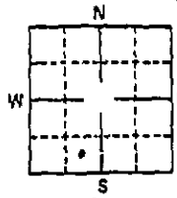
Was casing drive shoe used? ☐ Yes ☒ No
Was a packer or seal used? ☐ Yes ☒ No
Perforated? ☐ Yes ☒ No
How perforated? ☐ Factory ☐ Knife ☐ Torch ☐ Gun
Size of perforation _____ inches by _____ inches

Number		From		To	
_____	perforations	_____	feet	_____	feet
_____	perforations	_____	feet	_____	feet
_____	perforations	_____	feet	_____	feet

Well screen installed? ☒ Yes ☐ No
Manufacturer's name JOHNSON
Type PVC Model No. _____
Diameter 2" Slot size .010 Set from 50.1 feet to 60.1 feet
Diameter ___ Slot size ___ Set from _____ feet to _____ feet
Gravel packed? ☒ Yes ☐ No ☐ Size of gravel sand 20 & 40
Placed from 46.1 feet to 60.1 feet
Surface seal depth 45.1 Material used in seal: ☐ Cement grout ☐ Bentonite ☐ Puddling clay ☒ Benseal
Sealing procedure used: ☐ Slurry pit ☒ Temp. surface casing ☐ Overbore to seal depth
Method of joining casing: ☒ Threaded ☐ Welded ☐ Solvent Weld ☐ Cemented between strata
Describe access port _____

6. LOCATION OF WELL

Sketch map location must agree with written location.



Subdivision Name _____

Lot No. _____ Block No. _____

County Custer

SE ¼ SW ¼ Sec. 28, T. 14 N ☒ S ☐ R. 19 E ☒ W ☐

7. WATER LEVEL

Static water level 53.68 feet below land surface.
Flowing? ☐ Yes ☒ No G.P.M. flow _____
Artesian closed-in pressure _____ p.s.i.
Controlled by: ☐ Valve ☐ Cap ☐ Plug
Temperature _____ °F. Quality _____
Describe artesian or temperature zones below.

8. WELL TEST DATA

☐ Pump ☐ Bailer ☐ Air ☐ Other _____

Discharge G.P.M.	Pumping Level	Hours Pumped

9. LITHOLOGIC LOG

Bore Diam.	Depth From	Depth To	Material	Water Yes	Water No
7.5	0	26	Silted Sand Gravel		
"	26	35	Gravely Silted Sand		
"	35	42	Silted Sand Gravel		
"	42	44	Silted Sand		
"	44	51	Silted Sand Gravel		
"	51	52	Gravelly Silted Sand		
"	52	54	Silted Sand Gravel	X	
7.5	54	60.1	Clay Bound Silted Sand Gravel	X	

RECEIVED
JUN 8 1992
Department of Water Resources

JUN - 2 1992
Water Resources
Regional Office

JUN - 3 1992

10.

Work started 5-18-92 finished 5-19-92

11. DRILLERS CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Hiddleston & Son, INC Firm No. 35
Address Rt 3, Box 610-D Mtn Home, ID 83647 Date 5-21-92

Signed by (Firm Official) _____
and
(Operator) _____

USE ADDITIONAL SHEETS IF NECESSARY — FORWARD THE WHITE COPY TO THE DEPARTMENT

10

Form 238-7
1/94

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

Use Typewriter or Ball Point Pen

1. DRILLING PERMIT NO. 72 95 S 1006 . 000
Other IDWR No.

2. OWNER:
Name Mike Tupper
Address Box 1814
City Challis State Id Zip 83226

3. LOCATION OF WELL by legal description:
Sketch map location must agree with written location.

Twp. 14 North ☑ or South ☐
Rge. 19 East ☑ or West ☐
Sec. 28 ____ 1/4 NE 1/4 SE 1/4
Govt Lot ____ County Custer

Address of Well Site Challis
Hwy 93S - Main St City Challis
(Give at least name of Road + Distance to Road or Landmark)

Lt. ____ Blk. ____ Sub. Name ____

4. PROPOSED USE:
☑ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other ____

5. TYPE OF WORK
☑ New Well ☐ Modify or Repair ☐ Replacement ☐ Abandonment

6. DRILL METHOD
☐ Mud Rotary ☑ Air Rotary ☐ Cable ☐ Other ____

7. SEALING PROCEDURES

SEAL/FILTER PACK Material	From	To	AMOUNT Sacks/Pounds	METHOD
BENTONITE	0	20	400	GRAVITY

Was drive shoe used? ☑ Y ☐ N ☐
Was drive shoe seal tested? Y ☐ N ☑ How? ____

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
6	0	200	.250	STEEL	☑	☐	☑	☐
					☐	☐	☐	☐
					☐	☐	☐	☐

Length of Headpipe ____ Length of Tailpipe ____

9. PERFORATIONS/SCREENS
☑ Perforations Method KNIFE
☐ Screens Screen Type ____

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
60	70	3/16	190			☑	☐
						☐	☐
						☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:
150 ft. below ground Artesian pressure ____ lb.
Depth flow encountered ____ ft. Describe access port or control devices: SANITARY WELL SEAL

11. WELL TESTS:
☐ Pump ☐ Bailer ☑ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
30		200	

Water Temp. 54° Bottom hole temp. ____
Water Quality test or comments: CLEAR

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water Y	Water N
8	0	2	TOP SOIL		
	2	20	ROCK/BOULDERS		
6	20	45	BOULDERS GRAVEL		
	45	65	BOULDERS CLAY		
	65	70	WET	X	
	70	140	BOULDER CLAY		
	140	145	WET		
	145	160	CLAY BOULDERS		
	160	180	GRAVEL BOULDER	X	
	180	200	BOULDER GRAVEL	X	
	200	204	BROWN CLAY		
			GRAVEL CLAY		

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APR 2 4 1995
Department of Water Resources
Southern Region

RECEIVED
MAY 0 3 1995
Department of Water Resources

Completed Depth 204 (Measurable)
Date: Started 4/7/95 Completed 4/12/95

13. DRILLER'S CERTIFICATION
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name HARBER DRILLING Firm No. 939
Firm Official [signature] Date 4/12/95
and
Supervisor or Operator ____ Date ____
(sign once if Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES

Form 238-7
3/95

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

Use Typewriter or Ballpoint Pen

Office Use Only
Inspected by _____
Twp ____ Rge ____ Sec ____
____1/4 ____1/4 ____1/4
Lat: : : Long: : :

1. DRILLING PERMIT NO. 72-93-/S-0008 -000
Other IDWR No. _____

2. OWNER:
Name Tom Rutts
Address P.O. Box 6
City Challis State Id. Zip 83226

3. LOCATION OF WELL by legal description:
Sketch map location must agree with written location.

N / W / E / S

Twp. 14 North ☒ or South ☐
Rge. 19 East ☒ or West ☐
Sec. 28 ____ 1/4 se 1/4 se 1/4 (10 acres / 40 acres / 160 acres)
Govt Lot ____ County Custer
Lat: : : Long: : :
Address of Well Site _____
(Give at least name of road + Distance to Road or Landmark) City Challis
Lt. _____ Blk. _____ Sub. Name _____

4. USE:
☒ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other _____

5. TYPE OF WORK check all that apply (Replacement etc.)
☒ New Well ☐ Modify ☐ Abandonment ☐ Other _____

6. DRILL METHOD
☒ Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other _____

7. SEALING PROCEDURES

SEAL/FILTER PACK Material	From	To	AMOUNT Sacks or Pounds	METHOD
Bentonite	0	20		overbore

Was drive shoe used? ☐Y ☐N Shoe Depth(s) _____
Was drive shoe seal tested? ☐Y ☒N How? _____

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
8	+1.5	280	.280	steel	☒	☐	☒	☐
6	280	320	.250	steel	☐	☒	☐	☒
					☐	☐	☐	☐

Length of Headpipe _____ Length of Tailpipe _____

9. PERFORATIONS/SCREENS
☒ Perforations Method Knife
☐ Screens Screen Type _____

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
90	100	.25	200	2"	Steel	X	
280	320	.25	1600	2"	Steel	☐	☒
						☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:
167 ft. below ground Artesian pressure ____ lb.
Depth flow encountered ____ ft. Describe access port or control devices: _____

11. WELL TESTS:
☐ Pump ☐ Bailer ☒ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
200		250	2

Water Temp. _____ Bottom hole temp. _____
Water Quality test or comments: _____
Depth first Water Encountered _____

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Hole Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water Y	Water N
8	0	24	Boulders Sand & Clay	x	
8	24	30	Gravel sand & Clay	x	
8	30	40	Gravel & Clay		x
8	40	50	Clay & Gravel		x
8	50	60	Gravel & Clay	x	
8	60	70	Gravel & Clay	x	
8	70	80	Broken Limestone & Clay		x
8	80	90	Clay & Gravel		x
8	90	100	Broken Limestone & Clay	x	
8	100	120	Clay & Gravel		x
8	120	140	Clay		x
8	140	160	Clay & Gravel		x
8	160	180	Clay & Gravel		x
8	180	200	Clay & Gravel		x
8	200	210	Clay & Gravel		x
8	210	220	Gravel & Course Granite	x	
8	220	240	Gravel & Clay	x	
8	240	260	Gravel & Coarse Granite	x	
8	260	280	Gravel & Clay	x	
8	280	294	Broken Rock	x	
8	294	320	Assorted Rock	x	

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MAR 19 1997
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Department of Water Resources
MAR 18 1997
Department of Water Resources
Southern Region

Completed Depth 320 (Measurable)
Date: Started 6/22/93 Completed 6/25/93

13. DRILLER'S CERTIFICATION
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Wood River Drilling & Pump No. 265
Firm Official Ken Smith Ken Smith Date 3/17/97
and
Supervisor or Operator _____ Date _____
(Sign once if Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES

12

Form 238-7
3/96

RECEIVED
JUN 3 1998
Department of Water Resources

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

Use Typewriter or Ballpoint Pen

Office Use Only
Inspected by _____
Twp ____ Rge ____ Sec ____
____1/4 ____1/4 ____1/4
Lat: : : Long: : :

1. DRILLING PERMIT NO. 75-97-E-0038
Other IDWR No. TAG # 4421

2. OWNER: Allen Palmer for
Name The Church of Jesus Christ of Latter Day Saints
Address 439 Rolling Hills Drive
City Rexburg State Id. Zip 83440

3. LOCATION OF WELL by legal description:
Sketch map location must agree with written location.

Twp. 14 North [X] or South [ ]
Rge. 19 East [X] or West [ ]
Sec. 28 ____ 1/4 SW 1/4 SE 1/4
Gov't Lot ____ County Custer
Lat: : : Long: : :
Address of Well Site Hwy 93
City Challis
(Give at least name of road + Distance to Road or Landmark)
Lt. — Blk. — Sub. Name —

4. USE:
[X] Domestic [ ] Municipal [ ] Monitor [ ] Irrigation
[ ] Thermal [ ] Injection [ ] Other

5. TYPE OF WORK check all that apply (Replacement etc.)
[ ] New Well [ ] Modify [ ] Abandonment [X] Other Replacement

6. DRILL METHOD
[X] Air Rotary [ ] Cable [ ] Mud Rotary [ ] Other

7. SEALING PROCEDURES

SEAL/FILTER PACK Material	From	To	AMOUNT Sacks or Pounds	METHOD
Bentonite	25	0	1150#	Poured
Grout				

Was drive shoe used? [X] Y [ ] N Shoe Depth(s) 200 Ft.
Was drive shoe seal tested? [ ] Y [X] N How?

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
8"	+2	200	.322	Steel	[X]	[ ]	[X]	[ ]
5"	185	326	Sch 40	PVC	[ ]	[X]	[ ]	[X]
					[ ]	[ ]	[ ]	[ ]

Length of Headpipe — Length of Tailpipe —

9. PERFORATIONS/SCREENS
[X] Perforations Method Skil Saw
[ ] Screens Screen Type

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
326	200	1/8"	3 per Foot	5"	PVC	[ ]	[X]
						[ ]	[ ]
						[ ]	[ ]

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:
100 ft. below ground Artesian pressure — lb.
Depth flow encountered — ft. Describe access port or control devices: Metal Plate welded on Top

11. WELL TESTS:
[ ] Pump [ ] Bailer [X] Air [ ] Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
25 GPM	N/A	300 Ft.	4.5 HRS

Water Temp. Cold Bottom hole temp. Cold
Water Quality test or comments: Good, Clean, NO Smell
Depth first Water Encountered 114 Ft.

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water Y	Water N
12"	0	5	Large Gravel, Large Sand		X
	5	25	Large Gravel, med to large Sand		X
8"	25	80	Large Gravel, med to large Sand		X
	80	115	med to Large Gravel, med to Large, Sand	X	
	115	126	Silty fine sand with some clay mixed	X	
	126	146	med. Gravel, med to small Sand w/some brown clay mix.	X	
	146	200	med-to small Gravel + med to course sand mix	X	
6"	200	243	Pebble Conglomerate Hard	X	
	243	250	Pink + Tan Sandstone	X	
	250	256	Tan sandstone w/some Pink + Black Spec's mixed in.	X	
	256	262	Tan Sandstone	X	
	262	271	Pink Sandstone w/some Tan Sandstone mix	X	
	271	273	Pink Sandstone	X	
	273	274	Pink Quartzite, some white Quartzite mix	X	
	274	277	Pink Shale	X	
	277	286	Tan + Pink Shale mix	X	
	286	294	Pink + Tan sandstone mix	X	
	294	300	Red clay Hard w/some Tan Hard clay mix	X	
	300	326	Pink + Tan w/some white Quartzite + Small Layers of Sandstone + clay mix	X	

Completed Depth 326 Ft. (Measurable)
Date: Started 5-8-98 Completed 5-21-98

13. DRILLER'S CERTIFICATION
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Deschades-Foster, INC. Firm No. 504
Firm Official Jerry Foster Date 5-25-98
and
Supervisor or Operator ____ Date ____
(Sign once if Firm Official & Operator)

RECEIVED
MAY 28 1998
Department of Water Resources

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...MENT OF WATER RESOURCES

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

BALLPOINT PEN

RECEIVED AUG 30 1984

Department of Water Resources Southern District Office

13

1. WELL OWNER

Name [illegible]

Address [illegible]

Owner's Permit No. _____

2. NATURE OF WORK

☒ New well ☐ Deepened ☐ Replacement

☐ Abandoned (describe abandonment procedures such as materials, plug depths, etc. in lithologic log)

3. PROPOSED USE

☒ Domestic ☐ Irrigation ☐ Test ☐ Municipal

☐ Industrial ☐ Stock ☐ Waste Disposal or Injection

☐ Other _____ (specify type)

4. METHOD DRILLED

☒ Rotary ☒ Air ☐ Hydraulic ☐ Reverse rotary

☐ Cable ☐ Dug ☐ Other _____

5. WELL CONSTRUCTION

Casing schedule: ☒ Steel ☐ Concrete ☐ Other _____

Thickness	Diameter	From	To
150 inches	6 inches	+ 1 feet	510 feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet

Was casing drive shoe used? ☒ Yes ☐ No

Was a packer or seal used? ☐ Yes ☐ No

Perforated? ☒ Yes ☐ No

How perforated? ☐ Factory ☐ Knife ☒ Torch

Size of perforation 1/8 inches by 40 inches

Number		From	To
40	perforations	60 feet	320 feet
_____	perforations	_____ feet	_____ feet
_____	perforations	_____ feet	_____ feet

Well screen installed? ☐ Yes ☒ No

Manufacturer's name _____

Type _____ Model No. _____

Diameter ___ Slot size ___ Set from _____ feet to _____ feet

Diameter ___ Slot size ___ Set from _____ feet to _____ feet

Gravel packed? ☐ Yes ☐ No ☐ Size of gravel _____

Placed from _____ feet to _____ feet

Surface seal depth 15 Material used in seal: ☐ Cement grout

☒ Bentonite ☐ Puddling clay ☐ _____

Sealing procedure used: ☐ Slurry pit ☐ Temp. surface casing ☒ Overbore to seal depth

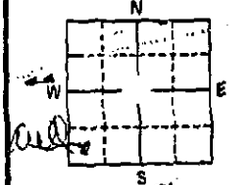
Method of joining casing: ☐ Threaded ☒ Welded ☐ Solvent Weld

☐ Cemented between strata

Describe access port [illegible]

6. LOCATION OF WELL

Sketch map location must agree with written location.



Subdivision Name Add

Add of Charles

Lot No. _____ Block No. _____

County Austin

SW ¼ SW ¼ Sec. 28, T. 14 N/S, R. 19 E/W.

7. WATER LEVEL

Static water level 45 feet below land surface.

Flowing? ☐ Yes ☐ No G.P.M. flow _____

Artesian closed-in pressure _____ p.s.i.

Controlled by: ☐ Valve ☐ Cap ☐ Plug

Temperature ___ °F. Quality Good

Describe artesian or temperature zones below.

8. WELL TEST DATA

☐ Pump ☐ Bailer ☒ Air ☐ Other _____

Discharge C.P.M.	Pumping Level	Hours Pumped
10		

9. LITHOLOGIC LOG

Bore Diam.	Depth From	Depth To	Material	Water Yes	Water No
6	0	40	Gravel, Sand & Clay		☒
	40	60	Clay		☒
	60	510	Clay & Gravel	☒	

AUG 1984

Department of Water Resources

SEP 1984

10.

Work started 6-15-84 finished 6-15-84

11. DRILLERS CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name [illegible] Firm No. 339

Address [illegible] Date 6-28-84

Signed by (Firm Official) [illegible]

and

(Operator) [illegible]

USE ADDITIONAL SHEETS IF NECESSARY — FORWARD THE WHITE COPY TO THE DEPARTMENT

9 82

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

USE TYPEWRITER OR BALLPOINT PEN

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

14

1. WELL OWNER

Name Bill Jennings

Address Hailey Idaho

Owner's Permit No.

2. NATURE OF WORK

☒ New well ☐ Deepened ☐ Replacement
☐ Abandoned (describe abandonment procedures such as materials, plug depths, etc. in lithologic log)

3. PROPOSED USE

☒ Domestic ☐ Irrigation ☐ Test ☐ Municipal
☐ Industrial ☐ Stock ☐ Waste Disposal or Injection
☐ Other _____ (specify type)

4. METHOD DRILLED

☒ Rotary ☒ Air ☐ Hydraulic ☐ Reverse rotary
☐ Cable ☐ Dug ☐ Other _____

5. WELL CONSTRUCTION

Casing schedule: ☒ Steel ☐ Concrete ☐ Other _____

Thickness	Diameter	From	To
.250 inches	6 inches +	1 feet	120 feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet

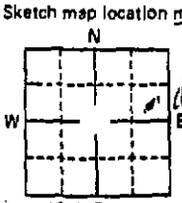
Was casing drive shoe used? ☒ Yes ☐ No
Was a packer or seal used? ☐ Yes ☐ No
Perforated? ☒ Yes ☐ No
How perforated? ☐ Factory ☐ Knife ☒ Torch
Size of perforation 1/4 inches by 4 inches

Number		From		To	
40	perforations	110	feet	120	feet
_____	perforations	_____	feet	_____	feet
_____	perforations	_____	feet	_____	feet

Well screen installed? ☐ Yes ☒ No
Manufacturer's name _____
Type _____ Model No. _____
Diameter ___ Slot size ___ Set from _____ feet to _____ feet
Diameter ___ Slot size ___ Set from _____ feet to _____ feet
Gravel packed? ☐ Yes ☐ No ☐ Size of gravel _____
Placed from _____ feet to _____ feet
Surface seal depth 15 Material used in seal: ☐ Cement grout ☒ Bentonite ☐ Puddling clay ☐ _____
Sealing procedure used: ☐ Slurry pit ☐ Temp. surface casing ☒ Overbore to seal depth
Method of joining casing: ☐ Threaded ☒ Welded ☐ Solvent Weld
☐ Cemented between strata
Describe access port _____

6. LOCATION OF WELL

Sketch map location must agree with written location.



Subdivision Name Hillview Addition
Lot No. 1 Block No. _____
County Custer
SE ¼ NE ¼ Sec. 31, T. 14 N/S, R. 19 E/W.

7. WATER LEVEL

Sawtooth District Office

Static water level 30 feet below land surface.
Flowing? ☐ Yes ☐ No G.P.M. flow _____
Artesian closed-in pressure _____ p.s.i.
Controlled by: ☐ Valve ☐ Cap ☐ Plug
Temperature ___ °F. Quality Good
Describe artesian or temperature zones below

8. WELL TEST DATA

☐ Pump ☐ Bailer ☒ Air ☐ Other _____

Discharge G.P.M.	Pumping Level	Hours Pumped
20		

9. LITHOLOGIC LOG

Bore Diam.	Depth From	Depth To	Material	Water Yes	Water No
6	0	10	Soil		X
	10	60	Clay		X
	60	100	Clay & Volcanic Gravel		X
	100	120	Fractured Volcanics	X	

AUG — 1984
Department of Water Resources
SEP 7 1984
Department of Water Resources

10.

Work started 5-20-83 finished 5-24-83

11. DRILLERS CERTIFICATION 88

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Wm. Skaggs Drilling Firm No. 334
Address Hailey, Id. 83333 Date 5-26-83
Signed by (Firm Official) Wm. K. Skaggs
and
(Operator) Wm. K. Skaggs

USE ADDITIONAL SHEETS IF NECESSARY — FORWARD THE WHITE COPY TO THE DEPARTMENT

DEPARTMENT OF WATER RESOURCES

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

BALLPOINT PEN

RECEIVED AUG 30 1984 Department of Water Resources Southern District Office

12 15

1. WELL OWNER

Name Charley Chance

Address Box 795 Chester, Calif.

Owner's Permit No.

2. NATURE OF WORK

☒ New well ☐ Deepened ☐ Replacement

☐ Abandoned (describe abandonment procedures such as materials, plug depths, etc. in lithologic log)

3. PROPOSED USE

☒ Domestic ☐ Irrigation ☐ Test ☐ Municipal

☐ Industrial ☐ Stock ☐ Waste Disposal or Injection

☐ Other (specify type)

4. METHOD DRILLED

☒ Rotary ☒ Air ☐ Hydraulic ☐ Reverse rotary

☐ Cable ☐ Dug ☐ Other

5. WELL CONSTRUCTION

Casing schedule: ☒ Steel ☐ Concrete ☐ Other

Thickness	Diameter	From	To
.156 inches	6 inches +	1 feet	90 feet
inches	inches	feet	feet
inches	inches	feet	feet
inches	inches	feet	feet

Was casing drive shoe used? ☒ Yes ☐ No

Was a packer or seal used? ☐ Yes ☐ No

Perforated? ☐ Yes ☒ No

How perforated? ☐ Factory ☐ Knife ☐ Torch

Size of perforation inches by inches

Number	From	To
perforations	feet	feet
perforations	feet	feet
perforations	feet	feet

Well screen installed? ☐ Yes ☐ No

Manufacturer's name

Type Model No.

Diameter Slot size Set from feet to feet

Diameter Slot size Set from feet to feet

Gravel packed? ☐ Yes ☐ No ☐ Size of gravel

Placed from feet to feet

Surface seal depth 20 Material used in seal: ☐ Cement grout

☒ Bentonite ☐ Puddling clay ☐

Sealing procedure used: ☐ Slurry pit ☐ Temp. surface casing

☒ Overbore to seal depth

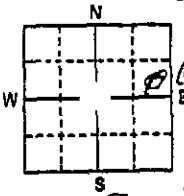
Method of joining casing: ☐ Threaded ☒ Welded ☐ Solvent Weld

☐ Cemented between strata

Describe access port Ground

6. LOCATION OF WELL

Sketch map location must agree with written location.



Subdivision Name Hillcrest (Well Hillcrest)

Lot No. 2 Block No.

County Lassen

SW ¼ NE ¼ Sec. 31, T. 24 N/S, R. 12 E/W.

7. WATER LEVEL

Static water level 72 feet below surface

Flowing? ☐ Yes ☐ No G.P.M. flow

Artesian closed-in pressure p.s.i.

Controlled by: ☐ Valve ☐ Cap ☐ Plug

Temperature °F. Quality Good

Describe artesian or temperature zones below.

8. WELL TEST DATA

☐ Pump ☐ Baller ☒ Air ☐ Other

Discharge G.P.M.	Pumping Level	Hours Pumped
60		

9. LITHOLOGIC LOG

Bore Diam.	Depth From	Depth To	Material	Water Yes	Water No
6	0	100	Brown Fractured Lava		☒
	100	150	Blue & Brown Fractured		☒
	150	180	Reddish Brown Fractured		☒
	180	150	Brown Soft Rock		☒
	150	170	Brown Rock	☒	

AUG 1984 Department of Water Resources

SEP 1984 Department of Water Resources

Department of Water Resources Western District

10.

Work started 10-12-83 finished 10-15-83

11. DRILLERS CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Westinghouse Drilling Firm No. 399

Address 4463 Box 1790 Date 10-30-83

Signed by (Firm Official) Leon A Westinghouse

and

(Operator) Leon A Westinghouse

USE ADDITIONAL SHEETS IF NECESSARY — FORWARD THE WHITE COPY TO THE DEPARTMENT

BALLPOINT PEN

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

JUL 2 1979

Department of Water Resources
Southern District Office

1. WELL OWNER

Name Alex Thompson

Address Chualar Calif

Owner's Permit No. _____

2. NATURE OF WORK

☒ New well ☐ Deepened ☐ Replacement
☐ Abandoned (describe method of abandoning) _____

3. PROPOSED USE

☒ Domestic ☐ Irrigation ☐ Test ☐ Municipal
☐ Industrial ☐ Stock ☐ Waste Disposal or Injection
☐ Other _____ (specify type)

4. METHOD DRILLED

☒ Rotary ☒ Air ☐ Hydraulic ☐ Reverse rotary
☐ Cable ☐ Dug ☐ Other _____

5. WELL CONSTRUCTION

Casing schedule: ☒ Steel ☐ Concrete ☐ Other _____

Thickness	Diameter	From	To
150 inches	6 inches	+ 1 feet	10 feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet

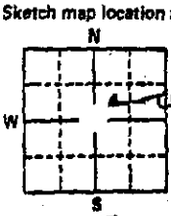
Was casing drive shoe used? ☒ Yes ☐ No
Was a packer or seal used? ☐ Yes ☐ No
Perforated? ☒ Yes ☐ No
How perforated? ☐ Factory ☐ Knife ☐ Torch
Size of perforation ¼ inches by 4 inches

Number	From	To
40 perforations	10 feet	80 feet
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet

Well screen installed? ☐ Yes ☐ No
Manufacturer's name _____
Type _____ Model No. _____
Diameter ___ Slot size ___ Set from _____ feet to _____ feet
Diameter ___ Slot size ___ Set from _____ feet to _____ feet
Gravel packed? ☐ Yes ☐ No ☐ Size of gravel _____
Placed from _____ feet to _____ feet
Surface seal depth 18 Material used in seal: ☐ Cement grout ☐ Puddling clay ☐ Well cuttings
Sealing procedure used: ☒ Slurry pit ☒ Temp. surface casing ☒ Overbore to seal depth
Method of joining casing: ☐ Threaded ☐ Welded ☐ Solvent Weld ☐ Cemented between strata
Describe access port _____

6. LOCATION OF WELL

Sketch map location must agree with written location.



Subdivision Name _____
Lot No. _____ Block No. _____
County Monterey
¼ NE ¼ Sec. 31, T. 15 S, R. 1 E W.

7. WATER LEVEL

Static water level 6 feet below land surface.
Flowing ☐ Yes ☒ No G.P.M. flow _____
Artesian pressure _____ p.s.i.
Controlled by: ☐ Valve ☐ Cap ☐ Plug
Temperature ____ °F. Quality Good

8. WELL TEST DATA

☐ Pump ☐ Bailer ☒ Air ☐ Other _____

Discharge G.P.M.	Pumping Level	Hours Pumped
90 gal		

9. LITHOLOGIC LOG

Hole Diam.	Depth From	Depth To	Material	Water Yes	Water No
6	0	18	Clay Boulders		☒
	18	80	Gravel		☒
	80	90	Blue Rock		☒
	90	120	Blue Rock	☒	

10.

Work started 5-5-79 finished 5-5-79

11. DRILLERS CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Westward Drilling Firm No. 934
Address Box 199 Chualar Date 5-5-79
Signed by (Firm Official) Leon R. Westward
and
(Operator) Leon R. Westward

USE ADDITIONAL SHEETS IF NECESSARY — FORWARD THE WHITE COPY TO THE DEPARTMENT

9-82

DEPARTMENT OF WATER RESOURCES

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

USE TYPEWRITER OR BALLPOINT PEN

AUG 23 1984

1. WELL OWNER

Name Gene King

Address Caldwell Idaho

Owner's Permit No.

2. NATURE OF WORK

☒ New well ☐ Deepened ☐ Replacement

☐ Abandoned (describe abandonment procedures such as materials, plug depths, etc. in lithologic log)

3. PROPOSED USE

☒ Domestic ☐ Irrigation ☐ Test ☐ Municipal

☐ Industrial ☐ Stock ☐ Waste Disposal or Injection

☐ Other (specify type)

4. METHOD DRILLED

☒ Rotary ☒ Air ☐ Hydraulic ☐ Reverse rotary

☐ Cable ☐ Dug ☐ Other

5. WELL CONSTRUCTION

Casing schedule: ☒ Steel ☐ Concrete ☐ Other

Thickness	Diameter	From	To
150 inches	6 inches	+ 1 feet	60 feet
inches	inches	feet	feet
inches	inches	feet	feet
inches	inches	feet	feet

Was casing drive shoe used? ☒ Yes ☐ No

Was a packer or seal used? ☐ Yes ☐ No

Perforated? ☐ Yes ☐ No

How perforated? ☐ Factory ☐ Knife ☒ Torch

Size of perforation 1/8 inches by 4 inches

Number		From	To
40	perforations	48 feet	58 feet
	perforations	feet	feet
	perforations	feet	feet

Well screen installed? ☐ Yes ☒ No

Manufacturer's name

Type Model No.

Diameter Slot size Set from feet to feet

Diameter Slot size Set from feet to feet

Gravel packed? ☐ Yes ☐ No ☐ Size of gravel

Placed from feet to feet

Surface seal depth 18 Material used in seal: ☐ Cement grout ☒ Bentonite ☐ Puddling clay ☐

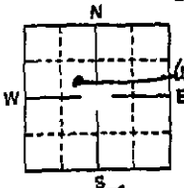
Sealing procedure used: ☐ Slurry pit ☐ Temp. surface casing ☒ Overbore to seal depth

Method of joining casing: ☐ Threaded ☒ Welded ☐ Solvent Weld ☐ Cemented between strata

Describe access port None

6. LOCATION OF WELL

Sketch map location must agree with written location.



Subdivision Name

Lot No. Block No.

County Owyhee

SE ¼ NW ¼ Sec. 31, T. 14 ☒ S, R. 1 ☐ E ☒ W.

7. WATER LEVEL

Department of Water Resources Southern District Office

Static water level 30 feet below land surface.

Flowing? ☐ Yes ☐ No G.P.M. flow

Artesian closed-in pressure p.s.i.

Controlled by: ☐ Valve ☐ Cap ☐ Plug

Temperature °F. Quality Good

Describe artesian or temperature zones below:

8. WELL TEST DATA

☐ Pump ☐ Bailer ☒ Air ☐ Other

Discharge G.P.M.	Pumping Level	Hours Pumped
40		

9. LITHOLOGIC LOG

Bore Diam.	Depth From	Depth To	Material	Water Yes	Water No
6	0	30	Brown sandy soil		☒
	30	40	clay		☒
	40	60	sandy gravel	☒	

RECEIVED
AUG 17 1984
Department of Water Resources
Eastern District Office

RECEIVED
AUG 23 1984
Department of Water Resources

10.

Work started 7-21-84 finished 7-21-84

11. DRILLERS CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Whitey Drilling Firm No. 334

Address Rt 6 Box 1790 Date 7-21-84

Signed by (Firm Official) Leon Whitey Drilling

and

(Operator) Ron King

USE ADDITIONAL SHEETS IF NECESSARY — FORWARD THE WHITE COPY TO THE DEPARTMENT

WELL DRILLER'S REPORT

State law requires that this report be filed with the State Reclamation Engineer within 30 days after completion or abandonment of the well.

18

1. WELL OWNER

Name Jerry Robinson

Address Conrad Idaho

Owner's Permit No. _____

2. NATURE OF WORK

☑ New well ☐ Deepened ☐ Replacement

☐ Abandoned (describe method of abandoning)

3. PROPOSED USE

☑ Domestic ☐ Irrigation ☐ Test

☐ Municipal ☐ Industrial ☐ Stock

4. METHOD DRILLED

☑ Cable ☐ Rotory ☐ Dug ☐ Other

5. WELL CONSTRUCTION

Diameter of hole 6 inches Total depth 85 feet

Casing schedule: ☑ Steel ☐ Concrete

Thickness	Diameter	From	To
.17 inches	6 inches	-1 feet	85 feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet

Was a packer or seal used? ☐ Yes ☑ No

Perforated? ☑ Yes ☐ No

How perforated? ☐ Factory ☐ Knife ☑ Torch

Size of perforation 5/8 inches by 6 inches

Number	From	To
24 perforations	65 feet	80 feet
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet

Well screen installed? ☐ Yes ☑ No

Manufacturer's name _____

Type _____ Model No. _____

Diameter ___ Slot size ___ Set from _____ feet to _____ feet

Diameter ___ Slot size ___ Set from _____ feet to _____ feet

Gravel packed? ☐ Yes ☑ No Size of gravel _____

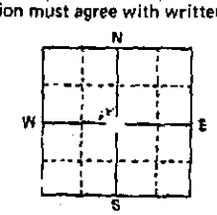
Placed from _____ feet to _____ feet

Surface seal? ☑ Yes ☐ No To what depth 30 feet

Material used in seal ☐ Cement grout ☑ Puddling clay

6. LOCATION OF WELL

Sketch map location must agree with written location.



County Custer

SE ¼ NW ¼ Sec. 31 T. 14 N/S, R. 19 E/W

7. WATER LEVEL

Static water level 62 feet below land surface

Flowing? ☐ Yes ☑ No G.P.M. flow _____

Temperature 51 ° F. Quality _____

Artesian closed-in pressure _____ p.s.i.

Controlled by ☐ Valve ☐ Cap ☐ Plug

8. WELL TEST DATA none

☐ Pump ☐ Bailer ☐ Other

Discharge G.P.M.	Draw Down	Hours Pumped

9. LITHOLOGIC LOG

Hole Diam.	Depth From	Depth To	Material	Water Yes	Water No
	0	15	sand		✓
	15	50	clay + rock		✓
	50	66	rock & sand		✓
	67	70	gravel - (gravel)	✓	
	70	85	rock - soft water	✓	

10. Work started 3-13-72 finished 3-18-72

11. DRILLER'S CERTIFICATION

This well was drilled under my supervision and this report is true to the best of my knowledge.

Lambert Well Drilling — Driller's or Firm's Name — Number 57

Box 301 Malta Idaho — Address

Boyd Lambert 3-20-72 — Signed By — Date

USE ADDITIONAL SHEETS IF NECESSARY FORWARD THE WHITE, BLUE, AND PINK COPIES TO THE DEPARTMENT

WELL DRILLER'S REPORT

14

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

1. WELL OWNER

Name Tom Yarnell

Address Challis Idaho

Owner's Permit No. _____

2. NATURE OF WORK

☒ New well ☐ Deepened ☐ Replacement

☐ Abandoned (describe method of abandoning)

3. PROPOSED USE

☒ Domestic ☐ Irrigation ☐ Test ☐ Other (specify type)

☐ Municipal ☐ Industrial ☐ Stock ☐ Waste Disposal or Injection

4. METHOD DRILLED

☐ Cable ☒ Rotary ☐ Dug ☐ Other

5. WELL CONSTRUCTION

Diameter of hole 6 inches Total depth 68 feet

Casing schedule: ☒ Steel ☐ Concrete

Thickness	Diameter	From	To
.250 inches	6 inches	1 feet	65 feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet

Was casing drive shoe used? ☒ Yes ☐ No

Was a packer or seal used? ☐ Yes ☐ No

Perforated? ☒ Yes ☐ No

How perforated? ☐ Factory ☐ Knife ☒ Torch

Size of perforation 1/4 inches by 4 inches

Number	From	To
510 perforations	56 feet	65 feet
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet

Well screen installed? ☐ Yes ☑ No

Manufacturer's name _____

Type _____ Model No. _____

Diameter ___ Slot size ___ Set from _____ feet to _____ feet

Diameter ___ Slot size ___ Set from _____ feet to _____ feet

Gravel packed? ☐ Yes ☐ No Size of gravel _____

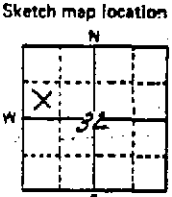
Placed from _____ feet to _____ feet

Surface seal depth 18 Material used in seal ☐ Cement grout ☒ Puddling clay ☐ Well cuttings

Sealing procedure used ☐ Slurry pit ☒ Temporary surface casing ☒ Overbore to seal depth

6. LOCATION OF WELL

Sketch map location must agree with written location.



Subdivision Name _____

Lot No. _____ Block No. _____

County Custer

SW ¼ NW ¼ Sec. 32 T. 14 N/S, R. 19 E/W

7. WATER LEVEL

Static water level 50 feet below land surface

Flowing? Yes ☒ No G.P.M. flow _____

Temperature _____ F. Quality Good

Artesian closed-in pressure _____ p.s.i.

Controlled by ☐ Valve ☐ Cap ☐ Plug

8. WELL TEST DATA

☐ Pump ☐ Bailer ☐ Other Air Test

Discharge G.P.M.	Draw Down	Hours Pumped
20 gal PM		

9. LITHOLOGIC LOG

Hole Diam.	Depth From	Depth To	Material	Water Yes	Water No
6	0	10	Boulders		X
	10	40	Clay		X
	40	50	Blue Clay		X
	50	68	Sand & Gravel	X	

RECEIVED
OCT 8 1980
Department of Water Resources

10. Work started 6-4-79 finished 6-8-79

11. DRILLERS CERTIFICATION

Firm Name Woodward Drilling Firm No. 354

Address Box 173 Challis Date 6-8-79

Signed by (Firm Official) Edward F. Woodward

and

(Operator) Edward F. Woodward

USE ADDITIONAL SHEETS IF NECESSARY FORWARD THE WHITE COPY TO THE DEPARTMENT

USE ADDITIONAL SHEETS IF NECESSARY — FORWARD THE WHITE COPY TO THE DEPARTMENT

DEPARTMENT OF WATER RESOURCES

WELL DRILLER'S REPORT

20

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

1. WELL OWNER

Name Leroy Woodbridge

Address Challis, Idaho

Owner's Permit No. _____

2. NATURE OF WORK

☒ New well ☐ Deepened ☐ Replacement
☐ Abandoned (describe method of abandoning) _____

3. PROPOSED USE

☒ Domestic ☐ Irrigation ☐ Test ☐ Municipal
☐ Industrial ☐ Stock ☐ Waste Disposal or Injection
☐ Other _____ (specify type)

4. METHOD DRILLED

☒ Rotary ☐ Air ☐ Hydraulic ☐ Reverse rotary
☐ Cable ☐ Dug ☐ Other _____

5. WELL CONSTRUCTION

Casing schedule: ☒ Steel ☐ Concrete ☐ Other _____

Thickness	Diameter	From	To
.152 inches	6 inches +	1 feet	20 feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet

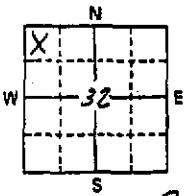
Was casing drive shoe used? ☒ Yes ☐ No
Was a packer or seal used? ☐ Yes ☐ No
Perforated? ☐ Yes ☒ No
How perforated? ☐ Factory ☐ Knife ☐ Torch
Size of perforation _____ inches by _____ inches

Number		From	To
_____	perforations	_____ feet	_____ feet
_____	perforations	_____ feet	_____ feet
_____	perforations	_____ feet	_____ feet

Well screen installed? ☐ Yes ☐ No
Manufacturer's name _____
Type _____ Model No. _____
Diameter ____ Slot size ____ Set from _____ feet to _____ feet
Diameter ____ Slot size ____ Set from _____ feet to _____ feet
Gravel packed? ☐ Yes ☐ No ☐ Size of gravel _____
Placed from _____ feet to _____ feet
Surface seal depth 10 Material used in seal: ☐ Cement grout ☒ Puddling clay ☐ Well cuttings
Sealing procedure used: ☐ Slurry pit ☒ Temp. surface casing ☒ Overbore to seal depth
Method of joining casing: ☐ Threaded ☒ Welded ☐ Solvent Weld ☐ Cemented between strata
Describe access port _____

6. LOCATION OF WELL

Sketch map location must agree with written location.



Subdivision Name _____
Lot No. _____ Block No. _____

County Custer

NW¼ NW¼ Sec. 32, T. 14 N/S, R. 19 E/W.

7. WATER LEVEL

Static water level 125 feet below land surface.
Flowing? ☐ Yes ☒ No G.P.M. flow _____
Artesian closed-in pressure _____ p.s.i.
Controlled by: ☐ Valve ☐ Cap ☐ Plug
Temperature _____ °F. Quality Good

8. WELL TEST DATA

☐ Pump ☐ Bailer ☒ Air ☐ Other _____

Discharge G.P.M.	Pumping Level	Hours Pumped
30		

9. LITHOLOGIC LOG

Hole Diam.	Depth From	Depth To	Material	Water Yes	Water No
6	0	20	Overlay Clay + Dirt		X
	20	140	Rock Boring		X
	140	160	Rock Fractured Broken	X	
			this well is open hole		
			from 1 ft. to 160 ft.		

RECEIVED
OCT 8 1979
Department of Water Resources

10. Work started 6-22-79 finished 6-25-79

11. DRILLERS CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Electric Co. Firm No. 334
Address Box 179 Challis Date 6-29-79
Signed by (Firm Official) Leon A. Whitinger
and
(Operator) Leon A. Whitinger

USE ADDITIONAL SHEETS IF NECESSARY — FORWARD THE WHITE COPY TO THE DEPARTMENT
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C

Form 238-7
1/94

(208) 879-5570 [redacted]

Use Typewriter or Ball Point Pen

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

1. DRILLING PERMIT NO. 22-95-S-0003-000
Other IDWR No.

2. OWNER:
Name Dean Argyle
Address PO Box 848
City Challis State Id Zip 83226

3. LOCATION OF WELL by legal description:
Sketch map location must agree with written location.

N / W / E / S

Twp. 14 North ☒ or South ☐
Rge. 19 East ☒ or West ☐
Sec. 32, E½ NW 1/4 NE 1/4 (10 acres / 160 acres)
Gov't Lot ____ County Custer

Address of Well Site 16 Main St
City Challis
(Give or take name of road + Distance to Road or Landmark)

Lt. ____ Blk. ____ Sub. Name ____

4. PROPOSED USE:
☒ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other ____

5. TYPE OF WORK
☒ New Well ☐ Modify or Repair ☐ Replacement ☐ Abandonment

6. DRILL METHOD
☐ Mud Rotary ☒ Air Rotary ☐ Cable ☐ Other ____

7. SEALING PROCEDURES

SEAL/FILTER PACK Material	From	To	AMOUNT Sacks or Pounds	METHOD
BENTONITE	0	20	200	GRAVITY

Was drive shoe used? Y ☒ N ☐
Was drive shoe seal tested? Y ☐ N ☒ How? ____

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
6	1	80	250	STEEL	☒	☐	☒	☐
5¼	63	163		PVC	☐	☒	☐	☐
					☐	☐	☐	☐

Length of Headpipe ____ Length of Tailpipe ____

9. PERFORATIONS/SCREENS
☐ Perforations Method Knife
☐ Screens Screen Type ____

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
20	95	3/16	120			☒	☐
143	163	1/8"	120			☐	☒
						☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:
10 ft. below ground Artesian pressure ____ lb.
Depth flow encountered ____ ft. Describe access port or control devices: Sanitary well seal

11. WELL TESTS:
☐ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
8		30	3 HRS

Water Temp. ____ Bottom hole temp. ____
Water Quality test or comments: ____

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water Y	Water N
8	0	10	TOP SOIL		☒
	10	20	BOULDERS		
6	20	35	BOULDERS & GRAVEL	☒	
	35	70	GREY SAND STONE		☒
	70	140	BROWN SAND STONE		☒
	140	163	GREY SAND STONE		☒

RECEIVED
APR 19 1995
Department of Water Resources

RECEIVED
FEB 13 1995
Department of Water Resources
Southern Region

Completed Depth 163 (Measurable)
Date: Started 1/18/95 Completed 1/20/95

13. DRILLER'S CERTIFICATION
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Harber Drilling Firm No. 430
Firm Official Alan Harber Date 1/22/95
and
Supervisor or Operator ____ Date ____
(Sign once if Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

USE TYPEWRITER OR BALLPOINT PEN

22

1. WELL OWNER

Name (Owner's Name) City of Challis

Address Box 787 Challis Idaho 83226

Owner's Permit No. 77-7117

2. NATURE OF WORK

☒ New well ☐ Deepened ☐ Replacement
☐ Abandoned (describe method of abandoning)

3. PROPOSED USE

☐ Domestic ☐ Irrigation ☐ Test ☒ Municipal
☐ Industrial ☐ Stock ☐ Waste Disposal or Injection
☐ Other (specify type)

4. METHOD DRILLED

☒ Rotary ☒ Air ☐ Hydraulic ☐ Reverse rotary
☐ Cable ☐ Dug ☐ Other

5. WELL CONSTRUCTION

Casing schedule: ☒ Steel ☐ Concrete ☐ Other

Thickness		Diameter		From	To
.375	inches	10-3/4	inches	5'2" feet	157'3" feet
	inches		inches	feet	feet
	inches		inches	feet	feet
	inches		inches	feet	feet

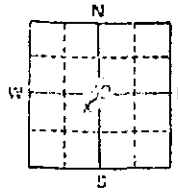
Was casing drive shoe used? ☐ Yes ☒ No
Was a packer or seal used? ☐ Yes ☒ No
Perforated? ☐ Yes ☒ No
How perforated? ☐ Factory ☐ Knife ☐ Torch
Size of perforation inches by inches

Number		From	To
	perforations	feet	feet
	perforations	feet	feet
	perforations	feet	feet

Well screen installed? ☐ Yes ☒ No
Manufacturer's name
Type Model No.
Diameter Slot size Set from feet to feet
Diameter Slot size Set from feet to feet
Gravel packed? ☐ Yes ☒ No ☐ Size of gravel
Placed from feet to feet
Surface seal depth 157'3" Material used in seal: ☒ Cement grout ☐ Puddling clay ☐ Well cuttings
Sealing procedure used: ☐ Slurry pit ☐ Temp. surface casing ☒ Overbore to seal depth
Method of joining casing: ☐ Threaded ☒ Welded ☐ Solvent Weld ☐ Cemented between strata
Describe access port 1½" COUPLING WITH PLUG IN 3"X10-3/4" STEEL PLATE WELDED ON TOP

6. LOCATION OF WELL

Sketch map location must agree with written location.



Subdivision Name
Lot No. Block No.
County CUSTER
NE ¼ NW ¼ Sec. 32 T. 14N N/S, R. 19E E/W.

7. WATER LEVEL

Static water level 317 feet below Land surface
Flowing? ☐ Yes ☒ No G.P.M. flow
Artesian closed-in pressure p.s.i.
Controlled by: ☐ Valve ☐ Cap ☐ Plug
Temperature 60+0 °F. Quality good

8. WELL TEST DATA

☒ Pump ☐ Bailer ☐ Air ☐ Other

Discharge G.P.M.	Pumping Level	Hours Pumped
510	487.5 FEET	24

9. LITHOLOGIC LOG

Hole Diam.	Depth From	Depth To	Material	Water Yes	Water No
17"	0	2.5	GRAVEL & BROKEN ROCK IN TAN CLAY		X
17"	3.5	6	BROKEN GREY & GREEN VOLCANICS		X
17"	6	15	SOLID GREY VOLCANICS		X
17"	15	15.5	SOFT RED VOLCANICS		X
17"	15.5	96	MEDIUM HARD DARK GREEN VOLCANICS	X	
17"	96	105	GREEN & GREY BROKEN VOLCANICS		X
17"	105	157	DARK GREEN MEDIUM TO SOFT VOLCANICS	X	
12"	157	346	DARK GREEN MEDIUM TO SOFT VOLCANICS	X	
12"	346	407	SOLID BROWN-GREY VOLCANICS	X	
12"	407	490	DARK GREEN VOLCANICS	X	
12"	490	505	SOLID BROWN-GREY VOLCANICS	X	
12"	505	550	MEDIUM TO HARD BLUE-GREEN VOLCANICS	X	
12"	550	602	BROKEN BROWN-GREY VOLCANICS	X	

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Department of Water Resources

10.

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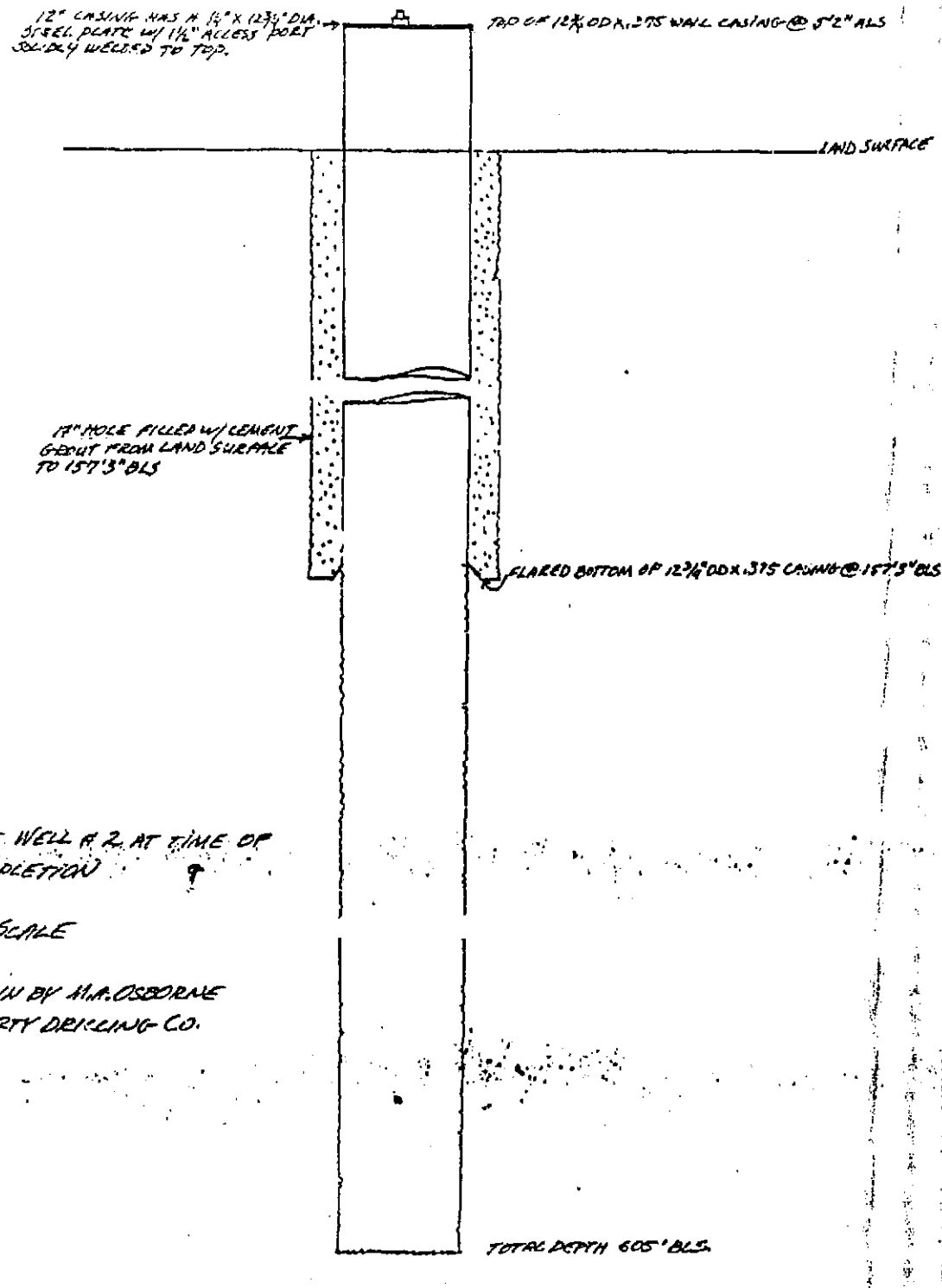
Work started 7-17-81 finished 8-15-81

11. DRILLERS CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name LIBERTY DRILLING CO. Firm No. 380
Address Box 407 CHALLIS, ID. Date 8-28-81
Signed by (Firm Official)
and
(Operator) Michael A Moore

USE ADDITIONAL SHEETS IF NECESSARY — FORWARD THE WHITE COPY TO THE DEPARTMENT



WEST WELL # 2 AT TIME OF COMPLETION

NO SCALE

DRAWN BY H.M. OSBORNE
LIBERTY DRILLING CO.

DEPARTMENT OF WATER RESOURCES

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

USE TYPEWRITER OR BALLPOINT PEN

RECEIVED FEB 4 1981 Department of Water Resources Southern District Office

23

1. WELL OWNER

Name CYPRUS MINES CORP. City of Challis

Address Box 755 CHALLIS, Id. 83226

Owner's Permit No. 72-7117

2. NATURE OF WORK

☒ New well ☐ Deepened ☐ Replacement
☐ Abandoned (describe method of abandoning) _____

3. PROPOSED USE

☐ Domestic ☐ Irrigation ☐ Test ☒ Municipal
☐ Industrial ☐ Stock ☐ Waste Disposal or Injection
☐ Other _____ (specify type)

4. METHOD DRILLED

☒ Rotary ☒ Air ☐ Hydraulic ☐ Reverse rotary
☐ Cable ☐ Dug ☐ Other _____

5. WELL CONSTRUCTION

Casing schedule: ☒ Steel ☐ Concrete ☐ Other _____

Thickness		Diameter		From		To	
.250	inches	10-3/4	inches +	1	feet	103	feet
_____	inches	_____	inches	_____	feet	_____	feet
_____	inches	_____	inches	_____	feet	_____	feet
_____	inches	_____	inches	_____	feet	_____	feet

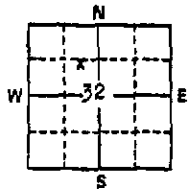
Was casing drive shoe used? ☒ Yes ☐ No
Was a packer or seal used? ☐ Yes ☒ No
Perforated? ☐ Yes ☒ No
How perforated? ☐ Factory ☐ Knife ☐ Torch
Size of perforation _____ inches by _____ inches

Number		From		To	
_____	perforations	_____	feet	_____	feet
_____	perforations	_____	feet	_____	feet
_____	perforations	_____	feet	_____	feet

Well screen installed? ☐ Yes ☒ No
Manufacturer's name _____
Type _____ Model No. _____
Diameter ___ Slot size ___ Set from _____ feet to _____ feet
Diameter ___ Slot size ___ Set from _____ feet to _____ feet
Gravel packed? ☐ Yes ☒ No ☐ Size of gravel _____
Placed from _____ feet to _____ feet
Surface seal depth 18' Material used in seal: ☒ Cement grout ☐ Puddling clay ☐ Well cuttings
Sealing procedure used: ☐ Slurry pit ☐ Temp. surface casing ☒ Overbore to seal depth
Method of joining casing: ☐ Threaded ☒ Welded ☐ Solvent Weld ☐ Cemented between strata
Describe access port 1" PLUG IN STEEL PLATE

6. LOCATION OF WELL

Sketch map location must agree with written location.



Subdivision Name WEST ADDITION
Lot No. _____ Block No. _____
County CUSTER
SE ¼ NW ¼ Sec. 32, T. 14N N/S, R. 19E E/W.

7. WATER LEVEL

Static water level 2 feet below land surface.
Flowing? ☐ Yes ☒ No G.P.M. flow _____
Artesian closed-in pressure _____ p.s.i.
Controlled by: ☐ Valve ☐ Cap ☐ Plug
Temperature _____ °F. Quality _____

8. WELL TEST DATA

☒ Pump ☐ Bailer ☐ Air ☐ Other _____
STEP DOWN

Discharge G.P.M.	Pumping Level	Hours Pumped
200	132.55'	24 HRS.

9. LITHOLOGIC LOG

Hole Diam.	Depth From	Depth To	Material	Water Yes	Water No
10"	0	6"	TOPSOIL		
10"	6"	34	TAN SILTY SAND, GRAVEL & COBBLESTONES. SEEPS WATER	X	
10"	34	92	DARK TAN SILTY SAND, GRAVEL & COBBLESTONES. 5 GPM WATER	X	
10"	92	103	BROKEN ROCK	X	
10"	103	217	SOLID ROCK - RED, SMALL SEEP OF WATER	X	
10"	217	251	GRAY-BLACK ROCK	X	
8"	251	390	RED ROCK (8" STARTS AT 275')	X	
8"	390	430	DARK GREEN ROCK	X	
8"	430	520	SOFT RED ROCK	X	
8"	520	665	DARK GRAY OR BLACK ROCK	X	

FEB 6 1981
Department of Water Resources

10.

Work started 11-25-80 finished 2-2-81

11. DRILLERS CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name LIBERTY DRILLING Co. Firm No. 380
Address Box 407, CHALLIS, Id. Date 2-3-81
Signed by (Firm Official) _____
and
(Operator) Bill Gaddis

USE ADDITIONAL SHEETS IF NECESSARY — FORWARD THE WHITE COPY TO THE DEPARTMENT

1/78

Test Well

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

USE TYPEWRITER OR BALLPOINT PEN

Test Well #6

1. WELL OWNER

Name Cypress Mines Corp.

Address PO Box 755 Challis, Ida

Owner's Permit No. 33X

2. NATURE OF WORK

☒ New well ☐ Deepened ☐ Replacement
☐ Abandoned (describe method of abandoning) _____

3. PROPOSED USE

☐ Domestic ☐ Irrigation ☒ Test ☐ Municipal
☐ Industrial ☐ Stock ☐ Waste Disposal or Injection
☐ Other _____ (specify type)

4. METHOD DRILLED

☒ Rotary ☒ Air ☐ Hydraulic ☐ Reverse rotary
☐ Cable ☐ Dug ☐ Other _____

5. WELL CONSTRUCTION

Casing schedule: ☒ Steel ☐ Concrete ☐ Other _____

Thickness	Diameter	From	To
.250 inches	6 inches	+ 1 feet	100 feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet

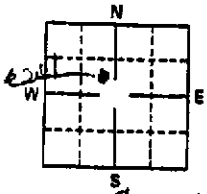
Was casing drive shoe used? ☒ Yes ☐ No
Was a packer or seal used? ☐ Yes ☒ No
Perforated? ☒ Yes ☐ No
How perforated? ☐ Factory ☐ Knife ☒ Torch
Size of perforation 1/4 inches by 4 inches

Number	From	To
160 perforations	80 feet	100 feet
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet

Well screen installed? ☐ Yes ☒ No
Manufacturer's name —
Type — Model No. —
Diameter — Slot size — Set from — feet to — feet
Diameter — Slot size — Set from — feet to — feet
Gravel packed? ☐ Yes ☐ No ☐ Size of gravel —
Placed from — feet to — feet
Surface seal depth 18 Material used in seal: ☐ Cement grout ☐ Puddling clay ☐ Well cuttings
Sealing procedure used: ☐ Slurry pit ☒ Temp. surface casing ☒ Overbore to seal depth
Method of joining casing: ☐ Threaded ☒ Welded ☐ Solvent Weld ☐ Cemented between strata
Describe access port none.

6. LOCATION OF WELL

Sketch map location must agree with written location.



Subdivision Name _____
Lot No. _____ Block No. _____
County Custer
NE ¼ NW ¼ Sec. 32, T. 14 (N)S, R. 19 (E)W.

7. WATER LEVEL

Static water level artesian feet below land surface.
Flowing? ☒ Yes ☐ No G.P.M. flow 1 gal/s
Artesian closed-in pressure _____ p.s.i.
Controlled by: ☐ Valve ☒ Cap ☐ Plug
Temperature ____ °F. Quality _____

8. WELL TEST DATA

☐ Pump ☐ Bailer ☒ Air ☐ Other _____

Discharge G.P.M.	Pumping Level	Hours Pumped
80	180 ft.	1

9. LITHOLOGIC LOG

Hole Diam.	Depth From	Depth To	Material	Water Yes	Water No
6	0	10	Boulders + gravel dry		✓
	10	95	Clay & gravel wet		✓
	95	95	Gravel + sand	✓	
	95	100	Red Volcanic Rock		✓
	100	135	Shale		✓
	135	168	Volcanic	✓	
	168	180	Shale		✓

RECEIVED
AUG 29 1980
Department of Water Resources
Water Resources Office

10.

Work started 8-1-80 finished 8-3-80

11. DRILLERS CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Layne Northwest Drilling Firm No. 334
Address Box 177 Challis Date 8-3-80
Signed by (Firm Official) Leon A. Westergard
and
(Operator) Leon A. Westergard

USE ADDITIONAL SHEETS IF NECESSARY — FORWARD THE WHITE COPY TO THE DEPARTMENT

DEPARTMENT OF WATER RESOURCES 25 BALLPOINT PEN

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

RECEIVED JUL 2 1979 Department of Water Resources Central District Office

1. WELL OWNER

Name Dale Barnett

Address Challis Idaho

Owner's Permit No ____

2. NATURE OF WORK

☒ New well ☐ Deepened ☐ Replacement
☐ Abandoned (describe method of abandoning) ____

3. PROPOSED USE

☒ Domestic ☐ Irrigation ☐ Test ☐ Municipal
☐ Industrial ☐ Stock ☐ Waste Disposal or Injection
☐ Other ____ (specify type)

4. METHOD DRILLED

☒ Rotary ☒ Air ☐ Hydraulic ☐ Reverse rotary
☐ Cable ☐ Dug ☐ Other ____

5. WELL CONSTRUCTION

Casing schedule: ☒ Steel ☐ Concrete ☐ Other ____

Thickness	Diameter	From	To
.150 inches	6 inches +	1 feet	190 feet
____ inches	____ inches	____ feet	____ feet
____ inches	____ inches	____ feet	____ feet
____ inches	____ inches	____ feet	____ feet

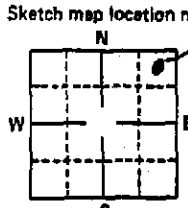
Was casing drive shoe used? ☒ Yes ☐ No
Was a packer or seal used? ☐ Yes ☐ No
Perforated? ☒ Yes ☐ No
How perforated? ☐ Factory ☐ Knife ☐ Torch
Size of perforation 1/4 inches by 4 inches

Number		From	To
40	perforations	110 feet	120 feet
____	perforations	____ feet	____ feet
____	perforations	____ feet	____ feet

Well screen installed? ☐ Yes ☒ No
Manufacturer's name ____
Type ____ Model No. ____
Diameter ____ Slot size ____ Set from ____ feet to ____ feet
Diameter ____ Slot size ____ Set from ____ feet to ____ feet
Gravel packed? ☐ Yes ☐ No ☐ Size of gravel ____
Placed from ____ feet to ____ feet
Surface seal depth 10 Material used in seal: ☐ Cement grout ☐ Puddling clay ☐ Well cuttings
Sealing procedure used: ☒ Slurry pit ☐ Temp. surface casing ☐ Overbore to seal depth
Method of joining casing: ☐ Threaded ☐ Welded ☐ Solvent Weld ☐ Cemented between strata
Describe access port ____

6. LOCATION OF WELL

Sketch map location must agree with written location.



Subdivision Name ____
Challis Acres
Lot No. 6 Block No. 75
County Custer, County
NE ¼ NE ¼ Sec. 32, T. 14 N. R. 19 E.W.

7. WATER LEVEL

Static water level 6 feet below land surface.
Flowing? ☐ Yes ☒ No G.P.M. flow
Artesian closed-in pressure ____ lbs/sq in
Controlled by: ☐ Valve ☐ Cap ☐ Plug
Temperature ____ °F. Quality ____

8. WELL TEST DATA

☐ Pump ☐ Bailer ☒ Air ☐ Other ____

Discharge G.P.M.	Pumping Level	Hours Pumped
10 gal		

9. LITHOLOGIC LOG

Hole Diam.	Depth From	Depth To	Material	Water Yes	Water No
6	0	20	Boulders		☒
	20	30	Clay		☒
	30	50	Hard Rock		☒
	50	110	Lime stone		☒
	110	120	Sand & gravel	☒	

10.

Work started 4-24-79 finished 4-27-79

11. DRILLERS CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Northwest Drilling Firm No. 334
Address Box 179 Challis, Id Date 4-27-79
Signed by (Firm Official) Leon A. Whitehead
and
(Operator) Leon A. Whitehead

USE ADDITIONAL SHEETS IF NECESSARY — FORWARD THE WHITE COPY TO THE DEPARTMENT

26

RECEIVED
NOV 18 1965
Department of Reclamation

WELL LOG AND REPORT OF THE STATE RECLAMATION ENGINEER OF IDAHO

Permit No. _____ Well No. _____ County Custer

Owner North Custer Hospital

Address Challis Idaho

Driller C. Boyd Lambert

Address Mackay Idaho

Well location NE ¼ NE ¼ Sec. 32, T. 14 N/S, R. 19 E/W

Size of drilled hole 6"

Total depth of well 70'

Locate well in section

NW¼	NE¼
SW¼	SE¼

Give depth to standing water from the ground 18' Water temp. _____ °Fahr.

On "Pumping Test" delivery was _____ g.p.m. or _____ c.f.s. Drawdown was _____ feet.

Size of pump and motor used to make test _____

Length of time of test _____ hours _____ minutes.

If flowing well, give flow _____ c.f.s. or _____ g.p.m. and of shut off pressure _____

If flowing well, described control works _____
(TYPE AND SIZE OF VALVE, ETC.)

Water will be used for domestic use Weight of casing per lineal foot _____

Thickness of casing ¼" Casing material steel
(STEEL, CONCRETE, WOOD, ETC.)

Diameter, length and location of casing 6" – 44' – 0' to 44'
(CASING 12" IN DIAMETER OR LESS, GIVE INSIDE DIAMETER; CASING OVER 12" IN DIAMETER, GIVE OUTSIDE DIAMETER)

CASING RECORD

Diam. Casing	From Feet	To Feet	Length	Remarks—seals, grouting, etc.
6"	0'	44'	44'	

Number and size of perforations none located _____ feet to _____ feet from ground

Date of commencement of well April 7-65 Date of completion of well April 14-65

NENE S.32 T14N R19E USB.

WELL LOG

From Feet	To Feet	Type of Material	Water-bearing Formation Any Yes or No	Casing Perforated Any Yes or No
0	10	soil - tight	no	no
10	20	soil - tight	no	no
20	25	soil - tight	no	no
25	28	granite sand	yes	no
28	38	clay	no	no
38	44	clay & granite sand mixed tight	no	no
44	54	granite - firm	no	
54	64	granite - firm	no	
64	68	granite - firm	no	
68	70	gravel	yes	
		If more space is required use Sheet No. 2		

WELL DRILLER'S STATEMENT

This well was drilled under my supervision and the above information is true and correct to the best of my knowledge and belief.

Signed C. Boyd Lambert

By _____

License No. 154

Dated May 7, 1965

27

RECEIVED
JUN 17 1963
Department of Reclamation

WELL LOG AND REPORT OF THE STATE RECLAMATION ENGINEER OF IDAHO

Permit No. _____ Well No. _____ County Custer

Owner John W. Haley

Address Challis, Idaho

Driller Floyd Sherry

Address Mackay Idaho

Well location SE ¼ NE ¼ Sec. 32, T. 14 N/S, R. 19 E/W

Size of drilled hole 6 inch

Total depth of well 28'

Locate well in section

NW¼	NE¼ ⊕
SW¼	SE¼

Give depth to standing water from the ground 7' Water temp. _____ °Fahr.

On "Pumping Test" delivery was _____ g.p.m. or _____ c.f.s. Drawdown was _____ feet.

Size of pump and motor used to make test _____

Length of time of test _____ hours _____ minutes.

If flowing well, give flow _____ c.f.s. or _____ g.p.m. and of shut off pressure _____

If flowing well, described control works _____ (TYPE AND SIZE OF VALVE, ETC.)

Water will be used for Culinary Weight of casing per lineal foot 19 #

Thickness of casing .288 Casing material steel (STEEL, CONCRETE, WOOD, ETC.)

Diameter, length and location of casing 6' - 24.5 ft (CASING 12" IN DIAMETER OR LESS, GIVE INSIDE DIAMETER; CASING OVER 12" IN DIAMETER, GIVE OUTSIDE DIAMETER)

CASING RECORD

Diam. Casing	From Feet	To Feet	Length	Remarks—seals, grouting, etc.
6	0	24.5		

Number and size of perforations ¼"x6"x2 per ft located -5' feet to to 24.5 feet from ground

Date of commencement of well May 13-63 Date of completion of well May 21-63

SENE S.32 14N 19E

WRS

WELL LOG

From Feet	To Feet	Type of Material	Water-bearing Formation Ans. Yes or No	Casing Perforated Ans. Yes or No
0	5	Clay & Rock	No	No
5	23	Boulders - Sand - Gravel	yes	yes
23	28	Rock - Cheltis Volcanics	NO	No
		If more space is required use Sheet No. 2		

WELL DRILLER'S STATEMENT

This well was drilled under my supervision and the above information is true and correct to the best of my knowledge and belief.

Signed _____

By Cloyd Sherry

License No. 184

Dated June 14, 1963

28

Form 238-7
3/95

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

Use Typewriter or Ballpoint Pen

879-4247

Office Use Only
Inspected by _____
Twp ____ Rge ____ Sec ____
____1/4 ____1/4 ____1/4
Lat: : : Long: : :

Tag # D0004224

1. DRILLING PERMIT NO. 72-97-S-0020-000
Other IDWR No. _____

2. OWNER:
Name James + Donna Brady
Address 14 Village Court / PO Box 399
City Challis State ID Zip 83226

3. LOCATION OF WELL by legal description:
Sketch map location must agree with written location.

Twp. 14 North ☑ or South ☐
Rge. 19 East ☑ or West ☐
Sec. 33 ____ 1/4 NE 1/4 NE 1/4
Gov't Lot ____ County Custer
Lat: : : Long: : :
Address of Well Site 14 Village Court (Give at least name of road + Distance to Road or Landmark) City Challis
Lt. 14 Blk. ____ Sub. Name Round Valley

4. USE:
☑ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other _____

5. TYPE OF WORK check all that apply (Replacement etc.)
☑ New Well ☐ Modify ☐ Abandonment ☐ Other _____

6. DRILL METHOD
☑ Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other _____

7. SEALING PROCEDURES

SEAL/FILTER PACK Material	From	To	AMOUNT Sacks or Pounds	METHOD
BENTONITE	0	20	900	OVER BORE

Was drive shoe used? ☑ Y ☐ N Shoe Depth(s) 140
Was drive shoe seal tested? ☐ Y ☒ N How? _____

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
6	+1	140	250	STEEL	☑	☐	☑	☐
3½	100	160		PVC	☐	☑	☑	☐
					☐	☐	☐	☐

Length of Headpipe _____ Length of Tailpipe _____

9. PERFORATIONS/SCREENS
☑ Perforations Method KAY RE
☐ Screens Screen Type _____

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
115	140	3/16	207		STEEL	☑	☐
100	160	1/8	300		PVC	☐	☑
						☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:
80 ft. below ground Artesian pressure _____ lb.
Depth flow encountered _____ ft. Describe access port or control devices: Monitoring well seal

11. WELL TESTS:
☐ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
15		160	5 HRS

Water Temp. 52° Bottom hole temp. _____
Water Quality test or comments: CLEAR
Depth first Water Encountered 80

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water Y	Water N
12	0	3	TOP SOIL		
	3	20	BOULDERS BIG		
6	20	35	HARD BOULDERS		
	35	80	VOLCANIC CONGLOMERATE		
	80	120	WET CONGLOMERATE	Y	
	120	130	GRAVELY	Y	
	130	150	CONGLOMERATE		X
	150	165	WET GRAVELY CONGLO	Y	

RECEIVED
NOV 18 1997
Department of Water Resources
Southern Region

RECEIVED
DEC 22 1997
Department of Water Resources

Completed Depth 160 (Measurable)
Date: Started 10-3-97 Completed 10/7/97

13. DRILLER'S CERTIFICATION
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Marker Drilling Firm No. 0430
Firm Official _____ Date 11/6/97
and
Supervisor or Operator _____ Date _____
(Sign once if Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES

DEPARTMENT OF WATER RESOURCES

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

USE TYPEWRITER OR BALL POINT PEN

RECEIVED FEB 6 1981 R

29

1. WELL OWNER

Name CYPRUS MINES CORP.

Address Box 755 CHALLIS, IDAHO 83226

Owner's Permit No. 72-7117

2. NATURE OF WORK

☒ New well ☐ Deepened ☐ Replacement
☐ Abandoned (describe method of abandoning) _____

3. PROPOSED USE

☐ Domestic ☐ Irrigation ☐ Test ☒ Municipal
☐ Industrial ☐ Stock ☐ Waste Disposal or Injection
☐ Other _____ (specify type)

4. METHOD DRILLED

☒ Rotary ☒ Air ☐ Hydraulic ☐ Reverse rotary
☐ Cable ☐ Dug ☐ Other _____

5. WELL CONSTRUCTION

Casing schedule: ☒ Steel ☐ Concrete ☐ Other _____

Thickness	Diameter	From	To
.250 inches	12" inches	+ 22" feet	249 feet
.250 inches	10-3/4 inches	266'9" feet	341 feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet

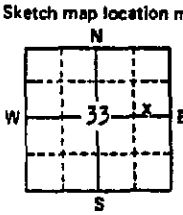
Was casing drive shoe used? ☒ Yes ☐ No
Was a packer or seal used? ☒ Yes ☐ No
Perforated? ☐ Yes ☒ No
How perforated? ☐ Factory ☐ Knife ☐ Torch
Size of perforation _____ inches by _____ inches

Number	From	To
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet
_____ perforations	_____ feet	_____ feet

Well screen installed? ☒ Yes ☐ No
Manufacturer's name JOHNSON CONTINUOUS WIRE WOUND
Type 304 STAINLESS STEEL Model No. TELESCOPE
Diameter 12" Slot size .250 Set from 243'6" feet to 266'9" feet
Diameter ___ Slot size ___ Set from _____ feet to _____ feet
Gravel packed? ☐ Yes ☒ No ☐ Size of gravel _____
Placed from _____ feet to _____ feet
Surface seal depth 18' Material used in seal: ☒ Cement grout ☐ Puddling clay ☐ Well cuttings
Sealing procedure used: ☐ Slurry pit ☐ Temp. surface casing ☒ Overbore to seal depth
Method of joining casing: ☐ Threaded ☒ Welded ☐ Solvent Weld ☐ Cemented between strata
Describe access port SANITARY WELL SEAL W/BUILT IN ACCESS PORT

6. LOCATION OF WELL

Sketch map location must agree with written location.



Subdivision Name EAST ADDITION

Lot No. _____ Block No. _____

County CUSTER

SE ¼ NE ¼ Sec. 33 , T. 14N N/S, R. 19E E/W.

7. WATER LEVEL

Department of Water Resources Southern District Idaho

Static water level 157 feet below land surface.
Flowing? ☐ Yes ☒ No G.P.M. flow _____
Artesian closed-in pressure _____ p.s.i.
Controlled by: ☐ Valve ☐ Cap ☐ Plug
Temperature ____ °F. Quality _____

8. WELL TEST DATA

☒ Pump ☐ Bailer ☐ Air ☐ Other _____

Discharge G.P.M.	Pumping Level	Hours Pumped
75	157.25'	23 MIN.
145	160.69	16 MIN.
220	162.84	45 MIN.

9. LITHOLOGIC LOG

Hole Diam.	Depth From	Depth To	Material	Water Yes	Water No
12"	0	19	GRAVEL, COBBLESTONES & BOULDERS MIXED IN TAN SANDY SILT		X
12"	19	47	SAME, MIXED IN TAN CLAYEY SILT & SILTY CLAY		X
12"	47	177	COARSE GRAVEL & COBBLES IN TAN SILTY SAND	X	
12"	177	240	CLEANER COARSE GRAVEL & COBBLESTONES, TAN SAND, SOME QUITE SILTY WATER	X	
12"	240	248	CLEANER COARSE SAND & GRAVEL WITH SEAMS OF TAN CLAY		
12"	248	270	COARSE CLEAN SAND & GRAVEL, MORE WATER (BLOWING 200 GPM FROM 257')	X	
12"	270	290	COARSE GRAVEL, SILTY SAND, SEAMS OF LIGHT TAN CLAY		
12"	290	297	BROKEN ROCK, PREDOMINATLY RED.		
12"	297	341	SOLID ROCK, PREDOMINATLY RED		

RECEIVED FEB 6 1981 Department of Water Resources

10.

Work started 12-1-80 finished 1-12-81

11. DRILLERS CERTIFICATION

cb dL

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name LIBERTY DRILLING CO. Firm No. 380

Address Box 407, CHALLIS, ID. Date 2-3-81

Signed by (Firm Official) Bill Wilson

and (Operator) BILL GARDNER

USE ADDITIONAL SHEETS IF NECESSARY — FORWARD THE WHITE COPY TO THE DEPARTMENT

Form 238-7
1/78

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

USE TYPEWRITER OR BALLPOINT PEN

WELL DRILLER'S REPORT

30

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

1. WELL OWNER

Name Bob Cunningham

Address Box 311 Challis 83226

Owner's Permit No. _____

2. NATURE OF WORK

☒ New well ☐ Deepened ☐ Replacement
☐ Abandoned (describe method of abandoning) _____

3. PROPOSED USE

☒ Domestic ☐ Irrigation ☐ Test ☐ Municipal
☐ Industrial ☐ Stock ☐ Waste Disposal or Injection
☐ Other _____ (specify type)

4. METHOD DRILLED

☒ Rotary ☐ Air ☐ Hydraulic ☐ Reverse rotary
☐ Cable ☐ Dug ☐ Other _____

5. WELL CONSTRUCTION

Casing schedule: ☐ Steel ☐ Concrete ☐ Other _____

Thickness	Diameter	From	To
.250" inches	6" inches	+ 1 feet	80' feet
inches	inches	feet	feet
inches	inches	feet	feet
inches	inches	feet	feet

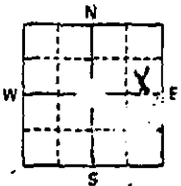
Was casing drive shoe used? ☒ Yes ☐ No
Was a packer or seal used? ☐ Yes ☒ No
Perforated? ☐ Yes ☒ No
How perforated? ☐ Factory ☐ Knife ☐ Torch
Size of perforation _____ inches by _____ inches

Number	From	To
_ perforations	_____ feet	_____ feet
_ perforations	_____ feet	_____ feet
_ perforations	_____ feet	_____ feet

Well screen installed? ☐ Yes ☒ No
Manufacturer's name _____
Type _____ Model No. _____
Diameter ___ Slot size ___ Set from _____ feet to _____ feet
Diameter ___ Slot size ___ Set from _____ feet to _____ feet
Gravel packed? ☐ Yes ☒ No ☐ Size of gravel _____
Placed from _____ feet to _____ feet
Surface seal depth 30' Material used in seal: ☐ Cement grout ☐ Puddling clay ☒ Well cuttings
Sealing procedure used: ☐ Slurry pit ☐ Temp. surface casing ☒ Overbore to seal depth
Method of joining casing: ☐ Threaded ☒ Welded ☐ Solvent Weld ☐ Cemented between strata
Describe access port _____

6. LOCATION OF WELL

Sketch map location must agree with written location.



Subdivision Name Mc C's
Acres
Lot No. 4 Block No. _____
County Custer
SE ¼ NE ¼ Sec. 33 T. 14 ☒N ☐S, R. 19 ☒E ☐W.

7. WATER LEVEL

Static water level 40' feet below land surface.
Flowing? ☐ Yes ☒ No G.P.M. flow _____
Artesian closed-in pressure _____ p.s.i.
Controlled by: ☐ Valve ☐ Cap ☐ Plug
Temperature _____ °F. Quality _____

8. WELL TEST DATA

☐ Pump ☐ Bailer ☐ Air ☐ Other _____

Discharge G.P.M.	Pumping Level	Hours Pumped

9. LITHOLOGIC LOG

Hole Diam.	Depth From	Depth To	Material	Water Yes	Water No
6"	1'	40'	Boulders and Gravel		X
	40'	80'	Clay Boulders Gravel	X	

RECEIVED
DEC 12 1980
Department of Water Resources

10. Work started May 2, 1980 finished May 7, 1980

11. DRILLERS CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Deming Drilling Firm No. 10
Address Ucon Box 460 Date May 7, 1980
Signed by (Firm Official) Deming Drilling
and
(Operator) David Deming

USE ADDITIONAL SHEETS IF NECESSARY — FORWARD THE WHITE COPY TO THE DEPARTMENT

USE TYPEWRITER OR BALL POINT PEN

State of Idaho
Department of Water Administration

WELL DRILLER'S REPORT

State law requires that this report be filed with the State Reclamation Engineer within 30 days after completion or abandonment of the well.

RECEIVED
SEP 21 1972
Department of Water Administration
Eastern District Office

(2A)

1. WELL OWNER

Name Gene Westergard

Address Challis, Idaho 83226

Owner's Permit No. _____

2. NATURE OF WORK

☒ New well ☐ Deepened ☐ Replacement

☐ Abandoned (describe method of abandoning)

3. PROPOSED USE

☒ Domestic ☐ Irrigation ☐ Test

☐ Municipal ☐ Industrial ☐ Stock

4. METHOD DRILLED

☒ Cable ☐ Rotary ☐ Dug ☐ Other

5. WELL CONSTRUCTION

Diameter of hole 8 inches Total depth 92 feet

Casing schedule: ☒ Steel ☐ Concrete

Thickness	Diameter	From	To
.250 inches	8 inches	+1 feet	92 feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet
_____ inches	_____ inches	_____ feet	_____ feet

Was a packer or seal used? ☐ Yes ☒ No

Perforated? ☒ Yes ☐ No

How perforated? ☐ Factory ☒ Knife ☐ Torch

Size of perforation 3/8 inches by 3 inches

Number		From	To
24	perforations	28 feet	36 feet
12	perforations	43 feet	47 feet
_____	perforations	_____ feet	_____ feet

Well screen installed? ☐ Yes ☒ No

Manufacturer's name _____

Type _____ Model No. _____

Diameter ___ Slot size ___ Set from _____ feet to _____ feet

Diameter ___ Slot size ___ Set from _____ feet to _____ feet

Gravel packed? ☐ Yes ☒ No Size of gravel _____

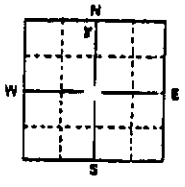
Placed from _____ feet to _____ feet

Surface seal? ☒ Yes ☐ No To what depth 18 feet

Material used in seal ☐ Cement grout ☒ Puddling clay

6. LOCATION OF WELL

Sketch map location must agree with written location.



NE ¼ NW ¼ Sec. 33 T. 14 N/S, R. 19 E/W

County Custer

7. WATER LEVEL

Static water level 12 feet below land surface

Flowing? ☐ Yes ☒ No G.P.M. flow _____

Temperature _____ ° F. Quality _____

Artesian closed-in pressure _____ p.s.i.

Controlled by ☐ Valve ☐ Cap ☐ Plug

8. WELL TEST DATA

☐ Pump ☒ Bailer ☐ Other

Discharge G.P.M.	Draw Down	Hours Pumped
40	0	

9. LITHOLOGIC LOG

Hole Diam.	Depth From	Depth To	Material	Water Yes	Water No
8	0	1	topsoil		
	1	14	boulders	X	
	14	26	boulders, gravel & sand	X	
	26	36	gravel & sand (water)	X	
	36	43	brown clay		X
	43	48	gravel & sand (water)	X	
	48	83	brown clay & gravel		X
	83	87	brown clay		X
	87	92	pea gravel & sand (water)	X	

10.

Work started 5/2/72 finished 6/5/72

11. DRILLER'S CERTIFICATION

This well was drilled under my supervision and this report is true to the best of my knowledge.

DOUG CUSHMAN DRILLING CO. 72
Driller's or Firm's Name Number

945 So. Broadway Blackfoot, Idaho 83221
Address

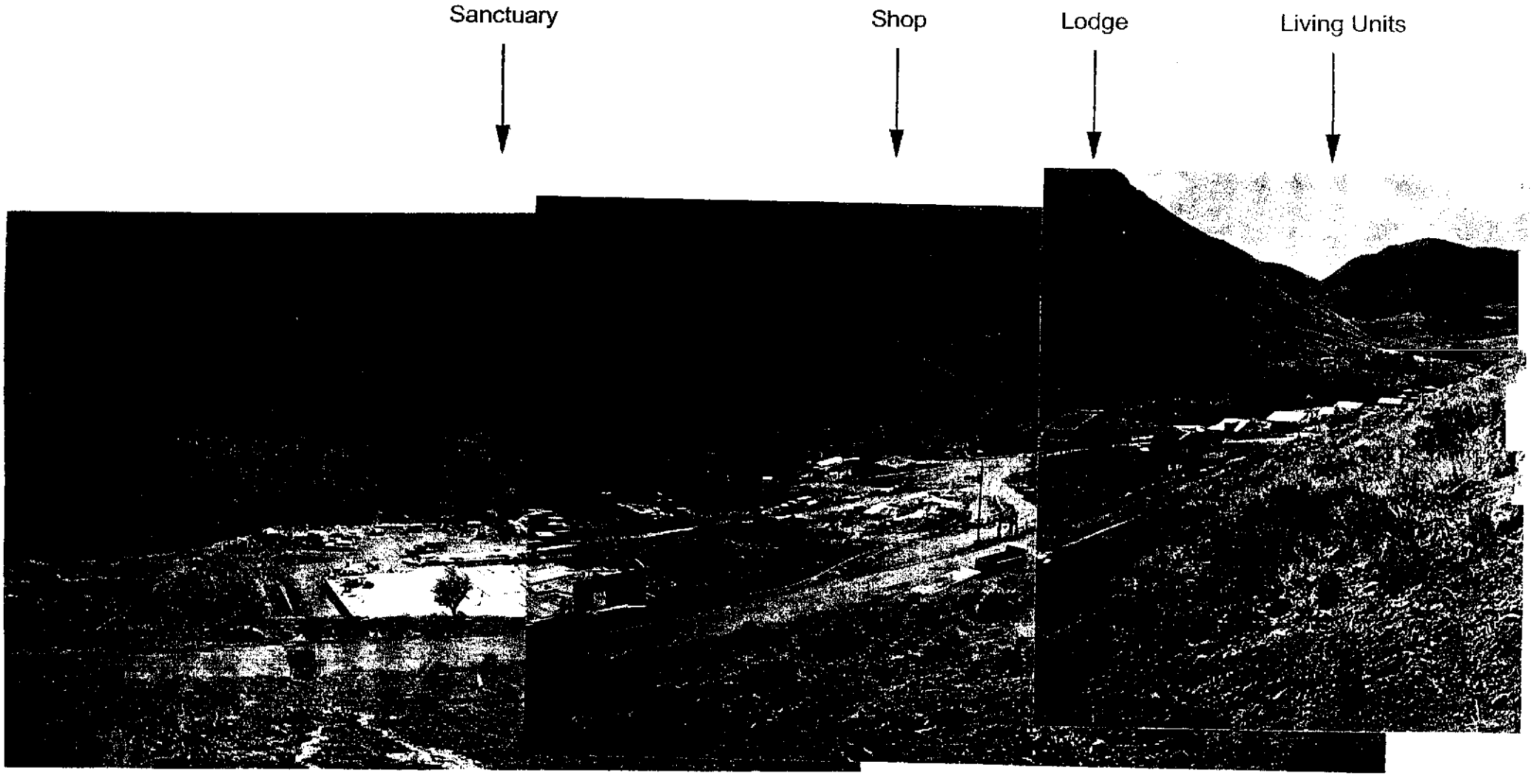
Signed By Doug Cushman Date 7/8/72

USE ADDITIONAL SHEETS IF NECESSARY

FORWARD THE WHITE, BLUE, AND PINK COPIES TO THE DEPARTMENT

Appendix D

Photo of Living Waters Ranch



LIVING WATERS RANCH RETREAT FACILITY
CHALLIS, IDAHO
Photo date: 9/23/1998

Appendix E
Typical Water Usage Volumes

Ref: IDWR Field Examiner's Handbook

Table 3

NON-IRRIGATION WATER REQUIREMENTS

Types of Establishments	Gallons/day
Airports (per passenger)	3-5
Apartments, multiple family (per resident)	60
Bathhouses (per bather)	10
Camps:	
Construction, semi-permanent (per worker)	50
Day with no meals served (per camper)	15
Luxury (per camper)	100-150
Resorts, day & night, limited plumbing (per camper)	50
Tourist, central bath & toilet facilities (per person)	35
Cottages with seasonal occupancy (per resident)	50
Courts, tourist with individual bath units (per person)	50
Clubs:	
Country (per resident member)	100
Country (per non-resident member)	25
Dwellings:	
Boardinghouses (per boarder)	50
Kitchen requirements (per boarder)	10
Multiple family apartments (per resident)	40
Roominghouses (per resident)	60
Single family (per resident)	50-75
Estates (per resident)	100-150
Hotels:	
With private baths (2 persons/room)	60
Without private baths (per person)	50
Hospitals (per bed)	250-400
Institutions other than hospitals (per person)	75-125
Laundries (per washing/customer)	50

Livestock (per animal):	
Cattle (range)	12
Cattle (dairy)	35
Goat	2
Hog	4
Horse	12
Mule	12
Sheep	2
Chickens (per 100)	5-10
Turkeys (per 100)	10-18
Motels:	
With bath, toilet & kitchen facilities (per bed)	50
With bed & toilet (per bed)	40
Parks:	
Overnight with flush toilets (per camper)	25
Trailers with individual bath units (per camper)	50
Picnic:	
With bathhouses, showers & flush toilets (per picnicker)	20
With toilet facilities only (per picnicker)	10
Restaurants:	
With toilet facilities (per patron)	7-10
Without toilet facilities (per patron)	3
With bars & cocktail lounge (additional per patron)	2
Schools:	
Boarding (per pupil)	75-100
Day with cafeteria, gyms & showers (per pupil)	25
Day with cafeteria, no gyms or showers (per pupil)	20
Day without cafeteria, gym or showers (per pupil)	15
Service stations (per vehicle)	10
Stores (per toilet room)	400
Swimming pools (per swimmer)	10
Theaters:	
Drive-in (per car space)	5
Movie (per auditorium seat)	5
Workers:	
Construction (per person/shift)	50
Day (per person/shift)	15

Ref: Land Development Handbook (1996)

Variation in water use becomes apparent by considering urly and daily individual personal water use. Each indi-dual drinks, bathes, and generally uses varying daily mounts of water. On an hourly basis this variation fluctu-es substantially. Extend the individual fluctuations in ourly and daily use over a population of tens of thousands d it becomes apparent why water demand projection is fficult. Fortunately, individual daily use tends to an aver-e value exhibiting only slight variations over longer peri-ds. Variations in short-term use are smoothed-out even fur-er as population and development stabilizes. However, the pricious variables (e.g., climate, demand for consumer ods and services) inherent in commerce, manufacturing, d agriculture can add to wide variations in use and com-icate demand forecasting.

The types of use for water demand include domestic, mmercial, industrial, mining, agricultural, thermoelectric wer, public use, and many others depending on where the terest is. Collecting and sorting the data to determine av-ge use is difficult, cumbersome, and inexact. Water sup-y companies keep numerous records of water withdrawals d metered use. Inconsistencies in how each supplier de-es or categorizes the various uses lead to the inexactness determining average use figures for statewide comparison. he point here is that it is difficult to say with confidence at a certain value is applicable as a blanket design value r all areas of the United States. For preliminary estimates a blanket design value is appropriate, but for specific design regional data is more appropriate.

Residential Demand

Domestic water use is water used for household purposes, including water for drinking, cooking, sanitary needs, landscape watering, swimming pool maintenance, street cleaning, firefighting, leakage, and system maintenance. Residential water variation widely fluctuates on both a daily and yearly basis. Daily, the water demand has two peaks, once from 7 to 11 A.M. and again between 4 and 8 P.M. Although the peaks remain fixed for the time periods, the amount varies according to season and yearly rainfall. Average daily demand for domestic use ranges from 60 gallons per capita per day (gpcd) to 150 gpcd for metered systems. However, studies have shown that average water use decreases as population increases.

The USGS presents data on water use in the report "Estimated Use of Water in the United States in 1985." The data from this report show public-supplied domestic water use ranging from 53 gpcd in Ohio to 283 gpcd in Idaho, with the average water use for all 50 states and Washington D.C. being 113 gpcd.

Commercial Demand

Commercial water use includes water for motels, hotels, restaurants, office buildings, shopping centers, and other com-

TABLE 13.1 Daily Water Consumption Rates

TYPE OF LAND USE	WATER CONSUMPTION (GAL/DAY)
Dwellings, per person	100
High Schools with Showers, per person	16
Elementary Schools without showers, per person	10
Community Colleges, per student and faculty	15
Motels @ 65 gal/person, minimum per room	120
Trailer Courts @ 3 persons/trailer, per trailer	300
Restaurants, per seat	50
Interstate or through-highway restaurants, per seat	180
Interstate Rest Areas, per person	5
Shopping Centers, per 1,000 ft^2 of ultimate floor space	200–300
Theaters, Auditorium Type, per seat	5
Hospitals, per bed	300
Laundromats, 9–12 machines, per machine	500
Factories per person per 8-hour shift	15–35

Source: Virginia Dept. of Health, Waterworks Regulations (1993).

Appendix F
Field Data Sheets and Calculations

SUMMARY OF GARDEN CREEK DISCHARGE MEASUREMENTS

Brockway Engineering, PLLC 1/27/99

Discharge in cubic feet per second
Measured with pygmy current meter

Location	Station (ft)	Description	Date: 9/23/98	11/10/98	1/21/99	Gain / loss (cfs / mi) **
MP0	0	Upstream of James			4.77	
MP1	1850	James corral nr rock	7.78	6.09	*	
MP1A	3950	Downstream of James			6.34	2.10
MP2	6050	Almond pumphouse	7.24	5.26	6.19	-0.38
MP3	11750	Road crossing		8.21	5.60	-0.55
MP4	17250	Challis diversion			5.58	-0.02
MP5	25550	Highway 93 crossing			4.96	-0.39

* Mr. James would not allow measurement
** Based on 1/21/99 measurements

GROUNDWATER - SURFACE WATER ELEVATION RELATIONSHIPS
GARDEN CREEK WEST OF CHALLIS, IDAHO

Brockway Engineering, PLLC 2/10/99

Well	Depth to water from MP 9/23/98	1/21/99	1/22/99	Average	Vert. dist. from creek water surface to MP	GW elev minus creek elev
Hale		28.35	29.67	29.01	24.51	-4.5
James west	27.74			27.74	23	-4.7
James east	26.70			26.70	31	4.3
Old Stark	20.20			20.20	29	8.8
Weinrich		37.47	37.30	37.39	41.01	3.6
Almond		44.62	43.72	44.17	40.47	-3.7
Junkyard Shop		27.01	27.04	27.03	19.31	-7.7

Notes:
Hale, Weinrich, Almond, and Junkyard Shop wells - surveyed elevation difference
James west, James east, Old Stark - elevation difference from HedCo topographic map (+/- 1 ft)
MP = measuring point

GARDEN CREEK VALLEY AQUIFER WEST OF CHALLIS

Estimated transmissivity from local well logs and driller pump tests
Transmissivity estimated from Thomasson et al. (1960): T = 267 * Specific Capacity
with specific capacity in gpm / ft and T in ft2 / day

Well Map No.	Descrip	Yield (gpm)	Drawdown (feet)	Specific cap (gpm/ft)	Estimated T: (ft2/day)	T (gpd/ft)
1	Walsh	10	176	0.057	15	113
2	Almond	4	418	0.010	3	19
3	Odlum (Weinrich)	no data				
4	James - West *	11	25	0.440	117	879
5	Yeo	16	84	0.190	51	380
6	Hanson	25	130	0.192	51	384
7	Pearson	20	40	0.500	134	999
8	Keefer	7	117	0.060	16	119
				Average T	55	413

* No logs available for other James wells

DEPTH TO WATER MEASUREMENT FIELD SHEET -- MULTIPLE SITE

Location	Date/Time	Probe	Hold	Cut	Corr	Depth	Remarks / by
Hale well	1/21/99 1205	Fisher	25	+1.15	+2.20	28.35	CGB - MP top post outside well comp.
Weinrich - S	1405	"	35	+.27	+2.20	37.47	CGB MP top fitting
Weinrich-N	1410	"	60	+2.86	+2.20	65.06	20' North of unused well Drilled ~5 yrs ago
Weinrichs just got home - well may have just pumped.							MP top casing.
Almond well	1/21/99 1545	Fisher	40	+2.42	+2.20	44.62	MP top casing.
Junkyard shop well	1600		25	-.14	+2.20	27.01	MP top casing No pump in well
Hale well	1/22/99 0940	Fisher	25	+2.47	+2.20	29.67	Meas. just before pumps No one home came on
Weinrich - S	1/22/99 0950	"	35	+.10	+2.20	37.30	MP top casing
Almond	1/22/99 1005	"	40	+1.52	+2.20	43.72	MP top casing
Junkyard Shop	1/22/99 1025		25	-.16	+2.20	27.04	MP top casing
Weinrich-N			65	-.20	+2.20	67.00	top casing - well was pumped this morning WL coming up very slowly ~.05' per min.

Brockway Engineering PLLC
2016 North Washington, Suite 4
Twin Falls, ID 83301

Level Survey Notes

Date: 1/22/99
Project: Almond
Crew: CGB & JSR
Time:
Weather: Cold – 15° F

Station	B.S.	H.I.	F.S.	Elev.	Description
	1.30	101.30		100.00	Almond well top casing 2.3' abv GS
			23.33	77.97	TP
	1.55	79.52			WS Garden Gr ⊥ Almond well 135' dist.
			19.99	59.53	" 56
	2.11	102.11		100.0	Weinrich well – N top casing 1.5' abv GS
			7.04	95.07	Weinrich well – S top casing 1.5' abv GS 57.6
			23.88	78.23	TP
	1.81	80.04			
			21.99	58.05	TP
	5.04	63.14			
			9.08	54.06	WS Garden Gr ⊥ Weinrich wells
					Distances 215' from N well, 183' from S well
	0.55	100.55		100.00	Hale well – top pipe outside casing 71
			20.81	79.74	TP
	5.55	85.29			
			9.80	75.49	WS Garden Gr ⊥ Hale well
					Dist. 273'
	1.40	101.40		100.00	Junkyard shop well – top casing 73
			20.71	80.69	WS Garden Gr ⊥ well
					standing to top w/ – casing 3' abv

DISCHARGE MEASUREMENT — CURRENT METER

PARTY GB / JSR METER Pygmy

LOCATION Garden Creek at u/s James prop line (West edge Sec. 2)

LOCATION (numeric)	METER CODE	DATE	NUMBER SECTIONS	GAGE
		1/21/99		

11:30

SEC. #	DISTANCE	DEPTH	REV. .6 or .2	REV. 0.8	TIME (sec.)	ANGLE CORRECTION
01	1.7	0.0	0		50	1.0
02	3.0	0.52	4			
03	4.0	0.63	20			
04	5.0	0.77	47			
05	6.0	0.97	56			
06	7.0	1.00	59			
07	8.0	1.06	39			
08	9.0	0.86	26			
09	10.0	0.50	12			
10	11.0	0.34	4			
11	12.0	0.19	1			
12	13.0	0.0	0			
13						
14	5.5	0.82	34			
15	6.5	1.04	76			
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						

METER CODES

1 = HOFF 551	6 = NEYRPIC MIG. BLUE (4)	11 =
2 = DAVID WHITE	7 = NEYRPIC MIG. RED (6)	12 =
3 = HOFF 183-3	8 = NEYRPIC CABLE	13 =
4 = HOFF 183-4	9 = OTT – 47966	14 =
5 = OTT – 446 (1)	10 = HOFF 557	15 =

REMARKS Partly cldy 25°. Ice on edges – broke away
Rating: good – excellent

DISCHARGE MEASUREMENT — CURRENT METER

PARTY OGB METER Rigging

LOCATION Gaulin Creek 200' d/s of James east pump line — on A-frame house prop.

LOCATION (numeric)	METER CODE	DATE	NUMBER SECTIONS	GAGE
		1/21/99 13:55		

SEC. #	DISTANCE	DEPTH	REV. .6 or .2	REV. 0.8	TIME (sec.)	ANGLE CORRECTION
01	2.2	0.0	10			
02	3.0	0.54	11			
03	4.0	0.30	19			
04	5.0	0.42	22			
05	6.0	0.59	45			
06	7.0	0.61	62			
07	8.0	0.77	81			
08	9.0	0.84	89			
09	10.0	0.75	59			
10	11.0	0.59	22			
11	12.0	0.55	33			
12	13.0	0.65	17			
13	14.0	0.66	13			
14	15.0	0.48	8			
15	16.1	0.0	0			
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						

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11 =
12 =
13 =
14 =
15 =

REMARKS Ice. Rating: Good

DISCHARGE MEASUREMENT — CURRENT METER

PARTY GOB/JSR METER Pygmy

LOCATION Garden Creek at Almond pump house
15145

LOCATION (numeric)	METER CODE	DATE	NUMBER SECTIONS	GAGE
		1/21/99		

SEC. #	DISTANCE	DEPTH	REV. .6 or .2	REV. 0.8	TIME (sec.)	ANGLE CORRECTION
01	9.4	0.0	0		50	1
02	10.6	0.25	6			
03	11.0	0.37	5			
04	12.0	0.61	18			
05	13.0	0.71	44			
06	14.0	0.75	69			
07	15.0	0.59	57			
08	16.0	0.66	85			
09	17.0	0.69	60			
10	18.0	0.66	37			
11	19.0	0.58	24			
12	20.0	0.51	15			
13	21.0	0.50	22			
14	22.0	0.31	22			
15	23.0	0.19	5			
16	23.4	0.0	0			
17						
18	14.5	0.73				
19	17.5	0.70	53			
20						
21						
22						
23						
24						
25						

METER CODES

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4 = HOFF 183-4	9 = OTT – 47966	14 =
5 = OTT – 446 (1)	10 = HOFF 557	15 =

REMARKS Rating: good

DISCHARGE MEASUREMENT — CURRENT METER

PARTY CLB / JSR METER Pygmy

LOCATION Garden Creek 100' u/s of road crossing at Shannon's

LOCATION (numeric)	METER CODE	DATE	NUMBER SECTIONS	GAGE
		1/21/99		

SEC. #	DISTANCE	DEPTH	REV. .6 or .2	REV. 0.8	TIME (sec.)	ANGLE CORRECTION
01	3.0	0.0	0		50	
02	4.0	0.17	3			
03	5.0	0.36	15			
04	6.0	0.52	6			
05	7.0	0.56	33			
06	8.0	0.71	20			
07	9.0	0.78	8			
08	10.0	0.75	20			
09	11.0	0.78	56			
10	12.0	0.66	42			
11	13.0	0.68	46			
12	14.0	0.79	20			
13	15.0	0.75	14			
14	16.0	0.66	47			
15	17.0	0.64	34			
16	18.0	0.56	38			
17	19.0	0.57	19			
18	20.0	0.43	4			
19	21.0	0.36	4			
20	22.0	0.0	0			
21						
22						
23						
24						
25						

METER CODES

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5 = OTT – 446 (1)	10 = HOFF 557	15 =

REMARKS Partly cloudy 28-30° F. Ice on rocks - 1 ft. away. Uneven vel. distrib. due to a few 10" boulders. Rating: good

DISCHARGE MEASUREMENT — CURRENT METER

PARTY CGB/NSR METER Pygmy

LOCATION Garden Cr. 100' u/s of Chilkis city diversion

LOCATION (numeric)	METER CODE	DATE	NUMBER SECTIONS	GAGE
		1/21/99 17:50		

SEC. #	DISTANCE	DEPTH	REV. .6 or .2	REV. 0.8	TIME (sec.)	ANGLE CORRECTION
01	1.7	0.0	10			
02	2.0	0.13	0			
03	3.0	0.33	1			
04	4.0	0.41	21			
05	5.0	0.56	27			
06	6.0	0.50	26			
07	7.0	0.67	38			
08	8.0	0.67	27			
09	9.0	0.72	45			
10	10.0	0.58	53			
11	11.0	0.63	37			
12	12.0	0.61	29			
13	13.0	0.74	38			
14	14.0	0.78	36			
15	15.0	0.65	32			
16	16.0	0.66	26			
17	17.0	0.59	4			
18	18.0	0.48	5			
19	18.8	0.0	0			
20						
21						
22						
23						
24						
25						

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4 = HOFF 183-4	9 = OTT – 47966	14 =
5 = OTT – 446 (1)	10 = HOFF 557	15 =

REMARKS Broken away ice. Ptly Cldy 20° F Rating: good

DISCHARGE MEASUREMENT — CURRENT METER

PARTY CGB / JSR METER P96MN

LOCATION 700' DS. OF HWY 93 X-ING Gardin Creek. START = 11:25 END =

LOCATION (numeric)	METER CODE	DATE	NUMBER SECTIONS	GAGE
MP-6		1/22/99	1	

SEC. #		DISTANCE	DEPTH	REV. .6 or .2	REV. 0.8	TIME (sec.)	ANGLE CORRECTION
01	B	2.30	0.00	0		56	1.0
02		3.+	0.49	0			
03		4.+	0.56	35			
04		5.+	0.75	43			
05		6.+	0.82	59			
06		7.+	0.67	74			
07		8.+	0.80	12			
08		9.+	0.70	53			
09		10.+	0.66	50			
10		11.+	0.64	05			
11		12.+	0.42	28			
12	B	13.00	0.00	0			
13		.	.				
14		2.60	0.75	32			
15		6.50	0.54	62			
16		7.50	0.70	49			
17		10.50	0.56	24			
18		8.50	0.69	59			
19		.	.				
20		.	.				
21		.	.				
22		.	.				
23		.	.				
24		.	.				
25		.	.				

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13 =
14 =
15 =

REMARKS

DISCHARGE MEASUREMENT — CURRENT METER

PARTY CLB METER Pygmy

LOCATION Garden Creek #1 – James group.

LOCATION (numeric)	METER CODE	DATE	NUMBER SECTIONS	GAGE
		11/10/98 3:00 pm		0.66

SEC. #	DISTANCE	DEPTH	REV. .6 or .2	REV. 0.8	TIME (sec.)	ANGLE CORRECTION
01	0.3	0.0	10		50	1.0
02	1.0	0.34	8			
03	2.0	0.47	32			
04	3.0	0.58	34			
05	4.0	0.60	10			
06	5.0	0.55	34			
07	6.0	0.72	47			
08	7.0	0.79	39			
09	8.0	1.08	68			
10	9.0	0.98	75			
11	10.0	0.91	33			
12	10.75	0.70	7			
13	12.00	0.28	0			
14	13.00	0.30	0			
15	13.80	0.0	0			
16						
17						
18						
19						
20						
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22						
23						
24						
25						

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15 =

REMARKS

DISCHARGE MEASUREMENT — CURRENT METER

PARTY CAB METER Pygmy

LOCATION Almond pump house

LOCATION (numeric)	METER CODE	DATE	NUMBER SECTIONS	GAGE
		11/10/98 9:00 AM		0.58 (3:50 PM)

SEC. #	DISTANCE	DEPTH	REV. .6 or .2	REV. 0.8	TIME (sec.)	ANGLE CORRECTION
01	0.3	0.	+			
02	1.0	0.51	22			
03	2.0	0.57	42			
04	3.0	0.48	56			
05	4.0	0.32	61			
06	5.0	0.46	50			
07	6.0	0.52	50			
08	7.0	0.55	61			
09	8.0	0.51	67			
10	9.0	0.48	28			
11	10.0	0.47	50			
12	11.0	0.43	61			
13	12.0	0.18	16			
14	13.0	0.13	15			
15	14.0	0.	0			
16	11.5	0.26	25			
17		.				
18		.				
19		.				
20		.				
21		.				
22		.				
23		.				
24		.				
25		.				

METER CODES

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REMARKS Very cold may not be gauge iced up – probably not consistent with previous values

DISCHARGE MEASUREMENT — CURRENT METER

PARTY CLB, P. Almond METER Pygmy

LOCATION Gordon Cr. at bridge

LOCATION (numeric)	METER CODE	DATE	NUMBER SECTIONS	GAGE
		11/9/98		

Time 5:30 pm

SEC. #	DISTANCE	DEPTH	REV. .6 or .2	REV. 0.8	TIME (sec.)	ANGLE CORRECTION
01	3.7	.0			50	1.0
02	5.0	1.25	15			
03	6.0	.30	27			
04	7.0	.50	33			
05	7.75	.59	52			
06	8.5	.69	54			
07	9.25	.85	54			
08	10.	.80	58			
09	10.75	1.05	75			
10	11.5	1.13	95			
11	12.25	1.03	80			.99
12	13.	.94	46			.99
13	13.75	.72	25			.99
14	14.5	.67	15			1.0
15	17.	.0				
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						

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REMARKS Very cold

DISCHARGE MEASUREMENT — CURRENT METER

PARTY AB METER Pygmy

LOCATION Garden Cr. #1 - SE of Corvallis

LOCATION (numeric)	METER CODE	DATE	NUMBER SECTIONS	GAGE	Time:
		9/23/98		0.68	1640

SEC. #	DISTANCE	DEPTH	REV. .6 or .2	REV. 0.8	TIME (sec.)	ANGLE CORRECTION
01	1.65	0.	0		50	1.0
02	3.0	0.21	19			1.0
03	4.0	0.39	19			1.0
04	5.0	0.40	22			1.0
05	6.0	0.61	32			1.0
06	7.0	0.78	34			1.0
07	8.0	0.86	56			1.0
08	9.0	0.99	41			1.0
09	10.0	0.85	21			1.0
10	11.0	1.00	56			.98
11	12.0	0.91	45			.97
12	13.0	0.85	38			.98
13	14.0	0.74	32			.97
14	15.0	0.67	30			.96
15	16.0	0.61	44			.94
16	17.0	0.56	20			.94
17	18.0	0.31	13			1.0
18	19.3	0.				
19						
20						
21						
22						
23						
24						
25						

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11 =
12 =
13 =
14 =
15 =

REMARKS Channel bottom - boulders 2-8"
Sunny

Current Meter

Loc: Garden Cr. #2 at Almond pumps

Date: 9/23/98

Party: CLB

Meter: Pygmy

Time 1840

Gauge .57' (set gauge)

	Sta	Depth	Rev-b	Time	Angle Coef
B	1.0	0	0	50	1.0
	2.0	.13	8		
	3.0	.37	13		
	4.0	.61	39		
	5.0	.64	54		
	6.0	.76	62		
	7.0	.51	78		
	8.0	.52	114		
	9.0	.60	67		
	10.0	.60	63		
	11.0	.60	38		
	12.0	.60	35		
	13.0	.52	31		
	14.0	.27	37		
	15.0	.20	10		
	16.0	.10	5		
B	16.7	0	0		

Channel bottom boulders: 1"-3"

Sunny.

PRELIMINARY

HYDROGEOLOGIC ANALYSIS OF THE WATER SUPPLY FOR THE COMMUNITY OF CHALLIS, CUSTER COUNTY, IDAHO

(PRELIMINARY DRAFT)

Idaho Water Resources Research Institute

University of Idaho

Bruce R. Otto

Allan Wylie

Michael Martin

February 25, 2003

Technical Assistance for Rural
Ground Water Development within Idaho

Department of Water Resources
PROTESTANT'S
Exhibit B
Date Admitted 4/6/04

SUMMARY

The IWRRI Technical assistance for rural ground water development within Idaho project team studied the Challis water system in order to provide the city with hydrogeologic information to aid in expansion of their water supply. The study includes bedrock geologic mapping, analysis of the ground water system, and an analysis of the three community wells.

Recommendations derived from the study suggest that **Challis should closely monitor upstream water use in order to assess potential sources of contamination and infringement on the cities water right.** Water level measuring devices should be installed in West-Well-2 in order to routinely monitor water levels through time. Additional water would likely result from deepening West Well-2. This solution may result in aquifer depletion, but would allow the time necessary to monitor water levels in this aquifer and to assess the viability of using this supply in the long-term.

The Challis domestic water supply is derived from four independent sources; surface water from Garden Creek and three partitioned ground water aquifers. The two ground water aquifers developed by West Well-1 and West Well-2 experience low recharge volumes due to the dry climate. Two water level measurements collected from West Well-2 (1980 and 2002) suggest the possibility that water in this aquifer is depleting through time. The recommendation to install a monitoring device in this important well addresses this possibility. West Well-1 produces reduced volumes due to poor well design and high clay content in this aquifer. Relocating or redrilling this well to a deeper level will likely enhance yield. East Well-1, developed in unconsolidated river gravel, is a good water producer that will likely remain a viable source through time.

Two factors impact the quality and quantity of Garden Creek surface water: upstream domestic or agricultural development, and the amount of annual precipitation. Monitoring of new upstream water use will allow an accurate understanding of impacts to this fragile supply. Upstream contamination probably travels rapidly downstream due to clay-rich paleo-lake-bed sediments that provide a natural lining along much of the Garden Creek drainage.

Geologic mapping shows that gently inclined volcanic strata in combination with an extensive network of faults place strong controls on how and where ground water flows. The volcanic rocks form a three-part stratigraphy. The lowest unit consists of basaltic lava flows. These lavas are covered by two successive accumulation of volcanic ash. The lava flows form a better aquifer because of abundant fractures and relatively low clay content. Abundant faults cut the volcanic strata and inhibit water flow along the original depositional layering, creating isolated fault-bound aquifers.

INTRODUCTION

The City of Challis, seat of Custer County Idaho, lies in the Salmon River valley at an elevation of approximately 5000 feet (Figure 1). The city presently derives domestic water from a combination of surface water from Garden Creek and ground water from three wells (Figure 2). The quantity received from these sources marginally accommodates present needs, and cannot sustain future growth.

This report summarizes results of a hydrogeologic study of the Challis water system undertaken by IWRRI and the Technical Assistance for Rural Ground Water Development Within Idaho project to provide the city with information that could lead to development of additional sources of water. In order to accomplish this goal we geologically mapped the area surrounding the city, studied the geologic, hydrologic and engineering aspects of the three municipal wells, and integrated these data with existing climatic data.

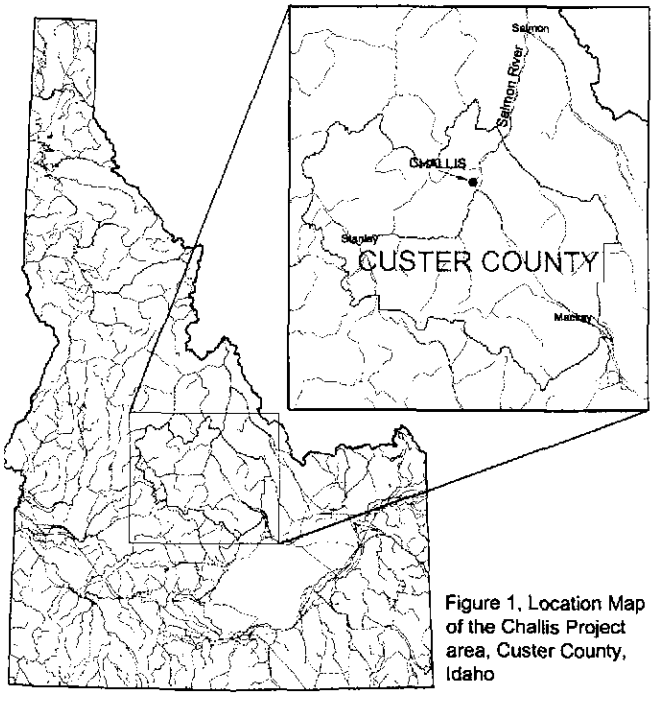


Figure 1. Location Map of the Challis Project area, Custer County, Idaho

STATEMENT OF PROBLEM

The community of Challis may experience growth in future years due largely to increased tourism, and sustained growth will need a viable water supply. During certain parts of an average year the community presently utilizes it's entire available capacity. Additionally one of the wells may be experiencing a declining static level, though incomplete historic water production data do not allow an accurate understanding of this possibility.

OBJECTIVE

The primary objective of this study was to provide Challis with technical information about their water supply in order to foster improvements that will alleviate an apparent water supply deficiency. Additionally, recommendations provided herein will enhance the community's ability to collect accurate water usage data for use in future planning.

GROUND WATER DEVELOPMENT CONCEPTS

Ground water occurs and moves through interconnected fractures and intergranular pore space in an aquifer. It moves under the force of gravity from higher elevation recharge areas to lower elevation discharge areas. Most recharge results from

infiltration of precipitation, though some occurs from streams and lakes at elevations higher than the water table. Typical discharge areas include springs, streams and lakes. Ground water moves slowly, generally less than 10 feet per day.

Subsurface geology strongly controls water movement within an aquifer. Therefore, an understanding of the subsurface distribution of unlithified sediment, lithified rock, faults, and their physical properties generally leads to a commensurate understanding of ground water flow systems. Mapping the surface geology and reviewing logs of material penetrated by wells, helps interpret features critical to ground water flow.

Sustainable well development requires less ground water use than aquifer recharge because removal of water results in some water level decline with an associated reduction in natural discharge. The basis for proper ground water development requires characterizing natural ground water discharge from springs and seeps, knowing the discharge of interconnected streams, and understanding the quantity and location of annual aquifer recharge. Additionally, domestic water supplies need recharge zones protected from contamination because pollutants can mix with ground water and contaminate the municipal supply.

GEOLOGY

Several regional geologic features influence the hydrogeology of the Challis area. The community lies near the eastern margin of the Idaho batholith, near the northern margin of basin and range extension, and within the Eocene-age Challis volcanic field. This diverse assemblage of geologic environments provides a challenge to understanding the controls that structure and rock type play on the local area hydrogeology.

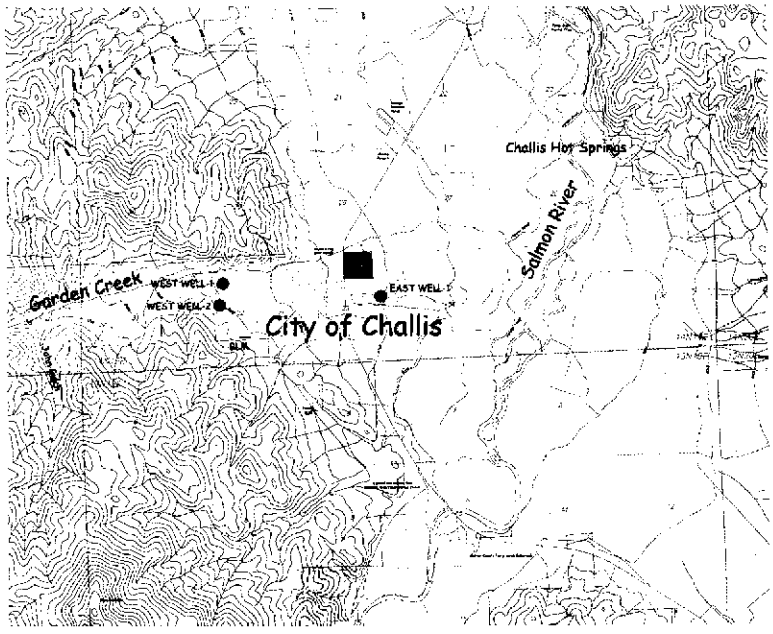


Figure 2, Location of Challis city wells

REGIONAL GEOLOGY

East Central Idaho lies in a geologic terrain dominated by Eocene-age volcanic strata. These rocks erupted 51 to 40 million years ago (McIntyre et al, 1982) onto a steep mountainous topography, similar to that present today. The volcanics emanated primarily from stratovolcanoes and large calderas.

Challis resides in a structural basin bounded on the east by the northern extension of the Borah Peak fault and on the west by a series of smaller

parallel faults. Eocene-age volcanic strata were deposited in a proto-Salmon River canyon deeply incised into Proterozoic-age quartzite, suggesting that the Challis basin formed at least 50 million years ago or before.

PROJECT AREA GEOLOGY

The Salmon River canyon near Challis formed initially by a combination of faulting and stream erosion during and before eruption of the Challis Volcanics. Faults active at the time of volcanism helped form the topography that largely controlled the thickness of volcanic strata blanketing the area. These volcanic strata now tilt gently to the east, reflecting rotation during renewed faulting (Figure 3). The thickness, distribution of strata and the geometry of faults largely control the location, flow volume and flow direction of ground water. The following section discusses these aspects of the Challis area.



Figure 3: Photograph (looking north) showing pyroclastic strata immediately north of Challis. City Well-2 is in bottom left of picture; City Well-1 is just below left center.

STRATIGRAPHY

Strata of the Challis volcanic field in the study area include a lower unit of basaltic lava flows and two upper units of pyroclastic material. The lower unit of the pyroclastic strata includes deposits of unwelded to poorly welded volcanic ash (white beds in Figure 3). The upper unit consists of densely welded ash-flow tuff (reddish beds in Figure 3). Exposures of the basaltic lava flows occur along much of the Garden Creek drainage (Figure 4). The lower lava flows are dark brown to gray, the middle ash unit is brilliant white to pastel green, and the upper welded tuff unit is typically bright orange to crimson red. Color, though

generally not a reliable indicator of rock type, works well to identify the volcanic rocks in the Challis area.



Figure 4: Photograph showing an exposure of basaltic lavas in Garden Creek, approximately 1 mile west of Challis.

BASALTIC LAVA FLOWS

Basalt and andesite lava flows form the lowest unit exposed in the study area (Plate 1, unit Taf). The flow sequence has a variable thickness with an unknown maximum; based on map distribution it is at least 1000 feet thick in the Garden Creek drainage. Volcanic textures displayed in outcrops, such as pyroclastic spatter and spindle bombs incorporated into lavas, show that the flows emanated from nearby sources (Figure 5). Age dates indicate this part of the sequence erupted approximately 50.3 million years ago (McIntyre et al, 1982).

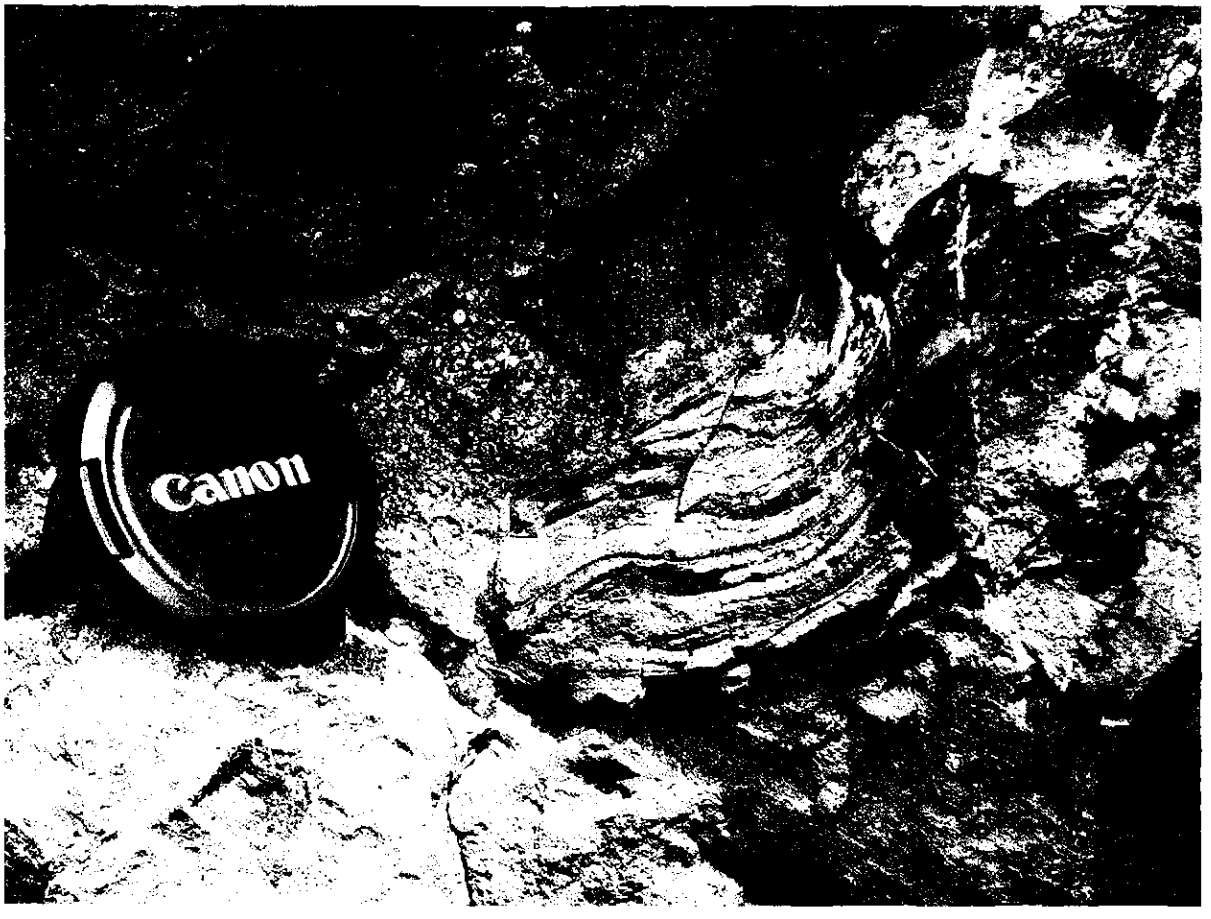


Figure 5: Close-up photograph of the Mafic lava unit. The feature in the center is a spindle bomb ejected from a nearby vent and incorporated into the lava flow.

The generally aphanitic lavas range from aphyric to plagioclase porphyritic. Colonnades and entablatures are generally not well developed, though outcrops show abundant cooling fractures, particularly in flow-brecciated portions. Flow boundaries are generally not visible, probably due to poor exposure. A dark brownish gray to black color on weathered surfaces distinguishes these rocks from the overlying pyroclastic strata. The basaltic lavas form most of the canyon of Garden Creek west of town.

Basalt lavas underlie much of the recharge area for the aquifers that Challis uses. Joints formed during cooling and fractures formed during post-depositional deformation occur throughout the unit, providing avenues for entry and migration of ground water. West Well-2 collared and terminated in the lavas, and is one of Challis's most important sources of water. The well is 605 feet deep, and pumps an average of 450-500 gallons per minute.

AIR-FALL RHYOLITE ASH

The tuff of Penal Gulch, a white to pastel-green volcanic ash erupted from the large Van Horn Peak Caldera complex northwest of Challis (Plate 1, unit Tp; McIntyre, et al,

1982), lies depositionally above the basaltic lava sequence. When erupted, the ash was composed of very fine-grained shards of volcanic glass. Later, the glass devitrified and now forms an aggregate with abundant interstitial clay. The ash probably blanked the area evenly immediately following eruption, but was resedimented into topographically low areas, so its thickness varies as a function of the paleo land surface. Exposures in the Garden creek drainage three miles west of town are less than 50 feet thick. The unit thickens progressively to the east, where immediately north of town it is over 200 feet thick (Figure 3). This change in thickness indicates that the faults bounding the Challis Valley were probably active during the eruptive cycle, at least ±45 million years ago.

The ash section provides important controls on the distribution of ground water in the Challis valley. It displays few open fractures or fluid pathways in outcrop and contains an abundance of clay, so likely impedes ground water flow. Erosion has stripped the unit away from most of the aquifer recharge area for the Challis water supply. Recharge water infiltrates the basalt aquifer and as it travels down gradient, it likely flows beneath the ash section. The unit underlies much of the community and the Salmon River canyon near Challis, so inhibits surface water from entering the underlying basalt aquifer in these areas. West Well-1 penetrates 92 feet of unconsolidated gravels, then cuts 125 feet of altered Penal Gulch tuff before entering the lower basalt lava unit (cross section BB', Plate 2).

WELDED RHYOLITE ASH-FLOW TUFF

The uppermost volcanic unit in the study area is a distinctly red, cliff-forming unit named the Tuff of Challis Creek (McIntyre, et al, 1982; Plate 1, unit Trt). It erupted from the Twin Peaks caldera, a 12-mile diameter feature centered on Twin Peaks, west of town. The densely welded vitreous rock has a variable thickness, with a maximum of approximately 200 feet.

The unit commonly displays abundant fractures in outcrop so, depending on location, could be a viable aquifer. West of Challis, exposures generally occur on ridge tops, out of reach of recharge areas, or have been eroded away. The tuff underlies much of the Salmon River valley east of Challis, so could potentially be recharged through overlying saturated gravel.

UNCONSOLIDATED SEDIMENTS

Unconsolidated sediments in the study area include landslide deposits, clay beds deposited from lakes, alluvial-fan gravels derived from nearby sources, and gravels deposited by flowing streams.

Landslides are common in the study area but generally do not influence the distribution or flow of ground water (Plate 1, unit Qls). One prehistoric slide, however, flowed into Garden Creek from the north, blocked the drainage and formed a lake. Though the landslide dam has since eroded away, clay beds deposited at the bottom of the lake still occur along much of the Garden Creek drainage (Plate 1). The clay beds greatly

impede the ability of Garden Creek water to enter the substrate and recharge the bedrock aquifer. Additionally, any contaminants entering Garden Creek upstream of the clay beds will tend to flow overland a greater distance rather than percolating and filtering into the substrate.

The Salmon River has flowed through the Challis valley since at least middle Tertiary time filling the valley with sand and gravel from contemporary and ancestral stream channels. The Salmon River provides water to the gravels, recharging the aquifer utilized by Challis East Well-1 and numerous other wells in the central part of the valley. Tributary streams such as Garden creek are also underlain by similar gravels (Plate 1, unit Qsg).

Cone-shaped alluvial fans accumulate along mountain fronts in dry climates and are generally thickest along the range front near where streams emerge from incised canyons. They are composed of angular rock fragments embedded in a matrix of sand, clay and fine-grained rock particles. Internally, the stratigraphy can be discontinuous, sinuous, and compositionally variable due to the temporal interplay of gravel deposited from flowing streams versus erosion and deposition from flash floods. These complicated stratigraphic patterns create an equally complex regime for ground water flow. The city of Challis lies on the upper end of an alluvial fan emanating from the mouth of Garden Creek (Plate 1, unit TQfg).

STRUCTURE

Faulting is principally responsible for landforms visible in the Challis area, including the Salmon River valley. Beyond visible landforms, faulting also formed the present distribution and geometry of volcanic rock units underlying the area. The Challis basin is a half graben (Plates 1 and 2, Section AA'), bound on the east side by the northern extension of the Borah Peak fault, which last moved in 1983. The Borah Peak fault and subsidiary structures drop rocks on the west side of the faults down relative to the east side. This relationship is visible in the strata exposed on the bluffs north of town, where the beds are gently inclined from west to east (Figure 3; Plates 1 and 2).

Mapped faults in the study area are numerous, and conform to two general orientations. Most of the faults strike north-northwest and dip steeply to the west (Plate 1). A subsidiary set of faults strikes northeasterly and dips northerly. The pattern created by the intersection of these two sets of faults is rectilinear. The broken, or gouge zones that occur in fault planes are commonly clay rich and act to reduce or preclude flow of water.

Ground water migrating down gradient, along the dip of the volcanic beds from west to east may be interrupted by the zones of faulting. The fault geometry defines a set of rectilinear blocks in which concentrations of ground water cannot easily flow into strata of adjacent blocks. The concentration of clay beds in Garden Creek in combination with the presence of faults is possibly the reason that surface water does not recharge strata adjacent to West Well 1.

HOT SPRINGS ACTIVITY

Water that resides at depth generally has an elevated temperature due the natural geothermal gradient of the earth, which averages 25° C/km (14° F/1000 Ft). For example, assuming the ambient temperature of water charging the thermal area is 54° F, water emanating from a thermal spring with a temperature of 100° F would have come from a depth below surface of about 3300 feet. Hot springs occur where pathways through the rock, generally along faults, allow the hot water to rapidly migrate to the surface. The hot and commonly corrosive water will interact and alter wall rock exposed along the fluid pathway, changing the mineralogy of the rock. One of the most common styles of wall-rock alteration from this process is the destruction of original minerals and, in their place, the development of clay.

We mapped several areas of hydrothermally altered rock from ancient hot springs activity. These areas contain an abundance of clay, a rock constituent that commonly impedes the flow of ground water. One altered area of note occurs northwest of West Well-1 north of Garden Creek. The drill log of West Well-1 indicates that these altered clay-rich strata extend beneath Garden Creek and into the well area. The presence of abundant clay in this well is likely part of the reason that it does not maintain a high flow rate.

HYDROGEOLOGY

Rock composition and type of occurrence of volcanic strata impart great influence on a rocks ability to store and transmit ground water. Most volcanic strata have little intercrystalline porosity, suggesting that fractures host most fluid flow. Lava flows commonly contain abundant cooling fractures, formed when the rock crystallizes from molten magma. Cooling fractures are less likely to form in low-temperature, air-fall ash deposits. At Challis, an aquifer in basaltic lava flows provides much of the communities water supply.

REGIONAL HYDROGEOLOGY

Three primary factors influence ground water hydrology of the challis basin:

1. Climate,
2. Rock characteristics, including fracture density, porosity and permeability, and
3. Distribution of faults

Challis lies in an arid part of the state and sees less than 10 inches of precipitation annually (Figure 6). Greater amounts of precipitation fall on the higher terrain west of town. Therefore, remote, higher elevation sources largely supply the water utilized by Challis.

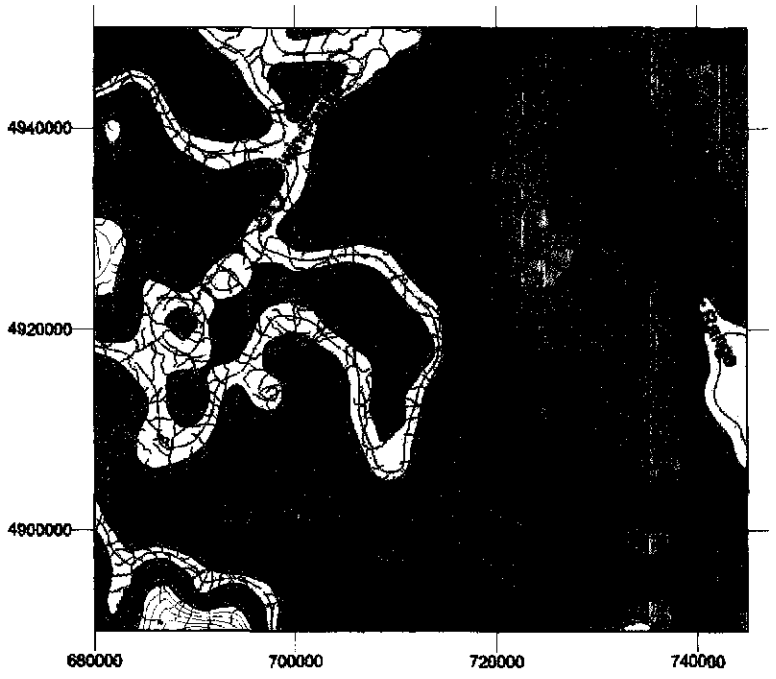


Figure 6: Annual precipitation in the Challis area (after Daly and Taylor, 2001) Coordinates are UTM NAD27-11.

Fractures created during deformation form preferentially in hard, brittle rocks. Two types of volcanic rocks in the Challis area fall into this category, basaltic lava flows and rhyolite ash-flow tuff. Ash-flow tuff, an accumulation of high-temperature ash when deposited, fuses into a dense, vitreous rock. Lower temperature air-fall ash deposits commonly contain abundant clay, which allows the rock to deform without developing through-going fractures. Lava flows and densely welded ash-flow tuff generally create the best aquifers in volcanic rocks because they form the greatest fracture permeability. The terrain surrounding Challis displays an abundance of faults, which influence ground water distribution and flow.

PROJECT AREA HYDROGEOLOGY

Geologic mapping shows that gently inclined volcanic strata in combination with a rectilinear network of faults places strong controls on how and where ground water in the Challis basin flows (Plate 1). This, coupled with low recharge volumes due to the dry climate, provides a unique challenge in locating a sustainable source of water.

Our appraisal of the city water supply shows that water is derived from three independent sources: surface water from Garden Creek, and two ground water aquifers. Challis West Wells #1 and #2 penetrate an aquifer within fractured basaltic lavas. The second ground water system, tapped by Challis East Well #1, occurs in unconsolidated sand and gravel that fill the Salmon River Valley. A third ground water system, not presently utilized, lies within shallow sand and gravel zones that underlie Garden Creek Valley. The following section outlines each of these systems.

GROUND WATER FLOW SYSTEMS IN VOLCANIC ROCK

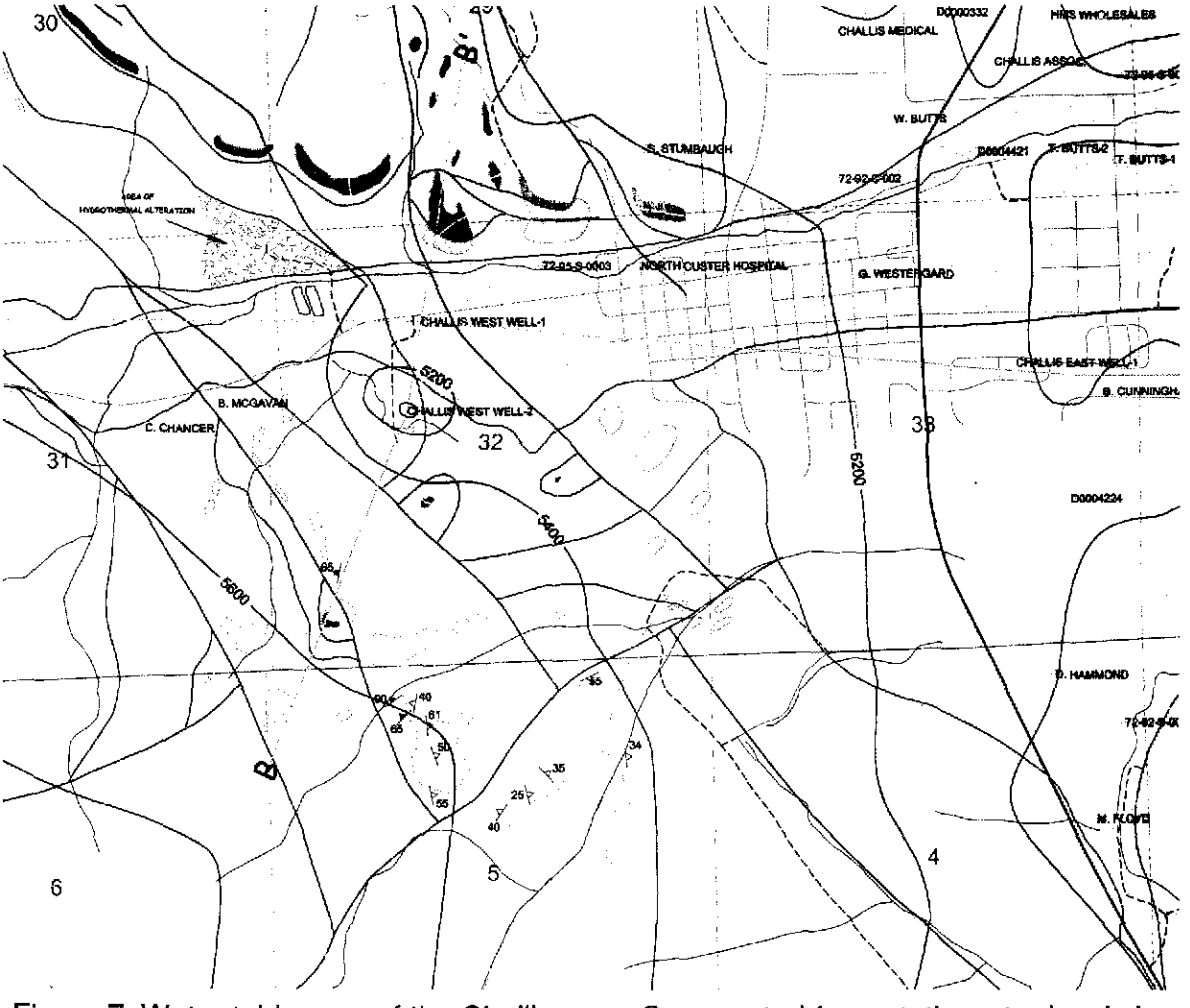


Figure 7: Water table map of the Challis area. Constructed from static water levels in wells and from elevations of perennial streams.

The depth to water in West Well #2 when drilled in 1980 (about 317 feet below land surface) suggests isolation from the surrounding aquifers (Figure 7). This measurement places the water level about 300 ft lower than in any surrounding well. In an effort to check the water level, we attempted to collect a new measurement in West Well #2. We ran 450 ft of water level measurement tape down West Well #2 without encountering any water. This suggests that the water level could have dropped from 317 ft below land surface when the well was drilled to below 450 ft, or that our tape was hung in the well. The fact that the original static water level in West Well #2 was much lower than in the surrounding wells suggests that this well taps a different aquifer than the surrounding wells. The relevant questions then are: 1) does this aquifer receive adequate recharge to supply the city of Challis demands, and 2). From where does this aquifer receive recharge?

Analysis of pumping records from West Well #2 failed to reveal evidence of long-term water level decline. Figure 8 displays pumping rate vs. time for West Well #2 as recorded by the city of Challis drinking water system operators. This graph does not show a consistent decline in pumping rate commonly associated with declining water levels. In fact current pumping rates occasionally exceed the rates recorded when the well was first put on line. These observations suggest that the aquifer penetrated by West Well #2 does receive some recharge.

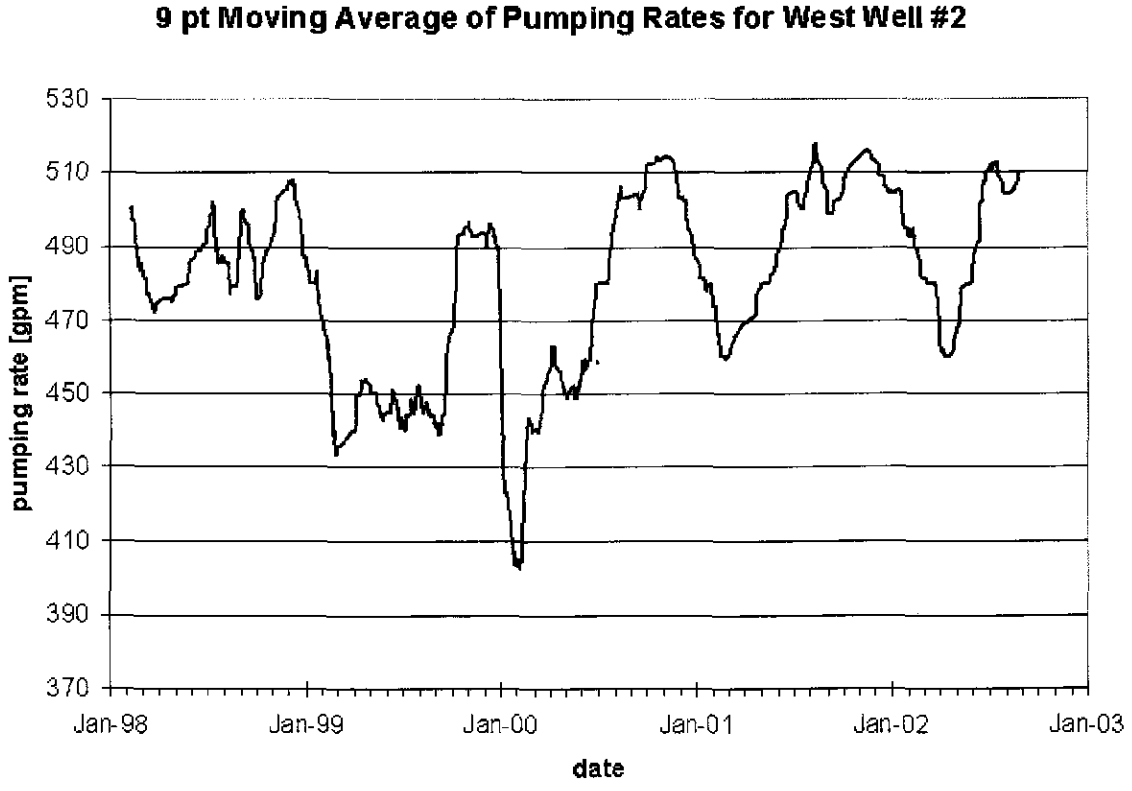


Figure 8: Graph of pumping rate in gpm with respect to time for West Well #2.

Two significant sources of recharge exist in the Challis area, the Salmon River and Garden Creek. However, the graph of pumping rate in Figure 8 is inconsistent with an aquifer receiving recharge from spring runoff. If this were the case, water levels (pumping rates) would peak in the spring. However, water levels (pumping rates) tend to peak during October or November rather than May or June. Perhaps demand affects pumping rate.

Figure 9 shows pumping rate vs. time and daily pumping volume vs. time for West Well #2. Pumping volume peaks twice a year, in mid summer and mid winter. The annual peak for the pumping rate curve tends to come between the daily pumping volume mid summer and mid winter peak. The annual March minimum on the pumping rate curve also occurs at a minimum on the daily pumping volume curve. If the aquifer were not

receiving recharge, the pumping rate curve would have two peaks opposite the minimums in the daily pumping volume curve. This analysis indicates that the aquifer tapped by West Well #2 receives recharge. If the aquifer received inadequate recharge to meet city of Challis demands, there would be an overall declining trend in the pumping rate curve. Therefore, the available evidence fails to support the notion that the West Well #2 aquifer does not receive adequate recharge. However, this analysis hinges on using pumping rates as a proxy for real water level observations.

The source of recharge for the West Well #2 aquifer remains unclear. Since the static water level elevation in this well when drilled, exceeds the elevation of the Salmon River; (see cross-section B-B', in Figure 3) the Salmon River cannot act as the source of water for the well because water will not flow up hill. The Garden Creek drainage remains the only other possible recharge source (Figure 11).

GROUND WATER FLOW SYSTEM IN THE SALMON RIVER VALLEY ALLUVIUM

No evidence exists suggesting that water level decline presents a major problem in the alluvial aquifer tapped by East Well #1. Figure 10 contains a hydrograph showing depth to water in East Well #1. Note the consistency between water levels in April and May of 2001 and those in April and May of 2002. In addition, the depth to water observed in December of 1980 was 157 ft below land surface. The water level observed in December of 2001 ranged between 159 and 165 ft below land surface. This suggests that declining water levels pose no problems in the Salmon River Valley Alluvium. Comparable historic and present water levels suggest that the Salmon River is the probable source of recharge. The elevation of the East Well #1 aquifer is nearly the same as the elevation of the Salmon River.

GROUND WATER FLOW SYSTEM IN THE GARDEN CREEK VALLEY ALLUVIUM

Alluvial gravels underlie Garden Creek near West Well #1. The cross section along line B-B' in Plate 2 shows Garden Creek, West Well #1 and West Well #2. Garden Creek flows directly above a 90-foot-thick gravel aquifer in this area, indicating a direct hydraulic communication with Garden Creek. The viability of obtaining water from this alluvial aquifer depends on the amount of water in storage and the annual recharge received from Garden Creek. Potential exists to use this aquifer with a new shallow well or by modifying West Well #1.

SURFACE WATER FLOW SYSTEM

Garden Creek flows into Challis from the west (Plate 1; Figure 2). Diverted surface water flows from the stream through sand filters, is chlorinated, and then flows into the city distribution system. Two factors impact the quality and quantity of this water:

1. Upstream domestic or agricultural development and use of Garden Creek water will impact the quality and supply of water that reaches the city diversion.

2. The amount of annual precipitation, particularly winter snowpack also impacts flow levels.

Figure 6 shows the annual precipitation of the Challis area. This map indicates that most of the water that flows through the garden creek drainage entered the hydrological system from higher elevation terrains to the west.

ANALYSIS OF WELL DEVELOPMENT

WEST WELL #2

Challis West Well-2, a reliable producer of quality water, penetrates an unaltered portion of the lower basaltic lava unit. Long-term utilization of this well depends on present pumping rates in relation to average annual recharge rates. Available information gives conflicting evidence on this issue. First, water level decline may be occurring based on one attempt to measure depth to water in this well. If the water level lies below 450 feet in West Well #2, then water level decline poses a major problem. However, pumping rate measurements do not show a drop, which is the norm during water level decline. Accurate measurement of the static water levels in West Well #2 will resolve this issue.

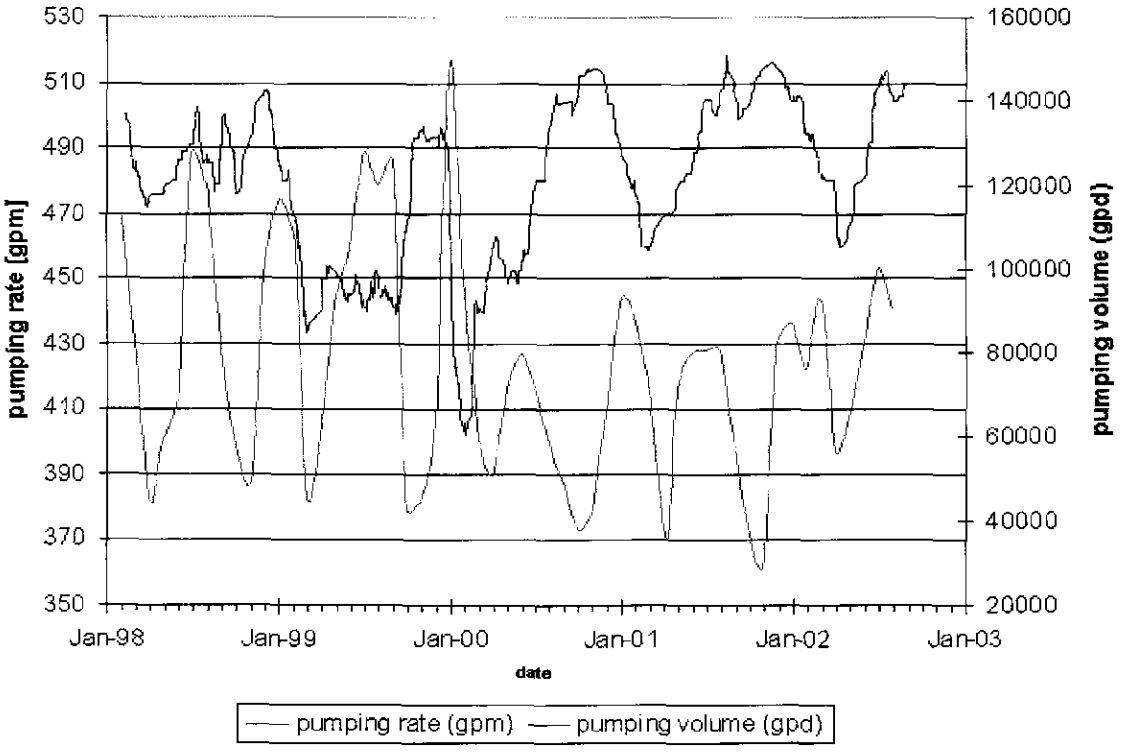


Figure 9. Graph of pumping rate in gpm with respect to time for West Well #2.

This should be a high priority for the City of Challis.

WEST WELL #1

Challis West Well-1 collared in stream gravels of Garden Creek and penetrates bedrock at a depth of 92 feet. Geologic mapping in proximity to the wellhead and review of the drill log suggest that below the surface gravel the well cuts welded tuff, air-fall tuff, clay-altered basalt of the lower lava unit, and terminates in unaltered basalt. Though the lavas generally provide good flow rates, the presence of abundant clay in the altered basalt section may inhibit water flow into this well. The log indicates that a fault occurs at a depth of 520 feet across which the well passes into an unaltered portion of the lava sequence.

West Well #1, as presently constructed, fails to produce adequate water. Plugging the lower portion of the well and perforating the casing adjacent to the bottom 30 feet of alluvial material might significantly increase the yield.

RECHARGE FOR THE WEST WELLS

Collectively the hydrologic systems (volcanic rock, Salmon River valley alluvium, and Garden Creek) supply adequate water to meet the city's current demands. Future development up stream of Challis on Garden Creek or within the city of Challis could upset the balance. Garden Creek remains the most likely source of recharge for the wells on the west side of Challis. This means that the maximum available recharge is the difference between precipitation in the Garden Creek drainage basin and evapotranspiration (ET), the water used by plants and lost to evaporation.

Figure 11 contains an outline of the Garden Creek drainage basin, land use, and precipitation contours. Total recharge, determined by summing the precipitation that falls in the basin, less ET, determined by climate, ET coefficients, and acreage from the land use map, yields the available water. The available water for the Garden Creek basin is 4738 acre-feet per year. The available unappropriated water, found by subtracting the amount of diverted water (municipal, domestic, and agricultural) from the basin yield, is about zero. This implies that nearly all water in the basin is appropriated. New upstream water use within the Garden Creek drainage will likely impact Challis.

EAST WELL #1

Challis East Well 1 penetrates 240 feet of alluvial fan gravel then penetrates 50 feet of gravel deposited by the ancestral Salmon River. Water from the Salmon River recharges this aquifer. This large hydrologic system contains abundant storage and has a large recharge capacity. Although East Well #1 taps this robust system we recommend continuing to monitor water levels to make sure demand does not exceed recharge.

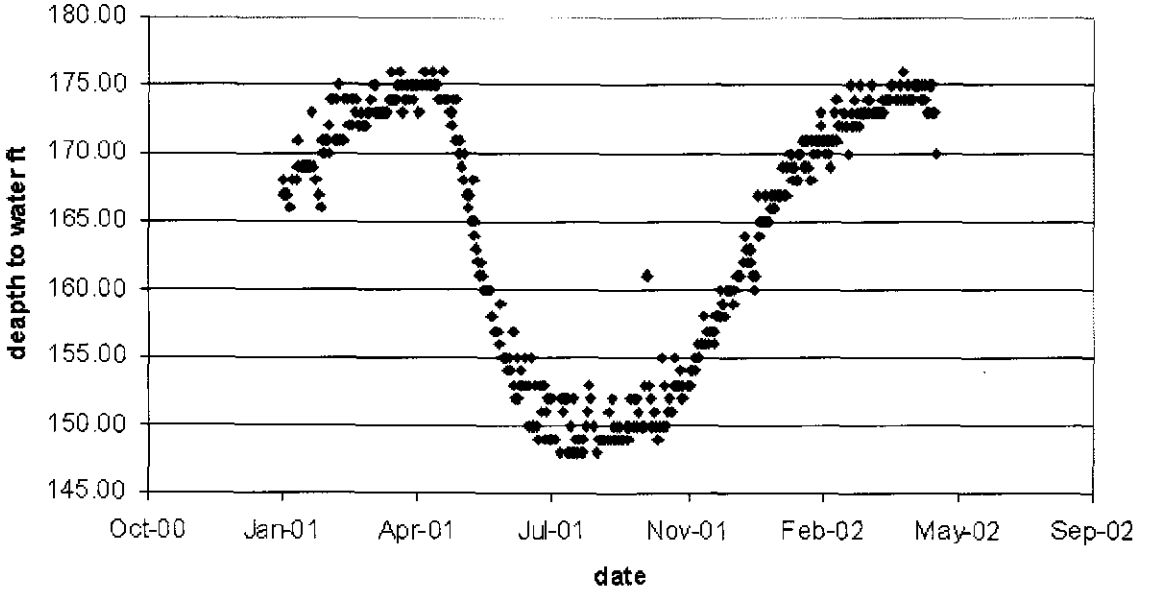


Figure 10. Hydrograph from East Well #1.

DISCUSSION OF RESULTS

The following discussion outlines possible options for Challis to develop additional ground water in:

1. The Garden Creek gravel aquifer,
2. The Salmon River gravel aquifer, and
3. One of the other mapped compartments similar to the West Well #1 aquifer.

A shallow well (ground water diversion) from the Garden Creek gravel aquifer could probably replace the existing surface water system. As such, the resource would be available throughout the year and under fewer regulatory restrictions than the current surface water system. Pumping from this aquifer would directly deplete Garden Creek so perhaps the city could transfer its water right to a well or series of wells along Garden Creek. This strategy would enable the city to use this resource during the winter months as well as summer provided Garden Creek adequately recharges the aquifer. Treatment requirements for a shallow well located near a stream depend on IDEQ designations of whether the well is "under the influence of surface water" or "under the direct influence of surface water". These issues should be investigated in detail prior to any development of the shallow Garden Creek alluvial aquifer. This strategy could diminish recharge to the aquifer supplying West Well #2, so, the necessity to monitor water levels in West Well #2 will increases if this approach is adopted

Drilling a new well along the east edge of the city should tap the Salmon River gravels. East Well #1 penetrates about 250 ft of unproductive fan gravels before encountering

the more productive Salmon River stream gravels. We recommend investigating IDWR requirements regarding water rights along the Salmon River before exploiting new targets in the Salmon River Valley.

Targeting a new compartment within the volcanic rock aquifer will limit direct competition between West Well #2 and the new well. Locating the new well at least 500 feet east of West Well #1 should place it in a different structural compartment. This new compartment aquifer may or may not receive recharge, so monitoring water levels in such a new well should be a high priority.

CONCLUSIONS AND RECOMMENDATIONS

The city of Challis should closely monitor upstream water use in order to assess potential sources of contamination or infringement on the their water right. Additionally, the community should install water level measuring devices in each well, and routinely monitor water levels.

The most logical approach for the City of Challis to supply additional water in the 3- to 5-year time frame would be to deepen West Well-2. The community could also accomplish this by redesigning West Well-1 to tap water from the unconsolidated gravels in the upper 92 feet of the well. This would provide the time necessary to monitor well water levels in order to create a long-term solution.

ACKNOWLEDGEMENTS

The authors accept responsibility for the interpretations expressed in this document. These views do not necessarily reflect those of the University of Idaho, the United States Environmental Protection Agency (USEPA), or any other institution. Rather, they reflect our opinions as shaped by our observations and experiences in the field, interpretation of the scientific and technical literature and our understanding of input provided by our colleagues and representatives from the community of Challis, Idaho. We, the authors, accept full responsibility for any omissions or misinterpretations of facts.

This work was funded through grant number X97008601 from USEPA Region 10 to the University of Idaho Water Resources Research Institute and the Idaho Geologic Survey. We thank representatives from Challis, Idaho for their contributions, and the Idaho Geologic Survey for providing peer reviews and publishing this work. The representatives from Challis with whom we generally corresponded include City Clerk Betty Horn and water system operator Jerry Moss. We greatly appreciate their help.

REFERENCES CITED

Daly, C. and G. Taylor. 2001: PRISM Precipitation Maps, Oregon State University Spatial Climate Analysis Service and State of Oregon Climate Service. http://www.ocs.orst.edu/prism/prism_new.html

McIntyre, D. H., Ekren, E. B., Hardyman, R. F., 1982, Stratigraphic and structural framework of the Challis Volcanics in the eastern half of the Challis 1° X 2 ° Quadrangle, Idaho, in Bonnichsen, Bill, Breckenridge, Roy M., editors, Cenozoic geology of Idaho, Idaho Bureau of Mines and Geology, Bulletin 26, P 3-22.

LIST OF FIGURES AND PLATES

Figure 1: Location map of the Challis study area.

Figure 2: Location map of the Challis city wells.

Figure 3: Photograph showing east-dipping pyroclastic strata immediately north of Challis. City Well-2 is in bottom left of picture; City Well-1 is just below left center.

Figure 4: Photograph showing an exposure of basaltic lava flows in Garden Creek.

Figure 5: Close-up photograph of Mafic lava unit. The feature in center of photograph is a spindle bomb that was ejected from a nearby vent.

Figure 6: Annual precipitation in the Challis area (after Daly and Taylor, 2001) Coordinates are UTM NAD27-11.

Figure 7: Water table map of the Challis area. Constructed from static water levels in wells and from elevations of perennial streams.

Figure 8: Graph of pumping rate in gpm with respect to time for West Well #2.

Figure 9: Graph of pumping rate in gpm with respect to time for West Well #2.

Figure 10: Hydrograph from East Well #1.

Figure 11: Recharge map for the Garden Creek drainage.

Plate 1: Geologic map of the Challis study area.

Plate 2: East-West and North-South cross-sections of the Challis study area. See Plate 1 for locations of sections.

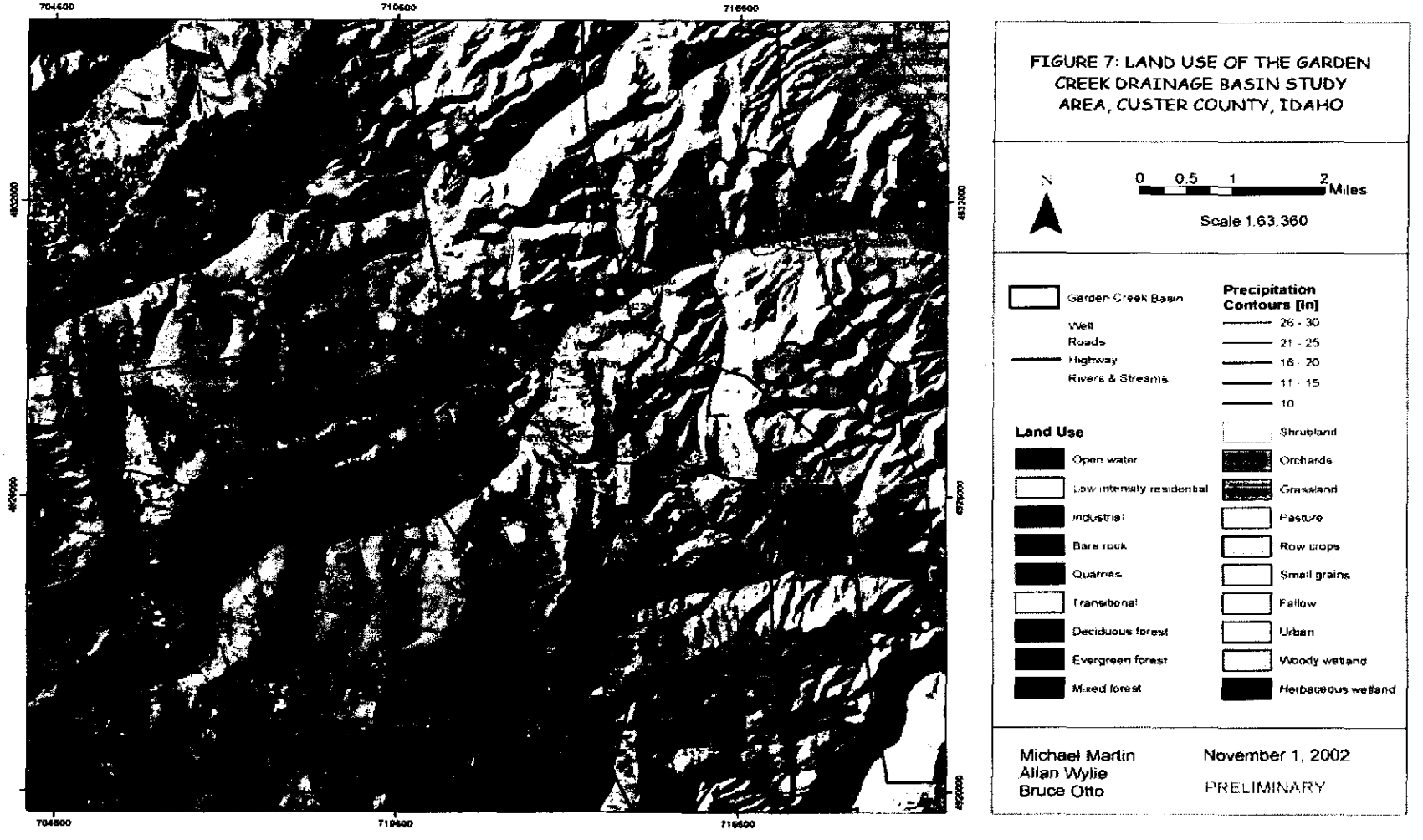
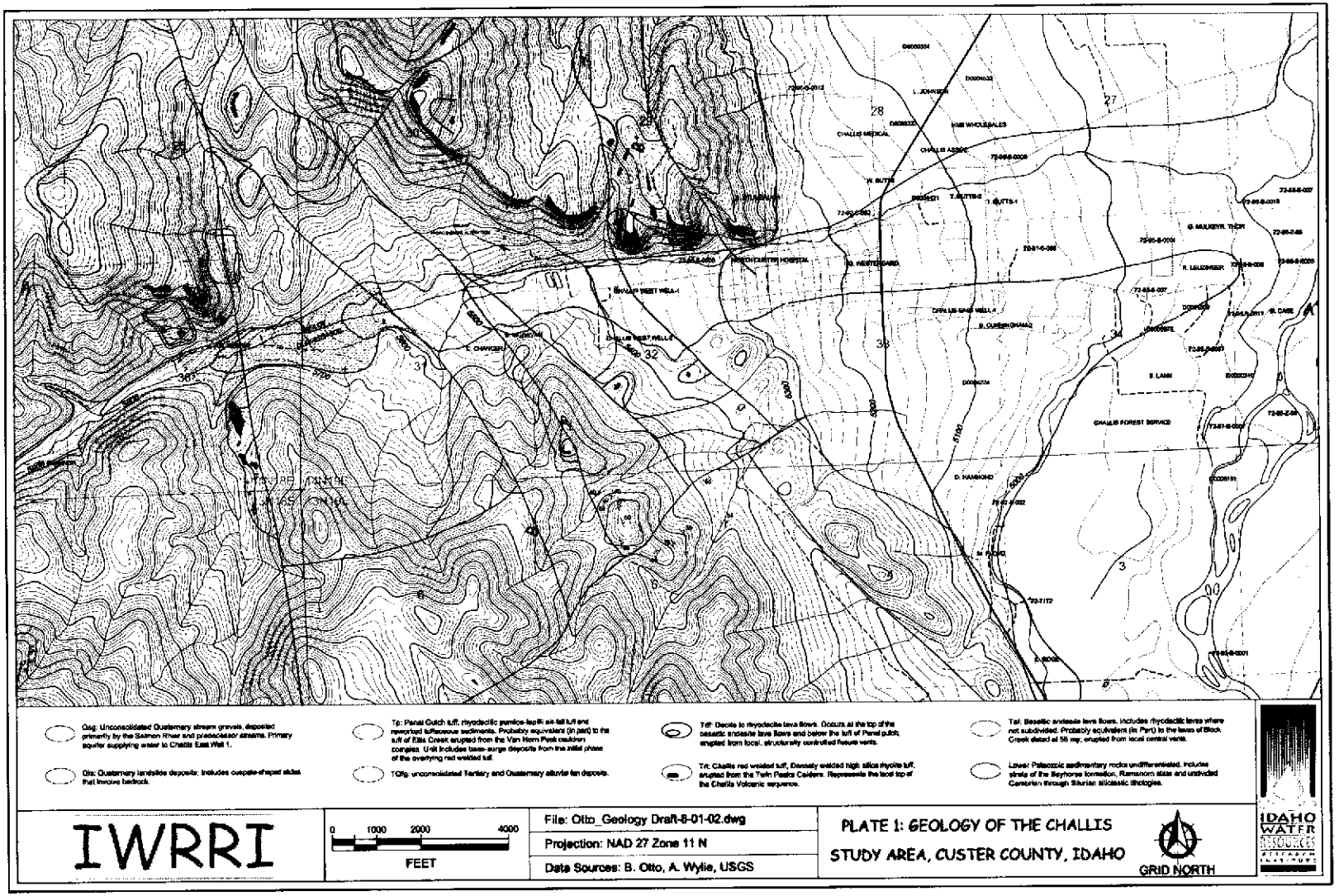
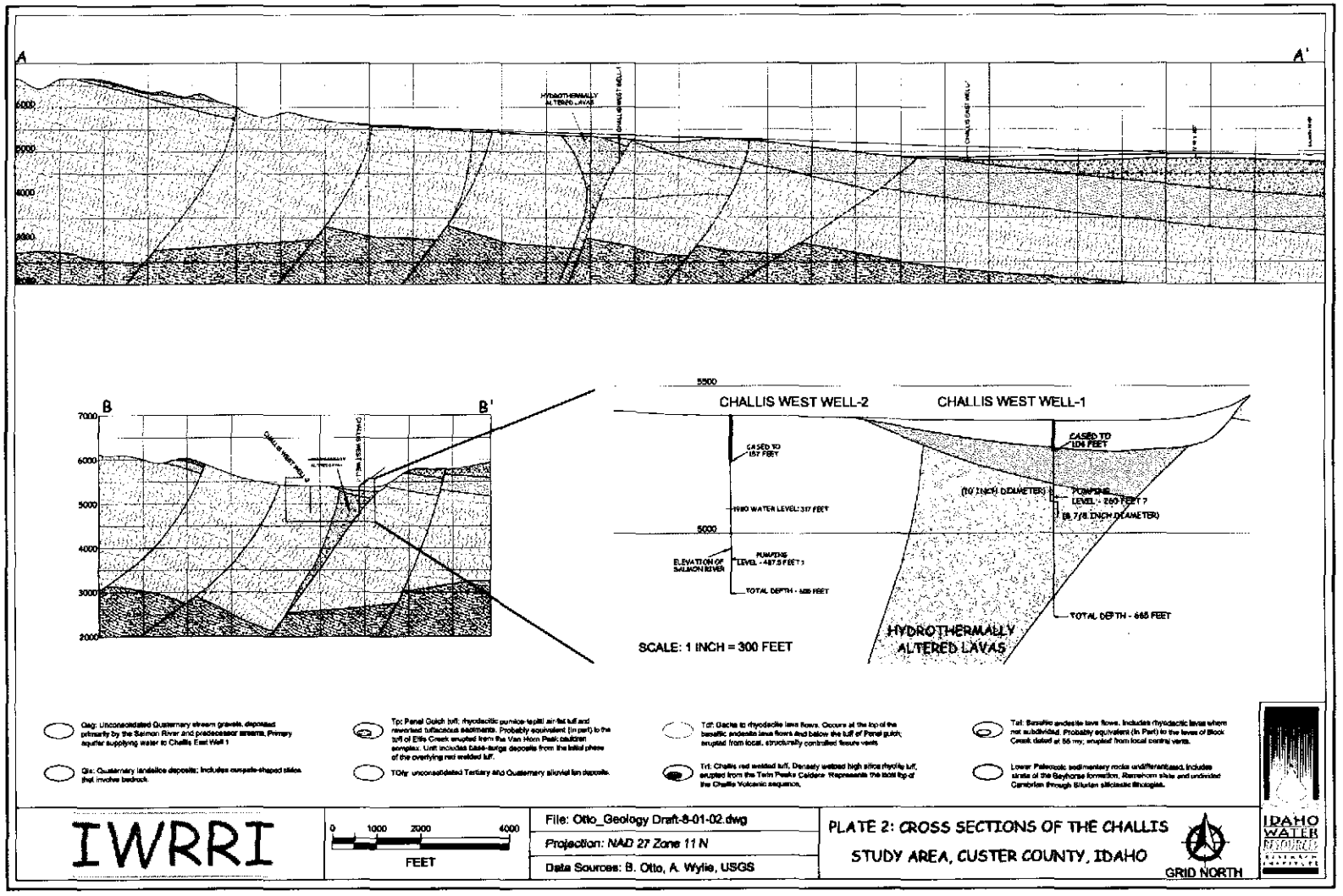


Figure 11: Recharge map for the Garden Creek drainage.


Qag: Unconsolidated Quaternary stream gravels, deposited primarily by the Salmon River and predecessor streams. Primary aquifer supplying water to Challis East Well 1.
Qls: Quaternary landslide deposits. Includes cuspate-shaped slides that involve bedrock.
Tp: Panel Gulch tuff. rhyodacitic pumice-lapilli air-fall tuff and reworked tuffaceous sediments. Probably equivalent (in part) to the tuff of Ellis Creek erupted from the Van Horn Peak caldron complex. Unit includes base-surge deposits from the initial phase of the overlying red welded tuff.
TQfg: unconsolidated Tertiary and Quaternary alluvial fan deposits.
Tdf: Dacite to rhyodacite lava flows. Occurs at the top of the basaltic andesite lava flows and below the tuff of Panel gulch; erupted from local, structurally controlled fissure vents.
Tc: Challis red welded tuff. Densely welded high silica rhyolite tuff, erupted from the Twin Peaks Caldera. Represents the local top of the Challis Volcanic sequence.
Tal: Basaltic andesite lava flows. Includes rhyodacitic lavas where not subdivided. Probably equivalent (in Part) to the lavas of Black Creek dated at 50 my; erupted from local central vents.
Lower Paleozoic sedimentary rocks undifferentiated. Includes strata of the Saphorse formation, Ramshorn slate and undivided Cambrian through Silurian siliciclastic lithologies.
IWRRI
0 1000 2000 4000
FEET
File: Otto_Geology Draft-8-01-02.dwg
Projection: NAD 27 Zone 11 N
Data Sources: B. Otto, A. Wylie, USGS
PLATE 1: GEOLOGY OF THE CHALLIS STUDY AREA, CUSTER COUNTY, IDAHO
GRID NORTH
IDAHO WATER RESOURCES


A
A'
B
B'
CHALLIS WEST WELL-2
CHALLIS WEST WELL-1
CASED TO 157 FEET
CASED TD 104 FEET
(10 INCH DIAMETER)
PUMPING LEVEL - 260 FEET ?
(8 7/8 INCH DIAMETER)
1980 WATER LEVEL: 317 FEET
5000
ELEVATION OF SALMON RIVER
PUMPING LEVEL - 487.5 FEET ?
TOTAL DEPTH - 665 FEET
HYDROTHERMALLY ALTERED LAVAS
SCALE: 1 INCH = 300 FEET
IWRRI
0 1000 2000 4000
FEET
File: Otto_Geology Draft-8-01-02.dwg
Projection: NAD 27 Zone 11 N
Data Sources: B. Otto, A. Wylie, USGS
PLATE 2: CROSS SECTIONS OF THE CHALLIS STUDY AREA, CUSTER COUNTY, IDAHO
GRID NORTH
IDAHO WATER RESOURCES

Protestant's Exhibit C

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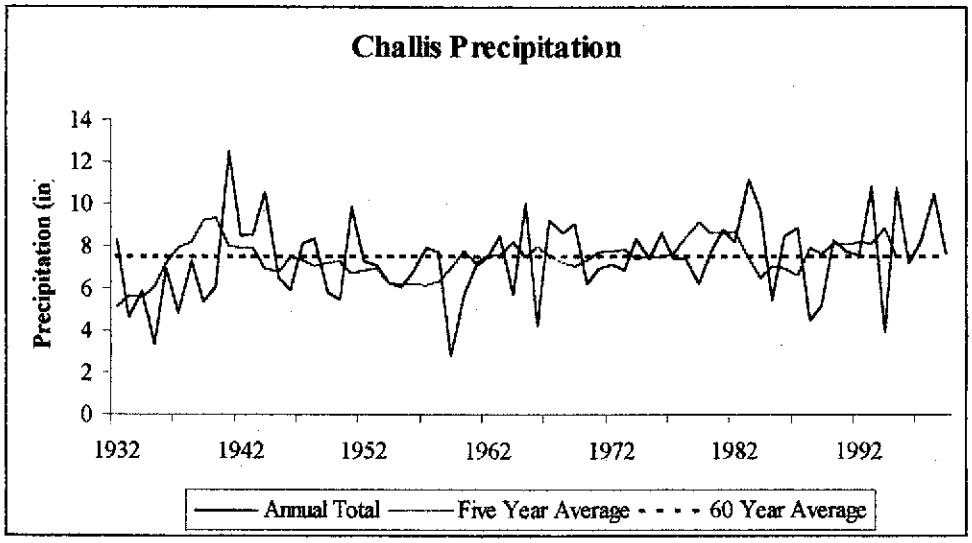
Jeffrey Yeo

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Southern Region

Protest:
Application for Water Right 72-16624

1. LONG-TERM RECORD OF PRECIPITATION FOR CHALLIS

- Periodic historic multi-year droughts, with current period of drought extending from 1999 to present, impact the aquifer.
- 1993, 1995, & 1998 had substantially more precipitation than during previous decade.



2. GARDEN CREEK HYDROLOGY REPORTS

- ***Brockway et al. (1999):*** **Protestant's Exhibit A**

"Yields from wells in the aquifer are low, ranging from 4 gpm to 20 gpm. The aquifer is not suitable for high-demand uses such as irrigation, and is marginally suitable for domestic residences and other low-use facilities."

"The above analysis was performed during a period of above-average water years. During extended drought periods, basin recharge declines and the groundwater discharge could be substantially reduced."

"The total groundwater discharge through the aquifer is estimated to be 14,900 gallons per day, or 16.7 acre-feet per year."

"The daily water demand for the facility [Living Waters Ranch] is approximately 14,750 gpd at maximum capacity after full build-out, which is significantly more than 5000 gpd design capacity of the sewage disposal system."

Department of Water Resources
PROTESTANT'S
Exhibit C
Date Admitted 4/6/04

- ***Idaho Water Resources Research Institute (2003):*** **Protestant's Exhibit B**

  Challis West Well-2 has historically provided good water production. There is evidence based on recent static level measurements, however, that the water level in the well may be decreasing by as much as 6 feet per year. If true, this indicates that the water is being removed from this aquifer at a faster rate than the aquifer is being recharged.

  "The available unappropriated water [for the Garden Creek basin], found by subtracting the amount of diverted water (municipal, domestic, and agricultural) from the basin yield, is about zero. This implies that nearly all water in the basin is appropriated. New upstream water use within the Garden Creek drainage will likely impact Challis."

  "During certain parts of an average year the community [Challis] presently utilizes it's entire available [water supply] capacity."

  "The city of Challis should closely monitor upstream water use in order to assess potential sources of contamination or infringement on their water right."

  "Two factors impact the quality and quantity of Garden Creek surface water: upstream domestic and agricultural development, and the amount of annual precipitation. Monitoring of new upstream water use, suggested above, will allow accurate understanding of impacts to this fragile supply. Due to paleo-lakebed sediments that provide natural clay lining along much of the Garden Creek drainage, any upstream contamination will travel rapidly downstream."

3. CONCLUSIONS

- Two independent hydrological reports, coupled with precipitation records, demonstrate the very limited supply of water in the Garden Creek aquifer and Garden Creek. There is not sufficient water available for new appropriations and the aquifer possibly is being depleted under current use.

- The City of Challis and Custer County currently are developing water protection plans and land use plans. Simple prudence recommends that these planning processes be allowed to move forward without precluding future options by granting additional water rights in a watershed obviously already experiencing overuse.

- Christopher James does not need a new water right; currently he has 4 wells on his property (as well as 18 existing water rights) which combined are more than adequate for his business use. James can deepen existing wells on his property and/or install filtration systems to mitigate repeated contamination of his wells.

- **Therefore, IDWR should not grant Christopher James any new water rights, and should allow the City of Challis and Custer County to finish planning processes to determine sustainable development for the watershed.**

Protestant's Exhibit D

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Department of Water Resources

Bonnie Rowles

RECEIVED
MAR 23 2004
Department of Water Resources
Southern Region

Re: Application For Permit 72-16624

NOTE: Christopher James states in his letter regarding this application that "The purpose of Firstfruits Foundation/LWR in applying for this water right is to transfer the use to it's allowed 13,000 gpd as allowed by state law." **This application is not a transfer of an existing water right owned by Firstfruits Foundation/LWR, it is for a new appropriation. There is no recorded beneficial use.**

1. Will the proposed appropriation injure other water rights?

- Protestant's Exhibit A: Hydrologic investigation of the Garden Creek watershed and aquifer, Brockway Engineering, P.L.L.C., 1999.
- Protestant's Exhibit B: Hydrogeologic analysis of the water supply for the community of Challis, Idaho Water Resources Research Institute, 2003.
- Protestant's Exhibit E: Letter from The City of Challis to IDWR, asking for their evaluation on the impact to the city water supply, due to the development of LWR.
- Protestant's Exhibit F: Letter from The City of Challis to The Custer County Commissioners, requesting a moratorium on any substantial development on Garden Creek.
- Protestant's Exhibit G: Letter from The City of Challis to Mr. Don Rowles, President, Garden Creek Water Association. This letter is to serve as an official complaint regarding the City's water supply.
- Protestant's Exhibit H: Letter from Don Munkers, CEO, Idaho Rural Water Association.

SUMMARY: **Yes, the proposed appropriation likely will injure existing water rights.** According to all Hydrological reports, all water in the Garden Creek basin is appropriated. IDWR is aware that the City of Challis and the Custer County Commissioners have concerns that any substantial building or new appropriations for a water right could cause a direct impact on existing water rights, and possible infringement on the water right of The City of Challis.

The City of Challis is working with Idaho Rural Water Association to develop a Drinking Water Protection Plan. The Custer County Commissioners and the City of Challis are working together to determine what lands are within the city's area of impact. IDWR should allow the City of Challis and the Custer County Commissioners to finish the planning process in the Garden Creek watershed.

2. Is the water supply sufficient for the purpose for which it is sought to be appropriated?

Protestant's Exhibit I: Water Meter Reading
Protestant's Exhibit J: Living Waters Ranch brochure and News Letter
Protestant's Exhibit K: Letter from Living Waters Ranch to DEQ

Department of Water Resources
PROTESTANT'S
Exhibit D
Date Admitted 4/6/04

- Idaho Statutes, Title 42, Domestic Purposes Defined: The use of water for "organization camps," is not in excess of thirteen thousand (13,000) gallons per day.

- Water meter readings provided by Christopher James are only on one well. The majority of LWR domestic water flows through a 35,000-gallon storage tank and is not connected to a flow meter. The spring south of Garden Creek feeds several 1,000-gallon storage tanks that are not connected to a flow meter. Christopher James/ Firstfruits Foundation/ LWR have 13 irrigation water rights, 2 stock water rights, 1 domestic spring, 2 domestic wells and possibly 1 additional domestic well on recently purchased property. The Garden Creek Water Master monitors all irrigation and stock water. Only one well is monitored. If not monitored, LWR has excess to more than 1.8 million gallons of water per day.

- According to LWR brochures and newsletters, they can sleep 300 people per day. There are twenty-two buildings. These consist of several motels, chalets, lodges, bunkhouses, tent and RV sites, shop, laundry, shower house and a commercial kitchen that can seat 250 people. The Celebration Hall seats 500, the Upper Room seats 75, Eagle's Nest seats 50, and the Shilo Dining Room seats 110 people. An expansion is planned in the near future for a 14-room motel and a convenience store.

TABLE 1. Potential water usage (gallons/day) at Living Waters Ranch under conditions of full occupancy.

Occupancy	Gallons/Person	Gallons/Day
300 overnight guests	52.65[a]	15,795
500 day visitors for Celebration Hall	5[b]	2,500
75 day visitors for Upper Room	5	375
50 day visitors for Eagle's Nest	5	250
110 day visitors for Shilo	5	550
Potential Total Water Usage[c]		19,470

[a] Figure comes from Christopher James' records for water usage by overnight guests.
[b] Five gallons/day is less than IDWR's figures (15 gal/day) for water usage by day visitors.
[c] This does not include water usage from the existing shower house, tent and RV sites, laundry facilities or employees. Also, does not include proposed 14-room motel and convenience store.

SUMMARY: **No, under proposed full occupancy, the water supply is not sufficient.** Christopher James' allowed use is 13,000 gpd. His potential maximum use is greater than 19,470 gpd. This is a difference of 6,470 gpd. According to Christopher James, the artesian well is currently producing 10 gpm, which computes to 14,400 gpd. Therefore, based on his figures, that is 5,070 gpd short.

3. Was the application made in good faith or for delay or speculative purpose?

   Protestant's Exhibit L: Original Application 72-16224
   Protestant's Exhibit M: Letter from IDWR to Christopher James

   - Original application was made ~~November~~ October 14, 2002, for commercial use. Application states, "water may be sold for commercial resale; we are filing for commercial use at this time to cover future possibilities."

   - July 21, 2003 IDWR wrote Christopher James that he had not responded to their letter the previous fall. The letter requested a written release from BLM allowing LWR to use the well on their property.

   - According to BLM records there is no written release allowing Christopher James to use the well or connect power to it. BLM was told after the fact that he had power connected to the site. Christopher James has had the power disconnected.

   SUMMARY: **Yes, I believe that the application was made for speculative purposes.**

4. Does the applicant have sufficient financial resources with which to complete the proposed project?

   - Yes, according to his records.

5. Is the proposed appropriation in the local public interest, which is defined as the affairs of the people in the area directly affected by the proposed use?

   Protestant's Exhibit N: Living Waters Ranch Sewage System Logs

   - The City of Challis was founded in approximately1876. The Custer County Seat is located in the City of Challis. There are over 900 residents of Challis and over 75 businesses in Challis that are dependent on the Challis water supply.
   - LWR may be an asset to the community of Challis, but so are all the other businesses in the City of Challis.
   - DEQ and DSHD should help LWR research why their wells are the only wells in the Garden Creek basin contaminated on a regular basis. LWR was pumping, into one of it's leash fields approximately an additional 963 gpd of affluent (sewage) over and above the 2,500 gpd for which it was designed. DEQ should require ground water monitoring according to TGM requirements. Identifying their source of contamination and implementing treatment efforts could successfully prevent further contamination occurrences.

SUMMARY: **No, the proposed appropriation is not in the local public interest**. The points made above, in addition to the conclusions of both the hydrology reports, clearly show that additional appropriations of water from the Garden Creek watershed and the demonstrated contamination of ground threaten the City of Challis's drinking water supply and water quality.

6. Is the proposed use contrary to conservation of water resources within the state of Idaho?

- The most valuable natural resource for the City of Challis is an abundant supply of clean, safe drinking water. By taking a proactive stance, we help safeguard our water source.

CONCLUSION:

- As a property owner and business owner in the City of Challis, I request that IDWR not grant the above application for permit, according to Section 42-222, Idaho Code.
- I also request that IDWR not grant any new appropriation of water rights in the Garden Creek basin, according to the Supreme Court ruling regarding the Federal Government's water rights in the wilderness areas.

PROTESTANT'S EXHIBITS

Exhibit A: Hydrologic investigation of the Garden Creek watershed and aquifer. 1999. Brockway, C.E., C.G. Brockway, and J.S. Rau. Twin Falls, Idaho.

Exhibit B: Hydrogeologic analysis of the water supply for the community of Challis, Custer County, Idaho. 2003. Otto, B.R., A. Wylie, and M. Martin. Idaho Water Resources Research Institute, University of Idaho, Moscow, Idaho.

Exhibit C: Summary by Jeff Yeo of long-term precipitation records for Challis and summary of conclusions of hydrology reports for the Garden Creek watershed.

Exhibit D: Summary by Bonnie Rowles of factors pertaining to IDWR Application for Permit Issues.

Exhibit E: Letter from The City of Challis to IDWR, asking for their evaluation on the impact to the city water supply, due to the development of LWR.

Exhibit F: Letter from The City of Challis to The Custer County Commissioners, requesting a moratorium on any substantial development on Garden Creek.

Exhibit G: Letter from The City of Challis to Mr. Don Rowles, President, Garden Creek Water Association. This letter is to serve as an official complaint regarding the City's water supply.

Exhibit H: Letter from Don Munkers, CEO, Idaho Rural Water Association.

PROTESTANT'S WITNESS LIST

Bonnie Rowles
Don Rowles
Jeff Yeo
Jerry Moss, engineer, City of Challis
Marion McDaniel, president, Challis City Council

Protestant Exhibit E

RECEIVED
MAR 23 2004
Department of Water Resources
Southern Region

CITY OF CHALLIS
P.O. Box 587
211 Main Street
Challis, Idaho 83226

RECEIVED
MAR 2 [illegible] 2004
Department of Water Resources

RECEIVED
MAY 22 2002
Department of Water Resources
Southern Region

Mayor: Catherine Becker
Clerk: Betty Horn

Phone: (208) 879-2386
Fax: (208) 879-5288

May 21, 2002

Idaho Department of Water Resources
ATTN: Allen Merritt
1341 Fillmore, Suite 200
Twin Falls, ID 83301

Dear Mr. Merritt;

The City of Challis is asking for your evaluation of the impact on the City water supply due to the development of the Living Waters Ranch, formerly a small one dwelling ranch. This ranch is located approximately four miles West of the City of Challis on Garden Creek. The Living Waters Ranch is now a retreat that resembles a small community. It is our understanding this facility has the ability to serve six hundred plus quests at any given time. There is a lodge, celebration hall, several condos, motel units, an RV campsite with hookups, and three or more homes.

The City is presently in the process of obtaining a geological/hydrogeological study through Idaho Water Resources Research Institute. There is an obvious concern pertaining to the excessive decline in water available at our main source of water, West Well #2.

We appreciate your assistance in reviewing the status of, and helping protect, the quantity/quality of our municipal water source. For further information please contact Jerry Moss at (208) 879-4616 or the city office at (208) 879-2386.

Sincerely,

Catherine Becker

Catherine Becker, Mayor

Department of Water Resources
PROTESTANT'S
Exhibit E
Date Admitted 4/6/04

PROTESTANT EXHIBIT F

CITY OF CHALLIS
P.O. Box 587
211 Main Street
Challis, Idaho 83226

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Southern Region

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MAR 2 3 2004
Department of Water Resources

Mayor: Catherine Becker
Clerk: Betty Horn

Phone: (208) 879-2386
Fax: (208) 879-5288

July 10, 2003

Custer County Commissioners
P.O. Box 385
Challis, Idaho 83226

Custer County Commissioners;

In September 2002, Idaho Water Resources Research Institute, University of Idaho completed a project summary report on the city water system. In this report the recommendation was to "closely monitor upstream water use in order to assess potential sources of contamination or infringement on the Cities water right".

In the absence of county planning and zoning, the City Council is requesting that the County Commissioners assert their authority through your building permits and impose a moratorium on any substantial development on Garden Creek.

We appreciate your assistance on this issue.

Sincerely,

Catherine Becker

Catherine Becker
Mayor

Department of Water Resources
PROTESTANT'S
Exhibit F
Date Admitted 4/6/04

PROTESTANT'S EXHIBIT G

CITY OF CHALLIS
P.O. Box 587
211 Main Street
Challis, Idaho 83226

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MAR 23 2004
Department of Water Resources
Southern Region

Mayor: Catherine Becker
Clerk: Betty Horn

Phone: (208) 879-2386
Fax: (208) 879-5288

July 22, 2003

Garden Creek Association
P.O. Box 1087
Challis, ID 83226

Attention: Mr. Don Rowles, President

Dear Mr. Rowles:

This letter is to serve as an official complaint regarding the City's water supply from Garden Creek. We have a water right for a full 79 miner's inches and that is what we should be receiving. Please instruct your water master to cease diverting water to anyone else until our water right is met.

Attached you will find a list of water rights to assist you in assessing who has what rights and in what chronological order they are to legally receive water. Your assistance will be greatly appreciated.

Sincerely,

Catherine Becker

Catherine Becker
Mayor

enclosures

cc: Idaho Department of Water Resources
City Council
Dee Keppner, Water Master

Department of Water Resources
PROTESTANT'S
Exhibit G
Date Admitted 4/6/04

Idaho Rural Water Association

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RECEIVED
MAR 23 2004
Department of Water Resources
Southern Region

Ms. Betty Horn, Clerk Treasurer
City of Challis
PO Box 587
Challis, Idaho 83226

Dear Ms Horn:

I take this opportunity to first congratulate the City of Challis for taking the initiative to develop a drinking water protection program in the effort to protect the quality and quantity of its drinking water. Idaho Rural Water Association looks forward to assisting you in this endeavor. You will be very pleased with Melinda Harper IRWA Drinking Water Protection Specialist. She will do a great job in assisting you.

Secondly as you progress throughout the process it is imperative that you establish a program that protects the public health of your citizens and visitors to Challis. Every avenue of potential contamination to the water supply of the city must be addressed. This will of course include either ground water or the surface water that you use from Garden Creek. Any potential contamination that affects the quality and or the quantities of these drinking water sources needs to be carefully addressed. This would include housing developments, septic draining and increased water usage from the sources that supply Challis.

Thirdly you have discussed with me the usage of water by a development in your area of impact. If indeed the user of this water is over taxing his wastewater capacity and the drain fields are in close proximity to your water drinking it is, as described a potential contamination to your system. In addition if the development is over extending its wastewater capacity I do not believe that that development can secure additional water usage until it can guarantee that it has the capacity to handle the wastewater. Regardless of the senior junior water rights issue I believe that potential contamination to your water system and the ensuing affect on the public health is an issue that must be taken into consideration. It is hoped that nothing will be decided until a total evaluation is made and the city has established its area of impact and has a protection program in place. If annexation into the city is a potential resolve to wastewater collection and treatment and supply of water that avenue needs to be addressed also.

IRWA is committed to working with you, the city of Challis and all interested parties to bring this protection area to an equitable resolve for all concerned.

Sincerely,

Don Munkers, CEO
Idaho Rural Water Association

Department of Water Resources
PROTESTANT'S
Exhibit H
Date Admitted 4/6/04

Protestant Exhibit I

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Southern Region

Living Waters Ranch
Well #1 Meter Reading – 2003

Jan 03	8478320 – 8329550 =	148,770 gal
Feb 03	8643160 – 8478320 =	164,840 gal
March 03	8802950 – 8643160 =	159,790 gal
April 03	8957150 – 8802950 =	154,200 gal
May 03	9150310 – 8957150 =	193,160 gal
June 03	9346000 – 9150310 =	195,690 gal
	Total	1,016,450 gal

Department of Water Resources
PROTESTANT'S
Exhibit I
Date Admitted 4/6/04

Living Waters Ranch
Well #1 Meter Readings – 2002

Jan 02	6679710 – 6543330 =	136,380 gal
Feb 02	6791760 – 6679710 =	112,050 gal
March 02	6833480 – 6791760 =	41,720 gal
April 02	7032680 – 6833480 =	199,200 gal
May 02	7191440 – 7032680 =	158,760 gal
June 02	7355470 – 7191440 =	164,030 gal
July 02	7531530 – 7355470 =	176,060 gal
Aug 02	7682910 – 7531530 =	151,380 gal
Sept 02	7837750 – 7682910 =	154,840 gal
Oct 02	7984640 – 7837750 =	146,890 gal
Nov 02	8157060 – 7984640 =	172,420 gal
Dec 02	8329550 – 8157066 =	172,484 gal
	Total	1,786,214 gal

Living Waters Ranch
Well #1 Meter Readings – 2001

Jan 01	4887775 – 4784320 =	103,455 gal
Feb 01	5028050 – 4887775 =	140,275 gal
March 01	5171430 – 5028050 =	143,380 gal
April 01	5344270 – 5171430 =	172,840 gal
May 01	5474680 – 5344270 =	130,410 gal
June 01	5627520 – 5474680 =	152,840 gal
July 01	5825560 – 5627520 =	198,040 gal
Aug 01	6011100 – 5825560 =	185,540 gal
Sept 01	6137530 – 6011100 =	126,430 gal
Oct 01	6270290 – 6137530 =	132,760 gal
Nov 01	6432610 – 6270290 =	162,320 gal
Dec 01	6543330 – 6432610 =	110,720 gal
	Total	1,759,010 gal

Protestants EXHIBIT: 5

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- HOME
- ABOUT US
- RANCH FACILITIES
- RECREATION
- CAMP CUISINE
- RANCH RATES
- RESERVATIONS
- LOCATE US
- LWR NEWSLETTER
- LWR NEWSWIRE
- CONTACT US

WELCOME TO...

Living Waters Ranch

CONFERENCE AND RETREAT CENTER

Ranch Facilities



White Pine Chalet
2 Queen Bedrooms
1 Loft Bedroom w/5 twin beds



Hosanna House
Mini Lodge
with 8 bedrooms/ 8 baths



Blue Spruce & Evergreen Chalets
Upstairs:
2 Queen Bedrooms
Kitchen/Living Room/Bathroom



Blue Spruce & Evergreen Chalets
Downstairs:
1 Queen Bedroom
1 Bedroom w/2 sets of bunks

Department of Water Resources
PROTESTANT'S
Exhibit 10
Date Admitted 4/6/04



Motels
2 Twin Beds w/bath



Tent / RV Sites

- Home
- About Us
- Ranch Facilities
- Recreation
- Camp Cuisine
- Ranch Rates
- Reservations
- Locate Us
- LWR Newsletter
- LWR Newswire
- Contact Us

WELCOME TO...

Living Waters Ranch

CONFERENCE AND RETREAT CENTER

About Us

Living Waters Ranch serves the Body of Christ offering a unique haven apart from the hu and bustle of everyday life. This non-denominational Christian conference and retreat ce is smoke and alcohol free and is well suited for individuals, families, and church gro Small groups of church personnel can enjoy a planning retreat and large groups will plenty of activities for all ages.

Christopher and Debbie James built Living Waters Ranch as a labor of love to God, consider it a place of rest and restoration for the body and soul. They believe "God gave very best by giving us His Son and we, too, should give our very best." Living Waters Ra is a first class conference and retreat center, but more importantly they believe the prese of the Holy Spirit will renew your spirit and give you new strength.

Living Waters Ranch is a fulfillment of the purpose of Firstfruits Foundation. Firstfi Foundation had its conception in 1986. Its prime purpose is to promote the Gospel of Je Christ by assisting, encouraging, and empowering various faithful ministries. Part of its ca to provide a meeting and refreshment station for His ministries. Today that vision is b fulfilled in Living Waters Ranch.

Living Waters Ranch is located on 142 acres near Challis, Idaho. It runs 3/4 of a mile al Garden Creek surrounded by a beautiful mountain view. The ranch accommodates gues a variety of sleeping and meeting facilities. Food service is available for groups of 2 more. Smaller groups staying in Chalets or Hosanna House can do their own cooking in equipped kitchens.

The staff at Living Waters Ranch looks forward to ministering to as you "come apart" f your daily activities to better seek the Lord. Ministers and lay people alike will opportunities for relaxation, enjoyment, fellowship and spiritual growth. For more informa visit our website, or call reservations to reserve your spot on our calendar. A depos required with your reservation.

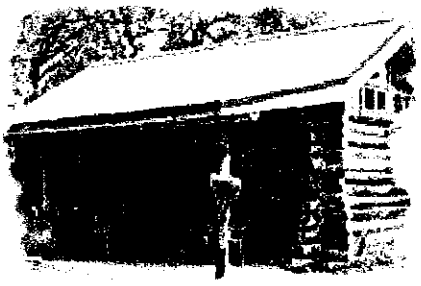
Home | About Us | Ranch Facilities | Recreation | Camp Cuisine | Ranch Rates
Reservations | Locate Us | LWR Newsletter | LWR Newswire | Contact Us

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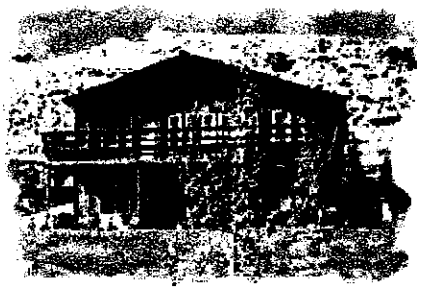
Bunk Facilities



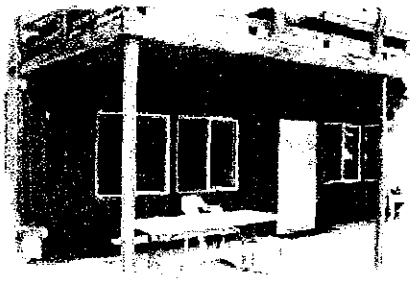
Shiloh Lodge
Sleeps 50 in bunks



Ponderosa Log Cabin
2 Room Log Cabin
Sleeps 24 in bunks



Appaloosa & Bayhorse Bunk Houses
2 rooms sleep 15 each



Eagle's Nest
Bunk Room sleeps 32

Meeting Rooms



Celebration Hall
Accomodates groups over 400



The Upper Room
Accomodates groups up to 75



Eagle's Nest



Stone Amphitheater

Accomodates groups under 50

Outdoor meeting area



Lion's Den
Recreation Room

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Reservations | Locate Us | LWR Newsletter | LWR Newswire | Contact Us

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Site developed by: Brieanna Korb

12-2-03

Living Waters Ranch Newsletter

Fall and Winter of 2003

Greetings from Living Waters Ranch and its staff from high-high in the central mountains of Idaho!

May the Presence of Jesus fill you fully. May the shaking of the world and the perilous times not cause you to break stride as you move forward to a closer relationship with the Lord. May you be firmly planted on the **Rock of your Salvation.** And in all things may Jesus be glorified.

Ranch Happenings

We have just finished our 2003 Season and God blessed us with a good increase. We are most grateful. More importantly the Presence of Holy Spirit is growing. Almost every time that Debbie and I introduce ourselves to our guests I tell them of how we have prepared in prayer for them. We pray for the Lord to move in their individual lives to heal and refresh and we pray for the groups to unite and bond. Holy Spirit is really answering those prayers. Holy Spirit is telling me that the prayers are cumulative. The Presence of the LORD is growing and we are more than grateful; we are awed.

We'd like to thank our excellent staff that has so well served our guests. **Mark Bryan**, our manager, has represented Christ excellently as he has unselfishly served all. His wife, **Julie**, performing an excellent job has headed up our house cleaning and backed up our cooking staff. Daughters, **Alicia, Michelle**, and **Rebekah** have done the laundry. From town **Flo, Diane**, and **Victoria** have handled the majority of the housecleaning with Julie. For your interest Mark, Julie, and their family have been here for 5 years as of this last August. **Debbie** has planned and delivered wonderful meals, besides answering our reservations line. **Sharlene** and **Marsha** have prepared the meals with excellence while praying joy and blessing into the food. **Wayne** has continued to head up our maintenance well with help from our chief landscaper, **John**. Aren't the grounds well-kept and the rooms clean? Alicia and **Gary** were part of John's landscaping team. **Bob** and **Joanne** have joined us the last 2 summers to help wherever needed. All in all the spirit of our staff is excellent and poised to serve our guests well for the coming year.

Hallelujah House, our second 8 bedroom, 8 bath mini-lodge opened in April. It seems our 2 mini-lodges are our most popular lodging facilities. They both have private bedrooms with their own baths opening into a large common room for living and dining. They are perfect for elders and pastors groups, family reunions, and the like. A good number of folks used our 1, 2, and 3 bedroom units in Trinity House. Our 3 bedroom A Frame, Mountain View, was well used. It is really beautiful with the vaulted ceilings and the windows looking west to the 10,000 foot mountains. The planned 14 unit Majestic View Motel was placed on hold until permitting issues can be resolved.

We have bookings from the end of January through the first weekend of March, but we have plenty of room to accommodate more. This would be a good time for smaller groups to schedule so we can cook for you. Our standard policy is to cook for groups of 25 or more, but we make exceptions for pastors and elders groups. There are still a few open weekends for the coming year where we could handle 200 to 300 people. There is often plenty of room for additional groups and/or individuals for the other dates. Call Debbie for the particulars. Our meeting rooms and capacity are: Celebration Hall – 500, the Upper Room – 75, and Eagle's Nest – 50. On one occasion we converted Shiloh's dining room into 110+ meeting room.

A point of prayer is that we are still wrestling with some government agencies. To insure best quality and quantity of waters we are planning to put in a 4,000+ feet of pipeline. We have had permit applications in with the Idaho Dept of Water Resources and BLM for over a year now. We are also working with Idaho Dept of Environmental Quality and District 7 Health to enhance and expand our septic system. A few people have protested our proposals, but LWR is well received in the community. Yours prayers for us are appreciated.

Enclosed is our new fee schedule. We are increasing the price/meal $1, making it $6, $7, and $9. Taxes will be extra - 6% sales tax plus 2% lodging tax. We have tried to be competitive in pricing with other conference and retreat centers, while providing quality facilities and food. We have kept a close ear to our guests comments. A great percentage of our guests say we don't charge enough. These rates will be in force for years 2004 and 2005. We again will finish the year expending more money than taking in. The margin has shrunk considerably.

A WORD for TODAY

Have you gone through some difficult times this year? Have you felt that you couldn't do anything right? Have you lost confidence in yourself? This is how I have felt. The Lord has shown me that He was using this for my good to help mature me and better prepare me as a clean vessel for His service.

Most all of us know the verse in James 1 that says, "Brethren, count it all joy when you fall into various trials, knowing that the testing of your faith produces patience. But let patience have its perfect work, that you be perfect and complete, lacking nothing."

At first I thought it was my age. I would forget where I had left things. Then I felt real confusion that my mind was spinning with no ability to quiet it down. There were attacks on the ranch claiming that we were or could pollute Challis' drinking water. There were extended delays with government agencies to permit us to put in a pipeline to insure quality waters coming to the ranch. After a year we still have no permit.

Finally a dear friend said, "Christopher I see you shackled on the ankles and wrists, but the Lord is soon to touch you." I wondered how could things get worse, then I realized that was where I was – I was already shackled.

This last week I heard Chuck Swindoll on the radio speaking that afflictions were not bad. The Lord uses all things for the good. He mentioned verses 67, 71, and 75 in Psalm 119. "It is good that I have been afflicted, that I may learn Your statutes." "...in faithfulness You have afflicted me." Hebrews 12 speaks of God chastening His real sons. Psalm 34 says twice that many are the afflictions of the righteous, but the Lord delivers us from them all.

He says, "Wait on the Lord and you will gain new (supernatural) strength." "Look up for deliverance is near." Dear friend, the Lord is in control. He is preparing us for His service. Be blessed in Jesus!

FUTURE CONFERENCES

May 28-31, 2004 We have no definite plans as of yet. Five and a half years ago we had Steve Thompson of MorningStar Ministries, David Alsobrook of SureWord Ministries, and David Demian of Watchman Int'l for a conference over Memorial Day weekend. I'm trying for a repeat.

June 17-20, 2004 Michael Schwartz and LWR are co-hosting a conference. Our confirmed speaker is David Ravenhill. We have invited Conrad Lampan, Sergio Scalacpini, and Archbishop Onuigbo. Conrad and Sergio were instrumental in the Argentine revival some 12-15 years ago. Archbishop Onuigbo and Conrad spoke at our Father's Heart Conference last year with phenomenal impact.

Call us at 208-879-2729 or email us at jameslwr@custertel.net for a brochure or visit our website, www.livingwatersranch.org.

Blessings to You All in Christ Jesus,

Christopher and Debbie James

39,070 ÷ 5 Days = 7,814 gpd
7814 ÷ 200 people = 39.07 gpperson

Protestants Exhibit K

RECEIVED
MAR 23 2004
Department of Water Resources
Southern Region

LIVING WATERS RANCH
P O Box 1190, Challis, ID 83226
Office 208-879-2888; fax 208-879-2182

440 people for 1 day 39.7 is 15,880.00 gpd of water
We DEQ have holding tank for calculations
15,000 = 12 Days the would last

Mark Dietrich
Division of Environmental Quality
900 North Skyline, Suite B
Idaho Falls, ID 83402-1718

3,907 ÷ 5 Days = 751.4 gpd
200 people ÷ 751.4 gpd = 3.9 gpperson
an energy-save toilet uses .5 gpf
1.8 gpf

August 1, 2000

So No one took a shower
" " Did any dishes even though 250 people ate 3 meals per day
No one washed their HANDS or Drank any water

Re: DEQ No. 98-3-19

Dear Mark,

Department of Water Resources
PROTESTANT'S
Exhibit K
Date Admitted 4/6/04

21 months of data has been gathered so that there is a good amount of data to evaluate our water and septic system. The water usage was as follows:
USE DSHD LWR was not reading meter correctly as per DEQ discussion

November 1998 –	5,093 gals. 50930	September 1999 –	13,259 gals.
December 1998 –	15,578 gals. 155,780	October 1999 -	10,668 gals.
January 1999 –	45,907 gals. 45907	November 1999 -	10,928 gals.
February 1999 –	49,848 gals.	December 1999 -	12,309 gals.
March 1999 –	55,719 gals.	January 2000 -	12,401 gals.
April 1999 -	6,424 gals.	February 2000 -	15,373 gals.
May 1999 -	19,141 gals.	March 2000 –	14,887 gals.
June 1999 -	8,792 gals.	April 2000 -	13,943 gals.
July 1999 -	13,014 gals.	May 2000 -	15,710 gals.
August 1999 -	11,809 gals.	June 2000 -	14,432 gals.
		July 2000 -	19,517 gals.

Should be true daily use 13 days - Not average

195,170 ÷ 31 Days = 6,295.8 gpd
is way over 2500 gpd Neva USAS DEQ should have required

Per Days # of guests X # of nights of stays = camper days

The large usage of water from January 1999 through March 1999 was due to a leak in our water line that we identified and solved.

From July 12 to July 16 we had between 200 and 250 people at Living Waters Ranch for a large family camp. The number varied per night. We served 3 meals a day plus ran a snack shack in the evening. 200 of those people stayed at the ranch. We were filled to capacity. It included tent campers and RVers. Approximately 40 to 50 stayed in town. However, all the people ate with us and met in our large Celebration Hall. We used only 3,907 gals. of water for the 5 days and 4 nights. For July, the ranch used 19,517 gals. Our total camper days for the month of July were approximately 1440. In June our camper days were 800, whereas we used 14,432 gals. In any case the tables that show standard use of water were far from the actual fact for our facility.

13.5 gpd/person

If off by DEQ? give us # of people camper NOT days

[illegible] x 135.5

[illegible] = 13.5 gpd per person

For the trailing 12 months, the ranch used 165,236 gals. of water for an average monthly use of 13,769 gals. 13,769 gals/month divided by 30 days equals 459gals/day. A normal household can use up to 500 gals/day. Even if our business increased 10 fold, our daily use would be less than 5,000gals/day.

We have kept the record for the septic system, but I am not able to glean a total or average daily gals. dosage figure. I don't believe we can measure it in gals. Nevertheless, I assume that our treated water being dosed into our leach field would be 80 or 90% of our water usage. In any case the septic system is rated up to 10 times the current usage.

Our 2 septic systems have worked wonderfully. We give thanks to Joe Chester and Jack Hammond. All the systems are working wonderfully.

Our request for a drilling permit was tabled due to the Idaho Supreme Court's ruling. Our drilling permit's request for 100 inches of water was only for refilling of our water tank in an emergency and to secure water from a deeper source which would have less impact on surface waters. Is there any reason that the permit cannot be revisited and issued ? I will be writing separately to the IDWR on the matter. Because We only need 13,000 gpd that is all that we allowed.

In summary, our water and septic systems are functioning well and afford the potential of increasing use with little impact to the Garden Creek watershed. Currently, our septic system is operating at less than 10% of our rated capacity. That is our daily use divided by our rated capacity (<459 gals/day divided by 5,000 gals/day). Our water system is withdrawing less than 4% of what we are allowed. That is our daily use divided by our allowed daily consumption (459 gals/day divided by 13,000 gals/day). Therefore, Living Waters Ranch's impact to the Garden Creek watershed is minimal. Living Waters Ranch operates more than 4,000 feet of frontage on Garden Creek and is currently dosing less than 500 gals/day into its leach fields.

Thank you for all your help in helping Living Waters Ranch to comply with the rules. Hopefully, our neighbors are appreciating the beauty of the facility and the detail to which we have gone to bless the ground and not foul it.

Yours Truly,

Christopher W. James, President of Living Waters Ranch, Inc.

Cc: Steve Adams, Norm Semanko, Charles Brockway, Paris Almond

LIVING WATERS RANCH

P O Box 1190, Challis, ID 83226

Office 208-879-2888; fax 208-879-2182

August 17, 2000

Charles G. Brockway
2016 N. Washington St., Ste. 4
Twin Falls, ID 83301

RE: Living Waters Ranch Drilling Permit No. 72-07562

Dear Charles,

Thank you for your letter. It made me rethink the numbers in what could have possibly caused the unusually low amount of water used for those 4 nights and 5 days, which really encompassed 4 – 24 hour periods.

The cause of the unusually low figure was the water tank's sensors for low and high water that can leave as much as 4,000 gallons disparity. Our measuring before the group's arrival must have happened right after the tank called for filling. And the measuring after the group must have happened before the sensor called for pumping. I believe that caused the unusually low figure.

The water usage for the trailing 12 months could only be mistaken up to 4,000 gallons. That still would only affect the daily use a little, giving us an average of still less than 500 gallons/day.

Thank you again for your help.

Yours Truly,

Christopher James, Living Waters Ranch

Cc: Mark Dietrich, Allen Merritt.

Protestant Exhibit: L

RECEIVED
MAR 24 2004
Department of Water Resources

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

RECEIVED
MAR 23 2004
Department of Water Resources
Southern Region

APPLICATION FOR PERMIT

To appropriate the public water of the State of Idaho

1. Name: FIRSTFRUITS FOUNDATION
PO BOX 510
CHALLIS ID 83226
(208)879-4560

CHRISTOPHER W JAMES TRUST
CHRISTOPHER JAMES TRUSTEE
PO BOX 510
CHALLIS ID 83226
(208)879-4560

2. Source: GROUND WATER

3. Location of Point of Diversion:
#1 GROUND WATER NW1/4SE1/4 Sec. 3, Twp 13N, Rge 18E, B.M.
CUSTER County

4. Water will be used for the following purposes:

Purpose	From To	RATE OF DIVERSION	ANNUAL VOLUME
DOMESTIC	01/01 to 12/31	0.20 CFS	
COMMERCIAL	01/01 to 12/31	0.20 CFS	

5. Total quantity to be appropriated is: 0.20 CFS

6. Proposed diverting works:

POINT OF DIVERSION #1
a. Type and size of devices used to divert water from the source: EXISTING ARTESIAN WELL, CONTROLLING WORKS & BURIED PIPELINE TO BE INSTALLED, LINE 0.8 MI LONG TO CHURCH CAMP
b. Height of storage dam _____ feet;
Active reservoir capacity _____ acre-feet;
Total reservoir capacity _____ acre-feet;.
c. Proposed well diameter is _____ inches;
Proposed depth of well is _____ feet.
d. Is ground water with a temperature of greater than 85F being sought? NO
e. If well is already drilled, when? ____1964_____;
Drilling Firm ___Domestic Power Corp._____;
Drilling Permit No. _____.

Department of Water Resources
PROTESTANT'S
Exhibit L
Date Admitted 4/6/04

Ident. No. 72-16624

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR PERMIT

To appropriate the public water of the State of Idaho

7. Time required for the completion of the works and application of the water to the proposed beneficial use is 5 year(s).

8.

PLACE OF USE: 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	
13N 18E 2		X			X	X	X	X									
		L 2			L 3	L 4											
14N 18E 35															X		

PLACE OF USE: COMMERCIAL

Twp Rge Sec	NE				NW				SW				SE				Totals
	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
13N 18E 2						X											
						L 4											

9a. Who owns the property at the point of diversion? If other than applicant, describe the arrangement enabling the applicant to make this filing.

Point of Diversion #1: BUREAU OF LAND MANAGEMENT - annual lease of well site

9b. Who owns the land to be irrigated or place of use? If other than applicant, describe the arrangement enabling the applicant to make this filing.

APPLICANT

10. Remarks:

Firstfruits Foundation is a non-profit organization under federal law. The camp serves various denominations as a conference center and retreat.
If it appears feasible, water may be sold for commercial resale; we are filing for commercial use at this time to cover future possibilities.

11. Map of proposed point of diversion and place of use attached? [ ]

BE IT KNOWN that the undersigned hereby makes application for permit to appropriate the public waters of the State of Idaho as herein set forth.

Christopher W. Jones, Trustee
Applicant for Firstfruits Foundation

Christopher W. Jones, Trustee
Christopher W. Jones Trust

Ident. No. 72-16624

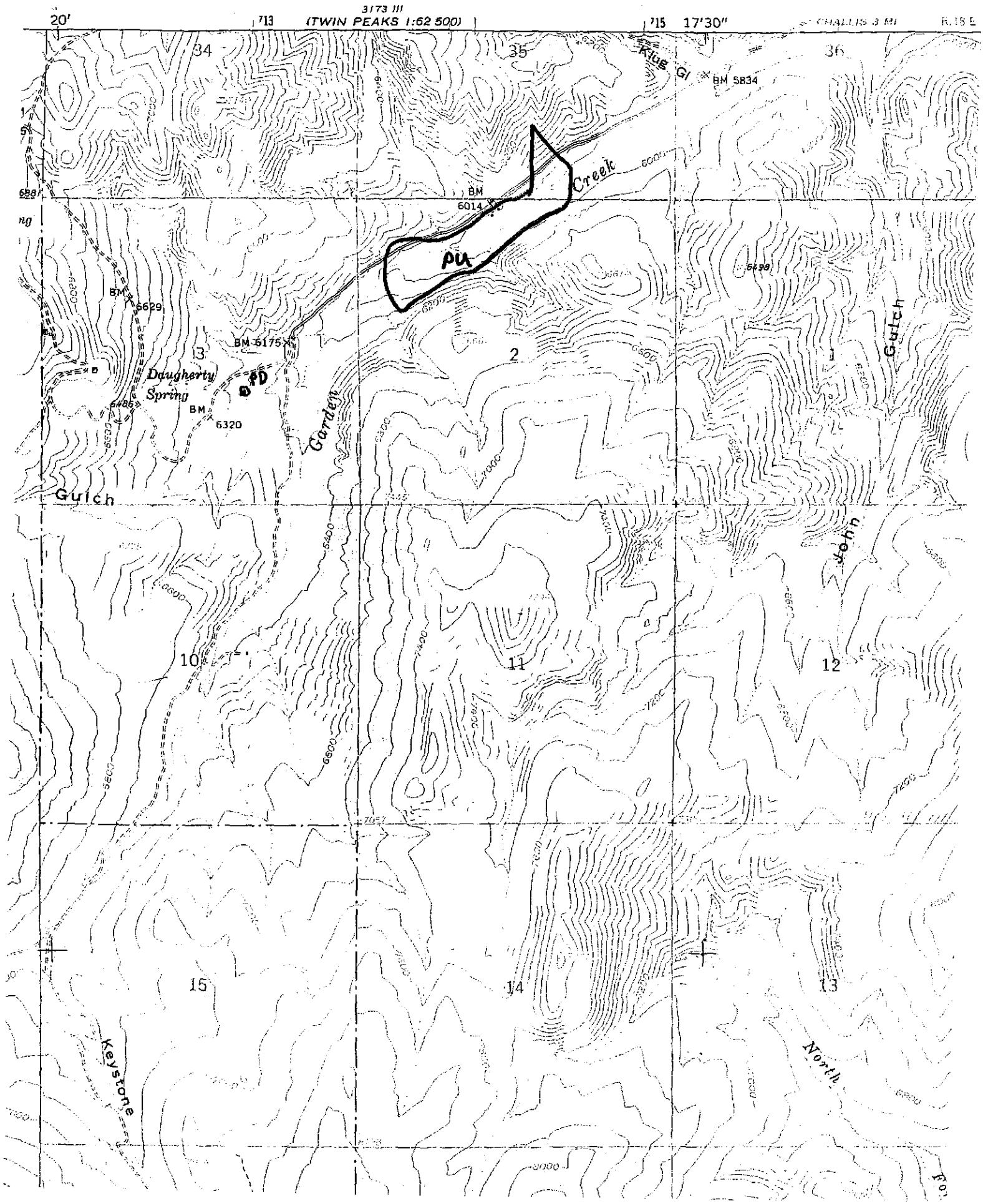
STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR PERMIT

To appropriate the public water of the State of Idaho

Received by JD Date 10-15-02 Time 2 pm Preliminary check by _____
Publication prepared by _____ Date _____ Published in _____
Publication approved _____ Date _____

Receipt No. 50-25267 + 25270
Date: 10-15-02
Receipted by: JD


3173 III
(TWIN PEAKS 1:62 500)
20'
713
715
17'30"
CHALLIS 3 MI
R.18 E.
34
35
36
King Gl
BM 5834
Creek
BM
6014
PU
BM
6629
BM 5175
3
2
Daugherty
Spring
BM
6320
Garden
Gulch
Gulch
John
10
11
12
15
14
13
Keystone
North

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

SOUTHERN REGION

DIRK KEMPTHORNE
Governor

KARL J. DREHER
Director

July 21, 2003

Christopher James
PO Box 510
Challis, ID 83226

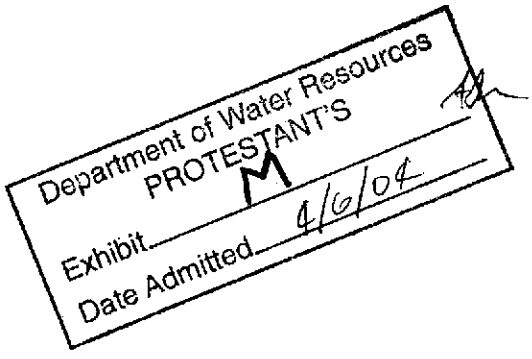
RE: App For Permit 72-16624; My Letter Dated 11-14-2002

Dear Mr. James;

You have not responded to my letter of last fall in which I sent you a corrected application for your signature. I also requested a written release from the Bureau of Land Management allowing you to use the well on their property. Please submit these documents by September 8 or your application will be recommended for denial. Another copy of the corrected application is enclosed for your use.

Regards,

James E. Stanton
Sr. Water Resource Agent



Protestant Exhibit: N

RECEIVED
MAR 24 2004
Department of Water Resources

RECEIVED
MAR 23 2004
Department of Water Resources
Southern Region

Living Waters Ranch
Phase I Sewer System Log

DATE (2004)	EVENT COUNTER	ELAPSED TIME METER	HIGH LEVEL ALARM	INIT.	COMMENTS
	1. 021773	0021732			
1-12	2. 021708	0024275	000082	W.K.	
	1. 021681	0021849			
1-13	2. 021715	0024375	000082	W.K.	
	1. 021686	0021924			
1-17	2. 021720	0024450	000082	W.K.	
	1. 021693	0022023			
1-20	2. 021728	0024569	000082	W.K.	
	1. 021708	0022244			
1-27	2. 021742	0024777	000082	W.K.	
	1. 021720	0022416			
2-6	2. 021754	0024956	000082	W.K.	
	1. 021727	0022517			
2-10	2. 021761	0025066	000082	W.K.	
	1. 021770	0022702			
2-13	2. 021774	0025253	000082	W.K.	
	1. 021761	0023015			
2-24	2. 021796	0025580	000082	W.K.	
	1. 021764	0023056			
2-27	2. 021798	0025610	000082	W.K.	
	1. 021773	0023189			
3-3	2. 021808	0025759	000082	W.K.	
	1. 021776	0023383			
3-10	2. 021821	0025952	000082	W.K.	
	1. 021792	0023464			
3-17	2. 021827	0026032	000082	W.K.	
	1. 021797	0023535			
3-24	2. 021832	0026101	000082	W.K.	
	1. 021800	0023580			
3-28	2. 021834	0026130	000082	W.K.	
	1. 021802	0023609			
4-1	2. 021837	0026166	000082	W.K.	
	1. 021806	0023667			
4-7	2. 021840	0026204	000082	W.K.	
	1. 021808	0023696			
4-11	2. 021843	0026242	000082	W.K.	

Department of Water Resources
PROTESTANT'S
Exhibit N
Date Admitted 4/6/04

Living Waters Ranch
Phase I Sewer System Log

DATE (2023)	EVENT COUNTER	ELAPSED TIME METER	HIGH LEVEL ALARM	INIT.	COMMENTS
	1. 001876	0023816			
4-11	2. 001851	0026361	000082	WK	
	1. 001823	0023919			
4-12	2. 001857	0026456	000082	WK	
	1. 001826	0023961			
4-25	2. 001820	0026495	000082	WK	
	1. 001823	0024062			
4-28	2. 001847	0026599	000082	WK	
	1. 001837	0024121			
5-2	2. 001872	0026671	000082	WK	
	1. 001845	0024240			
5-5	2. 001880	0026790	000082	WK	
	1. 001854	0024367			
5-9	2. 001868	0026909	000082	WK	
	1. 001856	0024397			
5-12	2. 001871	0026951	000082	WK	
	1. 001858	0024563			
5-16	2. 001892	0027114	000082	WK	
	1. 001875	0024667			
5-19	2. 001910	0027224	000082	WK	
	1. 001879	0024723			
5-23	2. 001913	0027269	000082	WK	
	1. 001888	0024856			
5-26	2. 001922	0027402	000082	WK	
	1. 001890	0024884			
5-30	2. 001924	0027432	000082	WK	
	1. 001892	0024913			
6-2	2. 001927	0027471	000082	WK	
	1. 001895	0024956			
6-5	2. 001929	0027500	000082	WK	
	1. 001906	0025116			
6-9	2. 001940	0027663	000082	WK	
	1. 001917	0025279			
6-16	2. 001952	0027816	000082	WK	
	1. 001924	0025378			
6-20	2. 001959	0027911	000082	WK	

Living Waters Ranch
Phase I Sewer System Log

DATE	EVENT COUNTER	ELAPSED TIME METER	HIGH LEVEL ALARM	INIT.	COMMENTS
(6-23)	1. 002734	0025525			
6-23	2. 001968	0028045	000082	WK	
6-27	1. 001745	0025688			
	2. 001980	0028222	000082	WK	
6-30	1. 001954	0025821			
	2. 001988	0028341	000082	WK	
7-3	1. 001964	0025969			
	2. 001998	0028489	000082	WK	
7-7	1. 001971	0026073			
	2. 002006	0028602	000082	WK	
7-11	1. 001984	0026265			
	2. 002018	0028780	000082	WK	
7-14	1. 001993	0026028			
	2. 002029	0028928	000082	WK	
7-16	1. 002006	0026034			
	2. 002050	0029017	000082	WK	
7-21	1. 002014	0026708			
	2. 002048	0029284	000082	WK	
7-25	1. 002025	0026871			
	2. 002059	0029381	000082	WK	
7-28	1. 002032	0026974			
	2. 002066	0029484	000082	WK	
7-31	1. 002044	0027152			
	2. 002078	0029662	000082	WK	
8-4	1. 002053	0027295			
	2. 002087	0029795	000082	WK	
8-7	1. 002059	0027366			
	2. 002092	0029869	000082	WK	
	1.				
	2.		000082	WK	
	1.				
	2.		000082	WK	
	1.				
	2.		000082	WK	
	1.				
	2.		000082	WK	

Living Waters Ranch
Phase 1 Wastewater System – 2002

Jan 02	Pump #1	14600 – 14372 =	228 min
	Pump #2	17136 – 16891 =	245 min
	(1/5 – 2/2) 29 Days		473 min @ 41 gpm = 19,393 gal
			668 gpd
Feb 02	Pump #1	14875 – 14600 =	275 min
	Pump #2	17427- 17136 =	291 min
	(2/2 – 2/28) 26 Days		566 min @ 41 gpm = 23,206 gal
			892 gpd
March 02	Pump #1	15543 –14875 =	668 min
and	Pump #2	18063 – 17427 =	636 min
April 02	(2/28 – 4/29) 61 Days		1,304 min @ 41 gpm = 53,464 gal
			876 gpd
May 02	Pump #1	16310 – 15543 =	767 min
	Pump #2	18799 – 18063 =	736 min
	(4/29 – 5/27) 28 Days		1,503 min. @ 41 gpm = 61,623 gal
			2,200 gpd
June 02	Pump #1	17380 – 16310 =	1,070 min
	Pump #2	19881 – 18799 =	1,082 min
	(5/27 – 6/28) 31 Days		2,152 min @ 41 gpm = 88,232 gal
			2,846 gpd
July 02	Pump #1	18706 – 17380 =	1,326 min
	Pump #2	21174 – 19881 =	1,293 min
	(6/28 – 7/29) 31 Days		2,619 min @ 41 gpm = 107,379 gal
			3,463 gpd
Aug 02	Pump #1	19344 – 18706 =	638 min
	Pump #2	21814 – 21174 =	640 min
	(7/29 – 8/30) 31 Days		1,278 min @ 41gpm = 52,398 gal
			1,690 gpd

Sept. 02	Pump #1	20070 – 19344 =	726 min
	Pump #2	22582 – 21841 =	741 min
	(8/30 – 9/30) 31 Days		1,467 min @41 gpm = 60,147 gal
			1,940 gpd
Oct 02	Pump #1	20809 – 20070 =	739 min
	Pump #2	23345 – 22582 =	763 min
	(9/30 – 11/1) 33 Days		1,502 min @ 41 gpm = 61,582 gal
			1,924 gpd
Nov 02	Pump #1	21343 – 20809 =	534 min
	Pump #2	23862 – 23345 =	517 min
	(11/1 – 11/25) 24 Days		1,051 min @ 41gpm = 43,091 gal
			1,795 gpd
Dec 02	Pump #1	21617 – 21343 =	274 min
	Pump #2	24141 – 23862 =	279 min
	(11/25 – 12/30) 35 Days		553 min @ 41gpm = 22,673 gal
			647 gpd

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Living Waters Ranch
Phase I Sewer System Log

DATE	EVENT COUNTER	ELAPSED TIME METER	HIGH LEVEL ALARM	INIT.	COMMENTS
Beg.					
1/17	1. 001174 2. 001139	0014372 0016891	000059	R.B.	
1/21	1. 001177 2. 001169	0014510 0017056	000064	RB	
2/2	1. 001193 2. 001175	0014606 0017136	000064	RB	
2/19	1. 001216 2. 000170	0015256 0000233	000064	RB	
2/26	1. 001240 2. 001191	0014830 0017818	000064	RB	
2/25	1. 001231 2. 001195	0015479 0017427	000064	RB	
3/4	1. 001211 2. 001203	0014976 0017544	000064	RB	
4/18	1. 001234 2. 001234	0015292 0017839	000064	WK	(NEW EMPLOYEE)
4/22	1. 001241 2. 001230	0015394 0017928	000064	WK	
4/24	1. 001242 2. 001231	0015408 0017943	000064	WK	
4/29	1. 001261 2. 001239	0015543 0018063	000064	WK	
5/3	1. 001256 2. 001245	0015678 0018151	000064	WK	
5/6	1. 001264 2. 001253	0015738 0018270	000064	WK	
5/9	1. 001276 2. 001274	0015776 0018285	000064	WK	
5/13	1. 001276 2. 001267	0015970 0018478	000064	WK	
5/16	1. 001293 2. 001277	0016074 0018553	000064	WK	
5/20	1. 001292 2. 001282	0016209 0018692	000064	WK	
5/24	1. 001296 2. 001333	0016265 0018758	000074	WK	

Living Waters Ranch
Phase I Sewer System Log

DATE	EVENT COUNTER	ELAPSED TIME METER	HIGH LEVEL ALARM	INIT.	COMMENTS
2 2021					
	1 [illegible]	0016310			
5/27	2 [illegible]	0018799	000074	WK	
	1 001303	0016369			
6/3	2 001340	0018853	000082	WK	
	1 001324	0016373			
6/17	2 001347	0018859	000082	WK	
	1 001315	0016536			
6/10	2 001353	0019022	000082	WK	
	1 001341	0016907			
6/18	2 001328	0019394	000082	WK	
	1 001356	0017055			
6/21	2 001338	0019540	000082	WK	
	1 001360	0017188			
6/24	2 001327	0019673	000082	WK	
	1 001323	0017380			
6/28	2 001411	0019881	000082	WK	
	1 001382	0017514			
7/1	2 001419	0019999	000082	WK	
	1 001393	0017677			
7/8	2 001431	0020168	000082	WK	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
	1 001415	0018002			
7/15	2 001452	0020479	000082	WK	
	1 001437	0018328			
7/22	2 001474	0020805	000082	WK	
	1 001452	0018617			Lot of water Run in and pumped out for test - Night before
7/26	2 001488	0021089	000082	WK	
	1 001498	0018706			
7/29	2 001494	0021174	000082	WK	
	1 001468	0018854			
8/2	2 001503	0021307	000082	WK	
	1 001475	0018957			
8/5	2 001511	0021425	000082	WK	
	1 001479	0019007			
8/9	2 001514	0021461	000082	WK	

Living Waters Ranch
Phase I Sewer System Log

DATE 2002	EVENT COUNTER	ELAPSED TIME METER	HIGH LEVEL ALARM	INIT.	COMMENTS
8/12	1. 021481	0019036			
	2. 021577	0021501	000082	WK	
8/15	1. 021484	0019081			
	2. 021520	0021537	000082	WK.	
8/19	1. 021493	0019205			
	2. 021528	0021656	000082	WK	
8/26	1. 021499	0019283			
	2. 021534	0021745	000082	WK	
8/30	1. 021504	0019344			
	2. 021539	0021814	000082	WK	
9/2	1. 021507	0019389			
	2. 021543	0021871	000082	WK	
9/5	1. 021512	0019463			
	2. 021548	0021945	000082	WK.	
9/9	1. 021579	0019561			
	2. 021583	0022019	000082	WK.	
9/12	1. 021525	0019684			
	2. 021567	0022153	000082	WK.	
9/16	1. 021536	0019795			
	2. 021570	0022271	000082	WK	
9/20	1. 021539	0019827			
	2. 021573	0022316	000082	WK	
9/23	1. 021545	0019916			
	2. 021579	0022404	000082	WK.	
9/27	1. 021547	0019937			
	2. 021581	0022434	000082	WK.	
9/30	1. 021556	0020070			
	2. 021591	0022582	000082	WK.	
10/4	1. 021566	0020217			
	2. 021600	0022716	000082	WK.	
10/9	1. 021578	0020395			
	2. 021613	0022909	000082	WK	
10/11	1. 021579	0020409			
	2. 021614	0022916	000082	WK	
10/14	1. 021586	0020513			
	2. 021621	0023020	000082	WK	

Living Waters Ranch
Phase I Sewer System Log

DATE 2002		EVENT COUNTER	ELAPSED TIME METER	HIGH LEVEL ALARM	INIT.	COMMENTS
10/16	1	001594	0020685			
	2	001628	0023124	000082	WJC	
10/18	1	001597	0020662			
	2	001631	0023168	000082	WJC	
10/25	1	001601	0020711			
	2	001635	0023228	000082	WJC	
11/1	1	001608	0020809			
	2	001643	0023345	000082	WJC	
11/8	1	001616	0020927			
	2	001651	0023460	000082	WJC	
11/8	1	001618	0020957			
	2	001653	0023481	000082	WJC	
11/11	1	001621	0021001			
	2	001655	0023511	000082	WJC	
11/14	1	001631	0021149			
	2	001665	0023656	000082	WJC	
11/20	1	001643	0021343			
	2	001678	0023862	000082	WJC	
12/2	1	001649	0021409			
	2	001684	0023927	000082	WJC	
12/9	1	001652	0021450			
	2	001686	0023957	000082	WJC	
12/16	1	001654	0021480			
	2	001689	0023992	000082	WJC	
12/23	1	001660	0021551			
	2	001694	0024066	000082	WJC	
12/30	1	001665	0021617			
	2	001699	0024141	000082	WJC	
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					

Living Waters Ranch
Phase 2 Wastewater System – 2003

1/03	Pump #1	19249 - 19060 =	189 min
	Pump #2	2164 – 1974 =	190 min
	(12/30/02 – 1/27/03) 28 Days		379 min @ 40 gpm = 15,160 gal
			541 gpd
2/03	Pump #1	19403 – 19249 =	154 min
	Pump #2	2321 – 2164 =	157 min
	(1/27 – 2/27) 31 Days		311 min @ 40 gpm = 12,440 gal
			401 gpd
3/03	Pump #1	19521 – 19403 =	118 min
	Pump #2	2440 – 2321 =	119 min
	(2/27 – 3/28) 29 Days		237 min @ 40 gpm = 9,480 gal
			326 gpd
4/03	Pump #1	19807 – 19521 =	286 min
	Pump #2	2724 – 2440 =	284 min
	(3/28 – 4/29) 32 Days		570 min @ 40 gpm = 22,800 gal
			712 gpd
5/03	Pump #1	20201 – 19807 =	394 min
	Pump #2	3119 – 2724 =	395 min
	(4/29 – 5/30) 31 Days		789 min @ 40 gpm = 31,560 gal
			1,018 gpd
6/03	Pump #1	20630 – 20201 =	429 min
	Pump #2	3549 – 3119 =	430 min
	(5/30 – 6/30) 31 Days		859 min @ 40 gpm = 34,360 gal
			1,108 gpd

Living Waters Ranch
Phase I Sewer System Log

DATE (2023)	EVENT COUNTER	ELAPSED TIME METER	HIGH LEVEL ALARM	INIT.	COMMENTS
1-6	1. 014084 2. 001445	0019085 0002000	000044	WK.	
1-13	1. 014025 2. 001465	0019113 0002027	000044	WK.	
1-17	1. 014024 2. 001474	0019138 0002053	000044	WK.	
1-20	1. 014117 2. 001528	0019195 0002112	000044	WK.	
1-27	1. 014207 2. 001567	0019249 0002164	000044	WK.	
2-6	1. 014235 2. 001596	0019287 0002203	000044	WK.	
2-10	1. 014265 2. 001627	0019327 0002244	000044	WK.	
2-17	1. 014284 2. 001646	0019352 0002270	000044	WK.	
2-24	1. 014302 2. 001664	0019376 0002294	000044	WK.	
2-27	1. 014322 2. 001684	0019403 0002321	000044	WK.	
3-3	1. 014343 2. 001706	0019431 0002350	000044	WK.	
3-10	1. 014362 2. 001725	0019457 0002376	000044	WK.	
3-17	1. 014382 2. 001744	0019483 0002401	000044	WK.	
3-24	1. 014401 2. 001763	0019509 0002427	000044	WK.	
3-28	1. 014410 2. 001773	0019521 0002440	000044	WK.	
4-1	1. 014439 2. 001802	0019560 0002479	000044	WK.	
4-7	1. 014477 2. 001846	0019611 0002530	000044	WK.	
4-11	1. 014496 2. 001859	0019636 0002555	000044	WK.	

Living Waters Ranch
Phase II Sewer System Log

(2003)

DATE	EVENT COUNTER	ELAPSED TIME METER	HIGH LEVEL ALARM	INIT.	COMMENTS
4-14	1. 014611	0019657			
	2. 002873	0002574	000044	WIC	
4-21	1. 014935	0019689			
	2. 002898	0002607	000044	WIC	
4-25	1. 014935	0019689			
	2. 002898	0002607	000044	WIC	
4-28	1. 014923	0019807			
	2. 002885	0002724	000044	WIC	
5-2	1. 014642	0019833			
	2. 002905	0002750	000044	WIC	
5-5	1. 014711	0019926			
	2. 002974	0002843	000044	WIC	
5-9	1. 014781	0020018			
	2. 003044	0002937	000044	WIC	
5-12	1. 014850	0020044			
	2. 003063	0002963	000044	WIC	
5-14	1. 014834	0020040			
	2. 003097	0003008	000044	WIC	
5-19	1. 014878	0020148			
	2. 003140	0003066	000044	WIC	
5-23	1. 014896	0020172			
	2. 003158	0003090	000044	WIC	
5-26	1. 014918	0020201			
	2. 003180X	0003119	000044	WIC	
5-30	1. 014918	0020201			
	2. 003286	0003119	000044	WIC	
6-2	1. 014938	0020228			
	2. 003301	0003146	000044	WIC	
6-5	1. 014938	0020228			
	2. 003301	0003146	000044	WIC	
6-9	1. 014958	0020389			
	2. 003421	0003308	000044	WIC	
6-16	1. 015152	0020515			
	2. 003515	0003434	000044	WIC	
6-20	1. 015152	0020515			
	2. 003515	0003434	000044	WIC	

Living Waters Ranch
Phase IISewer System Log

DATE (2013)	EVENT COUNTER	ELAPSED TIME METER	HIGH LEVEL ALARM	INIT.	COMMENTS
	1. 015171	0020541			
6-23	2. 002535	0003460	000044	WIC	
	1. 015195	0020573			
6-27	2. 002559	0003493	000044	WIC	
	1. 015238	0020630			
6-30	2. 002601	0003549	000044	WIC	
	1. 015262	0020662			
7-3	2. 002626	0003582	000044	WIC	
	1. 015289	0020699			
7-7	2. 002652	0003617	000044	WIC	
	1. 015310	0020726			
7-11	2. 002672	0003644	000044	WIC	
	1. 015329	0020751			
7-14	2. 002691	0003669	000044	WIC	
	1. 015329	0020751			
7-16	2. 002691	0003669	000044	WIC	
	1. 015384	0020824			
7-21	2. 002745	0003742	000044	WIC	
	1. 015401	0020846			
7-25	2. 002762	0003764	000044	WIC	
	1. 015442	0020900			
7-28	2. 002803	0003819	000044	WIC	
	1. 015474	0020943			
7-31	2. 002835	0003864	000044	WIC	
	1. 015492	0020967			
8-4	2. 002853	0003887	000044	WIC	
	1. 015492	0020967			
8-7	2. 002853	0003887	000044	WIC	
	1.				
	2.		000044	WIC	
	1.				
	2.		000044	WIC	
	1.				
	2.		000044	WIC	
	1.				
	2.		000044	WIC	

Living Waters Ranch
Phase 2 Wastewater System – 2002

Jan 02	Pump #1	15055 – 14910 =	145 min
	Pump #2	233 – 233 =	0 min
	(1/5 – 2/2) 28 Days		145 min @ 40 gpm = 5,800 gal
			207 gpd
Feb 02	Pump #1	15379 – 15055 =	324 min
	Pump #2	233 – 233 =	0 min
	(2/2 – 2/28) 26 Days		324 min @ 40 gpm = 12,960 gal
			498 gpd
March 02	Pump #1	15978 – 15379 =	599 min
And	Pump #2	233- 233 =	0 min
April 02	(2/28 – 4/29) 60 Days		599 min @ 40 gpm = 23,960 gal
			399 gpd
May 02	Pump #1	16496 – 15978 =	518 min
	Pump #2	234 – 233 =	1 min
	(4/29 – 5/27) 28 Days		519 min @ 40 gpm = 20,760 gal
			741 gal
June 02	Pump #1	17348 – 16496 =	852 min
	Pump #2	260 – 233 =	27 min
	(5/27 – 6/28) 32 Days		879 min @ 40 gpm = 35,160 gal
			1,098 gpd
July 02	Pump #1	17789 – 17348 =	441 min
	Pump #2	700 – 260 =	440 min
	(6/28 – 7/29) 31 Days		881 min @ 40 gpm = 35,240 gal
			1,136 gpd
Aug 02	Pump #1	17945 – 17789 =	156 min
	Pump #2	857 – 700 =	157 min
	(7/29 – 8/30) 32 Days		313 min @ 40 gpm = 12,520 gal
			391 gpd

Sept 02	Pump #1	18355 – 17945 =	410 min
	Pump #2	1268 – 857 =	411 min
	(8/30 – 9/30) 31 Days		821 min @ 40 gpm = 32,840 gal
			1,059 gpd
Oct 02	Pump #1	18699 – 18355 =	344 min
	Pump #2	1612 – 1268 =	344 min
	(9/30 – 11/1) 31 Days		688 min @ 40 gpm =27,520 gal
			887 gpd
Nov 02	Pump #1	18982 – 18699 =	283 min
	Pump #2	1897 – 1612 =	285 min
	(11/1 – 11/25) 24 Days		568 min @ 40 gpm = 22,720 gal
			946 gpd
Dec 02	Pump #1	19060 – 18982 =	78 min
	Pump #2	1974 – 1897 =	77 min
	(11/25 – 12/30) 35 Days		155 min @ 40 gpm = 6,200 gal
			40 gpd

Living Waters Ranch
Phase II Sewer System Log

DATE 2001	EVENT COUNTER	ELAPSED TIME METER	HIGH LEVEL ALARM	INIT.	COMMENTS
	011927	0014910			
1/15	000170	0000233	000041	RB	
	011956	0014926			
1/21	000170	0000233	000041	RB	
	012026	0015055			
2/1	000170	0000233	000041	RB	
	012097	0014794			
2/1	012158	0017323	000041	RB	
	012316	0015310			
2/26	000170	0000233	000041	RB	
	012347	0015379			
2/28	000170	0000233	000041	RB	
	012407	0015432			
3/11	000170	0000233	000041	RB	
	012520	0015650			
4/18	000170	0000233	000041	WK	
	011636	0015738			
4/22	000170	0000233	000041	WK	
	011539	0015742			
4/26	000170	0000233	000041	WK	
	011814	0015978			
4/29	000170	0000233	000041	WK	
	011814	0015978			
5/3	000170	0000233	000041	WK	
	011980	0016201			
5/4	000170	0000233	000041	WK	
	011985	0016208			
5/9	000170	0000233	000041	WK	
	012072	0016324			
5/13	000170	0000233	000041	WK	
	012146	0016424			
5/16	000170	0000233	000041	WK	
	012146	0016424			
5/20	000170	0000233	000041	WK	
	012200	0016496			
5/24	000177	0000234	000044	WK	

Living Waters Ranch
Phase II Sewer System Log

DATE 2002	EVENT COUNTER	ELAPSED TIME METER	HIGH LEVEL ALARM	INIT.	COMMENTS
	1: 012200	0016496			
5/27	2: 000207	0000234	000044	WK	
	1: 012240	0016550			
6/3	2: 000277	0000234	000044	WK	
	1: 012286	0016603			
6/7	2: 000277	0000234	000044	WK	
	1: 012450	0016831			
6/11	2: 000277	0000234	000044	WK	
	1: 012286	0017383			
6/19	2: 000277	0000234	000044	WK	
	1: 012818	0017323			
6/21	2: 000279	0000235	000044	WK	
	1: 012818	0017323			
6/24	2: 000279	0000235	000044	WK	
	1: 012273	0000198			
6/28	2: 000288	0000260	000044	WK	
	1: 012872	0017395			
7/1	2: 000233	0000307	000044	WK	
	1: 012889	0017418			
7/3	2: 000250	0000329	000044	WK	
	1: 012928	0017469			
7/15	2: 000289	0000381	000044	WK.	
	1: 013028	0017602			
7/22	2: 000389	0000515	000044	WK	
	1: 013052	0017634			[redacted] Pumped
7/25	2: 000412	0000546	000044	WK.	
	1: 013143	0017789			water dumped in and pumps checked Night Before
7/29	2: 000503	0000700	000044	WK	
	1: 013194	0017857			
8/2	2: 000556	0000771	000044	WK	
	1: 013217	0017887			
8/5	2: 000578	0000801	000044	WK.	
	1: 013217	0017887			
8/9	2: 000578	0000801	000044	WK.	

Living Waters Ranch
Phase II Sewer System Log

DATE	EVENT COUNTER	ELAPSED TIME METER	HIGH LEVEL ALARM	INIT.	COMMENTS
8/12	1. 0132.17	0017887			
	2. 000578	0000801	000044	WJC,	
8/15	1. 013217	0017887			
	2. 000578	0000801	000044	WJC,	
8/19	1. 013217	0017887			
	2. 000578	0000801	000044	WJC,	
8/26	1. 013217	0017887			
	2. 000578	0000801	000044	WJC,	
8/26	1. 013294	0017945			
	2. 000594	0000857	000044	WJC,	
9/2	1. 013347	0018097			
	2. 000727	0001009	000044	WJC,	
9/2	1. 013347	0018097			
	2. 000727	0001009	000044	WJC,	
9/9	1. 013365	0018121			
	2. 000724	0001032	000044	WJC,	
9/13	1. 013384	0018146			
	2. 000744	0001059	000044	WJC,	
9/16	1. 013405	0018174			
	2. 000764	0001086	000044	WJC,	
9/20	1. 013405	0018174			
	2. 000764	0001086	000044	WJC,	
9/23	1. 013474	0018267			
	2. 000834	0001180	000044	WJC,	
9/27	1. 013492	0018291			
	2. 000851	0001203	000044	WJC,	
9/30	1. 013540	0018355			
	2. 000899	0001268	000044	WJC,	
10/4	1. 013557	0018378			
	2. 000917	0001291	000044	WJC,	
10/7	1. 013548	0018433			
	2. 000958	0001346	000044	WJC,	
10/11	1. 013619	0018462			
	2. 000979	0001374	000044	WJC,	
10/14	1. 013697	0018566			
	2. 001057	0001479	000044	WJC,	

Living Waters Ranch
Phase II Sewer System Log

DATE 2002	EVENT COUNTER	ELAPSED TIME METER	HIGH LEVEL ALARM	INIT.	COMMENTS
10/	1. 013703	0018574			
18	2. 022063	0001487	000044	W.K.	
10/	1. 013759	0018649			
22	2. 022119	0001563	000044	W.K.	
10/	1. 013776	0018672			
25	2. 022137	0001587	000044	W.K.	
10/	1. 013796	0018699			
29	2. 022156	0001612	000044	W.K.	
11/	1. 013841	0018759			
01	2. 022201	0001673	000044	W.K.	
11/	1. 013856	0018779			
05	2. 022216	0001693	000044	W.K.	
11/	1. 013899	0018837			
08	2. 022259	0001751	000044	W.K.	
11/	1. 013959	0018958			
12	2. 022250	0001873	000044	W.K.	
11/	1. 014007	0018982			
15	2. 022368	0001897	000044	W.K.	
11/	1. 014026	0019007			
20	2. 022386	0001921	000044	W.K.	
11/	1. 014044	0019031			
29	2. 022404	0001945	000044	W.K.	
12/	1. 014047	0019036			
02	2. 022407	0001949	000044	W.K.	
12/	1. 014065	0019060			
03	2. 022425	0001972	000044	W.K.	
12/	1. 014065	0019060			
09	2. 022425	0001974	000044	W.K.	
	1.				
	2.				
	1.				
	2.				
	1.				
	2.				
	1.				
	2.				

GLEN

Protestant's [redacted] Garden Creek Water District

RECEIVED
MAR 23 2004
Department of Water Resources
Southern Region

Summary by Garden Creek Water District of factors pertaining to Application For Permit 72-16625

NOTE: THE EXHIBITS REFERENCED ARE THE SAME AS REFERENCED IN THE Protestant's Exhibit D re:Application For Permit 72-16624. For administrative purpose both applications have been consolidated for this hearing, therefore the exhibits referenced here in were submitted as evidence with Protestant's Exhibit D re:Application For Permit 72-16624

NOTE: Christopher James states in the application in the applicant's remarks "The existing diversion was used for irrigation until 1999 when it was channeled into an existing stock pond. Stock have been removed from the area, and the pond has been landscaped for aesthetic purposes. A fountain has been installed in the center of the pond, ... The pond is part of Living Waters Ranch..." This application also states that this is a new appropriation.

1. Will the proposed appropriation injure other water rights?

- Protestant's Exhibit A: Hydrologic investigation of the Garden Creek watershed and aquifer, Brockway Engineering, P.L.L.C., 1999.
- Protestant's Exhibit B: Hydro geologic analysis of the water supply for the community of Challis, Idaho Water Resources Research Institute, 2003.
- Protestant's Exhibit G: Letter from The City of Challis to Mr. Don Rowles, President, Garden Creek Water Association. This letter is to serve as an official complaint regarding the City's water supply.

SUMMARY: **Yes, the proposed appropriation likely will injure existing water rights.** According to all Hydrological reports, all water in the Garden Creek basin is appropriated. IDWR is aware that the City of Challis and the Custer County Commissioners have concerns that any substantial building or new appropriations for a water right could cause a direct impact on existing water rights, and possible infringement on the water right of The City of Challis.

2. Is the water supply sufficient for the purpose for which it is sought to be appropriated?

- The application is for .4CFS which equates to 258,508 gals per day. (1 CFS = 448.8 gpm; 448.8 * 60min * 24hrs * .4)

- The application states the "...covers no more than 1/8 of an acre..." This approximates to 5445 sq feet and calculates to have a surface approximately 84 feet in diameter. Assuming the pond is no more than 6 feet deep and forms the shape of frustum with a surface radius of 42ft and a bottom radius of 10 feet then the total gallons needed to fill the pond is 14,350.

- Protestant's Exhibit G: Letter from The City of Challis to Mr. Don Rowles, President, Garden Creek Water Association. This letter is to serve as an official complaint regarding the City's water supply.

Department of Water Resources
PROTESTANT'S
Exhibit O
Date Admitted 4/6/04

SUMMARY: **No, Based on existing water shortages there is no water available for a new appropriation.** Even if there was water available, the application request for .4CFS is approximately **18 ~~times~~ more** than what is needed for the pond according to the information on the application.

3. Was the application made in good faith or for delay or speculative purpose?

   - Original application was made October 15, 2002. Application states in the applicant's remarks "The existing diversion was used for irrigation until 1999 when it was channeled into an existing stock pond. Stock have been removed from the area, and the pond has been landscaped for aesthetic purposes. A fountain has been installed in the center of the pond, … The pond is part of Living Waters Ranch…"

   - Idaho Administrative Code, Department of Water Resources Rule 35 Application Requirements, 01 – General Provisions, Part a states: "No person shall commence the construction of any project works or commence the diversion of the public water or trust water of the state of Idaho from any source or change the point of diversion, place, period or nature of use of any existing water right without first having filed an application for permit to appropriate the water or other appropriate form with the department and received approval from the director, unless exempted by these rules or by statute."

   - The amount of requested diversion .4CFS is approximately **~~18 times~~ more** than what is needed for the requested use.

   SUMMARY: **No, We believe that the application was not made in good faith and was for speculative purposes**. The water has been diverted and used for up to 3 years prior to submitting an application. The applicant's substantive actions as listed above and underlying intention of asking for **18 ~~times the~~** water need would lead a prudent person to question the good faith of the application.

4. Does the applicant have sufficient financial resources with which to complete the proposed project?

   - Yes, according to his records.

5. Is the proposed appropriation in the local public interest, which is defined as the affairs of the people in the area directly affected by the proposed use?

   - There is no evidence that having this 'Aesthetic' use will benefit the local economy though either short and long term employment, increased revenues to various sectors of the local economy nor add to the stability of these sectors in the short or long term.

- The City of Challis was founded in approximately 1876. The Custer County Seat is located in the City of Challis. There are over 900 residents of Challis and over 75 businesses in Challis that are dependent on the Challis water supply. Failure of this water supply in any way, may in fact have an adverse affect on the local economy both in the short and long term, and would affect the revenues of various sectors of the local economy and thus create substantial instability to the short and long term economy.

- LWR may be an asset to the community of Challis, but so are all the other businesses and citizens in the City of Challis.

- Garden Creek runs through Challis and is an interregnal part of the aesthetics of the City, businesses and residences along the creek. Inadequate water supplies in Garden Creek result in several months in the summer (height of tourist season) where there is very little or no water even reaching the city limits.

SUMMARY: **No, the proposed appropriation is not in the local public interest**. The points made above, in addition to the conclusions of both the hydrology reports, clearly show that additional appropriations of water from the Garden Creek watershed for whatever purpose does not benefit the local public interest through increased economic growth or enhanced recreation.

6. Is the proposed use contrary to conservation of water resources within the state of Idaho?

- Marginal sources of water need to be monitored very closely and its beneficial use evaluated carefully for it overall affect on the natural resources available.
- The most valuable natural resource for the City of Challis is an abundant supply of clean, safe drinking water. By taking a proactive stance, we help safeguard our water source.

CONCLUSION:

- As a member of the advisory committee and Chairman of the Garden Creek Water Association representing Water District 72-B, we request that IDWR not grant the above application for permit, according to Section 42-222, Idaho Code.
- We also request that IDWR not grant any new appropriation of water rights in the Garden Creek basin, according to the Supreme Court ruling regarding the Federal Government's water rights in the wilderness areas.

PROTESTANT'S EXHIBITS

NOTE: THE EXHIBITS AND WITNESSES BELOW (with the exception of Exhibit I) ARE REFERENCED AND ARE THE SAME AS REFERENCED IN THE Protestant's Exhibit D re:Application For Permit 72-16624. For administrative purpose both applications have been consolidated for this hearing, therefore the following exhibits were submitted as evidence with Application For Permit 72-16624

Exhibit A: Hydrologic investigation of the Garden Creek watershed and aquifer. 1999. Brockway, C.E., C.G. Brockway, and J.S. Rau. Twin Falls, Idaho.

Exhibit B: Hydro geologic analysis of the water supply for the community of Challis, Custer County, Idaho. 2003. Otto, B.R., A. Wylie, and M. Martin. Idaho Water Resources Research Institute, University of Idaho, Moscow, Idaho.

Exhibit G: Letter from The City of Challis to Mr. Don Rowles, President, Garden Creek Water Association. This letter is to serve as an official complaint regarding the City's water supply.

Exhibit I: Summary by Garden Creek Water District of factors pertaining to the Application for Permit 72-16625.

PROTESTANT'S WITNESS LIST

Bonnie Rowles
Don Rowles, President of Garden Creek Water District 72-B
Jeff Yeo
Jerry Moss, engineer, City of Challis
Marion McDaniel, president, Challis City Council

P

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

900 North Skyline, Suite B • Idaho Falls, Idaho 83402-1718 • (208) 528-2650

Dirk Kempthorne, Governor
C. Stephen Allred, Director

September 30, 2003

Steve Adams, Senior EHS
District Seven Health Dept.
801 Monroe Street
Salmon, ID 83467-3316

Department of Water Resources
PROTESTANT'S
Exhibit P
Date Admitted 4/6/04

Re: Living Waters Ranch (LWR) Subsurface Disposal System.

Dear Steve

DEQ is appreciative of the District 7 Health Department (D7H) and the LWR representatives in meeting with us September 4, 2003. It was a good productive meeting to help follow up on the few remaining issues that needed to be addressed.

It was helpful that you corrected our understanding of the permit history and the permits currently in place for LWR sewer phases I and II systems. It might be helpful to have a written clarification in the D7H permit file for future reference pertaining to the permit history and how the phase I sewer permit was modified.

From the meeting and additional data that was presented to us from LWR it appears the ETM meters have all been installed and the replacement areas identified and soil typed. The operational and maintenance procedures have been submitted. The required monitoring is also taking place.

It is determined that the sewer system is a Large Soils Adsorption System (LSAS). The remaining item that needs addressed is the design and installation of the second drain field with equal capacity of 5000 GPD and must be put into alternating service with the existing 5000 gpd drain field (modules I and II). This will need to be done in order to meet IDAPA 58.01.03.013.04 f.

Additional facilities or buildings should not be added to the system until the design and construction of the additional drain field is complete. To avoid future notice of violation LWR will be given until January 15, 2004 to have a final design submitted to DEQ for review and approval and then must have the additional drain field completed by July 15, 2004. 1/2

After construction the subsurface disposal permits should be modified and issued as a Large Soil Adsorption System (LSAS) per the Technical Guidance Manual (TGM). It should represent the design flow of 5000 gpd with the exception that each module (drain field) receives no more than the 2500 GPD

Joe Chester stated it could handle more DEQ says no more.

14550

963900

as currently being operated with the automation controls and sequencing. The revised permit for the LSAS should also reference the TGM requirements ADAPA 58.01.03.013.06 for monitoring with the exception of paragraph d, where semi annual monitoring of surface water from Garden Creek be monitored in lieu of ground water monitoring. Per [illegible] made with DEQ D4 IC we [illegible]

This letter will also be sent to the owner and their engineer. If the D7H has any questions regarding this letter, please call me at (208) 528-2650.

Sincerely,

William Teuscher PE
Water Quality Engineer

cc: Jim Johnston PE, Regional Administrator DEQ-IFRO
Greg Eager PE, Regional Engineering Manager, DEQ-IFRO
Barry Burnell EHS, DEQ State Office Boise
Kellye Eager/Rich Bly D7H IF
Christopher James Firstfruits Foundation, Living Water Ranch PO Box 510 Challis, ID 83226
Jack Hammond PE, HEDCO Inc. PO Box 1070 Challis ID 83226
Custer County Commisioners P.O. Box 385 Challis ID 83226
Bonnie Rowles, P.O. Box 1087 Challis, ID 83226
Read File

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

900 North Skyline, Suite B • Idaho Falls, Idaho 83402-1718 • (208) 528-2650

Dirk Kempthorne, Governor
C. Stephen Allred, Director

Q

December 19, 2003

Steve Adams, Senior EHS
District Seven Health Dept.
801 Monroe Street
Salmon, ID 83467-3316

Department of Water Resources
PROTESTANT'S
Exhibit Q
Date Admitted 4/6/04

Re: Living Waters Ranch (LWR) LSAS Subsurface Disposal System.

Dear Steve

DEQ has reviewed the large soil adsorption system conceptual design submitted to us by HEDCO, Inc December 8, 2003 for the LWR. DEQ concurs with the conceptual design and LWR should move forward with the final plan design. The final plan design should be submitted and should include the following Items:

1. A revised design report and a general master plan layout of the facility with design calculations including soil information for the new expanded drain field sites.
2. A full set of design drawings.
3. The "LSAS Design Check List", which can be found on the DEQ Web site.
4. Include and show all required set backs per the Technical Guidance Manual (TGM).
5. The completed level 1 nutrient pathogen evaluation should also be submitted.
6. Submit a revised operation and maintenance plan for the LSAS with the final design.
7. The Health District will need to provide to DEQ the site evaluation report for the additional drain field areas and the subsurface sewage disposal application per the interagency MOU.

The final design submittal date has been extended to April 1, 2004 and the construction completion extended to August 15, 2004. If the D7H has any questions or concerns with this conceptual design please call (208) 528-2650.

Sincerely,

William Teuscher PE
Water Quality Engineer

Enclosures

cc: Jim Johnston PE, Regional Administrator DEQ-IFRO (enclosures)
Greg Eager PE, Regional Engineering Manager, DEQ-IFRO (enclosures)
Barry Burnell EHS, DEQ State Office Boise (enclosures)
Kellye Eager/Rich Bly D7H IF (enclosures)
Christopher James Firstfruits Foundation, Living Water Ranch PO Box 510 Challis, ID 83226 (enclosures)
Jack Hammond PE, HEDCO Inc. PO Box 1070 Challis ID 83226 (enclosures)
Custer County Commisioners P.O. Box 385 Challis ID 83226
Read File

Bonnie Rowles
P.O. Box 1087
Challis, Idaho 83226

RECEIVED
AUG 0 6 2004
Department of Water Resources
Southern Region

July 24, 2004

State of Idaho
Department of Environmental Quality
900 North Skyline, Suite B
Idaho Falls, Idaho 83402-1718

Department of Water Resources
PROTESTANT'S
Exhibit R
Date Admitted 8/10/04

Re: Living Waters Ranch (LWR)

Dear Mr. Johnston:

After my last letter to you dated July 21, 2003, I requested that the Department of Environmental Quality (DEQ) stop any additional construction at Living Waters Ranch until the following was completed.

1. DEQ and District seven Health Department (DSHD) make an onsite visit to inventory the existing facility.
2. All requirements are meet under the Large Soil Absorption System (LSAS) criteria.
3. Any and All required permits on the current infrastructure were signed off by DEQ and DSHD.

DEQ and DSHD did complete an on site visit, in September 2003. At that time agency representatives determined the following:

- LWR was pumping more effluent into its leach fields than the maximum allowed of 2500 gpd per leach field.
- All required ETM meters had not been installed.
- Replacement areas were built over.
- Additional buildings had been added to the existing phase I and phase II sewer systems.

LWR was told that to avoid future notice of violation they would need to modify their current system to meet the LSAS criteria.

DEQ and DSHD required that LWR submit a final design for a LSAS by January 15, 2004. Additional drain fields would need to be completed by July 15, 2004. DEQ has extended deadlines several times. Plans were submitted, but in a letter from DEQ to DSHD, dated April 9, 2004, William Teuscher states, the following: "the final design is still lacking the following items which must be submitted before final design approval can be given:

1. HEDCO must submit a full and complete set of drawings that includes accurate lateral line locations (per Mr. Chester correspondence to Mr. Hammond the drain field areas should be surveyed and properly located on the design drawing for accurate placement). All set back distances (per TGM) should be shown from roadways, right of ways, property lines, existing wells etc. and must be accurately shown on the engineers design drawings. We need to be sure that all drain field areas can fit with in the proposed areas.

2. The completed level 1 nutrient pathogen evaluation should be completed, submitted and approved."

LWR proceeded with construction in spite of the fact that no permits had been issued. Notice of violation was issued by both DEQ and DSHD. Christopher James was quoted as saying ""If the construction company started work without permits then "shame on them"."

On July 24, 2004, William Teuscher, informed me that DEQ is going to give final approval, even though the agency does not have a FULL and COMPLETE set of drawings (per TGM) and the nutrient pathogen evaluation has not been completed.

According to letters from your office and DSHD, LWR has a history of violations and of not meeting conditions required by the State of Idaho and subsequently enforced by DEQ and DSHD. They also have a history of "as built" plans differing from approved plans. It has taken four years to implement some of these requirements. History has proven that LWR repeatedly violates state standards. As a result, exceptions were made by the agencies and permits were issued after the fact.

LWR, which continues to operate under a "domestic" water use, categorized as a "church camp" has expanded to a "Conference and Retreat Center" as represented on their web site. Existing facilities at the "church camp" include an 8,500 square foot celebration hall designed to accommodate 500 people, a 5,000 square foot lodge with a sleeping capacity of 50 persons, 9 chalets, two mini lodges, 12 motel units, a shop, a powerhouse, a manager's resident, a shower house, RV sites some with facilities and some without facilities, and a tent camping area. Approved expansion includes a 14-room motel, a cafeteria, activities building and a store. Christopher James lists the "church camps" value in excess of five million dollars. The expansion has prompted DEQ and DSHD to require a second water source. LWR has applied for a new appropriation for a water right. DEQ and DSHD have sent letters in support of LWR application to IDWR. The City of Challis is protesting the application by LWR because of the following:

- Conclusions set forth in two hydrology reports, Hydrologic Investigation of the Garden Creek Watershed and Aquifer prepared by Brockway Engineering – February 11, 1999: Hydrogeologic Analysis of the Water Supply for the Community of Challis, Custer County, Idaho prepared by Idaho Water Resources Research Institute – February 25, 2003: conclude that additional appropriations of water from the Garden Creek watershed and further development threaten the City of Challis's drinking water supply and water quality.

- In 1999, the Federal Government implemented a moratorium in response to the Supreme Court ruling regarding water rights within and tributary to the Selway-Bitteroot Wilderness area, the Gospel-Hump Wilderness and the Frank Church-River of No Return Wilderness area. The moratorium stopped the processing of applications for permit to appropriate surface water or ground water in the wilderness area. Therefore no new appropriations for a water right would be approved.

In consideration, I have the following questions:

How did DEQ and DSHD approve additional expansion and hook-ups when they knew LWR was operating under a "domestic" use? How could those agencies approve the final design for LWR water distribution system and

their LSAS if they do not have a COMPLETE and FULL set of drawings and the completed nutrient pathogen evaluation?

The rules and regulations under Idaho code are intended to protect us as citizens. As property owners and taxpayers in the State of Idaho we rely on you to enforce those rules and regulations.

So, respectfully, I request that DEQ and DSHD DO NOT give final approval for any permits that would allow LWR to proceed with construction until all the appropriate criteria have been met.

In addition, I would like DEQ and DSHD to withdraw their support of the LWR application for a new appropriation of a water right. The hydrology reports prove that the City of Challis' water is threatened without any further development on the Garden Creek watershed. Approval of this application would be in direct conflict with the Supreme Court ruling as described in this letter.

Respectfully,

Bonnie Rowles

Cc: Dirk Kempthorne, Governor, State of Idaho
Kellye Eager, DSHD
Christopher James, Firstfruits Foundation, Living Waters Ranch
Allen Merritt, IDWR
L. Glen Saxton, IDWR
Jeff Yeo
Bob Andrews, Water District 72-B
City of Challis
Custer County Commissioners
Challis Messenger
Idaho Statesman

DRINKING WATER PROTECTION PLAN FOR THE CITY OF CHALLIS

PWS 7190013

REVIEW AND UPDATE BIANNUALLY

Date Reviewed	Reviewed By	Comments (attach additional document as needed)

Department of Water Resources
PROTESTANT'S
Exhibit S
Date Admitted 5/10/09

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1.0 INTRODUCTION

Drinking Water Protection, which is essentially the same as Wellhead Protection for ground water systems, is a voluntary program implemented at the local level *(*Note 1)*. The City of Challis has developed this Drinking Water Protection Plan to outline the process that will be used to help prevent contamination of ground water that supplies the City of Challis's drinking water. Because the City of Challis uses both ground water and surface water for its drinking water supply, protection of theses resources is critical to the health and welfare of the community. Drinking Water Protection will help protect these resources from ground water and surface water contamination by monitoring land use that occurs within the areas overlying the aquifer from which the wells and surface water intake draw water.

**Note 1. The term "Drinking Water Protection" is the same as Wellhead Protection for ground water sources of drinking water and Source Water Protection for ground water and surface water sources. The term "Drinking Water Protection" will be used throughout this Plan and is synonymous with Source Water/Wellhead Protection.*

Many materials such as pesticides, fertilizers, organic chemicals, and human and animal wastes can contaminate ground water. The degree of contamination depends on many factors including soil characteristics, volume of contaminant, contaminant properties, climate and ground water flow. Once ground water becomes contaminated, it is often difficult and expensive to clean up. A public water system that is supplied by an aquifer that has become contaminated may be required to do additional monitoring and may need to install water treatment equipment or find a new source of drinking water. The most cost-effective approach is to prevent contamination before it occurs, rather than attempting to remedy contamination problems after they have occurred.

1.1 Drinking Water System

The City of Challis, Idaho serves a community of approximately 1,073 people through 521 connections. The City of Challis is located along the Salmon River at the junction of Highway 93 and Highway 75 (Figure 1). The public drinking water system for the City of Challis is comprised of four ground water well sources and one surface water intake source.

Three of the ground water wells (West Well #1, West Well #2, and Well #3) are located near to or to the south of the Garden Creek intake. The fourth ground water well, East Well #1, is located on the eastern side of the City. Land use within the ground water delineated area consists predominantly of rangeland, some irrigated agricultural land, some forested land, rural residential homes, recreational areas, and in the case of East Well #1, urban uses. Highway 93 and Garden Creek Road cross through some of the delineations.

The surface water intake (hereafter called the "Garden Creek intake") is located on Garden Creek. Water from the Garden Creek intake is processed through a slow sand filtration system; the filtered water is then manifolded to ground water Well #3 and is mixed prior to gaseous chlorination. Land use within the City of Challis' surface water delineated area consists predominantly of rangeland, some irrigated agricultural land, some forested land, rural residential homes, recreation, and mining facilities. Homes and businesses within the Garden Creek intake surface water delineated area operated with individual septic tanks and septic drain fields.

Water chemistry tests are routinely conducted on the City of Challis drinking water system. Contaminants detected in the drinking water system include the inorganic contaminants (IOCs) fluoride and nitrate but at levels far below the current maximum contaminant levels (MCLs). From the wells on

the western side of the City (West Well #1, West Well #2, Well #3), nitrate has been detected at levels below 1.0 milligrams per liter (mg/L), less than the MCL of 10 mg/L. On the east side of the City (East Well #1), nitrate has been detected at levels below 2.0 mg/L. The difference pertains to the different aquifers that the wells are drawing from, though both measurements are background levels. Arsenic was not detected when tested for in February 2002. Water chemistry tests for the Garden Creek intake have detected the IOC fluoride, but at levels which have not exceeded the MCL in accordance with the Safe Drinking Water Act Amendments of 1996. Total coliform bacteria were detected in the distribution system in August 1995 and in March 1999. Following the distribution system occurrences of total coliform bacteria, microbials were tested for at the wells. No bacteria were detected at the wells during these tests. Treatment efforts including slow sand filtration and gaseous chlorination have successfully prevented further occurrences. No volatile organic contaminants (VOCs) or synthetic organic contaminants (SOCs) have been detected in the wells.

Well construction directly affects the ability of the well to protect the aquifer from contaminants. System construction scores are reduced when information shows that potential contaminants will have a more difficult time reaching the intake of the well. Lower scores imply a system is less vulnerable to contamination. For example, if the well casing and annular seal both extend into a low permeability geological unit, then the possibility of contamination is reduced and the system construction score goes down. If the highest drinking water production interval is more than 100 feet below the static water level (water table), then the system is considered to have better buffering capacity. If the wellhead and surface seal are maintained to standards as outlined in Sanitary Surveys, then contamination down the well bore hole is less likely. If the well is protected from surface flooding and is outside the 100-year floodplain, then contamination from surface events is reduced.

The 2002 sanitary survey (an inspection conducted every five years with the purpose of determining the physical condition of a water system's components and its capacity) performed by the Idaho Department of Environmental Quality (DEQ) indicated that the wellhead and surface seals of Challis' drinking water wells were maintained to current standards and that the wells were protected from surface flooding. Well #3, however, is quite close to Garden Creek and a flood condition could put this well in jeopardy. Table 1 includes a summary of the system construction for each ground water well. Driller's well logs were not available for West Well #2 and Well #3, limiting the amount of data available. Should these driller's well logs be provided to DEQ, the system construction ratings may change.

Table 1. City of Challis Well Construction Summary Information

Well	Well Depth (ft)	Water Table Depth (ft)	Casing: diameter/ thickness (in)	Casing: depth (ft)/ formation	Surface seal: depth (ft)/ formation	Screened Interval (ft)	Drill Year	Sanitary Survey Elements (A/B) [1]
West Well #1	665	2	10/0.250	103/broken rock	18/tan silty sand, gravel & cobbles, water	103 – 665 open hole	1981	Yes/Yes
West Well #2	602	317	12/0.375	157/NI	157/NI	NI	1980	Yes/Yes
East Well #1	341	157	12/0.250, 10/0.250	249/course clean sand & gravel, 341/solid red rock	18/ gravel, cobblestones & boulders mixed in tan sandy silt	243.5 – 266.8	1981	Yes/Yes
Well #3	800	NI	NI/NI	NI/NI	NI/NI	NI	NI	Yes/Yes

[1] A = Well and surface seal in compliance; B = Protected from surface flooding
NI = no information was available

West Well #1, drilled in 1981, is completed to an approximate depth of 665 feet below ground surface (bgs). A 10-inch diameter, 0.250-inch thick casing extends to 130 feet bgs into a geological unit described as "broken rock"; the remaining depth of the well borehole is not cased. The annular seal extends to 18 feet bgs into a geological unit described as "silty sand, gravel, and cobbles, with water". The static water level was approximately two feet bgs at the time the well was completed. Although the well may have met well drilling standards at the time, current standards are more stringent.

West Well #2, drilled in 1980, is completed to an approximate depth of 602 feet bgs. A 12-inch diameter, 0.375-inch thick casing extends to 157 feet bgs. Information describing any geological units, screened intervals or the composition of the annular seal is lacking. The static water level was approximately 317 feet bgs at the time the well was completed. Although the well may have met well drilling standards at the time, current standards are more stringent.

East Well #1, drilled in 1981, is completed to an approximate depth of 341 feet bgs. A 12-inch diameter, 0.250-inch thick casing extends to 249 feet bgs into a geological unit described as "coarse clean sand and gravel". A ten-inch diameter, 0.250-inch thick casing extends to 341 feet bgs into a geological unit described as "solid red rock". The annular seal extends to 18 feet bgs into a geological unit described as "gravel, cobblestones, and boulders mixed in tan sandy silt". The well is screened from 243.5 feet bgs to 266.8 feet bgs. The static water level was approximately 157 feet bgs at the time the well was completed. Although the well may have met well drilling standards at the time, current standards are more stringent.

Well #3 was completed to 800 feet bgs. No other information is available. Although the well may have met well drilling standards at the time, current standards are more stringent.

The IDWR (Idaho Department of Water Resources) ***Well Construction Standards Rules*** (1993) requires all PWSs follow DEQ standards as well. ***IDAPA 58.01.08.500*** requires that PWSs follow the ***Recommended Standards for Water Works*** (1997) during construction. Table 1 of the ***Recommended Standards for Water Works*** (1997) lists the required steel casing thicknesses for various well diameters. An eight-inch diameter well requires a casing thickness of at least 0.322-inches, a ten-inch diameter well requires a casing thickness of at least 0.365-inches, and twelve-inch or greater diameter wells require a casing thickness of at least 0.375-inches. Well tests are required at the design pumping rate for 24 hours or until stabilized drawdown has continued for at least six hours when pumping at 1.5 times the design pumping rate. Casing is required to be sealed to a minimum of 18 feet bgs if there is a low permeability layer at that depth. Otherwise, surface seals must be extended into low permeability or consolidated units.

The construction of the Garden Creek intake directly affects the ability of the intake to protect the surface water source from possible contaminants. Information regarding whether the Garden Creek intake was constructed properly and located in a way to minimize impacts was unavailable, leading to a high rating for the intake. Table 2 includes a summary of the susceptibility evaluation of the Garden Creek intake.

Table 2. Summary of Garden Creek Intake Susceptibility Evaluation

Contaminant Inventory	System Construction	Final Susceptibility Ranking
IOC – Low	H	Medium (H*2)
VOC – Low	H	Medium (H*)
SOC – Low	H	Low (H*)
Microbials – Low	H	Low (H*)

L=Low Susceptibility; M=Moderate Susceptibility; H=High Susceptibility
IOC=Inorganic Contaminant; VOC=Volatile Organic Contaminant; SOC=Synthetic Organic Contaminant
H*2=Indicates source automatically scored as high susceptibility due to the presence of a potential contaminant source (Garden Creek Road bridge) suspended above the surface water.

1.2 Drinking Water Protection Steps

The City of Challis prepared this Drinking Water Protection Plan in accordance with the Idaho Source Water/Wellhead Protection Plan, and followed the 5-step process for Drinking Water Protection. These five steps are:

Step 1: Formation of a community planning team;
Step 2: Delineation of the land area to be protected;
Step 3: Identification of potential sources of contamination;
Step 4: Development and implementation of a management plan for the drinking water protection area; and
Step 5: Planning for the future through the development of a Contingency Plan and planning for future drinking water sources.

This plan was developed during 2003-2004 with technical assistance from the Idaho Rural Water Association (IRWA) and DEQ.

1.3 Drinking Water Protection and Source Water Assessment

Source Water Assessment involves two of the five drinking water protection steps discussed above. These two steps are delineation (Step 2) and contaminant inventory (Step 3). An additional Source Water Assessment step includes a susceptibility analysis, which helps identify contaminant threats to the system by evaluating land use, contaminant sources, well construction, and hydrologic conditions such as geology and soil type. By pursuing Drinking Water Protection, which can also be referred to as Wellhead Protection, the City of Challis is addressing the primary goal of the Source Water Assessment process.

2.0 COMMUNITY TEAM (PLANNING TEAM)

The members of the City of Challis's Drinking Water Protection Planning Team include the following individuals listed in Table 3.

Table 3. City of Challis Drinking Water Protection Planning Team

Marion McDaniel	City Council Member; Mayor pro tem
Jerry Moss	City of Challis Maintenance Foreman
Bonnie Rowles	Business owner; homeowner
Lance Moss	Challis Area Chamber President; homeowner
Corey Rice	City of Challis Maintenance Employee
Don Varney	City of Challis City Employee

Technical Assistance was provided by:

David Risley	DEQ State Office, Boise
Jack Rainey	DEQ Regional Office, Idaho Falls
John Bokor	DEQ Regional Office, Twin Falls
Melinda Harper	Ground Water Protection Specialist, IRWA

2.1 Duties of the Planning Team

The Maintenance Foreman for the City of Challis, Jerry Moss, was named by the Planning Team to be the Team Coordinator and as such, has the responsibility of planning future team meetings and coordinating the implementation schedule. The Team Coordinator will also be the designated contact in case of a water system emergency, and will be the lead contact for any outside references to this Plan. The DEQ and the IRWA will provide continued support and technical assistance to the Planning Team regarding any of the Plan's strategic components. Below is the "Scope of Work" that will be used by the Planning Team to implement their drinking water protection strategy outlined throughout this Plan.

2.2 Implementation Duties (Scope of Work)

The Planning Team will:

- Hold biannual meetings (meeting dates and locations will be announced and posted) to review and update the Plan and its components;
- Update the potential contaminant source inventory;
    - Remove potential contaminant sources that no longer exist or not longer pose a threat; and
    - Add any new sources of potential contaminants found in the protection area (see Tables 5-);
- Evaluate new sources for their risk to the system;
- Prioritize the contaminant risk of point sources within Zone IA or IB, and then develop and implement a protection strategy to manage the potential contaminant;
- Assess nonpoint sources, determine potential risk, develop and implement a protection strategy, and add new strategies to the implementation schedule;
    - Review and update the Contingency Plan (Appendix E); and
    - Review and update the Implementation Schedule for Future Activities;
- Use information materials found in "*Protecting Drinking Water Sources in Idaho*" to implement public education and outreach activities in accordance with the Implementation Schedule;
    Examples:
    - Plan fertilizer (nutrient) management planning workshops with help of the University of Idaho Extension, Custer Soil and Water Conservation District, local fertilizer retailers, or the Natural Resources Conservation Service;
    - Hold annual household hazardous waste collection events;
    - Mail fact sheet summarizing the Drinking Water Protection Plan to public water system users;
    - Mail out frequent water quality reminders with the water bill; and
    - Make the drinking water protection materials listed throughout the Plan available;
- Evaluate the need and applicability of a City of Challis Drinking Water Protection Ordinance (Appendix D provides a sample Drinking Water Protection Ordinance); and
- Initiate discussions with Custer County Planning and Zoning to promulgate the process of establishing a County Drinking Water Protection Ordinance and/or Overlay District.

3.0 DRINKING WATER PROTECTION AREA DELINEATION

The City of Challis's *Source Water Assessment Report* (City of Challis PWS 7190013 Source Water Assessment Final Report, DEQ, June 30, 2002 and City of Challis PWS 7190013 Source Water

Assessment Final Report Part 2, DEQ, May 10, 2004) provides a detailed description of the delineated Drinking Water Protection Area. The Source Water Assessment is excerpted in the following sections.

In 1989, the Idaho Legislature enacted the Ground Water Quality Protection Act that set forth the development of the State Wellhead Protection Plan, also known as Drinking Water Protection. The State Plan provides that the Drinking Water Protection Area (DWPA) is divided into four zones (IA, IB, II, and III). All zones are designed to prevent microbial or chemical contamination of the City of Challis' drinking water supply wells.

- Zone IA is the sanitary setback zone designed to prevent microbial contamination within a 100-foot radius of the well. This setback zone is established in the Idaho Rules for Drinking Water Supplies (IDAPA 58.01.08.900.01) and requires that: sewer lines, livestock, canals, and streams be 50 feet from the source water/wellhead and that: home septic tanks, seepage pits, disposal fields, and privies are 100 feet away;
- The 3-year time-of-travel (TOT) zone (zone indicating the number of years necessary for a particle of ground water to reach the wellhead) corresponds to DWPA Zone IA and IB;
- The 6-year TOT zone corresponds to DWPA Zone II; and
- The 10-year TOT zone corresponds to DWPA Zone III. Time related zones of contribution for the City of Challis's West Well #1, West Well #2, East Well #1 and Well #3 are presented in Appendix A.

To protect surface water systems from potential contaminant pathways, the Environmental Protection Agency (EPA) required that the entire drainage basin be delineated upstream from the Garden Creek surface water intake to the hydrologic boundary of the drainage basin (U.S. EPA, 1997b). This delineation is also referred to as a topographic delineation for systems consisting of small streams. Although the Garden Creek intake was not delineated with a topographic delineation, all the streams of the watershed upstream to their headwaters were delineated.

The EPA recognized that in intake on a large body of water, such as Garden Creek, could have an extensive drainage. Therefore, the EPA recommended that large drainage basins be segmented into smaller areas for the purpose of implementing a cost-effective potential contaminant inventory and susceptibility analysis. The delineation process established the physical area around an intake that became the focal point of the assessment. The process included mapping the boundaries of the zone of contribution into a river buffer zone that extends from the intake upstream 25 miles or to the 4-hour streamflow time-of-travel (TOT) boundary, whichever is greater. In the case of Garden Creek, the headwaters of the creek are reached after approximately 12 hours. This buffer zone also extends up tributaries to the remainder of the 25-mile boundary or the 4-hour TOT boundary.

3.1 Geology

In 2003, the University of Idaho Water Resources Research Institute published "Hydrogeologic Analysis of the Water Supply for the Community of Challis, Custer County, Idaho". This work was funded through a grant from EPA Region 10 to the University of Idaho Water Resources Research Institute and the Idaho Geologic Survey. The discussions in Sections 3.1 and 3.2 are derived from this publication.

Several regional geologic features influence the hydrogeology of the Challis area. The community lies near the eastern margin of the Idaho batholith, near the northern margin of basin and range extension, and within the Eocene-age Challis volcanic field. This diverse assemblage of geologic environments provides a challenge to understanding the controls that structure and rock type play on the local area hydrogeology.

East Central Idaho lies in a geologic terrain dominated by Eocene-age volcanic strata. These rocks erupted 51 to 40 million years ago (McIntyre et al, 1982) onto a steep mountainous topography, similar to that present today. The volcanics emanated primarily from stratovolcanoes (volcanoes that are constructed of alternating layers of lava and pyroclastic deposits, along with abundant dikes and sills) and large calderas (a large basin-shaped volcanic depression, more or less circular, the diameter of which is many times greater than that of the included vent or vents, irrespective of steepness of the walls or form of the volcanic floor). Challis resides in a structural basin bounded on the east by the northern extension of the Borah Peak fault and on the west by a series of smaller parallel faults. Eocene-age volcanic strata were deposited in a proto-Salmon River canyon deeply incised into Proterozoic-age (2,700 million to 660 million years before present) quartzite, suggesting that the Challis basin formed at least 50 million years ago or before.

The Salmon River canyon near Challis formed initially by a combination of faulting and stream erosion during and before eruption of the Challis Volcanics. Faults active at the time of volcanism helped form the topography that largely controlled the thickness of volcanic strata blanketing the area. These volcanic strata now tilt gently to the east, reflecting rotation during renewed faulting (Figure 3). The thickness, distribution of strata and the geometry of faults largely control the location, flow volume and flow direction of ground water. The following section discusses these aspects of the Challis area.

Basaltic Lava Flows

Basalt and andesite (a dark-colored, fine-grained igneous rock) lava flows form the lowest unit exposed in the study area. The flow sequence has a variable thickness with an unknown maximum; based on map distribution it is at least 1,000 feet thick in the Garden Creek drainage. Volcanic textures displayed in outcrops, such as pyroclastic splatter (rock or sediment composed principally of fragments derived from pre-existing rocks or minerals and transported some distance from their places of origin) and spindle bombs incorporated into lavas, indicate that the flows emanated from nearby sources. Age dates indicate this part of the sequence erupted approximately 50.3 million years ago (McIntyre et al, 1982). The basaltic lavas form most of the canyon of Garden Creek west of town. Basalt lavas underlie much of the recharge area for the aquifers that Challis uses. Joints formed during cooling and fractures formed during post-depositional deformation occur throughout the unit, providing avenues for entry and migration of ground water. West Well #2 is collared and terminated in the lavas, is 605 feet deep, and pumps an average of 450-500 gallons per minute.

Air-Fall Rhyolite Ash

The tuff of Penal Gulch, a white to pastel-green volcanic ash erupted from the large Van Horn Peak Caldera complex northwest of Challis (Plate 1, unit Tp; McIntyre, et al, 1982), lies depositionally above the basaltic lava sequence. When erupted, the ash was composed of very fine-grained shards of volcanic glass. Later, the glass devitrified and now forms an aggregate with abundant interstitial clay. The ash probably blanketed the area evenly immediately following eruption, but was resedimented into topographically low areas, so its thickness varies as a function of the paleo land surface. Exposures in the Garden Creek drainage three miles west of town are less than 50 feet thick. The unit thickens progressively to the east, where immediately north of town it is over 200 feet thick. This change in thickness indicates that the faults bounding the Challis Valley were probably active during the eruptive cycle, at least ±45 million years ago.

The ash section provides important controls on the distribution of ground water in the Challis valley. It displays few open fractures or fluid pathways in outcrop and contains an abundance of clay, so likely impedes ground water flow. Erosion has stripped the unit away from most of the aquifer recharge area

for the Challis water supply. Recharge water infiltrates the basalt aquifer and as it travels down gradient, it likely flows beneath the ash section. The unit underlies much of the community and the Salmon River canyon near Challis, so inhibits surface water from entering the underlying basalt aquifer in these areas. West Well #1 penetrates 92 feet of unconsolidated gravels, then cuts 125 feet of altered Penal Gulch tuff before entering the lower basalt lava unit.

Unconsolidated Sediments

Unconsolidated sediments in the study area include landslide deposits, clay beds deposited from lakes, alluvial-fan gravels derived from nearby sources, and gravels deposited by flowing streams. Landslides are common in the study area but generally do not influence the distribution or flow of ground water (Plate 1, unit Qls). One prehistoric slide, however, flowed into Garden Creek from the north, blocked the drainage and formed a lake. Though the landslide dam has since eroded away, clay beds deposited at the bottom of the lake still occur along much of the Garden Creek drainage (Plate 1). The clay beds greatly impede the ability of Garden Creek water to enter the substrate and recharge the bedrock aquifer. Additionally, any contaminants entering Garden Creek upstream of the clay beds will tend to flow overland a greater distance rather than percolating and filtering into the substrate.

The Salmon River has flowed through the Challis valley since at least middle Tertiary time (approximately 65 million years before present) filling the valley with sand and gravel from contemporary and ancestral stream channels. The Salmon River provides water to the gravels, recharging the aquifer utilized by Challis East Well #1 and numerous other wells in the central part of the valley. Similar gravels (Plate 1, unit Qsg), also underlie tributary streams such as Garden Creek. Cone-shaped alluvial fans accumulate along mountain fronts in dry climates and are generally thickest along the range front near where streams emerge from incised canyons. They are composed of angular rock fragments embedded in a matrix of sand, clay, and fine-grained rock particles. Internally, the stratigraphy can be discontinuous, sinuous, and compositionally variable due to the temporal interplay of gravel deposited from flowing streams versus erosion and deposition from flash floods. These complicated stratigraphic patterns (the arrangement of the sequence of rock stata) create an equally complex regime for ground water flow. The City of Challis lies on the upper end of an alluvial fan emanating from the mouth of Garden Creek (Plate 1, unit TQfg).

Structure

Faulting is principally responsible for landforms visible in the Challis area, including the Salmon River valley. Beyond visible landforms, faulting also formed the present distribution and geometry of volcanic rock units underlying the area. The Challis basin is a half graben (an elongate, relatively depressed crustal unit or block that is bounded by faults on its long sides) bound on the east side by the northern extension of the Borah Peak fault, which last moved in 1983. The Borah Peak fault and subsidiary structures drop rocks on the west side of the faults down relative to the east side. This relationship is visible in the strata exposed on the bluffs north of town, where the beds are gently inclined from west to east.

Mapped faults in the study area are numerous, and conform to two general orientations. Most of the faults strike north-northwest and dip steeply to the west. A subsidiary set of faults strikes northeasterly and dips northerly. The pattern created by the intersection of these two sets of faults is rectilinear. The broken, or gouge zones that occur in fault planes are commonly clay rich and act to reduce or preclude flow of water. Ground water migrating down gradient, along the dip of the volcanic beds from west to east may be interrupted by the zones of faulting. The fault geometry defines a set of rectilinear blocks in which concentrations of ground water cannot easily flow into strata of adjacent blocks. The

concentration of clay beds in Garden Creek in combination with the presence of faults is possibly the reason that surface water does not recharge strata adjacent to West Well #1.

Location of faults was used in the delineation of the western wells. Given the complexity of the geology in the area, the delineations for the ground water wells in the City of Challis system are approximations (Figures 2, 3, 4, and 5; Appendix A). The actual data used by DEQ in determining the source water assessment delineation areas is available upon request.

3.2 Hydrogeology

Rock composition and type of occurrence of volcanic strata impart great influence on a rock's ability to store and transmit ground water. Most volcanic strata have little intercrystalline (within and between crystals) porosity, suggesting that fractures formed when the rock crystallizes from molten magma. Cooling fractures are less likely to form in low-temperature, air-fall ash deposits. At Challis, an aquifer in basaltic lava flows provides much of the community's drinking water supply.

Three primary factors influence ground water hydrology of the Challis basin:

1. Climate;
2. Rock characteristics, including fracture density, porosity, and permeability; and
3. Distribution of faults.

Challis lies in an arid part of the state and sees less than 10 inches of precipitation annually. Greater amounts of precipitation fall on the higher terrain west of town. Therefore, remote, higher elevation sources largely supply the water utilized by Challis.

Fractures created during deformation form preferentially in hard, brittle rocks. Two types of volcanic rocks in the Challis area fall into this category, basaltic lava flows and rhyolite ash-flow tuff. Ash-flow tuff, an accumulation of high-temperature ash when deposited, fuses into a dense, vitreous rock. Lower temperature air-fall ash deposits commonly contain abundant clay, which allows the rock to deform without developing through-going fractures. Lava flows and densely welded ash-flow tuff generally create the best aquifers in volcanic rocks because they form the greatest fracture permeability. The terrain surrounding Challis displays an abundance of faults, which influence ground water distribution and flow.

Geologic mapping indicates that gently inclined volcanic strata in combination with a rectilinear network of faults places strong controls on how and where ground water in the Challis basin flows. This, coupled with low recharge volumes due to the dry climate, provides a unique challenge in locating a sustainable source of water.

A recent hydrological study by the Idaho Water Resources Research Institute (Bruce R. Otto, et. al, 2003) indicates that water is derived from three separate and independent sources: surface water from Garden Creek, and two separate ground water aquifers. Challis West Well #1 and West Well #2 penetrate an aquifer within fractured basaltic lavas. The second ground water system, tapped by East Well #1, occurs in unconsolidated sand and gravel that fill the Salmon River Valley. A third ground water system, not presently utilized, lies within shallow sand and gravel zones that underlie Garden Creek Valley.

When drilled in 1989, the depth to water in West Well #2 (approximately 317 feet bgs) suggests isolation from the surrounding aquifer sources. This measurement places the static water level about 300 feet lower than in any surrounding well. Attempts to obtain a new depth to ground water level failed.

Four-hundred and fifty feet of water level measurement tape was run down the borehole in an attempt to obtain the static water level, but no water was encountered; this could be due to either a drop in the static water table from 317 feet bgs to below 450 feet bgs, or that the tape used to measure the static water level somehow got hung up in the well. The fact that the original static water level in West Well #2 was much lower than in the surrounding wells suggests that this well taps a different aquifer than the surrounding wells.

Analysis of pumping records from West Well #2 failed to reveal evidence of long-term water level decline; the records did not show a consistent decline in pumping rate commonly associated with declining water levels. In fact, current pumping rates occasionally exceed the rates recorded when the well was first brought on line. This observation suggests that the aquifer penetrated by West Well #2 does receive some recharge. The source of recharge for the West Well #2 aquifer remains unclear. Since static water level elevation in this well, when drilled, exceeds the elevation of the Salmon River. The Salmon River cannot act as the source of water for West Well #2 simply because water will not flow up hill. The Garden Creek drainage remains the only other possible recharge source.

Currently, no evidence exists suggesting that static water level decline presents a major problem in the alluvial aquifer tapped by East Well #1. The depth to water observed in December 1980 was 157 feet bgs; in December 2001, the depth to water ranged between 159 feet bgs and 165 feet bgs. This suggests that the declining water levels pose no problems in the Salmon River Valley alluvium. Comparable historic and present water levels suggest that the Salmon River is the probable source of recharge; the elevation of the East Well #1 aquifer is nearly the same as the elevation of the Salmon River. This large hydrologic system contains abundant storage and has a large recharge supply. Although East Well #1 taps this robust system, it is recommended that water levels continue to be monitored to ensure demand does not exceed recharge.

Garden Creek flows into Challis from the west. Diverted surface water flows from the stream through slow sand filters, is chlorinated, and then flows into the City's distribution system. Two factors impact the quality and quantity of this water:

1. Upstream domestic and agricultural development and use of Garden Creek water will have a negative impact on the quality and supply of water that reaches the City of Challis diversion; and

2. The amount of annual precipitation, particularly winter snow pack, impacts flow levels of Garden Creek.

Alluvial gravels underlie Garden Creek near West Well #1. Garden Creek flows directly above a 90-foot-thick gravel aquifer in this area, indicating a direct hydraulic connection with Garden Creek. ***The viability of obtaining water from this alluvial aquifer depends on the amount of water in storage and the annual recharge received from Garden Creek.*** Monitoring of new upstream water use will allow an accurate understanding of impacts to this fragile supply. Upstream contamination likely travels rapidly downstream due to clay-rich paleo lake bed sediments that provide a natural lining along much of the Garden Creek drainage.

3.2 Delineation

The delineation process establishes the physical area around a well that will become the focal point of the assessment. The process includes mapping the boundaries of the zone of contribution into time-of-travel (TOT) zones (zones indicating the number of years necessary for a particle of water to reach a well) for water in the aquifer. DEQ ascertained an approximation for the delineations using a refined computer model approved by the EPA to determine the capture zone delineations for the City of Challis

wells. The computer model used site-specific data, assimilated by DEQ from a variety of sources including local area well logs and hydrogeologic reports summarized below (from IWRRI, 2003).

4.0 POTENTIAL SOURCES OF GROUND WATER CONTAMINATION

An inventory of potential point sources of contamination is the third step of a drinking water protection plan. Point sources are facilities and/or activities that store, use, or produce potential contaminants regulated under the Safe Drinking Water Act. There must be a potential for a release of those potential contaminants at a high enough level that could affect drinking water quality. It is important to understand that a release may never occur from a listed point source, particularly if the facility is using best management practices (BMPs) that are designed to reduce contamination risks. If a business, facility, or property is identified as a potential contaminant source, this should not be interpreted to mean that they are in violation of any local, state, or federal environmental law or regulation. What it does mean is that the ***potential*** for contamination exists due to the nature of the business, industry, or operation.

There are a number of methods water systems can use to work cooperatively with facilities generating a potential contaminant source. These involve education and encouraging regular inspections of stored materials. Identifying activities that may pose a potential threat to ground water quality provides communities with an understanding of the possibility of contamination and basic information that can be useful for designing different controls and determining the areas in which they should be applied. Sources that could potentially contaminate the drinking water supply for the City of Challis include both point and nonpoint sources of contamination. Point sources of contamination occur at *distinct* locations. They are often regulated and require permits or registration for facilities that sell, use or store those materials (such as chemical storage sheds). Nonpoint sources of contamination often occur *over large areas* and can result from normal every day activities such as agricultural activities or lawn chemical usage.

4.1 Point Sources of Contamination

A two-phased potential contaminant inventory of the study area was conducted in September 2002 for the Garden Creek source water delineation and in the spring of 2004 for the ground water wells and is excerpted below (City of Challis PWS 7190013 Source Water Assessment Final Report, DEQ, May 10, 2004). The first phase involved identifying and documenting potential contaminant sources within the City of Challis's drinking water delineation areas (Figures 2-6) through the use of computer databases and Geographic Information System (GIS) maps developed by DEQ. The second, or enhanced phase of the potential contaminant inventory, involved allowing the City of Challis's Maintenance Foreman, Jerry Moss, adequate time to verify DEQ's information and provide local knowledge to the process and add any potential contaminant sources in the area.

The source water delineation of West Well #1 has two potential sources of contamination (Figure 2; Table 4), the source water delineation of Well #3 has three potential sources of contamination (Figure 3; Table 5), the source water delineation of East Well #1 has seven potential sources of contamination (Figure 4; Table 6) and the Garden Creek Inlet has 11 potential sources of contamination (Figure 5; Table 7). These potential contaminant sources include underground storage tanks (USTs), a Superfund Amendments Reauthorization Act (SARA) site, an aboveground storage tank (AST), private septic tanks and drain fields, inactive mining prospects, City waste filtration ponds, a road, a surface water source (Garden Creek), and seasonal and all year grazing. West Well #2 does not contain any potential contaminant sources, nor does it contain agricultural land uses, therefore no potential contaminant sources are listed.

Highway 24/25 is a major transportation corridor that crosses the delineations of all three wells, in the 0 to 3-year TOT zone for the Idaho Street Well and the Meadowbrook Well, and in the 3 to 6-year TOT zone for the West Minico Well. Additionally, Highway 27 crosses the West Minico Well delineation in the 0 to 3-year TOT zone. If an accidental spill occurred from these sources, IOCs, VOCs, SOCs, or microbial contaminants could be added to the aquifer system. The Snake River is a major surface water source that crosses the Idaho Street and the West Minico delineations in the 6 to 10-year TOT zone. It could potentially add IOCs, VOCs, and SOCs to the aquifer system via surface runoff.

Table 4. West Well #1 Potential Contaminant Source Inventory

SITE #	Source Description[1]	TOT[2] Zone (years)	Source of Information	Potential Contaminants[3]
	Waste Filtration Ponds	0 – 6	GIS Map	IOC, Microbes
	Garden Creek Road	0 – 10	GIS Map	IOC, VOC, SOC, Microbes
	Seasonal Streams	0 – 10	*Enhanced Inventory*	IOC, VOC, SOC, Microbes

2=TOT=time-of-travel (in years) for a particle of ground water to reach the wellhead.
3=IOC=Inorganic Compound; VOC=Volatile Organic Compound; SOC=Synthetic Organic Compound; M=Microbes (total coliform).

Table 5. West Well #2 Potential Contaminant Source Inventory

SITE #	Source Description[1]	TOT[2] Zone (years)	Source of Information	Potential Contaminants[3]
	Private Road	0 – 3	*Enhanced Inventory*	IOC, VOC, SOC, Microbes
	Seasonal Streams	0 – 10	*Enhanced Inventory*	IOC, VOC, SOC, Microbes

Table 6. Well #3 Potential Contaminant Source Inventory

SITE #	Source Description[1]	TOT[2] Zone (years)	Source of Information	Potential Contaminants[3]
	Water Filtration Ponds	0 – 3	GIS Map	IOC, Microbes
	Garden Creek	0 – 10	GIS Map	IOC, VOC, SOC, Microbes
	Seasonal and Perennial Streams	0 – 10	*Enhanced Inventory*	IOC, VOC, SOC, Microbes
	Garden Creek Road	6 – 10	GIS Map	IOC, VOC, SOC, Microbes
	Private Septic Tanks and Drain Fields	6 – 10	*Enhanced Inventory*	IOC, SOC, Microbes

2=TOT=time-of-travel (in years) for a particle of ground water to reach the wellhead.
3=IOC=Inorganic Compound; VOC=Volatile Organic Compound; SOC=Synthetic Organic Compound; M=Microbes (total coliform).

Table 7. East Well #1 Potential Contaminant Source Inventory

SITE #	Source Description[1]	TOT[2] Zone (years)	Source of Information	Potential Contaminants[3]
1, 3, 4, 5, 6	UST Site – Open; Petroleum distributor; SARA site; AST site	0 – 3	Database Search	IOC, VOC, SOC
2	General Contractors	0 – 3	Database Search	IOC, VOC, SOC

SITE #	Source Description[1]	TOT[2] Zone (years)	Source of Information	Potential Contaminants[3]
	Highway 93	0 – 10	GIS Map	IOC, VOC, SOC, Microbes
	Seasonal streams	0 – 10	*Enhanced Inventory*	IOC, VOC, SOC, Microbes
	Unpaved Jeep Trail	6 – 10	*Enhanced Inventory*	IOC, VOC, SOC, Microbes

1=UST=Underground Storage Tank; SARA= Superfund Amendments Reauthorization Act; AST=Above Ground Storage Tank.
2=TOT=time-of-travel (in years) for a particle of ground water to reach the wellhead.
3=IOC=Inorganic Compound; VOC=Volatile Organic Compound; SOC=Synthetic Organic Compound; M=Microbes (total coliform).

Table 8. Garden Creek Intake Potential Contaminant Source Inventory

SITE #	Source Description[1]	Source of Information	Potential Contaminants[2]
1	Mining Prospect (Fluorine); *Inactive*	*Enhanced Inventory*	IOC
2	Mining Prospect (Lead); *Inactive*	*Enhanced Inventory*	IOC
3	Mining Prospect (Fluorine); *Inactive*	*Enhanced Inventory*	IOC, VOC
4	Mining Prospect (Lead); *Inactive*	*Enhanced Inventory*	IOC
5	Mining Prospect (Lead); *Inactive*	*Enhanced Inventory*	IOC
6	Mining Prospect (Fluorine); *Inactive*	*Enhanced Inventory*	IOC
7	Mining Prospect (Lead); *Inactive*	*Enhanced Inventory*	IOC, VOC
	Garden Creek Road	Database Search	IOC, VOC, SOC, Microbes
	Private Septic Tanks and Drain Fields	*Enhanced Inventory*	IOC, SOC, Microbes
	Private Retreat and Campground; Septic Tanks and Drain Fields; Pond	*Enhanced Inventory*	IOC, VOC, SOC, Microbes
	Season and all year grazing	*Enhanced Inventory*	IOC, VOC, SOC, Microbes

2=IOC=Inorganic Compound; VOC=Volatile Organic Compound; SOC=Synthetic Organic Compound; M=Microbes (total coliform).

An effective drinking water protection program is tailored to the particular local drinking water protection area. A community with a fully developed drinking water protection program will incorporate many strategies. For the City of Challis, drinking water protection activities should first focus on maintaining the requirements of the Sanitary Survey (an inspection conducted every five years with the purpose of determining the physical condition of a water system's components and its capacity). Any spills from the potential contaminant sources listed in Tables 4 - 7 of this report should be carefully monitored, as should any future development in the delineated area of the Garden Creek inlet. Other practices aimed at reducing the leaching of agricultural chemicals from agricultural land within the designated Drinking Water Protection Areas should be implemented. Also, disinfection practices should be maintained if microbial contamination becomes a problem. No chemicals should be stored or applied within the 50-foot radius of the wellheads or the Garden Creek intake. Most of the designated Drinking Water Protection Areas are outside the direct jurisdiction of the City of Challis making partnerships with state and local agencies and industry groups critical to success of drinking water protection.

Due to the time involved with the movement of ground water, drinking water protection activities should be aimed at long-term management strategies even though these strategies may not yield results in the near term. However, the relatively short time involved with the movement of surface water requires drinking water protection activities aimed at short-term management strategies with an emphasis on dealing with log-term future impacts from these same sources. The Garden Creek Bridge crosses Garden

Creek approximately one mile upstream of the intake structure. A strong public education program should be a primary focus of any drinking water protection plan as the delineations are near urban and residential land use areas. Public education topics could include proper lawn and garden care practices, household hazardous waste disposal methods, proper care and maintenance of septic systems, and the importance of water conservation to name but a few. There are multiple resources available to help communities implement protection programs, including the Drinking Water Academy of the EPA. As there are transportation corridors near the delineations, the Idaho Department of Transportation (ITD), Custer County and local Road and Bridge departments should be involved in protection activities. Drinking water protection activities for agriculture should be coordinated with the Idaho State Department of Agriculture, the Soil Conservation Commission, the Custer Soil and Water Conservation District, and the Natural Resources Conservation Service. Activities such as recreation should be coordinated with the Bureau of Land Management (BLM), the Idaho Fish & Game Department, and other related agencies.

4.2 Nonpoint Sources of Contamination

The dominate land use outside the City of Challis delineated Drinking Water Protection Area is non-irrigated agricultural land for seasonal and all year grazing. Highway 95 runs north-south through Challis. Land use within the immediate area of the wellheads consists of both urban, commercial, and residential properties and agricultural land. Nonpoint sources of contamination associated with these land uses are primarily agricultural chemicals including pesticides (insecticides and herbicides) and fertilizers. Additional potential nonpoint sources within the Drinking Water Protection Area, especially within the town boundaries, include incorrect usage and disposal of hazardous household chemicals such as cleaning solvents, used motor oils and degreasers. Throughout the Drinking Water Protection Area, pesticides used by area homeowners and home fuel storage also pose threats to ground water quality.

5.0 DRINKING WATER PROTECTION MANAGEMENT TOOLS

Two broad categories of management measures are available to most community water systems. These are regulatory and non-regulatory measures. In choosing the most appropriate measures, local government officials and water systems operators should consider their situation, and may need to prioritize the implementation of specific measures to make the most of the resources available to them.

Non-regulatory methods will primarily be utilized to manage contaminant sources located within the Drinking Water Protection Area. Non-regulatory approaches rely on voluntary implementation of education and information outreach programming to be effective. The ultimate goal of public education is to empower the public so they can implement drinking water protection efforts.

Regulatory approaches rely on the assistance of City and County enforcement agencies such as Planning and Zoning to provide an "umbrella" of protection to the City of Challis. Without such an approach to either the City of Challis Planning and Zoning, Custer County Planning and Zoning, or the Custer County Commissioners, the City of Challis's desire to protect its delineated Drinking Water Protection Areas from further encroachment may fall short of its intended goal. Although the City of Challis must have the final decision regarding regulatory actions, it is strongly suggested and encouraged that Challis register their drinking water protection plan with Custer County so that, in the future, the drinking water protection plan must be recognized prior to activities that may put the protection areas in jeopardy.

5.1 Regulatory Management Measures

Regulatory management measures to drinking water protection are used by municipalities who have the authority to pass laws or ordinances.

The City of Challis will cite the Idaho Rules Governing Public Drinking Water Systems, which prohibit any potential contaminant source within the setback area of a public drinking water source. The City of Challis will also consider applying for changes in the Custer County zoning overlay and registering their Drinking Water Protection Plan with Custer County Planning and Zoning to protect the City's drinking water from potential contaminating activities that occur outside the City of Paul's jurisdiction. Should the City of Paul desire, a city ordinance may be passed to help protect that portion of the Drinking Water Protection Area located within the city limits of the City of Paul. Other regulatory management measures the City of Paul may pursue include overlay district development, zoning, and comprehensive plan modifications. All of these management measures can be used to help reduce ground water contamination risks from specific potential contaminant sources. An example of a drinking water protection ordinance designed to protect drinking water can be found in Appendix D. Section 9.5.1 discusses regulatory management measures that could be adopted by the City of Paul to protect drinking water quality.

5.2 Non-Regulatory Management Measures

Non-regulatory management measures are intended to reach as broad a spectrum of the community as possible. Protection of the communities' drinking water is really possible only if the whole community cooperates to achieve protection. Public education is an essential tool for drinking water protection, and the majority of the non-regulatory management measures discussed below rely on public education for effective implementation. The implementation strategy is also discussed in many of the following approaches.

5.2.1 Public Education

Ongoing public education will be provided to the general public, the business community, and municipal officials on the necessity of protecting the water supply. This education includes many of the public participation activities and events described below within Sections 6.0 and 9.0. These public participation activities and events include public hearings, town meetings, informational mailings in water bills, and school district activities.

5.2.2 Pollution Prevention

Pollution prevention is waste prevention and resource conservation. Today, the emphasis is on preventing the waste from being generated in the first place, versus recycling an unused, over-purchased, waste material. The goals are to conserve natural resources and protect the quality of the land, water and air, work toward the reuse of items, use products with long lives, use natural resources efficiently and use processes that reduce consumption and waste. Pollution prevention is source reduction or any practice that reduces the amount of any pollutant entering any waste stream.

A good example of a pollution prevention problem is the runoff and downward leaching of lawn fertilizer applications. The primary source of the problem is the over-application of fertilizer associated with an over-application of water, or a normal application of fertilizer associated with an over-application of water. One pollution prevention answer would be to address applying the appropriate amount of fertilizer and other chemicals to a lawn, along with the proper application of water. The use of BMPs is strongly suggested (Section 5.2.5).

5.2.3 Groundwater Guardian Community Membership

The Groundwater Guardian Program supports, recognizes, and connects communities protecting ground water. It is designed to empower local citizens and communities to take voluntary steps toward protecting their ground water resources and can be a catalyst for programs such as drinking water protection. An implementation schedule consists of Result Orientated Activities (ROAs) that a

community planning team develops to ensure measures are taken to protect the community's drinking water. To achieve Groundwater Guardian status, a community must submit annual entry forms and develop and implement Result Oriented Activities (ROAs). The Groundwater Guardian Program application materials are available on-line via the Groundwater Foundation's web site – www.groundwater.org – in the Groundwater Guardian section.

The City of Challis will make information available on pollution prevention practices relevant to homeowners and businesses alike. Pollution prevention will be most effective at reducing the amount of household hazardous waste stored on site by creating the awareness of recycling opportunities. The DEQ Pollution Prevention Program and a non-profit pollution prevention organization called GEMStars are available to carry out pollution prevention activities for businesses. Information on GEMStars is available for review via the GEMStars web site at www.idahogemstars.org. In addition, the owners of each potential contaminant source will be made aware of Idaho's "Voluntary Pollution Prevention Program" and the additional assistance these program personnel can provide.

5.2.4 Home*A*Syst and Farm*A*Syst

The Home*A*Syst Project (H*A*S) and Farm*A*Syst Project (F*A*S) is designed to help homeowners become aware of conditions or practices on their property that increase the risk of drinking water contamination. The H*A*S materials allow a homeowner, farmer, or rancher to assess practices and activities for their potential to contaminate ground water. The fact sheets provide information about practices and structures that can help reduce the risk of ground water contamination. The project is coordinated by the Idaho Association of Soil Conservation Districts and is available at no cost to interested parties. Copies of Home*A*Syst and Farm*A*Syst Project materials will be made available through the City of Challis, or on-line at www.uwex.edu/homeasyst/.

5.2.5 Best Management Practices

Best Management Practices (BMPs) applicable to many potential contaminant sources will either be distributed to those listed in Tables 4-8 or made available through the City of Challis. These BMPs can be applicable to both point and nonpoint sources of contamination such as abandoned wells, agricultural and homeowner usage of fertilizers and pesticides, spill prevention within businesses where chemicals are handled, USTs, and agrichemical mixing and storage. Information on how to obtain technical and financial assistance for BMP implementation will also be provided where available. The DEQ is available to assist the City of Challis in identifying appropriate BMPs or identifying agencies or entities that can help provide BMPs and implementation assistance.

5.2.6 Household Hazardous Waste Collection

Planning Team members will encourage the development of a local household hazardous waste collection day and, at a minimum, will inform residents of household hazardous waste collection events within Custer County or neighboring Challis communities.

5.2.7 Water Conservation

Another non-regulatory management approach that will be pursued by the City of Challis will be to encourage water conservation. Water conservation can help a community in many ways, including:

1) Allowing the most efficient use of water within the drinking water system to defer capital expenditures to increase the water system capacity;
2) Reducing the load on municipal or private waste treatment facility;
3) Reducing the total quantity of water withdrawn from a ground water aquifer, thus slowing the movement of contaminants within the aquifer and allowing a longer period of time for natural processes to degrade them; and

4) Controlling the over-application of lawn irrigation water to limit the leaching of agricultural chemicals into the ground water.

5.2.8 Water Quality Data Reviews

Water quality data from the City of Challis's West Well #1, West Well #2, Well #3, East Well #1, the Garden Creek intake, and any ground water quality monitoring results in the vicinity of the City of Challis's Drinking Water Protection Area will be reviewed by the City of Challis's Drinking Water Protection Coordinator and DEQ at least once every three years prior to recertification (currently, certification is for a period of three years), or more often if significant new data is made available or water quality problems are identified in the vicinity. This will help evaluate trends or identify threats to the City of Challis's drinking water. Ground water quality monitoring results from private wells in the Challis area can be provided by the DEQ, the Idaho State Department of Agriculture, the Idaho Department of Water Resources or the U.S. Geological Survey (USGS). Relevant information will be made available to the community via the City of Challis's Drinking Water Protection Coordinator or the appropriate state or federal agencies.

6.0 MANAGEMENT TOOLS AND PROTECTION MEASURES FOR POTENTIAL CONTAMINANT SOURCES

The City of Challis's Drinking Water Protection Planning Team has identified development upstream of the Garden Creek intake as its most serious threat to the City's drinking water. Efforts are underway to protect this drinking water source from the possibility of further contamination due to encroachment as well as ensuring that the City is fairly represented and its drinking water needs may still be met by monitoring water usage upstream of the intake. As this involves land owned by private individuals, the focus of initial implementation will be public education and awareness.

The Planning Team will evaluate and identify any specific potential contaminant sources as part of the biannual plan review. Appropriate management tools and protection measures will be initiated as potential contaminate sources are identified.

6.1 Management Tools

An education program will be initiated and utilized to create public awareness of the vulnerability of the City of Challis's drinking water to potential contaminant sources as well as its currently limited capacity development. Section 9 outlines a proposed implementation strategy and schedule.

7.0 CONTINGENCY PLAN

A contingency plan is the blueprint outlining roles and responsibilities in the event that the system experiences a disruption due to contamination, loss of power, natural disasters such as drought or flooding, or other circumstances where it cannot provide services. The development and implementation of a contingency plan increases the likelihood that correct and immediate action will be taken and that any damage or potential health risk, both in the long and short term, will be minimized. The Contingency Plan is designed to assist and facilitate community actions in the event of a drinking water emergency. The Contingency Plan will help the City of Challis make well thought-out, educated decisions under the most adverse of conditions. Appendix E contains the Contingency Plan for the drinking water supply for the City of Challis. Copies of the Contingency Plan will be located in the Challis's City Hall, and at the Public Works shop.

7.1 Emergency Spill Response

The primary concern during any hazardous materials spill is immediate public health and safety. In the event of a release of hazardous materials, the designated personnel will contact appropriate state and federal agencies for a rapid and concise response. The Idaho Bureau of Hazardous Materials Action Plan and Emergency Spill Response Flow Chart (Appendix F) will be referred to. The City of Challis will also implement their Contingency Plan in case the water system is impacted. Additional information on state and federal agencies with emergency planning roles, including phone numbers, can be found in Section VII of the Contingency Plan.

8.0 PLANNING FOR NEW WATER SOURCES

This plan includes a review of water quality/supply and evaluation of the need for a new water source. When a potential need is identified, drinking water protection areas will be estimated to determine the safest location for a new water source. New drinking water sources will be delineated in a manner consistent with the delineation process for existing drinking water sources. In addition, if there are major changes to an existing source's construction, discharge rate or pumping rate, then the existing delineation should be reviewed to ensure that it still represents the appropriate source water protection zones. Delineations may be updated or modified if significant new information becomes available.

The delineation for any new or modified well site will be inventoried for any potential contaminant sources, and the risk evaluated. The anticipated pumping rate and existing knowledge of the aquifer will be used to determine which proposed location for potential new wells would provide the least risk of contamination. The City of Challis will then take appropriate actions to prevent unwanted development near the new well site.

8.1 Encroachment

Encroachment is an issue that is now affecting more and more public water systems throughout the State of Idaho. With increasing populations, industrial and commercial developments and the seemingly never-ending sprawl of suburbs, communities with ground water wells and surface intakes once located in isolated areas are now facing challenges associated with the steadily increasing number of potential contaminant sources surrounding the area. Although a daunting task, the responsibility of addressing such an issue and taking actions including but not limited to purchasing land where a new water source will be eventually located must rest with the governing members of the community. By taking control of and managing the site where the new drinking water source will be located, community leaders are in a position of serving their community by guarding its most valuable resource, clean, safe drinking water.

9.0 IMPLEMENTATION STRATEGY

The strategy for implementing this Drinking Water Protection Plan is an important component of any local drinking water protection program. Without the continued efforts and support of the Community Planning Team and the community as a whole, the protection of the City of Challis's drinking water may not be accomplished as intended within this Plan. Table 8 contains the schedule outlining the implementation strategy developed by the Planning Team; it was determined that goal dates should commence with each of the City's fiscal years, beginning October 1 and ending September 30.

This Implementation Schedule is a guide that the City of Challis will use to implement drinking water protection activities. The Implementation Schedule is designed to implement drinking water protection

activities that will create a sustainable Drinking Water Protection Program that addresses the potential contaminant sources identified in the Source Water Assessment.

Table 8. Implementation Schedule

Goal Date	Protection Activity/ Scope of Work	Potential Contaminant Source Addressed/Method
Year 1, 2004 Oct. 1 thru Sept. 30	1. Complete Security Vulnerability Self-Assessment Guide for Small Drinking Water Systems.	All sources/Public awareness and education; pollution prevention; water conservation; threat and security preparedness; BMPs.
	2. Erect fencing for West Well #1 and West Well #2.	All sources/Pollution prevention; threat and security preparedness.
	3. Investigate feasibility of extending City impact area.	All sources/Pollution prevention.
	4. Initiate program to regularly test Garden Creek for total and fecal coliform.	Microbes/Pollution prevention; BMPs.
	5. Contact District 7 Health Department and Idaho Department of Water Resources regarding compliance of any new construction on Garden Creek.	Capacity development; pollution prevention; BMPs.
	6. Regularly monitor along Garden Creek for potential pollution activities.	All sources/Pollution prevention; BMPs.
	7. Remind citizens and make available yearly Consumer Confidence Report.	All sources/Public awareness and education; pollution prevention; water conservation.
	8. Implement water restrictions as needed during high demand periods.	Public awareness and education; water conservation; BMPs.
	9. IRWA to host "Water Awareness Day" at local school.	All sources/Public awareness and education; pollution prevention; water conservation; threat and security preparedness; BMPs.
	10. Evaluate potential contaminant source inventory; update as needed.	All sources/Pollution prevention; BMPs.
Year 2, 2005 Oct. 1 thru Sept. 30	1. Review security measures; upgrade as needed.	All sources/Pollution prevention; threat and security preparedness.
	2. Apply for change in City impact area.	All sources/Pollution prevention.
	3. Continue regular testing of Garden Creek for total and fecal coliform.	Microbes/Pollution prevention; BMPs.
	4. Continue to monitor development on Garden Creek.	Capacity development; pollution prevention; BMPs.
	5. Remind citizens and make available yearly Consumer Confidence Report.	Public awareness and education; pollution prevention; water conservation.
	6. Implement water restrictions as needed during high demand periods.	Capacity development; water conservation; threat and security preparedness; BMPs.

Table 8 (continued). Implementation Schedule

Goal Date	Protection Activity/Scope of Work	Potential Contaminant Source Addresses/Method
Year 2, 2005 Oct. 1 thru Sept. 30	7. IRWA to host "Water Awareness Day" at local school.	All sources/Public awareness and education; pollution prevention; water conservation; BMPs.
	8. Evaluate potential contaminant source inventory; update as needed.	All sources/Pollution prevention; BMPs.
Year 3, 2006 Oct. 1 thru Sept. 30	1. Review security measures; upgrade as needed.	All sources/Public awareness and education; water conservation; pollution prevention; threat and security preparedness; BMPs.
	2. Continue regular testing of Garden Creek for total and fecal coliform.	Microbes/Pollution prevention; BMPs.
	3. Continue to monitor development on Garden Creek.	Capacity development; pollution prevention; BMPs.
	4. Remind citizens and make available yearly Consumer Confidence Report.	Public awareness and education; pollution prevention; water conservation.
	5. Implement water restrictions as needed during high demand periods.	Capacity development; water conservation; threat and security preparedness; BMPs.
	6. IRWA to host "Water Awareness Day" at local school.	All sources/Public awareness and education; pollution prevention; water conservation; BMPs.
	7. Evaluate potential contaminant source inventory; update as needed.	All sources/Pollution prevention; BMPs.
Year 4, 2007 Oct. 1 thru Sept. 30	1. Renew State Certification of drinking water protection plan.	All sources/Public awareness and education; pollution prevention; water conservation; threat and security preparedness; BMPs.

9.1 Plan for the future

To assure a safe drinking water supply for the City of Challis, the Planning Team will implement this Drinking Water Protection Plan as a long-term protection strategy for the City's drinking water supply. The strategy outlined in this Plan will be reviewed and updated on a regular basis (preferably biannually) to accommodate changes due to population growth, economic development or changes in land use. Table 8 is the implementation schedule for the City of Challis fiscal years 2004 - 2007. It will need to be updated along with the Contingency Plan when the Planning Team meets to update this Plan. The City of Challis's Source Water Assessment will be utilized as a tool to help assess potential hazards to drinking water quality. The DEQ is available to provide technical assistance to the Planning Team whenever new potential contaminant sources need to be addressed.

9.2 Community Team

The Drinking Water Protection Planning Team for the City of Challis will meet biannually to coordinate drinking water protection activities and to review and update the Implementation Schedule. The meetings should focus on evaluating how well the drinking water protection activities are working and to determine whether more outreach needs to be done. These meetings should also review and update the potential contaminant inventory, the Contingency Plan, and other sections as appropriate. Meeting notices should be made public to increase participation from members within the community.

9.3 Delineation

New drinking water sources will be delineated in a manner consistent with the delineation process used for the existing drinking water sources. If there are major changes to an existing source's construction, discharge rate or pumping rate, then the existing delineation should be reviewed to ensure that it still represents the appropriate drinking water protection zones. Delineation's may be updated or modified if significant new information becomes available.

9.4 Potential Contaminant Inventory

The Community Planning Team will update the potential contaminant inventory for the Drinking Water Protection Area as new, significant potential contaminant sources are noted within the Drinking Water Protection Area through general observations. If new sources of contamination are found, they will need to be added to the existing inventory. New sources will also need to be assessed for pollution prevention.

9.5 Contaminant Management Practice

The Planning Team will coordinate efforts to implement the contaminant management practices within Section 5.0 in accordance with the Drinking Water Protection Implementation Schedule. The implementation strategy for the City of Challis includes both regulatory and non-regulatory approaches, with the focus on non-regulatory approaches. Public education and community involvement are important implementation components. The Planning Team will organize public education with the assistance of partnering state and federal agencies.

9.5.1 Approaches to Regulatory Management Methods

The planning team will evaluate the need and desirability of various approaches to regulatory management means as described below:

Bonding- Facilities may be required to post a bond prior to operation in a drinking water protection area. Bonds can cover costs associated with spill response or remediation efforts.

Building Codes- Local building codes offer protection through special standards applicable to facilities which are remodeled or constructed in a drinking water protection area. Building codes can require low flow fixtures, backflow prevention and other design features to conserve and protect water quality.

Design Standards- Design standards typically are regulations that apply to the design and construction of buildings or structures. This tool can be used to ensure that new buildings or structures placed within a drinking water protection area are designed so as not to pose a threat to the water supply, such as requiring an impermeable liner on a settling pond.

Operating Standards- Operating standards are regulations that apply to ongoing land-use activities to promote safety or environmental protection. Such standards can minimize the threat to a drinking water protection area from ongoing activities such as the storage and use of hazardous substances through requirements such as secondary containment and spill response capabilities, or requiring that septic systems be properly maintained.

Performance Standards- Performance standards are used to regulate development within drinking water protection areas by enforcing predetermined standards for water quality. They may be applied at a predetermined ground water monitoring compliance point, at the point of injection, or through the use of contaminant source modeling. One example is the requirement that the amount of storm water runoff be the same before and after construction when developing or improving a site.

Potential Source Prohibitions or Restrictions- Source prohibitions or restrictions are regulations that prohibit or place restrictions on the use of certain chemicals that pose a high risk to water contamination such as Atrazine or Trichloroethene, or prohibit or place restrictions on the placement of some high-risk potential contaminant sources such as underground storage tanks, underground injection wells, lagoons, feedlots, or landfills.

Site Plan Review- Site plan reviews are regulations requiring developers to submit for approval plans for developments occurring within a given area. This tool ensures compliance with regulations or other requirements made within a drinking water protection area.

Special Permitting or Reviews- Special permits or reviews are used to set conditions for certain uses and activities that pose a high risk to water contamination within drinking water protection areas if left unregulated. One example is to require that new feedlots within certain drinking water protection area zones be required to have a city or county permit or review that requires ground water quality monitoring and the use of certain water quality protection management practices.

Subdivision Ordinances- Subdivision ordinances are applied to land divided into two or more subunits for sale or development. Local governments use this tool to protect drinking water areas in which ongoing development is causing contamination. An example of a subdivision ordinance would be to require a minimum lot size for single family homes using septic systems so as to limit septic system density and subsequent ground water contamination.

Transport Prohibitions- The transport of chemical compounds, which pose a high risk to water quality if spilled, can be restricted within a drinking water protection area by requiring alternative transportation routes.

Zoning Ordinance- Zoning ordinances typically are comprehensive land-use requirements designed to direct the development of an area. Many local governments have used zoning to restrict or regulate certain land uses, which have the potential to contaminate water within drinking water protection areas.

Zoning Overlay-Overlay zones can be used in conjunction with conventional zoning to create special districts that protect a drinking water protection area. Overlay zones are applied to areas singled out for special protection, such as a drinking water protection area, and add regulations to those controls already in place. This method helps address "grandfathered" potential contaminant sources in drinking water protection areas.

9.5.2 Approaches to Non-Regulatory Management Methods

The Planning Team will coordinate efforts to implement approaches to non-regulatory management methods to drinking water protection, with the City of Paul taking the lead role toward implementing many of the approaches found in Section 5.2, including Groundwater Guardian Community membership and educational activities discussed under Sections 5.2.1 and 5.2.2. A major component of the Implementation Strategy is to work with the local community and the various local, state, and federal programs and personnel available for implementation assistance. This includes obtaining assistance from the Home*A*Syst and/or Farm*A*Syst program coordinator and DEQ Pollution Prevention Program personnel as discussed under Sections 5.2.3 and 5.2.4.

The DEQ Source Water/Wellhead Protection Coordinator located at the DEQ Idaho Falls Regional Office and other appropriate DEQ support personnel, as requested by the Planning Team, can assist in the area of coordinating support among the various local, state, and federal programs. The DEQ Source

Water/Wellhead Protection Coordinator will also help with water quality data reviews (Section 5.2.8) and can assist with public education outreach on best management practices (Sections 5.2.2 and 5.2.5).

The Planning Team will work with the local community where desirable to help identify and pursue available funding opportunities for implementing different approaches. This can include working with the Natural Resources Conservation Service to obtain Environmental Quality Improvement Project funds for agricultural BMP implementation or working with the DEQ to obtain Nonpoint Source Section 319 BMP implementation funding. Chapter 4 of the Idaho Nonpoint Source Management Plan contains a comprehensive list of funding sources available for implementation of BMPs. Idaho Rural Water Association is also available to assist in the pursuit of funding.

9.6 Additional Implementation Considerations

The City of Challis's Contingency Plan and efforts associated with planning a new well location will be updated on an as-needed basis as determined by the Planning Team. Once source water assessment information is made available, the Planning Team will evaluate the information, particularly the susceptibility analyses, and decide if there are any needed modifications or additions to this Plan or its implementation. Information from capacity development and the City of Challis's water system master plan will also be taken into consideration for drinking water protection planning and implementation purposes, as determined by the Planning Team.

10.0 SECURITY VULNERABILITY SELF-ASSESSMENT GUIDE FOR SMALL DRINKING WATER SYSTEMS

Water systems are critical to every community. Protection of public drinking water systems must be a high priority for local officials and water system owners and operators to ensure an uninterrupted water supply, which is essential for the protection of public health (safe drinking water and sanitation) and safety (fire fighting).

Adequate security measures will help prevent loss of service through terrorist acts, vandalism, or pranks. If a system is prepared, such actions may even be prevented. The appropriate level of security is best determined by the water system at the local level.

A Security Vulnerability Self-Assessment Guide is designed to help small water systems determine possible vulnerable components and identify security measures that should be considered. A "vulnerability assessment" is the identification of weaknesses in water system security, focusing on defined threats that could compromise its ability to provide adequate potable water, and/or water for firefighting. This document is designed particularly for systems that serve populations of 3,300 or less. This document is meant to encourage smaller systems to review their system vulnerabilities, but it may not take the place of a comprehensive review by security experts.

This document is designed for use by water system personnel. Physical facilities pose a high degree of exposure to any security threat. This self-assessment should be conducted on all components of your system (wellhead or surface water intake, treatment plant, storage tank(s), pumps, distribution system, and other important components of your system).

The Assessment will include an emergency contact list for the system's use. This list will help the system identify who needs to be contacted in the event of an emergency or threat and will help the system develop communication and outreach procedures.

The purpose of this document is to start the process of security vulnerability assessment and security

enhancements. Security is not an end point, but a goal that can be achieved only through continued efforts to assess and upgrade a system.

This is a sensitive document and as such should be stored separately in a secure place at the water system. A duplicate copy should also be retained at a secure off-site location.
Access to this document should be limited to key water system personnel and local officials as well as the state drinking water primacy agency and others on a need-to-know basis. Therefore, this document will not be included in this report.

11.0 PUBLIC PARTICIPATION

Public participation during the development of this Drinking Water Protection Plan has included the below listed items. Additional public participation will be pursued as part of the implementation process.

- Public meetings;
- Discussion at town council meetings;
- Articles in local newspapers;
- Flyers posted at appropriate locations throughout City (Post office, City Hall, convenience stores, gas stations, etc.);
- Community Workshops.

Citizens can obtain updated information on the City of Paul's Drinking Water Protection Plan, implementation efforts, Source Water Assessments, and drinking water issues at Paul's City Hall, and the Public Works shop.

12.0 REFERENCES

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APPENDIX A

Delineations

Figure 1. Geographic Location of the City of Challis

Figure 2. East Well #1 Source Water Delineation

Figure 2. City of Paul Delineation Map and Potential Contaminant Source Locations

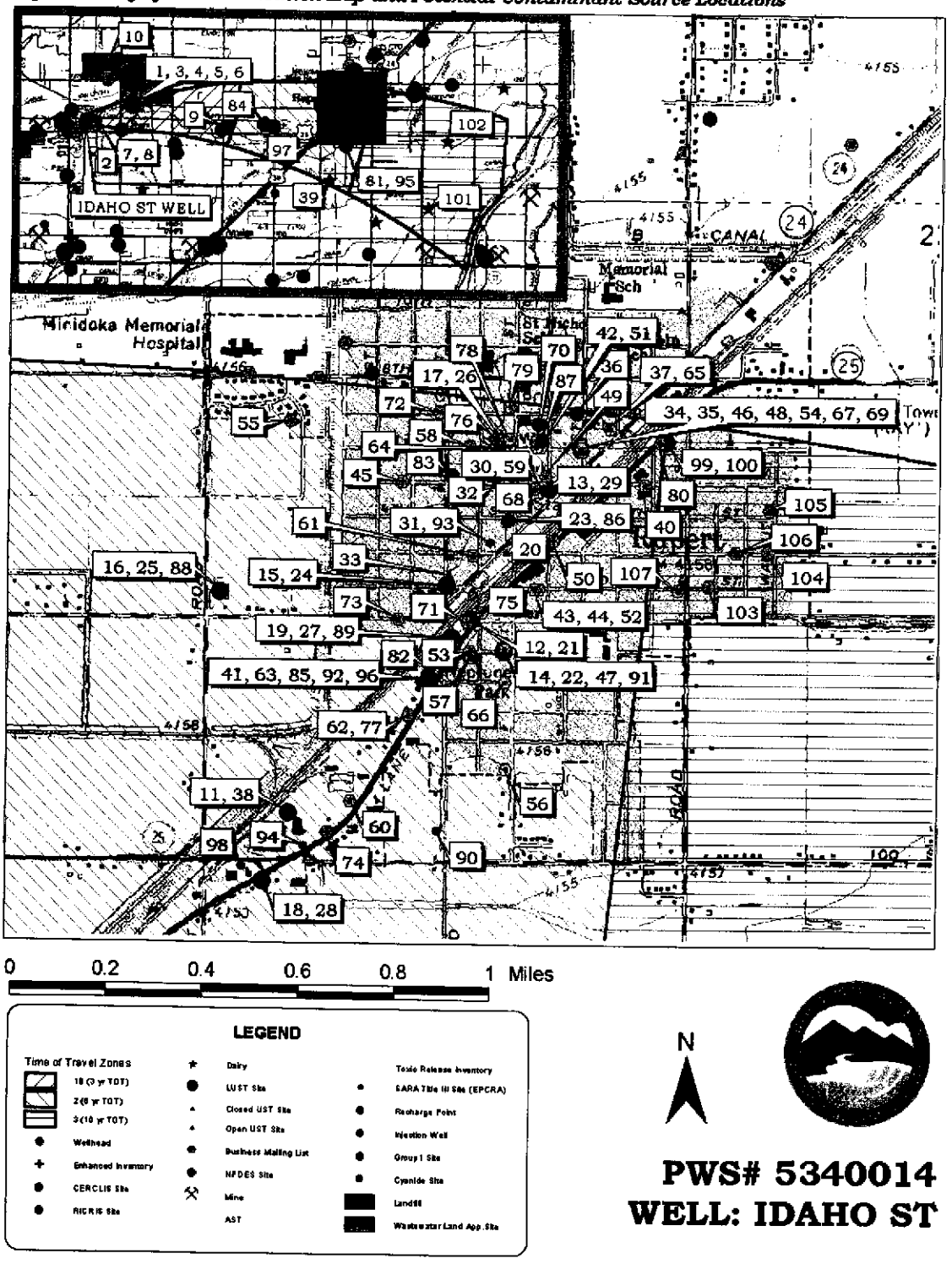


Figure 3. West Well #1 Ground Water Delineation

Figure 4. West Well #2 Ground Water Delineation

Figure 5. Well #3 Ground Water Delineation

Figure 6. Garden Creek Source Water Delineation

APPENDIX B

Well Logs

Figure 7. West Well #1 Well Log

APPENDIX C

Overview of Potential Contaminant Sources
(Ground and Surface Water)

OVERVIEW OF POTENTIAL CONTAMINANT SOURCES
(Ground and Surface Water)

Table 9 provides an overview of potential contaminant sources and the contaminants that may be associated with each source. These sources represent many of the businesses, industries, operations, land uses, and environmental conditions that handle, generate, store, apply, dispose of, or provide a pathway for the contaminants of concern. The sources are separated into four categories:

1) Commercial/Industrial;
2) Agricultural/Rural;
3) Residential/ Municipal, and
4) Miscellaneous;

These sources can apply to either ground water or surface water, and many can apply to both ground and surface water. Where a potential contaminant source generally applies to only ground water or surface water, it is noted within Table 9.

Table 9. Potential Contaminant Sources (Ground and Surface Water)

Source		**Potential Contaminants** [1,2,3]
Commercial/Industrial		
Automobile	Body Shops/ Repair Shops	Waste oils, gasoline and diesel fuels; solvents, acids, paints, automotive wastes[4], miscellaneous cutting oils.
	Car Washes	Soaps, detergents, waxes, miscellaneous chemicals, hydrocarbons.
	Gas Stations	Petroleum fuels, oil, solvents, miscellaneous wastes.
Boat Services/Repair/Refinishing		Gasoline and diesel fuels, oil, septage from boat waste disposal area, wood preservative and treatment chemicals, paints, waxes, varnishes, automotive wastes[4].
Cement/Concrete Plants		Diesel fuel, solvents, oils, miscellaneous wastes.
Chemical/Petroleum Processing/Storage		Hazardous chemicals, solvents, hydrocarbons, heavy metals.
Dry Cleaners		Solvents (tetrachloroethylene, petroleum solvents), spotting chemicals (trichloroethane, methyl chloroform, ammonia, peroxides, hydrochloric acid, rust removers, amyl acetate).
Electrical/Electronic Manufacturing		Cyanides, metal sludge, caustic (chromic acid), solvents, oils, alkalis, acids, paints and paint sludges, PCBs.
Fleet/Trucking/Bus Terminals		Waste oil, solvents, gasoline and diesel fuel from vehicles and storage tanks, fuel oil, other automotive wastes[4].
Food Processing		Nitrates, salts, phosphorous, miscellaneous food wastes,

Source	Potential Contaminants [1,2,3]
	chlorine, ammonia, ethylene glycol.
Furniture Repair/Manufacturing	Paints, solvents, degreasing and solvent recovery sludges, lacquers, sealants.
Hardware/Lumber/Parts Stores	Hazardous chemical products in inventories, heating oil and fork lift fuel from storage tanks, wood-staining and treating products such as creosote, paints, thinners, lacquers, varnishes.
Home Manufacturing	Solvents, paints, glues and other adhesives, waste insulation, lacquers, tars, sealants, epoxy wastes, miscellaneous chemical wastes.
Junk/Scrap/Salvage Yards	Automotive wastes[4], PCB contaminated wastes, any wastes from businesses[5] and households[6], oils, lead.
Machine Shops	Solvents, metals, miscellaneous organics, sludges, oily metal shavings, lubricant and cutting oils, degreasers (tetrachloroethylene), metal marking fluids, mold-release agents.
Metal Plating/Finishing/Fabricating	Sodium and hydrogen cyanide, metallic salts, hydrochloric acid, sulfuric acid, chromic acid, boric acid, paint wastes, heavy metals, plating wastes, oils, solvents.
Mines/Gravel Pits	Mine spills or tailings that often contain metals, acids, highly corrosive mineralized waters, metal sulfides, metals, acids, minerals sulfides, other hazardous and nonhazardous chemicals, petroleum products and fuels.
Photo Processing/Printing	Biosludges, silver sludges, cyanides, miscellaneous sludges, solvents, inks, dyes, oils, photographic chemicals.
Plastics/Synthetics Producers	Solvents, oils, miscellaneous organic and inorganics (phenols, resins), paint wastes, cyanides, acids, alkalis, wastewater treatment sludges, cellulose esters, surfactant, glycols, phenols, peroxides, etc.
Research/University/Hospital Laboratories	X-ray developers and fixers[7], infectious wastes, radiological wastes, biological wastes, disinfectants, asbestos, beryllium, solvents, infectious materials, drugs, disinfectants, miscellaneous chemicals.
Wood Preserving/Treating	Wood preservatives: creosote, pentachlorophenol, arsenic, heavy metals.
Wood/Pulp/Paper Processing and Mills	Metals, acids, sulfides, other hazardous and nonhazardous chemicals, organic sludges, sodium hydroxide, chlorine, hypochlorite, chlorine dioxide, hydrogen peroxide, methanol, paint sludges, solvents, creosote, coating and gluing wastes.

Source	Potential Contaminants [1,2,3]
Agricultural/Rural	
Livestock Auction Lots/Boarding Stables	Nitrates, phosphorous, bacteria, and viruses, total dissolved solids.
Confined Animal Feeding Operations Slaughter House and Butcher Facilities	Nitrates, phosphorous, chloride, chemical sprays and dips for controlling insect, bacteria and viruses, total dissolved solids.
Farm Machinery Repair	Automotive wastes[4], solvents, fuel.
Crops - Irrigated and Non-irrigated	Pesticides[8], nitrate & phosphorous (from fertilizers), salts, sediment (from runoff).
Wastewater/Sludge/Manure Land Application or Disposal Locations	Nitrates, metals, salts, bacteria and viruses.
Lagoons/Liquid Wastes	Nitrates, livestock sewage wastes, salts, bacteria.
Pesticide/Fertilizer/Petroleum Storage & Transfer Areas	Pesticides[8], nitrate, phosphorous, petroleum residues.
Residential/Municipal	
Airports (Maintenance/Fueling Areas)	Aviation fuels, deicers, diesel fuel, chlorinated solvents, automotive wastes[4], heating oil, building wastes[5].
Camp Grounds/RV Parks, Marinas	Septage, gasoline, diesel fuel from boats, pesticides[8], household hazardous wastes from recreational vehicles (RVs)[6].
Drinking Water Treatment plants	Treatment chemicals.
Golf Courses	Pesticides[8], nitrate, phosphorous, arsenic.
Landfills/Dumps	Organic and inorganic chemical contaminants; waste from households[6] and businesses[5], nitrates, oils, metals, solvents.
Motor Pools	Automotive wastes[4]: solvents, waste oils, fuel storage.
Railroad Yards/Maintenance/Fueling Areas	Diesel fuel; herbicides for rights-of-way[8], creosote from preserving wood ties, solvents, paints, waste oils.
School Maintenance Facilities	Machinery/vehicle serving wastes, gasoline.[4].
Septic Systems (large community systems or 10 single systems on 40 acres)	Bacteria, viruses, nitrates, salts, dissolved solids, improperly disposed of household or business wastes[5,6,9].
Utility Stations/Maintenance Areas	PCBs from transformers and capacitors, oils, solvents, sludges, acid solution, metal plating solutions (chromium, nickel, cadmium).

Source	Potential Contaminants [1,2,3]
Waste Transfer/Recycling Stations	Residential and commercial solid waste residues.
Wastewater Effluent to Surface Waters (primarily surface water concern)	Municipal wastewater, sludge[10], treatment chemicals[11], nitrates, heavy metals, bacteria, nonhazardous wastes.
Miscellaneous	
Above Ground Storage Tanks	Diesel, gasoline, other chemicals.
Construction/Demolition Areas (Plumbing, Heating, and Air Conditioning, Painting, Carpentry, Flooring, Roofing and Sheet Metal etc.)	Solvents, asbestos, paints, glues and other adhesives, wastes insulation, lacquers, tars, sealants, epoxy waste, miscellaneous chemical wastes, explosives, sediment.
Historic Gas Stations	Diesel fuel, gasoline, kerosene.
Historic Waste Dumps/Landfills	Leachate, organic and inorganic chemicals, waste from households[6], and businesses[5], nitrates, oils, heavy metals, solvents.
Injection Wells/Dry Wells/Sumps (primarily ground water concern)	Storm water runoff, used oils, antifreeze, gasoline, solvents, other petroleum products, pesticides[8], and other chemical substances.
Storm Water Drainage to Surface Waters (primarily surface water concern)	Storm water runoff, oils, antifreeze, metals, sediment, and pesticides, and a wide variety of other substances.
Military Installations	Wide variety of hazardous and nonhazardous wastes depending on the nature of the facility, diesel fuels, jet fuels, solvents, paints, waste oils, heavy metals, radioactive wastes, explosives.
Surface Water - Stream/Lakes/Rivers/Recharge Sites	Ground Water: bacteria and viruses, cryptosporidium. Surface Water: nitrates, pesticides, sediment from Ag. return drains.
Transportation Corridors	Herbicides in highway right-of-way[8], road salt (sodium and calcium chloride), road salt anti-corrosives (phosphate and sodium ferrocyanide), automotive wastes[4], nitrate or phosphorous from fertilizer use.
Forest Roads /Logging (primarily surface water concern)	Sediment, fuel spills.
Landslides/Burn Areas (primarily surface water concern)	Sediment.
Underground Storage Tanks	Diesel, gasoline, heating oil, other chemical and petroleum products.

Source	Potential Contaminants [1,2,3]
Unsealed or Abandoned Wells, and Test Holes (primarily ground water concern)	Storm water runoff, solvents, nitrates, septic tanks, hydrocarbons, and a wide variety of other substances.

1. In general, surface or ground water contamination stems from the misuse and improper disposal of liquid and solid wastes; the illegal dumping or abandonment of household, commercial, or industrial chemicals; the accidental spilling of chemicals from trucks, railways, aircraft, handling facilities, and storage tanks; or the improper siting, design, construction, operation, or maintenance of agricultural, residential, municipal, commercial, and industrial drinking water wells and liquid and solid waste disposal facilities. Contaminants also can stem from atmospheric pollutants, such as airborne sulfur and nitrogen compounds, which are created by smoke, flue dust, aerosols, and automobile emissions, fall as acid rain, and percolate through the soil. When the sources listed in these tables are used and managed properly, water contamination is not likely to occur.

2. Contaminants can reach ground water from activities occurring on the land surface, such as industrial waste storage; from sources below the land surface but above the water table, such as septic systems; from structures beneath the water table, such as wells; or from contaminated recharge water.

3. This table lists the most common potential contaminants, but not all-potential contaminants. For example, it is not possible to list all potential contaminants contained in storm water runoff or from military installations.

4. Automobile wastes can include gasoline; antifreeze; automatic transmission fluid; battery acid; engine and radiator flushes; engine and metal degreasers; hydraulic (brake) fluid; and motor oils.

5. Common wastes from public and commercial buildings include automotive wastes; and residues from cleaning products that may contain chemicals such a xylenols, glycol esters, isopropanol, 1, 1, 1, -trichloroethane, sulfonates, chlorinated phenols, and cresol.

6. Households wastes include common household products that can contain a wide variety of toxic or hazardous components.

7. X-ray developers and fixers may contain reclaimable silver, glutaldehyde, hydroquinone, potassium bromide, sodium sulfite, sodium carbonate, thiosulfates, and potassium alum.

8. Pesticides include herbicides, insecticides, rodenticides, and fungicide. EPA has registered approximately 50,000 different pesticide products for use in the United States. Many are highly toxic and quite mobile in the subsurface.

9. Septic tank/cesspool cleaners include synthetic organic chemicals such as 1, 1, 1,-trichloroethane, tetrachloroethylene, carbon tetrachlorine, and methylene chloride.

10. Municipal wastewater treatment sludge can contain organic matter, nitrates; inorganic salts; heavy metals; coliform and noncoliform bacteria; and viruses.

11. Municipal wastewater treatment chemicals include calcium oxide; alum; activated alum; polymers; ion exchange resins; sodium hydroxide; chlorine; ozone; and corrosion inhibitors.

Source: Adapted from EPA (1993).

APPENDIX D

Drinking Water Protection Ordinance Template
(Example)

- Example -
Drinking Water Protection Ordinance

SECTION 1. **Short Title and Purpose.**

A. This ordinance shall be known as the **"Drinking Water Protection Plan"**.

B. It is the purpose of this ordinance to promote the public health, safety, and general welfare and to minimize public and private loses due to contamination of the public water supply, and to formalize ground water protection/pollution abatement and control procedures. Specific goals are to:

1. Protect human life and health;

2. Insure that the public is provided with a sustainable safe potable water supply;

3. Minimize expenditure of public money for pollution remediation projects;

4. Minimize regulations on land use, and

5. Minimize business interruptions.

SECTION 2. **Definitions**. When used in this ordinance, the following words and phrases shall have the meanings given in this section:

A. **Agricultural Runoff Waste Water**. Water diverted for irrigation but not applied to cropland, or runoff of irrigation tail water from the cropland as a result of irrigation.

B. **Aquifer Remediation Related Wells**. These wells shall include those used to prevent, control, or remediate aquifer pollution, including--but not limited to--Superfund sites.

C. **Community Water System**. A public water system which serves at least fifteen (15) service connections used by year-round residents, or regularly serves at least twenty-five (25) year-round residents.

D. **Facility**. Refers to any business or corporation that is built, installed or established to serve a particular purpose.

E. **Hazardous Waste Disposal Facility**. A hazardous waste treatment, storage, or disposal facility which receives hazardous material as described in Part 40 Chapter 260.1 of the Code of Federal Regulations.

F. **Hazardous Waste or Material**. Any waste or material which, because of its quantity, concentration, physical, chemical or infectious characteristics may:

1. Cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness; or

2. Pose a substantial present or potential hazard to human health or to the environment when

improperly treated, stored, transported, disposed of or otherwise managed; or

3. Any material or substance designated as a hazardous or toxic substance defined by Title 40 Part 261.3 of the Code of Federal Regulations, or any material or substance designated as a hazardous or toxic substance by the State of Idaho, acting through the DEQ or any successor agency.

G. **Injection**. The sub-surface emplacement of fluids.

H. **Livestock Confinement Operation**. As defined elsewhere in the Code.

I. **Non-Community Water System**. A public water system that is not a community water system.

J. **Public Water System**. A system that provides the public with piped water for human consumption, if such system has at least fifteen (15) service connections or regularly serves an average of at least twenty-five (25) individuals daily at least sixty (60) days out of the year. Such term includes:

1. Any collection, treatment, storage, and distribution facilities under control of the operator of such system, and used primarily in connection with such system; and

2. Any collection or pretreatment storage facilities not under such control that are used primarily in connection with such system.

A public water system is either a "community water system" or a "non-community water system."

K. **Sanitary Landfill**. A solid waste disposal operation where the wastes are spread on land in thin layers, compacted to the smallest practical volume, and covered with cover material once each day of operation in order to safeguard against environmental pollution, nuisances, and health hazards.

L. **Special Drainage Wells.** Used for disposing of water from sources other than direct precipitation. Examples of this well type include: landslide control drainage wells, potable water tank overflow drainage wells, swimming pool drainage wells, and lake level control drainage wells.

M. **Storm Water Runoff**. Water discharged as a result of rain, snow, or other precipitation.

N. **Time of Travel Districts (TOT)**. The time required for ground water to move from a specific point to a well.

O. **Underground Injection Well**. Any excavation or artificial opening into the ground which meets the following three criteria:

1. A bored, drilled or dug hole, or a driven mine shaft, or a driven well point; and

2. It is deeper than its largest straight-line surface dimension; and

3. It is used for or intended to be used for injection.

P. **Drinking Water Protection Overlay District (DWP).** A land use designation on the Land Use Map, or a zoning designation on a zoning map, that modifies the basic underlying designation in some specific manner. The Drinking Water Protection Overlay District will also appear in the Hazardous Component of the Comprehensive Plan. A map will define specific area districts centering on wells supplying drinking water to a public water system. The map is delineated using one of the following methods:

1. Calculated Fixed Radius;

2. Arbitrary Fixed Radius;

3. Simplified Variable Shapes;

4. Semi-analytical, and Analytical Methods;

5. Hydrogeologic Mapping;

6. Numerical Modeling; and

and following the guidelines established in the Idaho Wellhead Protection Plan.

Q. **Community Wellhead.** The upper terminal of a well including adapters, ports, seals, valves and other attachments.

R. **Drinking Water Protection Overlay District IA.** A minimum fixed radius extending no less than fifty (50) feet radially from the wellhead supplying potable water to the public water supply(s).

S. **Drinking Water Protection Overlay District IB.** A three (3) year time of travel district (TOT) as defined in Section 2.

T. **Drinking Water Protection Overlay District II.** A six (6) year time of travel district (TOT) as defined in Section 2.

U. **Drinking Water Protection Overlay District III.** A ten (10) year time of travel district (TOT) as defined in Section 2.

SECTION 3. **Establishment of Drinking Water Protection Overlay District.** There is hereby established a drinking water protection overlay district identified and described as all the area within the ten (10) year TOT district around public water supplies as shown on the official zoning map. It is further established that these areas be composed of four(4) districts; Drinking Water Protection Overlay District IA, Drinking Water Protection Overlay District IB, Drinking Water Protection Overlay District II, and Drinking Water Protection Overlay District III as they are defined in this Chapter. The Board of Commissioners may record with the County Recorder's Office a metes and bounds description of the Drinking Water Protection Overlay District.

SECTION 4. **Prohibited uses within Zone IA of the Drinking Water Protection Area.** Uses permitted within Zone IA shall be limited to necessary public water supply wellhead equipment including the following, wellhead facility buildings, water storage tanks, disinfection equipment, disinfection chemical storage and approved landscaping. All other uses shall be prohibited.

SECTION 5. **Prohibited uses within Zone IB of the Drinking Water Protection Area.** The following uses or conditions shall be and are hereby prohibited within Zone IB of the Drinking Water Protection Areas:

A. Sanitary landfills;

B. Livestock Confinement Operations;

C. Hazardous waste Disposal Facility;

D. Injection well is a prohibited use ***except for the following***:

1. Closed systems.

E. Existing sewer lines shall not be closer than one hundred (100) feet of a wellhead or of new sanitary system and sewer lines shall not be closer than one hundred fifty (150) feet of a wellhead;

F. Existing septic tanks or drain fields shall not be closer than one hundred (100) feet of a wellhead and new installation of septic tanks or drain fields shall not be closer than two hundred (200) feet away from the wellhead;

G. Junk or salvage yards;

H. Disposal of waste oil, oil filters, tires and all other petroleum products; and

I. All manufacturing or industrial businesses involving the collection, handling, manufacture, use, storage, transfer or disposal of any hazardous solid or liquid material or waste having a potential impact on ground water, and any land use activities posing a hazard or threat to existing ground water quality, except upon issuance of a Special Use Permit. The Special Use Permit process may be instigated by the Zoning Administrator during the application review process.

SECTION 6. **Prohibited Uses within Zone II of the Drinking Water Protection Area.** The following uses or conditions shall be and are prohibited within Zone II of the Drinking Water Protection Area:

A. Sanitary landfills;

B. Hazardous Waste Disposal Facility;

C. Injection well is a prohibited use ***except for the following***:

1. Deep well injection (below 18 feet in depth):

a. Geothermal Heat;

b. Heat Pump Return; and

c. Cooling Water Return.

2. Shallow well injection only (less than 18 feet in depth), including:

a. Storm Runoff;

b. Agricultural Runoff Waste Water;

c. Special Drainage Water;

d. Aquifer Recharge;

e. Aquifer Remediation; and

f. Septic Systems (General).

D. All manufacturing or industrial businesses involving the collection, handling, manufacture, use, storage, transfer or disposal of any hazardous solid or liquid material or waste having potential impact on ground water, and any land use activities posing a hazard or threat to existing ground water quality, except upon issuance of a Special Use Permit. The Special Use Permit process may be instigated by the Zoning Administrator during the application review process.

SECTION 7. **Prohibited Uses within Zone III of the Drinking Water Protection Area.** The following uses or conditions shall be and are prohibited within Zone III of the Drinking Water Protection area:

A. Injection well is a prohibited use ***except for the following***:

1. Deep well injection (below 18 feet in depth):

a. Geothermal Heat;

b. Heat Pump Return; and

c. Cooling Water Return.

2. Shallow well injection only (less than 18 feet in depth):

a. Storm Runoff;

b. Agricultural Runoff Waste Water;

c. Special Drainage Water;

d. Aquifer Recharge;

e. Aquifer Remediation; and

f. Septic Systems (General).

B. All manufacturing or industrial businesses involving the collection, handling, manufacture, use, storage, transfer or disposal of any hazardous solid or liquid material or waste having potential impact on ground water, and any land use activities posing a hazard or threat to existing ground water quality,

except upon issuance of a Special Use Permit. The Special Use Permit process may be instigated by the Zoning Administrator during the application review process.

SECTION 8. **Notice of Proposed Action to Operator of Public or Community Water Supply.** Whenever there is a request which requires a Special Use Permit from the Planning and Zoning Commission for land lying within a Drinking Water Protection District, written notice of the hearing shall be given to the entity operating the public or community water supply within that overlay district. The Planning and Zoning Commission may require a granting of easements for monitoring wells if the commission deems it appropriate for protection of the public water supply.

SECTION 9. **Non-Conforming Uses.** Any legal use existing at the time of the adoption of this ordinance and listed as a prohibited use herein, shall become a legal non-conforming use and may not be expanded or improved except as otherwise provided in the zoning ordinance.

SECTION 10. **Enforcement.** It shall be unlawful for any person, corporation, government entity or business to occupy or use the land within the area designated in the Drinking Water Protection Overlay District of Zone IA and IB, II, and III contrary to, or in violation of, any of the provisions of this Chapter.

SECTION 11. **Amendments.** Proposed amendments will require advance notice to all entities operating public or community water supplies that this ordinance effects.

APPENDIX E

Contingency Plan

City of Challis PWS 7190013

P.O. Box 587
Challis, Idaho 83226

DRINKING WATER SUPPLY CONTINGENCY PLAN

I. INTRODUCTION

The purpose of contingency planning is to establish, provide and keep updated certain emergency response procedures which may become necessary in the event of a partial or total loss of public water supply service as a result of natural disasters, chemical contamination, mechanical failure, or civil disorders. This Contingency Plan is the procedural guide for responding to such emergencies. This Plan is coordinated with the Idaho Division of Environmental Quality.

The four ground water wells and surface water intake allows the City of Challis some flexibility in case of contamination of one of the wells, however due to the City's limited capacity to provide drinking water to its residents, the loss of one or more of the City's drinking water sources would create undue hardship to a City that is already struggling with meeting the drinking water demands of its residents.

Public notification of the need for temporary extreme water conservation, or water rationing may be used to help assure that the current drinking water supply can supply the water needs of the community.

II. IDENTIFICATION OF POSSIBLE DISRUPTION THREATS

The principal threat to the City of Challis's public water supply has been identified as a spill, leak, or discharge in the delineated drinking water protection area, as well as electrical power outage and equipment failure. Included are spills from vehicles, spills from mobile liquid holding tanks, leaks from above or underground tanks, leaks from malfunctioning private septic tanks and drain fields, and leaks from waste carrying pipes. A specific threat may be posed by a fuel spill along Highway 93 or along Garden Creek Road that follows the Garden Creek drainage. The state of Idaho is also experiencing its fifth continuous year of significantly lower precipitation; both City and private domestic wells have experienced a decline in the static water table.

III. PUBLIC WATER SUPPLY CHARACTERISTICS

Currently, there does appear to be a physical system limitation that would prevent the City of Challis from providing adequate water supplies should a drinking water well have to be taken off-line. The City is located in an arid part of the state and sees less than 10 inches of precipitation annually. The drinking water system for Challis relies on precipitation at higher elevations to replenish Garden Creek (used as a surface water source) and recharge at least one aquifer from which ground water is obtained. Based upon a relatively recent hydrogeologic analysis of the water supply for the community of Challis, nearly all water in the Challis basin is appropriated; any new upstream water usage within the Garden Creek drainage will likely impact Challis. In the event that one of the City's drinking water wells had to be taken off-line due to contamination or equipment failure, the City of Challis does have the flexibility of requesting its residents to conserve water while its other wells continue to operate. A detailed hydraulic analysis of the entire water system was not conducted, however, specific characteristics include:

Table 10. Water System Specific Characteristics

Storage	4.4 million gallons (sufficient to supply 20 or more days of domestic use without landscape/lawn irrigation)
Distribution Line Sizes	12 inch, 8 inch, 6 inch, 4 inch; gravity flow
Supply Source	West Well #1; West Well #2; Well #3; East Well #1; Garden Creek intake
Treatment	Chlorine gas
People Served	900 through 520 meter connections

Table 11. Well Information

Specifications	West Well #1	West Well #2	Well #3	East Well #1	Garden Creek intake
Well Capacity (gpm)	80	500	N/A	500	1,400
Pumping Depth (bgs)	132 feet	487 feet	N/A	243 feet	N/A
Total Depth (bgs)	665 feet	603 feet	800 feet	341 feet	N/A
Production (gpm)	80	500	N/A	500	1,400

IV. PRIORITY OF WATER USERS DURING WATER SUPPLY EMERGENCY

Water supply priorities in the event of an emergency will be for domestic water usage (non-irrigation) and fire control. Water needs can be estimated based on a daily consumption of 300 gallons per household during the summer season and can exceed 500 gallons per household per day (7.8 million gallons per month total system usage) due to lawn/landscape irrigation. During the winter months an average of 390,000 gallons per month are used. In the event of an emergency, lawn/landscape irrigation will not be a priority and water conservation notifications will be announced. Currently, a water restriction during the summer months is in effect due to the City's limited capacity in meeting all of its residents needs.

V. SHORT TERM REPLACEMENT ALTERNATIVES

A. Surface water source and necessary treatment: Snake River; surface water treatment protocol would need to be put into effect.

B. Bottled water and other alternatives:

- **Rocky Mountain Shower Company**
  Tom and Judy Anderson
  266 Old Hwy 93
  Ronan, MT 559864
  (406) 676-2964
- **Kearsley Trucking**
  Vaun Kearsley
  P.O. Box 330
  Victor, ID 83455
  (208) 456-3066

- **Big Sky Mobile Catering Corporation**
  Harold M. Nelson
  135 West Broadway
  Missoula, MT 59802
  (406) 838-2619

- **ARR, LLC (Water Truck)**
  Mike Nelson
  P.O. Box 221
  Carmen, ID 83462
  (208) 756-6755

- **Scoble Water Truck**
  Galen D. Scoble
  502 Granite Street
  Salmon, ID 83467
  (208) 756-3252

- **Tom Sherman Water Truck**
  Tom Sherman
  114 Elm Street
  Salmon, ID 83467
  (208) 756-4826

- **Ward Brother Farms**
  Rick B. Ward
  3656 North 5000 East
  Sugar City, ID 83448
  (208) 458-4604

- Idaho State Emergency Response Phone 1-800-632-8000

- Custer County Disaster Services (208) 879-2360/FAX (208) 879-5246
  Contact Person: Mr. Jim L. Alexander, Coordinator
  Email: custerdscja@yahoo.com

- Butte County Civil Defense (208) 527-8287/Cell (208) 589-4277/FAX (208) 527-3295
  Contact Person: Mr. Kenneth W. Babcock, Director
  Email: bilcol@atcnet.net

VI. INVENTORY OF AVAILABLE EQUIPMENT AND MATERIALS FOR USE IN AN EMERGENCY

A. City of Challis, City Works Department (208) 879-2244
- Loader
- Backhoe
- Grader
- Pumps

B. City of Challis Fire Department (208) 879-4215

- Fire trucks
- Pumps
- Saws
- Ladders
- Miscellaneous Safety Equipment

C. Lost River Highway District (Custer County)
P.O. Box 33
Mackay, ID 83251
Phone: (208) 588-2824
Commissioners: Victor A. Johnson, Chairman
George A. Gilbert
Earl Wall

- All equipment necessary to maintain roadways, bridges, etc.

VII. NOTIFICATION PROCEDURES - PERSONNEL CONTACT PLAN AND LIST OF TELEPHONE NUMBERS

Table A. Lead Coordinating Organizations and Contacts for the City of Challis, Custer County, Idaho

Organization	Contact Name/Position	Work Phone	Home Phone
Water System Personnel	Jerry Moss *Public Works Supervisor, City of Challis*	(208) 879-4616	(208) 879-2244
Board Member Incident Coordinator	Marion McDaniel *Mayor Pro Tem, City of Challis*	(208) 879-2386	(208) 879-4706
Police Department	Bill Knox *Chief of Police*	(208) 879-4400	(208) 879-2284
Fire Department	Wayne Butts *Fire Chief*	(208) 879-2332 or 911	(208) 879-4215
Sheriff (Custer County)	Bob Taylor	(208) 879-2232 or 911	(208) 879-4757
Superintendent of Schools	Bruce Bradberry	(208) 879-4231	N/A
Hospital / Area Clinic / Emergency Medical Services	Vicki Armbruster Challis Area Health Center Mountain View	(208) 879-4351 (208) 879-4351	(208) 879-2389 N/A
Local Emergency/Disaster Services	Custer County Disaster Services Mr. Jim L. Alexander *Coordinator* custerdscja@yahoo.com Idaho Emergency Services	(208) 879-2360 FAX 879-5246 1-800-632-8000	(208) 879-2463 N/A
Idaho Transportation Department (ITD)/County Road & Bridge	Jim Sugden ITD	(208) 879-2379	(208) 879-2307

Table A (continued). Lead Coordinating Organizations and Contacts for the City of Challis, Custer County, Idaho

Organization	Contact Name/Position	Work Phone	Home Phone
Highway District	Lost River Highway District	(208) 588-2824	N/A
Utility Services	Salmon River Electric Cooperative Matt M???????	(208) 879-2283	(208) 879-2379
Division of Environmental Quality (Regional Office)	Jack Rainey Regional Office, Idaho Falls	(208) 528-2650	N/A
Neighboring Water System	N/A	N/A	N/A

Table B. Local Incident Assessment Team

Organization	Contact Name/Position	Work Phone	Home Phone
Mayor	Marion McDaniel *Mayor Pro Tem*	(208) 879-23286	(208) 879-4706
Water System Personnel	Jerry Moss *Public Works Supervisor, City of Challis*	(208) 879-4616	(208) 879-2244
Police Department	Bill Knox *Police Chief*	(208) 879-4400	(208) 879-2284
Sheriff (Custer County)	Bob Taylor	(208) 879-2232 or 911	(208) 879-4757

VIII PUBLIC ANNOUNCEMENT PLAN

Public announcements regarding system emergencies and contingency plan implementation will be accomplished via local radio and other media, and via the public address systems on fire trucks for any immediate verbal notification needs, such as water conservation or specific water treatment including but not limited to a boil order. Residents of the City of Challis and users of the City of Challis's drinking water will also be informed by going door-to-door, through local radio and from business postings. The following are local media & radio stations information:

Local Newspapers
Challis Messenger
310 Main Street
Challis, ID 83226
(208) 879-4445

Local Radio Stations
KSRA Salmon
315 Highway 93
Challis, ID 83226
(208) 756-2218

Local TV Media (None available)

APPENDIX F

Idaho Emergency Response Flow Chart

Figure 8. Idaho Emergency Response Flow Chart

APPENDIX G

Drinking Water Protection Plan Certification Checklist for State Certification

Drinking Water Protection Plan Certification Checklist

Public Water System Name: **City of Challis PWS 7190013**

Local Contact: **Jerry Moss**

Date Returned to Water System: _____

Drinking Water Protection Plan **Approved** ____ **Disapproved** ____

Idaho Drinking Water Protection Plan guidance - *Protecting Drinking Water Sources in Idaho, August 2000* Pg. 28 of the document states "If a Plan is found to satisfy all eight elements, then the community will be recognized by DEQ as having a *State Certified* Plan". Additionally, supporting information describing each of the required elements is referenced as well.

Required Elements of Certified Source Water Protection Plan		**Element Addressed**	
Element 1	Description of Planning Team Participant Roles and Duties (Reference Step 1: *Formation of a Community Planning Team*)	**Yes**	**No**
Element 2	Delineation of the Drinking Water Protection Area (Reference Step 2: *Delineation of the Land Area to be Protected*)	**Yes**	**No**
Element 3	An Inventory of Potential Sources of Contamination (Reference Step 3: *Identification of Potential Contaminant Sources*)	**Yes**	**No**
Element 4	Management Tools and Protection Measures that will be Pursued to Manage Potential Sources of Contamination (Reference Step 4: *Development and Implementation of a Management Plan for Drinking Water Protection Area*)	**Yes**	**No**
Element 5	A Contingency Plan (Reference Step 5a: *Development of a Contingency Plan*)	**Yes**	**No**
Element 6	A Protection Strategy for New Wells or Intakes (Reference Step 5b: *Planning for Future Drinking Water Sources*)	**Yes**	**No**
Element 7	A Public Participation and Education component	**Yes**	**No**
Element 8	An Implementation Strategy (what will be done, when it will be done, and by whom)	**Yes**	**No**

If a Plan is found to satisfy all eight elements, then the community will be recognized by DEQ as having a "State Certified Plan". This certification will cover a three year period, after which recertification can be pursued by the community. Recertification will include an evaluation of the community's success in implementing drinking water protection as a measure of the community's strategy (Element 8).

Reviewers	**Agency/Affiliation**
_____	_____
_____	_____
_____	_____
_____	_____

APPENDIX H

Glossary

Glossary

Aquifer – A geologic formation, group of formations, or part of a formation that is saturated and sufficiently permeable to transmit economic quantities of water to wells and springs.

Aquitard - A low-permeability geologic unit that can store ground water and also transmit it slowly from one aquifer to another.

AST (Aboveground Storage Tank) – Sites with aboveground storage tanks.

Best Management Practices (BMPs) – Conservation practices or systems of practices and management measures that (1) reduce water quality degradation caused by nutrients, animal waste, toxics, and sediment, as well as control soil loss; and (2) minimize adverse impacts on surface water, ground water flow, and circulation patterns and on the biological, chemical, and physical characteristics of wetlands.

Capacity – The flow rate that a pump is capable of producing; a water utility's ability to have resources available to meet the water service needs of its customers. In this context, capacity is the combination of plant- and service-related activities necessary to meet the quantity, quality, peak loads, and other service needs of the various customers or classes of customers served by the utility.

Community System – A public water system serving at least 15 service connections used by year-round residents or regularly serving at least 25 year-round residents.

Contaminant – Any physical, chemical, biological, or radiological substance or matter in water.

Contaminant Source Inventory – A record of the activities on a watershed or aquifer recharge area that have a potential to contaminate water.

Contingency Plan – A document that details the intended actions of a water utility under specified adverse conditions.

Dairy – Sites included in the primary contaminant source inventory represent those facilities regulated by Idaho State Department of Agriculture (ISDA) and may range from a few head to several thousand head of milking cows.

Deep Injection Well – A well discharging under pressure to a deep subsurface stratum. Such a well is often used to dispose of liquid waste streams to a suitable confined poor-water-quality aquifer that is generally considered unusable for other purposes; injection wells regulated under the Idaho Department of Water Resources generally for the disposal of storm water runoff or agricultural field drainage.

Enhanced Inventory – Enhanced inventory locations are potential contaminant source sites added by the water system. These can include new sites not captured during the primary contaminant inventory, or corrected locations for sites not properly located during the primary contaminant inventory. Enhanced inventory sites can also include miscellaneous sites added by the Idaho Department of Environmental Quality (DEQ) during the primary contaminant inventory.
Group I Sites – These are sites that show elevated levels of contaminants and are not within the priority one areas.

IDAPA – Idaho Administrative Procedures Act.

Inorganic Priority Area – Priority one areas where greater than 25 percent of the wells/springs show constituents higher than primary standards or other health standards.

Inorganic Contaminant (IOC) – An inorganic substance regulated by the US Environmental Protection Agency in terms of compliance monitoring for drinking water. Contained on the agency's list are contaminants as diverse as asbestos, nitrate (NO_3^-), cyanide, and nickel. This abbreviation came into common use in the US Environmental Protection Agency's Phase V drinking water regulations. An inorganic contaminant is sometimes called an inorganic chemical.

Leachate - The liquid that is derived from the leaching of buried refuse in septic systems, sanitary landfills and dumps by percolating water derived from rain or snowmelt. Leachate contains large numbers of inorganic contaminants, and the total dissolved solids can be very high.

LUST (Leaking Underground Storage Tank) – Potential contaminant source sites associated with leaking underground storage tanks as regulated under RCRA.

Maximum Contaminant Level (MCL) – A value defined under the Safe Drinking Water Act Section 1401 (3) as the maximum permissible level (concentration) of a contaminant in water delivered to any user of a public water system. Maximum contaminant levels are the legally enforced standards in the United States.

Microbes – A microscopic organism, either plant or animal, invisible to the naked eye. Examples are algae, bacteria, fungi, protozoa, and viruses.

Nitrate Priority Area – Area where greater than 25 percent of wells/springs show nitrate values above 5mg/L.

Nonpoint Source – Waste material that enters a water body from overland flow rather than out of a pipe or channel; an unconfined discharge of waste.

Organic Priority Areas – These are any areas where greater than 25 percent of wells/springs show levels greater than 1 percent of the primary standard or other health standards.

Perched Aquifer – A small lens of unconfined ground water separated from an underlying main body of ground water by an impermeable unsaturated zone.

Point Source – A discharge that comes out of the end of a pipe, as opposed to runoff or discharge from a field or similar source, which is called a nonpoint source.

Sanitary Survey – An on-site review of a water utility's water source, facilities, equipment, and operations and maintenance records for the purpose of evaluating the system's adequacy in producing and distributing safe drinking water.

Synthetic Organic Chemical (SOC) – An organic compound that is commercially made; some synthetic organic chemicals are contaminants in drinking water and are regulated by the EPA. The regulated synthetic organic contaminants include volatile organic chemicals, pesticides, herbicides, polychlorinated biphenyls, selected treatment chemicals (e.g. acrylamide), and polynuclear aromatic hydrocarbons.

Time of Travel (TOT) – The determination, usually by modeling, of the time in years for ground water recharge to travel from a certain field point to the wellhead.

Underground Storage Tank (UST) -

Vadose Zone – The unsaturated portion of the soil column between the land surface and the water table. A better term is *unsaturated zone.*

Volatile Organic Compound (VOC) – A class of organic compounds that includes gases and volatile liquids. Many volatile organic chemicals are used as solvents. A number of these compounds are regulated by the US Environmental Protection Agency.

Wastewater Land Application Site – These are areas where the land application of municipal or industrial wastewater is permitted by DEQ.

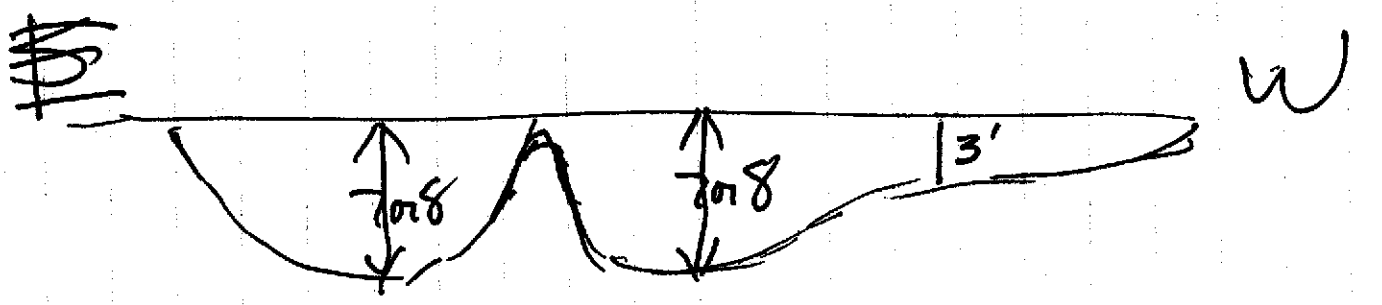
Wellheads – These are drinking water well locations regulated under the Safe Drinking Water Act. They are not treated as potential contaminant sources.

Zone IA – Sanitary setback zone designed to prevent microbial contamination within a 100-foot radius of the wellhead. This setback zone is established in the Idaho Rules for Drinking Water Supplies (IDAPA 58.01.08.900.01) and requires that: sewer lines, livestock, canals, and streams be 50 feet from the source water/wellhead and that: home septic tanks, seepage pits, disposal fields, and privies are 100 feet away from the source water/wellhead.

Zone IB – Corresponds with the 3-year time of travel for a particle of ground water to reach the wellhead.

Zone II – Corresponds with the 6-year time of travel for a particle of ground water to reach the wellhead.

Zone III – Corresponds with the 10-year time of travel for a particle of ground water to reach the wellhead.



Department of Water Resources
PROTESTANT'S
Exhibit T
Date Admitted 8/10/09

Form 238-7
1/84

879-5066

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

66805

Use Typewriter or Ball Point Pen

1. DRILLING PERMIT NO. 7297 S0010 -000
Other IDWR No.

2. OWNER:
Name Jeff Yeo
Address Box 299
City Challis State ID Zip 83226

3. LOCATION OF WELL by legal description:
Sketch map location must agree with written location.

N / W / E / S

Twp. 13N North ☒ or South ☐
Rge. 18E East ☐ or West ☐
Sec. 3, NE 1/4 (10 acres) SE 1/4 (160 acres)
Gov't Lot ____ County Custer

Address of Well Site Garden Creek RD City Challis
(Give at least name of road + Distance to Road or Landmark)

Lt. ____ Blk. ____ Sub. Name ____

4. PROPOSED USE:
☒ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other ____

5. TYPE OF WORK
☒ New Well ☐ Modify or Repair ☐ Replacement ☐ Abandonment

6. DRILL METHOD
☐ Mud Rotary ☒ Air Rotary ☐ Cable ☐ Other ____

7. SEALING PROCEDURES

SEAL/FILTER PACK Material	From	To	AMOUNT Sacks or Pounds	METHOD
BENTONITE	0	20	300	OVERBORE

Was drive shoe used? Y ☒ N ☐
Was drive shoe seal tested? Y ☐ N ☐ How? ____

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
6	+1	56	250	STEEL	☒	☐	☒	☐
4½	24	104		PVC	☐	☒	☒	☐
					☐	☐	☐	☐

Length of Headpipe ____ Length of Tailpipe ____

9. PERFORATIONS/SCREENS
☒ Perforations Method Saw
☐ Screens Screen Type ____

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
60	104	1/8	200		PVC	☐	☒
						☐	☐
						☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:
20 ft. below ground Artesian pressure ____ lb.
Depth flow encountered ____ ft. Describe access port or control devices: Sanitary well seal

11. WELL TESTS:
☐ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
16		104	2 HR

Water Temp. 51° Bottom hole temp. ____
Water Quality test or comments: CLEAR

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water Y	Water N
12	0	4	TOP SOIL		
	4	20	BOULDERS CLAY		☒
	20	26	SHALE CLAY WET		☒
	26	50	HARD SHALE CLAY		☒
	50	64	GREY VOLCANIC ROCK		☒
	64	80	BROWN ROCK VOLCANIC		☒
	80	90	DARK GREY VOLCANIC	☒	
	90	95	GREY HARD	☒	
	95	104	VOLCANIC GREY		☒

RECEIVED
JUL 09 1997
Department of Water Resources
Eastern Region

RECEIVED
JUL 21 1997
Department of Water Resources

JUL 11 1997
MICROFILMED

Completed Depth ____ (Measurable)
Date: Started 6/10/97 Completed 6/11/97

13. DRILLER'S CERTIFICATION
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Harber Drilling Firm No. 0430
Firm Official Ron Harber Date 6/12/97
and
Supervisor or Operator ____ Date ____
(Sign once if Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES

Officially Noticed.
4-6-04
Hearing Officer

depreciation and reserves, and the ability to accrue a capital replacement fund. A preliminary operating budget shall be provided; and (4-5-00)

c. Adequate fiscal controls must be demonstrated. (4-5-00)

03. Managerial Capacity. In order to demonstrate adequate managerial capacity, the owner and/or operator of a new drinking water system shall submit at least the following information to the Department: (4-5-00)

a. Clear documentation of legal ownership and any plans that may exist for transfer of that ownership on completion of construction or after a period of operation; (4-5-00)

b. The name, address, and telephone number of the person who will be accountable for ensuring that the water system is in compliance with these rules; (4-5-00)

c. The name, address, and telephone number of the system operator; (4-5-00)

d. A description of the manner in which the water system will be managed. By-laws, restrictive covenants, articles of incorporation, or procedures and policy manuals which describe the management organization structure are a means of providing this information; (4-5-00)

e. A description of staffing should be provided, including training, experience, certification or licensing, and continuing education completed by the water system staff; (4-5-00)

f. An explanation of how the water system will establish and maintain effective communications and relationships between the water system management, its customers, professional service providers, and any applicable regulatory agencies; and (4-5-00)

g. Evidence of planning for future growth, equipment repair and maintenance, and long term replacement of system components. (4-5-00)

04. Submittal Form. The Department shall provide a standard form to be used in preparing a new system capacity demonstration. (4-5-00)

05. Expanding Systems. A public water system which comes into existence as a result of growth in population or number of service connections within a previously unregulated system will be considered a new system under these rules and is subject to all design, construction and operating requirements herein. (4-5-00)

06. Consolidation. In demonstrating new system capacity, the owner of the proposed new system must investigate the feasibility of obtaining water service from an established public water system. If such service is available, but the owner elects to proceed with an independent system, the owner must explain why this choice is in the public interest in terms of environmental protection, affordability to water users, and protection of public health. (4-5-00)

07. Exclusion. New public water systems which are public utilities as defined in Sections 61-104 (Corporation), 61-124 (Water System), 61-125 (Water Corporation), and 61-129 (Public Utility), Idaho Code, must meet the regulatory requirements of the Idaho Public Utilities Commission (IPUC) in Chapter 1, Title 61, Idaho Code, Public Utilities Law, and IDAPA 31.01.01, "Rules of Procedure of the Idaho Public Utilities Commission". Such water systems will not be required to meet any requirements of this Section which are in conflict with the provisions and requirements of the IPUC. (4-5-00)

550. DESIGN STANDARDS FOR PUBLIC DRINKING WATER SYSTEMS.

01. System Design. Unless otherwise specified by the Department, the design of new, or modifications to existing, public drinking water systems shall be in conformance with "Recommended Standards for Water Works, A Report of the Committee of the Great Lakes-Upper Mississippi River Board of Department Sanitary Engineers," as set forth in Subsection 002.02.c. and with recommended changes and additions to this document as found in the "USEPA Guidance Manual for Compliance with the Filtration and Disinfection Requirements for Public Water

officially Noticed.
8-10-04
Hearing Officer

Systems Using Surface Water Sources," as set forth in Subsection 002.02.g. (7-1-97)

02. Materials. Materials which are used to construct public drinking water systems and which have water contact surfaces must comply with applicable AWWA standards and ANSI/NSF standard 61 or NSF standard 53 or 58, unless otherwise approved by the Department on a site specific basis. Corrosion control shall be taken into account during all aspects of public water system design. (5-3-03)

03. Wells. Any supplier of water for a public water system served by one (1) or more wells shall ensure that the following requirements are met: (12-10-92)

a. Prior to drilling, the site of a PWS well must be approved in writing by the Department. The Department shall require the supplier of water to submit a well site evaluation report that takes into account the proposed size, depth, and location of the well. The evaluation may include, but is not limited to the following types of information: (5-3-03)

i. An evaluation of the potability and quality of anticipated groundwater. (5-3-03)

ii. Identification of the known aquifers and the extent of each aquifer, based on the stratigraphy, sedimentation, and geologic structure beneath the proposed well site. (5-3-03)

iii. An estimate of hydrologic and geologic properties of each aquifer and confining layers. (5-3-03)

iv. Prediction of the sources of water to be extracted by the well and the drawdown of existing wells, springs, and surface water bodies that may be caused by pumping the proposed well. This prediction may be based on analytical or numerical models. (5-3-03)

v. Demonstration of the extent of the capture zone of the well, based on the well's design discharge and on aquifer geology, using estimates of hydraulic conductivity and storativity. (5-3-03)

vi. Description of potential sources of contamination within five hundred (500) feet of the well site. (5-3-03)

b. Each well shall be located a minimum of fifty (50) feet from any potential source of contamination and no closer to specified sources of contamination than set forth in Subsection 900.01; in vulnerable settings, the Department may require engineering or hydrologic analysis to determine if the required setback distance is adequate to prevent contamination; (5-3-03)

c. Each well shall comply with the minimum Well Construction Standards and with the permitting requirements of the Idaho Water Resources Board, as set forth in Subsection 002.02.f.; except that no public water system well shall have less than fifty-eight (58) feet of annular seal of not less than two (2) inches thickness, unless: (5-3-03)

i. It can be demonstrated to the Department's satisfaction that there is a confining layer at lesser depth that is capable of preventing unwanted water from reaching the intake zone of the well; or (5-3-03)

ii. The best and most practical aquifer at a particular site is less than fifty-eight (58) feet deep; or; (5-3-03)

iii. The Department specifies a different annular seal depth based on local hydrologic conditions. (5-3-03)

d. All tools, bits, pipe, and other materials to be inserted in the borehole must be cleaned and disinfected in accordance with the Well Construction Standards and permitting requirements of the Idaho Water Resources Board, as set forth in Subsection 002.02.f. This applies to new well construction and repair of existing wells. (5-3-03)

e. Upon completion of a groundwater source, and prior to its use as drinking water, the following

materials. (12-10-92)

iv. Floor drains shall not be connected to sewers, storm drains, chlorination room drains, or any other source of contamination. (12-10-92)

v. Sumps for well house floor drains shall not be closer than thirty (30) feet from the well. (12-10-92)

vi. Pitless adapters or pitless units: (12-10-92)

(1) Shall be of the type marked approved by the National Sanitation Foundation or Pitless Adapter Division of the Water Systems Council. (12-10-92)

(2) Shall be designed, constructed and installed to be watertight including the cap, cover, casing extension and other attachments. (12-10-92)

(3) Shall be field tested for leaks before being put into service. The procedure outlined in "Manual of Individual and Non-Public Water Supply Systems," as set forth in Subsection 002.02.d., or other procedure approved by the Department shall be followed. (5-3-03)

n. Wells shall not be located in pits. Exceptions to Subsection 550.03.l. will be granted by the Department if the well was constructed prior to November 5, 1964, and the installation is constructed or reconstructed in accordance with the requirements of the Department to provide watertight construction of pit walls and floors, floor drains and acceptable pit covers. (12-10-92)

o. A well lot shall be provided for wells constructed after November 1, 1977. The well lot shall be owned in fee simple by the supplier of water or controlled by lease with a term of not less than the useful life of the well and be large enough to provide a minimum distance of fifty (50) feet between the well and the nearest property line. (12-10-92)

p. New community water systems served by ground water and constructed after July 1, 1985, or existing community water systems served by ground water that are substantially modified after July, 2002, shall have a minimum of two (2) sources if they are intended to serve more than twenty-five (25) homes or equivalent. The second source shall be capable of producing at least eight hundred (800) gallons per day per service connection. The Department shall consider a system to be "substantially modified" when there is a combined increase of twenty-five percent (25%) or more above the system's existing configuration in the following factors: (5-3-03)

i. Population served or number of service connections; (5-3-03)

ii. Length of water mains; (5-3-03)

iii. Peak or average water demand per connection. (5-3-03)

q. No pesticides, herbicides, or fertilizers shall be applied to a well lot without prior approval from the Department. (12-10-92)

r. No pesticides, herbicides, fertilizers, portable containers of petroleum products, or other toxic or hazardous materials shall be stored on a well lot, except that: (5-3-03)

i. An internal combustion engine to drive either a generator for emergency standby power or a pump to provide fire flows, and an associated fuel tank, may be placed on the well lot. (5-3-03)

ii. A propane or natural gas powered generator is preferable to reduce risk of fuel spillage. (5-3-03)

iii. If a diesel or gasoline-fueled engine is used, the fuel tank and connecting piping must be double-walled. The tank must be above ground and may be contained within the structural base of the generator unit. A certified water system operator shall be present during filling of the tank following a period of usage, or during periodic extraction and replacement of outdated fuel. (5-3-03)

ADMINISTRATOR'S MEMORANDUM

Transfer Processing No. 24

To: Water Management Division Staff

From: Karl J. Dreher and Norman C. Young

RE: **TRANSFER PROCESSING POLICIES & PROCEDURES**

(Interim Policies & Procedures Currently Applicable for Applications to Transfer Ground Water in the Eastern Snake River Plain Only)

Date: October 30, 2002

The purpose of this memorandum is to provide policy guidance for processing applications for transfers of water rights pursuant to Section 42-222, *Idaho Code*, and other applicable law. These policies and procedures are to be followed until rescinded or amended, or superseded by statute or rule or court decision, to assure that applications are processed efficiently and with consistency.

Regardless of whether or not an application for transfer is protested, Section 42-222, *Idaho Code*, requires that the department evaluate whether there would be injury to other water rights, there would be an enlargement in use of the original right, the proposed use would be a beneficial use, the proposed use would be in the local public interest, the proposed use would be consistent with the conservation of water resources within the State of Idaho, and whether the proposed change would impact the agricultural base of the local area. The department must also evaluate the validity of the right (or part thereof) being changed and must assure that the applicant owns the right or otherwise has the authority to apply for the transfer.

1. When a Transfer is Required.

Section 42-222, *Idaho Code*, requires the holder of a water right to obtain approval from the department prior to changing: (1) the point of diversion, (2) the place of use, (3) the period of use, or (4) the nature of use of an established water right. An established water right is a licensed right, a decreed right, or a right established by diversion and beneficial use for which a claim in an adjudication or a statutory claim has been filed. Approval is sought by filing an application for transfer with the department.

Changes to Elements of a Water Right. An application for transfer is required if a proposed change would alter any of the four elements of the water right listed above

Officially Noticed
8-10-04
VA
Hearing Officer

that can be changed pursuant to Section 42-222, *Idaho Code*, as recorded with the department or by decree. If a proposed change has the potential to injure other rights or the potential to enlarge the right, even when there would be no change in any of the recorded elements of the right, an application for transfer should be filed to provide for evaluation of injury and enlargement issues before the change is made. For example, if the point of diversion from a fully appropriated creek is proposed to be moved where additional water would be available for diversion or if the proposed point of diversion as changed would move upstream of the points of diversion for other rights, the change can not be made unless other conditions are imposed, such as mitigation, to prevent injury. As another example, a proposed change of use under a water right for an industrial use, which includes a limitation on the quantity of water that can be consumptively used, to an industrial use that would increase the quantity of water that would be consumptively used can not be made unless enlargement is prevented.

Changes in Consumptive Use. Unless there is a specific condition of the water right limiting the amount of consumptive use, the amount of consumptive use of water under a water right is not an element of the water right, and changes in water use under a water right for the authorized purpose of use that simply change the amount of consumptive use do not require an application for transfer provided that no element of the water right is changed and there is no potential for injury or enlargement. However, when determining the amount of water that can be transferred pursuant to an application for transfer proposing to change the nature or purpose of use, and for certain other circumstances as described herein, historical consumptive use is considered.

Changes to Points of Diversion. If a point of diversion is proposed to be moved to a different tract than described as an element under an established water right, then a transfer application is required. This includes a change from one 10-acre legal subdivision to another if the point of diversion has been previously described as a 10-acre legal subdivision. An application for transfer is also required when a point of diversion is proposed to be added for a water right, even when the existing authorized point of diversion is recorded as a 10-acre legal subdivision and the additional diversion would be within the same 10-acre legal subdivision.

If a point of diversion is proposed to be moved from a tributary to a location downstream from the confluence of the tributary and the surface water stream to which the tributary is joined, then an application for transfer is required. If a point of diversion is proposed to be moved from a stream to the stream to which it is tributary at a location upstream of the confluence between them, or moved from one tributary to another tributary, an application for exchange is required rather than an application for transfer.

Changes in Place of Use. An application for transfer is required if a change in the location of use between 40-acre legal subdivisions is proposed that would result in use of water at a new 40-acre subdivision that is not included within the recorded place of use element for the right. An application for transfer is also required for a proposed change in location of use under a water right for irrigation, with or without a proposed change in purpose of use, where the place of use is defined as an area within

prescribed boundaries or by a GIS "shape file," except for those rights held by irrigation districts, municipal providers, and others included under the provisions of Sections 42-202B or 42-219, *Idaho Code*, even when the change in location would be included within the same 40-acre legal subdivisions existing prior to the proposed change. A proposed change to any water right held for irrigation involving a change in the number of irrigated acres of less than one acre at the original place of use or at a proposed new place of use is not approvable unless the proposed change involves a new purpose of use within the original place of use or the applicant provides a verification procedure approved by the Director that can be practically administered to prevent injury or enlargement.

Consolidation of Acreage. An application for transfer is required for proposed consolidation of water use for irrigation by permanently reducing the number of acres authorized for irrigation under a water right, while maintaining the original diversion rate or annual diversion volume.

Land Application of Wastewater. An application for transfer is required for a proposed change in the place of use under a water right for industrial use, dairy use, or confined animal feeding operation that would allow land application of wastewater from that use or change the location of lands used for application of wastewater, except for wastewater from non-industrial uses when there is a full existing water right for irrigation of the place of use receiving wastewater. See Application Processing Memorandum No. 61 for additional information concerning wastewater from industrial uses.

Correction of Errors. An application for transfer may also be required to correct errors in licenses or decrees. For example, a transfer application may be required to correct the location of the place of use of a water right decreed by a court if the decree is later determined to be in error. However, a transfer action is not always required to correct such errors. For example, if a water right claim is determined to be in error, the claim can be amended to correct the error. Similarly, some clerical errors in a license or decree may be corrected by issuance of an amended license or decree (by the jurisdictional court) without using the transfer process. Also, a change to a description of the location of the place of use or point of diversion, as used by the Department for administration of water rights, resulting from improved methodology does not require an application for transfer, as described below. In addition, conditions that are no longer applicable may be modified or removed from a license without a transfer, provided other rights are not materially affected. For decrees, conditions that are no longer applicable should be noted in comments on the Department's electronic record for the right. However, a change to any element of a decreed water right requires filing an application for transfer, unless the appropriate court makes the change by amending the decree.

2. When a Transfer is not Required.

An application for transfer is not required if a proposed change will not alter any of the elements of a water right as licensed or decreed, except that even when the elements of a water right are not changed an application should be filed under such circumstances

described in Section 1 above. In addition, an application for transfer is not needed when an accomplished change to a water right or an enlargement of a right has been claimed in an adjudication in accordance with the provisions of Sections 42-1425 or 42-1426, *Idaho Code*.

Change in Ownership. An application for transfer is not required to change the owner of record for a water right or address of record for a right holder. Changes in ownership or address are to be filed in accordance with Section 42-248, *Idaho Code*, or for adjudication claims in accordance with Section 42-1409(6), *Idaho Code*. However, a transfer application filed pursuant to Section 42-222, *Idaho Code*, accompanied by evidence documenting a change in ownership for a water right, or showing a change in the address of the owner of a water right, satisfies the requirements of Section 42-248, *Idaho Code*.

Split Rights. An application for transfer is not required when a water right for irrigation is proposed to be split, with notice to the department pursuant to the provisions of Section 42-248, *Idaho Code*, such that a disproportionate per acre share of the right would be conveyed to another party provided that the resulting diversion rates do not exceed 0.02 cfs per acre, the amount of water historically applied per acre, or the amount of water diverted at a particular point of diversion, whichever is greater, for that part of the right conveyed or retained, and provided no other changes are made.

Replacement of Point of Diversion. An application for transfer is not required to replace a point of diversion if the new point of diversion is constructed at the same location as described in the license or decree for the water right, and the change will not injure other rights.

Refined Descriptions. An application for transfer is not required when a change in the description of the location of the point of diversion or place of use is only the result of improved methodology for referencing and displaying the location, which results in a more accurate description of the same physical location.

Generally Described Place of Use. As provided in Section 42-219, *Idaho Code*, an application for transfer is not required to change the place of use within a generally described place of use. A generally described place of use may be by court decree or as provided in Section 42-219(5) and (6). Pursuant to Section 42-219(7), any change within a generally described place of use can not result in an increase in the diversion rate, or in the total number of acres irrigated under the water right, and can not cause injury to other water rights. Any change to the boundaries of a generally described place of use requires an application for transfer, except for an irrigation district where changes in boundaries must be documented by a map of the revised boundaries filed with the department in accordance with Section 43-323(2), *Idaho Code*.

Municipal Places of Use. An application for transfer is not required to change or add a place of use for "municipal purposes" within the "service area" of a "municipal provider." See Sections 42-202B and 42-222(1), *Idaho Code*, for appropriate definitions and provisions governing use of municipal water rights. The ownership of a portion of a

municipal water right held by a municipal provider for reasonably anticipated future needs can be changed to a different municipal provider subject to the provisions of Section 42-248, *Idaho Code*. However, the right can not be changed to a place of use outside the service area of a municipal provider or to a new nature of use, and an application filed for such a change is to be returned together with any associated application fee.

In-stream Stock Watering. An application for transfer is not required to divert water away from a stream for stock watering purposes provided the diversion is added and used in conjunction with an in-stream stockwater right and provided the diversion meets certain conditions pursuant to Section 42-113(3), *Idaho Code.* See guidance memorandum for in-stream stock diversions dated June 26, 2000, for additional information.

Intensified Use of Water. An application for transfer is not required to increase production under an authorized use of water, unless the proposed change would also result in a change to one or more of the elements of the water right(s) as licensed or decreed. For example, an application for transfer is not required to increase the number or volume of raceways in a fish propagation facility, increase the number of cows at a dairy, change irrigation to a more water consumptive crop, or increase the generating capacity of hydroelectric generators, so long as none of the elements of the associated water rights are changed.

3. Requirements for an Acceptable Application for Transfer.

The department is a public service oriented agency, and department employees traditionally have helped applicants complete transfer application forms. The existing transfer backlog, together with the increasing number and complexity of new applications for transfer, requires that staff focus their time on processing existing acceptable applications. Department employees are encouraged to provide general assistance to applicants but should refrain from completing application forms on behalf of applicants.

An applicant or qualified consultant must prepare and submit an application for transfer in accordance with the minimum requirements enumerated below to be acceptable for initiating the processing of the application by the department. An application that does not comply with these minimum requirements is to be considered incomplete and is to be returned to the applicant along with a letter or checklist identifying the deficiencies. The letter shall state that unless the application is resubmitted within 30 days of its return, the application fee will be refunded upon written request. An application for transfer that satisfies the minimum requirements will be processed in accordance with Section 5, Information Needed to Complete Processing of a Transfer Application.

(1) Application Forms. An application for transfer must be submitted on a current form provided by the department entitled, "Application for

Transfer of Water Right." An electronic version of the current form can be used, such as the form available from the department's Internet homepage at:

http://www.idwr.state.id.us/info/forms/wrf3.pdf

(2) Name and Address. An application for transfer must include the name and address of the applicant. In addition, the application must include the name and address of any new right holder(s) for the water rights (or parts thereof) being transferred, if different than the applicant. The applicant's name must match the department's current record of ownership for the water rights (or parts thereof) being transferred. Otherwise, adequate documentation must be included to show that a change in ownership or authority to make the change has legally occurred. Adequate documentation can be a warranty deed, title policy, contract of sale or option for purchase by applicant (if the contract or option allows the transfer), or other similar document confirming ownership of the water right(s) or the authority to change the water right.

(3) List of Water Rights to be Changed. An application for transfer must list all water rights for use in a common system of diversion and distribution for which the point of diversion, place of use, period of use, or nature of use are proposed to be changed (the water rights to be transferred). A proposed change, which involves separate diversion and distribution systems, must be filed as separate applications. A proposed change to the remaining portion of an existing water right subsequent to a proposed transfer requires a separate application for transfer.

(4) Associated Water Rights or Water Supply. The application must include a separate list of individual water rights, other than those proposed to be changed, and a description of water supplied by a canal company, irrigation district, or municipality, that provide water currently used in the same diversion system or at the same place of use as the right(s) proposed to be transferred (associated water rights or water supply). In addition, the application must include a separate list of associated water rights or water supply proposed to be used in the same system or at a new place of use. If the associated water rights or water supply are not owned by the applicant and changes to conditions for those rights are necessary, documentation must be submitted confirming that the applicant has the legal authority to make such changes on behalf of the current owner of the other rights.

Changes to conditions or remarks for associated water rights that are necessary as a result of an approved transfer and that do not affect the rights of other persons or entities can be made without a separate transfer application or process. Such changes usually result from a

division in ownership and should be included in the transfer approval document.

(5) Reason for Change. The application must list the purpose for and a general statement of the reason for the proposed change.

(6) Description of Proposed Change. The application must describe in writing the proposed changes, which must include the following:

a. The right number(s) assigned by the department for the right(s) proposed to be changed must be identified. If the right was established by a beneficial use for which a claim has not been filed, a claim must be filed before or together with the transfer application. If the right is represented by a decree and the department has not assigned a number to the right, a copy of the decree must be included with a description of the right that is proposed to be changed.

b. The amount of water proposed to be diverted, as a rate of flow in cubic feet per second and as acre-feet per year, if the transferred water right has a volume limitation, for natural flow and ground water rights must be set forth. The amount of any stored water involved in a transfer must be identified in terms of acre-feet per year for each purpose of use listed.

c. The proposed nature or purpose of use must be stated. For proposed uses such as "industrial" or "commercial," a more detailed description of the proposed use(s) must be provided under the "Remarks" section of the application, or as an attachment to the application.

d. The period of each year during which water is proposed to be diverted, or diverted and stored, and beneficially used must be set forth for each use listed.

e. The source of water for the proposed changes must be listed. An application proposing a diversion, injection, and re-diversion of water must list the source for the original diversion as the source for the injection and re-diversion.

f. The legal description of the point(s) of diversion must be described. The description must be to the nearest 40–acre subdivision or U. S. Government Lot of the Public Land Survey System. The point(s) of diversion should be described to the nearest 10-acre tract, if based on a previously recorded 10-acre description or other accurate means such as GPS or a detailed and accurate map. The

location of springs must be described to the nearest 10–acre tract. Subdivision names, lot and block numbers, and any name in common usage for the point of diversion should be included in the "Remarks" section of the application form.

g. Except as provided herein, the legal description of the place of use must be set forth to the nearest 40-acre subdivision or U. S. Government Lot of the Public Land Survey System. Subdivision names, block and lot numbers, and any name in common usage for the place of use should be included in the "Remarks" section of the application form. For water rights held by irrigation districts, municipal providers, and others included under the provisions of Sections 42-202B or 42-219, *Idaho Code*, the place of use may be generally described even if previously described to the nearest 40-acre subdivision or lot.

   i. If irrigation is a purpose of use, the number of acres in each 40-acre tract of the place of use or within a generally described place of use must be shown. The location of uses, other than for municipal providers or for irrigation, must be identified in the appropriate 40-acre tract(s).

   ii. Except for wastewater from non-industrial uses when there is a full existing water right for irrigation of the place of use receiving wastewater, if a proposed change includes disposal or use of wastewater by land application to growing crops the application must identify the location of the waste disposal area by legal description under the use from which the wastewater originates.

h. An adequate description of the proposed diversion, delivery, application system(s), and measuring devices must be provided. This should include preliminary sizes and dimensions of pumps, pipelines, headgates, ditches, dams, impoundments, and application equipment. The type and location of measuring devices must also be provided. For large existing systems, such as those owned by municipal providers, irrigation districts, and canal companies, only those features proposed to be added or modified need to be described.

(7) Map of System. A map corresponding to the written description above must be included showing the location of points of diversion, reservoirs, dams, canals, ditches, pipelines, and other works proposed to be used

in the diversion and conveyance of water. The map must clearly show the location of the place of use including lands to be irrigated, if any. If only a part of the water right(s) is proposed to be changed, the map must include the location of the part of the existing recorded right(s) proposed to be removed (or changed). Legal descriptions including townships, ranges, sections, quarter-quarters, and government lots must be evident or labeled. In lieu of creating a map, a copy of a published map, such as a U. S. Geological Survey quadrangle map, or an aerial photograph, can be attached to the application with the required identification shown thereon. For large existing systems, such as those owned by municipal providers, irrigation districts, and canal companies, only those features proposed to be added or modified need to be shown.

(8) Response to Questions on the Form. The application for transfer must include responses to the questions on the application form concerning the validity of the right, the proposed use of the land from which the right is proposed to be removed (if applicable) and the existence of mortgages or liens.

(9) Changes to Part of a Right. If only a part of a right is being changed, the application for transfer must define that part by describing each of the elements, as currently licensed or decreed or otherwise recorded, for the part of the right being changed.

(10) Signature. The application for transfer must include the notarized signature of the applicant or the applicant's authorized representative. If a representative signs the application, evidence of authority to sign for the applicant must accompany the application. An application in more than one name must be signed by each applicant unless the right is held in the name of one joint owner "or" other joint owner(s), or the right is held in the name of one joint owner "and/or" other joint owner(s).

(11) Filing Fee. The filing fee provided in Section 42-221, *Idaho Code*, must be submitted with the application for transfer. If the applicant is a governmental agency, a purchase order for the required amount is acceptable. (See the memorandum titled "Guidance on SB 1337 Amending Section 42-221, I.C.," dated June 26, 2000, and Transfer Processing Memorandum No. 23 for further guidance on application fees.)

(12) Changes to Point of Diversion from Eastern Snake Plain Aquifer. Except as provided below, if the application for transfer proposes to move the point of diversion for a water right to divert and use ground water from one location to another within the Eastern Snake Plain Aquifer (ESPA), the applicant must submit an attachment to the application that sets forth the time history of calculated depletions

(transient to steady-state) to reaches of the Snake River that are hydraulically-connected to the ESPA using or based on the department's current ground water model for the ESPA, or other equivalent analysis acceptable to the department. When using results from the department's ground water model, the time history of calculated depletions must be for the cells containing the points of diversion both before and after the proposed transfer, if different. The most current response functions from the ground water model must be used, which as of the date of this memorandum can be obtained by contacting Dr. Donna M. Cosgrove (at cosgrove@if.uidaho.edu) and then manipulating the "Eastern Snake River Plain Hydrologic Effects Spreadsheet," which can be downloaded from the following web site:

http://www.if.uidaho.edu/~johnson/ifiwrri/effects.html

Alternatively, a copy of the department's ESPA ground water model can be obtained by the applicant and used by a qualified person to directly calculate the time history of depletions. A copy of the current ground water model can be obtained by contacting Mr. John Lindgren at jlindgren@idwr.state.id.us.

The purpose of this attachment is to provide a basis for evaluating whether the proposed transfer will increase depletions to hydraulically-connected reaches of the Snake River. Increases in such depletions are presumed to cause injury to existing water rights because all of the hydraulically-connected reaches of the Snake River (including tributary springs) have water rights that are not fully satisfied at certain times. Absent an analysis of injury, increased depletions must be mitigated (within 5 percent for transient increases in depletion, reflecting the confidence intervals for the ground water model) for the proposed transfer to be approvable, assuming the other criteria set forth in Section 42-222, *Idaho Code*, can be satisfied. If mitigation for the proposed transfer is proposed by the applicant, which consists of reduced ground water withdrawals, then any proposed schedule for adjusting reduced withdrawals must also be set forth in the application for transfer.

If the application for transfer proposes to move or add a point of diversion within the existing place of use for the water right, the attachment described above is not required when the application is submitted. However, if the department determines that the proposed change may increase depletions to a hydraulically-connected reach of the Snake River (including tributary springs), the attachment will be required to complete processing of the application for transfer.

(13) Historic Beneficial Use. If the application for transfer proposes to change the nature or purpose of use, season of use, or for a

supplemental water right, the place of use, the applicant must include an attachment documenting the historic extent of beneficial use under the right. For a transfer seeking to change a water right from irrigation, the attachment must provide sufficient data and information to determine historic consumptive water use. This can be satisfied by submitting records of cropping pattern or rotation, or records of water diverted and system efficiency, for at least the most recent, five consecutive years.

(14) Electronic Shape Files or Photographs Documenting Place of Use Changes. If the application for transfer proposes to change the purpose of use for a water right from irrigation to another use, or change the place of use for a water right for irrigation to another location, either of which requires the drying up of acres at the original place of use, the applicant must submit an attachment to the application for transfer. The attachment must provide a clear delineation of the location and extent of the irrigated acres prior to the proposed transfer, and must also provide a clear delineation of the location and extent of the irrigated acres after the transfer, if it is approved. This attachment may either consist of two electronic shape files in a format that is compatible with the department's GIS system or two aerial photographs of sufficient detail acceptable to the department with the boundaries of the irrigated areas clearly shown and referenced to the Public Land Survey System. Applications for transfer proposing to move irrigated acres to another location must submit an attachment that provides a clear delineation of the location and extent of the irrigated acres prior to the proposed transfer at the proposed new place of use, if any, and the location and extent of the irrigated acres at the new place of use after the transfer, if it is approved. This attachment may also consist of either two electronic shape files in a format that is compatible with the department's GIS system or two aerial photographs of sufficient detail acceptable to the department with the boundaries of the irrigated areas clearly shown and referenced to the Public Land Survey System. If a place of use involved with the application for transfer currently consists of a permissible place of use, then the applicable attachment is not required provided the application contains a clear statement that the boundaries for that permissible place of use are not proposed to be changed by the transfer and the total number of irrigated acres within that permissible place of use before and after the transfer is clearly set forth.

(15) Applications Involving Water Rights Based Upon Domestic Exemption. If an application for transfer involving one or more water rights having priority dates of March 25, 1963, or later, that relied on the domestic exemption set forth in Section 42-227, *Idaho Code*, for domestic purposes defined in Section 42-111, *Idaho Code*, even when evidenced by a decree, that proposes to establish a use, which itself would not be included within the scope of the definition for domestic purposes in

Section 42-111, *Idaho Code*, is not approvable. *Idaho Code* specifically prohibits the diversion and use of water under one or more exempt, domestic uses to provide a supply of water for a use that does not meet the exemption of Section 42-227, *Idaho Code*, and is required to comply with the mandatory application and permit process for appropriating a right to the use of water pursuant to Chapter 2, Title 42, *Idaho Code*. An application for transfer filed for such a change is to be returned together with any associated application fee submitted.

4. Changes to Applications for Transfer.

Amendment of Application. An applicant may revise or amend an acceptable application for transfer to clarify or correct information on the application. Significant changes to the place, period, or nature of the proposed use, amount of water, method or location of diversion, or other substantial changes from those shown on a pending application for transfer, will require filing a new application for transfer to replace the original application. If the revisions are not substantial, the application may be revised or amended with an initialed, dated endorsement by the applicant, or by the applicant's representative, on the original application, or by a notarized letter describing the amendments in sufficient detail. Changes to the application or supporting information are not to be made by staff under any circumstances. A replacement application must be identified as "changed" or "revised" on its face so that it can be distinguished from the original application, and the original application must be marked as "superseded." An additional filing fee may be required if the revised or replacement application involves more water than proposed in the original application for transfer. A re-advertisement fee, as provided in Section 42-221F, *Idaho Code*, will be required if notice of the original application has been published and changes to the original application are significant and warrant re-notice. (See Transfer Processing Memorandum No. 20 for additional information regarding changes to applications.)

Assignment of Application. An applicant may assign, in writing (must be notarized), an application for transfer to another entity while the application is pending before the department. An assignment does not require additional notice of the application to be published, and there is no fee for an assignment of an application. The assignment will change the name of the transfer applicant, but ownership of the water right(s) involved in the transfer cannot be changed without proper notice and documentation. Section 42-248, *Idaho Code*, provides that a transfer application can substitute for a notice of change in water right ownership if adequate documentation is provided with the application.

5. Processing an Application for Transfer Prior to Hearing.

Processing of an application for transfer consists of the following steps:

(1) Initiating Processing – Data Entry. Once an application has been accepted and the application fee receipted pursuant to Section 3, Requirements for an Acceptable Application for Transfer, the Regional Office shall complete data entry of the basic information contained in the application and initiate working in parallel with the State Office to process the application.

(2) Parallel Processing. Working in parallel, the Regional Office and the State Office will determine what, if any, additional information is necessary to complete or supplement the application, and the Regional Office will correspond with the applicant to obtain the additional information as well as perform any field review that is also necessary in coordination with staff from the Adjudication Bureau if the water right is claimed in a pending adjudication.

(3) Administrative, Hydrologic, and Legal Review. The Regional and State Offices will complete a review of all information submitted, in coordination with the Adjudication Bureau as needed, and forward appropriate information to the Hydrology Section and Administration for additional hydrologic, policy, and legal review as necessary.

(4) Preparation of Staff Memorandum. Once the review is complete, the Regional Office will prepare a memorandum, with the concurrence of the State Office and using the department's computerized Work Flow process, that documents the joint review and evaluation by the Regional and State Offices of the sufficiency of the information submitted and whether processing of the application can continue because there is no clear inconsistency with the criteria set forth in Section 42-222, *Idaho Code*. If it is determined that processing of the application can continue, the Regional Office will complete necessary GIS descriptions, finalize data entry, and draft conditions for entry into Work Flow.

(5) Rejection or Denial of Application. If it is determined that the application for transfer should be rejected or can not be approved pursuant to Section 42-222, *Idaho Code*, the State Office will prepare and issue a preliminary order rejecting or denying the application. An application for transfer is to be rejected if the applicant fails to provide additional or adequate information pursuant to the requirements in this Section 5. An application for transfer that clearly does not meet the criteria set forth in Section 42-222, *Idaho Code*, must be denied. A rejected application may be re-filed when adequate information can be provided; a denied application can not generally be re-filed for substantially the same proposed transfer, unless a showing is made that substantial changes have subsequently occurred such that the criteria set forth in Section 42-222, *Idaho Code*, can potentially be satisfied. In either case, application fees will be retained.

(6) Applicant Contest of Rejection or Denial. If the applicant contests the preliminary order rejecting or denying the application and requests a hearing pursuant to Section 42-1701A, *Idaho Code*, the Regional Office will provide notice of the application for transfer pursuant to Section 42-222, *Idaho Code*, including notice of the contested case, and provide opportunity to protest the application and intervene in the contested case.

(7) Public Notice. If it is determined that processing of the application can continue consistent with the criteria set forth in Section 42-222, *Idaho Code*, the Regional Office will provide notice of the application for transfer pursuant to Section 42-222, *Idaho Code*.

(8) Preparation of Approval Document. If no protest to the application for transfer is filed under step (7) above, or all protests filed are withdrawn prior to hearing, the Regional Office will finalize an electronic approval document and forward the document to the State Office. The State Office will issue an approved transfer, subject to appropriate conditions, as a preliminary order. The State Office will also complete data updates in Work Flow.

(9) Contested Case Proceedings. If protest to the application for transfer is filed under either step (6) or (7) above, a contested case process will be completed. The hearing officer will forward electronically any final order that results from the contested case and the State Office will complete data updates in Work Flow.

Gathering Information Needed for Processing. In completing the steps outlined above, additional information may be needed for clarification of the purpose and intent of the proposed change, to further document the information on the application, or to provide a sufficient basis for determining whether the proposed change satisfies the statutory criteria for approval. **The burden of providing sufficient information is borne by the applicant.** However, staff should locate and assemble information available in the department's records that does not require compilation, interpretation, or analysis by an engineer, geologist, or other technical specialist.

Requests for Additional Information. Correspondence shall be prepared requesting any additional information needed and providing a reasonable period of time for response (generally 30 days). When additional information is requested from the applicant, the applicant shall be informed of the need for a timely response to avoid delays in processing. The applicant shall also be informed that the application may be rejected if the additional information requested from the applicant is not timely received or is inadequate. The department can grant additional time to submit the required information if the applicant requests additional time and sufficient justification is provided.

Watermaster Recommendation. Section 42-222, *Idaho Code*, requires that the department shall advise the watermaster of any water district in which the water is used

of any proposed change. The department shall not take final action on an application for transfer until the watermaster's recommendation has been received and considered. If the watermaster does not respond to the department's initial request for a recommendation, a second request should be sent seeking a recommendation and informing the watermaster that a non-response will be considered by the department to be the watermaster's recommendation not objecting to approval of the proposed transfer.

Staff to Exercise Judgement. **Department staff has discretion to adapt the requirements set forth herein according to the nature and complexity of a proposed transfer.** While it is important that the information and documentation requirements are consistently applied, **staff is to use sound judgement to avoid asking the applicant for unnecessary information or seeking unnecessary review and comment from other state or local governmental entities as these guidelines are applied.**

5a. Evaluation of Authority to File an Application for Transfer.

(1) Presumption Based Upon Department Ownership Records. For any application for transfer, the department must have sufficient information to determine that the applicant has the authority to seek the proposed change in use of the water right(s). The department can presume, absent information to the contrary, that the applicant is the owner of the right(s) if the department's ownership records maintained pursuant to Sections 42-248 or 42-1409(6), *Idaho Code*, list the applicant as the current owner. The department may need to seek documentation regarding ownership if there is reason to believe that the department's ownership records may be inaccurate.

(2) Other Acceptable Documentation. If the applicant's name does not match the name in the department's records for the current owner of the right(s) sought to be transferred, the applicant must provide evidence of current ownership or authority to make the proposed change(s). Adequate documentation can be a warranty deed, title policy, contract of sale or option for purchase by applicant (if contract or option allows the transfer), or other similar document confirming ownership of the water right(s).

(3) Applicant Does Not Own New Place of Use. If the application for transfer proposes to change the place of use authorized under the water right(s), and the applicant does not own the land at the proposed new place of use, then the applicant must provide documentation that authorizes the change on behalf of the current owner of the proposed new place of use, except when the applicant is a municipal provider, irrigation district, canal company, or other similar entity. Such entities may only need to provide evidence of their authority to provide water for

the proposed place of use in instances where evidence of such authority is necessary.

(4) Conditions on Associated Rights. If an application for transfer proposes a change from or to a system where there is an associated water right that is not listed on the application as a right being transferred, a change to conditions for that right is required, and the right is not owned by the applicant, then the applicant must provide documentation authorizing the change on behalf of the current owner of the associated right.

(5) Authority to Sign on Behalf of an Applicant. If the application for transfer is signed by someone other than the applicant(s) as listed on the application, documentation is needed to establish that the signatory is a representative of the applicant and is authorized to sign on the applicant's behalf. The documentation can be a copy of a current "power of attorney" authorizing signature on behalf of the applicant, or other similar documentation. An application could also be signed by an officer of a corporation or company, an elected official of a municipality, or any individual authorized by an organization to sign the application for a corporation, company, or municipality (if accompanied by documentation confirming authorization). The signatory's title must be shown with the signature.

(6) Corporation, Partnership, Joint Venture, or other Business Entity. If the application for transfer is in the name of a corporation, partnership, joint venture, or other business entity, department staff must verify that the entity is authorized to do business in the State of Idaho by completing a Business Entity Status Search at: http://www.idsos.state.id.us/. If the Business Entity Status Search does not confirm that the corporation, partnership, joint venture, or other business entity is authorized to do business in the State of Idaho, department staff is to request further clarification from the applicant.

(7) Approval of Irrigation Entity or Legislature. Section 42-108, *Idaho Code*, requires that if the right(s), diversion works, or irrigation system is represented by shares in a corporation, or owned by an irrigation district, no change can be made without the consent of such corporation or irrigation district. This includes the use of such right(s), diversion works, or irrigation system for mitigation purposes related to a proposed transfer. Any permanent or temporary change in period of use or nature of use, in or out-of-state, involving a quantity of water greater than fifty (50) cfs or a storage volume greater than five thousand (5,000) acre-feet must also be approved by the legislature if approved by the department, except that any temporary change within the State of Idaho for a period of less than three (3) years does not require legislative approval.

(8) Liens, Mortgages, or Contract Restrictions. If the land from which the water right is proposed to be transferred is subject to liens, mortgages, or other contract restrictions affecting the right to transfer the water, a notarized statement is required from the holder of each such lien, mortgage, or contract (see Transfer Processing Memorandum No. 10).

(9) Municipal Provider. If an application for transfer proposes to change the nature of use of a water right to municipal purposes in the name of a municipal provider for reasonably anticipated future needs, the applicant must provide documentation to establish its qualifications as a municipal provider as defined in Section 42-202B, *Idaho Code.*

5b. Evaluation of Water Right Validity.

For any application for transfer, the department must determine the validity of the water right(s), or part thereof, proposed to be changed. The following factors must be considered when processing an application for transfer and may require additional information from the applicant.

(1) Department Records. For any application for transfer, the department must determine that a right, or part thereof, proposed to be transferred is valid and has not been lost by forfeiture or partial forfeiture. The department will presume, absent other information indicating forfeiture, that the right has not been forfeited if the department's water measurement records, aerial photography, remote sensing, or other information, shows use of water during the previous, consecutive, five-year period. The department will also presume that the right has not been forfeited when it is claimed in a pending adjudication or initially decreed in an adjudication within the previous five-year period. If staff makes a field inspection (all transfers seeking a change to a right evidenced only by a claim are to be field inspected, see Transfer Processing Memorandum No. 1), information must be gathered concerning the current status of diversion and delivery facilities and the apparent recent use of water.

(2) Other Acceptable Documentation. If the records available to the department do not establish that a right has been used within the previous, consecutive, five-year period (except as provided in (1) above or for a right held by a municipal provider for reasonably anticipated future needs pursuant to Section 42-223(2), *Idaho Code*), the applicant must be asked to provide written documentation demonstrating that the right has been used within that time period. Examples of appropriate documentation include power records for pumps used to divert water under the right, Farm Service Agency (FSA) crop production records, receipts or other evidence of expenditures or revenue from the use of water under the right, and adequate affidavits of objective persons

having actual knowledge of the uses of water under the right. Alternatively, if the right has not been used within the previous, consecutive, five-year period, then the applicant must be asked to provide information showing that exceptions or defenses to forfeiture are applicable. Exceptions or defenses to forfeiture include those set forth in Section 42-223, *Idaho Code*; extensions provided for in Section 42-222, *Idaho Code*; and case law relating to factors such as resumption of use, unavailability of water when needed, or non-use when other water is available.

(3) Validity of Unchanged Parts of a Water Right. For applications for transfer proposing to change part of a water right or rights, the remaining part(s) of the right(s) that are not involved in the proposed transfer are subject to a finding of forfeiture as part of the transfer action by the department. However, department staff is not required to perform a comprehensive forfeiture analysis for the remaining part(s) of the right(s), unless the information submitted by the applicant or gathered by the department clearly shows that forfeiture of the remaining part(s) has occurred. In addition, the remaining part(s) of the right(s) are not subject to any additional conditions beyond the requirements of the original right(s). When there has not been a comprehensive forfeiture analysis performed for the remaining, unchanged part(s) of the right(s), a remark will be included for any remaining part(s) of the right(s) to indicate that an approved transfer does not confirm the validity of the remaining, unchanged part(s) of the right(s).

(4) Statutory or Beneficial Use Claims. Applications for transfer proposing to change a water right based on a statutory or beneficial use claim must be reviewed to determine the validity of the claim. Review must include field verification as required in Transfer Processing Memorandum No. 1. In addition, the applicant must be asked to provide information confirming the priority date of the claim. Adjudication staff must also be consulted for questions regarding review of the priority date if the claim is filed in a pending adjudication. A transfer approval for the water right (or part thereof) based on a claim shall incorporate the department's findings regarding the validity of the right. If a statutory or beneficial use claim is the basis for a pending claim in an adjudication, adjudication staff shall be notified of the results of the validity review, and the claimant shall be informed of the findings.

5c. Injury to Other Water Rights

For any application for transfer, the department must determine whether the proposed change will injure any other rights, whether junior or senior in priority to the right being changed. The following factors must be considered when processing a transfer and may require additional information from the applicant.

(1) Reduction in Quantity of Water Available to Other Water Rights. Whether the amount of water available under an existing water right, senior or junior in priority, will be reduced below the amount recorded by permit, license, decree, or valid claim, or the historical amount beneficially used by the right holder, whichever is less.

(2) Unreasonable Effort or Expense. Whether the holder of an existing water right will be forced to an unreasonable effort or expense to divert water under the existing water right.

Existing ground water rights are subject to reasonable pumping level provisions of Section 42-226, *Idaho Code*, as well as applicable court decisions (e.g., Parker v. Wallentine, 103 Idaho 506, 650 P.2d 648 (1982), regarding in part the obligation to pay increased costs to divert an existing right).

(3) Unusable Water Quality. Whether the quality of water available to the holder of an existing water right would be made unusable for the purposes of the existing right.

(4) Mitigation. Whether mitigation would be needed to prevent injury to an existing water right that would be injured otherwise.

Unless agreed to in writing by the holder of an existing right, the only mitigation that can be considered acceptable by the department is the provision of replacement water in the full amount of the injury, at the same time injury would otherwise occur, and of acceptable water quality at the point of diversion for the existing right. For applications that propose to move the point of diversion for a water right to divert and use ground water from the ESPA, the transfer is not approvable if the transfer would result in increased depletions to any hydraulically-connected reach of the Snake River, within 5 percent for transient increases in depletion (reflecting the confidence intervals for the current ground water model). When increases in such depletions would occur, acceptable mitigation includes reduction in the quantity of ground water diverted and depleted such that there is no increase in depletions, within 5 percent for transient increases, to any hydraulically-connected reach of the Snake River. When this form of mitigation is proposed, the quantity of ground water diverted may be increased periodically (no more frequently than annually) if supported by an analysis of the timing of calculated depletions (transient to steady-state) to reaches of the Snake River that are hydraulically-connected to the ESPA for the points of diversion both before and after the proposed transfer. However, the proposed schedule for increased diversions must be set forth in the application for transfer, and if approved, the applicant may not increase ground water diversions under the transfer without first filing notice of

intent to increase the annual diversion volume with the department each time an increase in diversion volume is sought.*

(5) Ground Water Management Area or Critical Ground Water Area. Whether the point of diversion for a ground water right would move from outside the boundaries of a critical ground water area (CGWA) or ground water management area (GWMA) to within the boundaries of a CGWA or GWMA, or whether the point of diversion would move from within the boundaries of a GWMA to within the boundaries of a CGWA.

An application for transfer proposing such a change in the location of the point of diversion for a ground water right is not approvable unless the applicant proposes acceptable mitigation to prevent injury to other water rights. For cold water (less than 85° F) GWMAs over the ESPA, mitigation beyond that satisfying condition (4) above will not be required at this time as a condition of approval, unless injury would occur to a water right to divert ground water or injury would occur to a water right to divert surface water that has not been offset by stipulated agreement or through a mitigation plan approved by the Department,

(6) Change of Source. Whether the source would be changed from ground water to surface water, or from surface water to ground water.

An application for transfer proposing such a change in source is not approvable unless the ground water and surface water sources have a direct and immediate hydraulic connection (at least 50 percent depletion in original source from depletion at proposed point of diversion in one day). The existing point of diversion and proposed point of diversion must be proximate such that diversion and use of water from the proposed point of diversion would have substantially the same effect on the hydraulically-connected source as diversion and use of water from the original point of diversion. If such application for transfer is approved, the changed water right shall be administered no differently than any other water right from the surface water source. If approved, the source for a change from a surface water source to a ground water source should be listed as ground water tributary to the surface water source.

(7) Changing Aquifer Source. Whether a proposed change in point of diversion for a ground water right is from one aquifer to another aquifer.

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* If the transfer is approved with mitigation by reducing the amount of ground water withdrawn, and as a result the reach gains to one or more other hydraulically-connected reaches of the Snake River increase, then the applicant shall retain the right to receive credit for the increased reach gains. Such credits can not currently be used because there is no administrative system in place to recognize such credits. In the event that an administrative system is created in the future whereby such credits available at that time can be recognized, the applicant shall retain the right to the possible future use of such credits, which shall be reflected in a condition of approval for the transfer.

An application for transfer proposing to change the point of diversion from one distinct aquifer to a totally separate aquifer is not approvable, just as an application for transfer proposing to change the point of diversion for a surface water right from one distinct surface water source to a totally separate surface water source is not approvable.

(8) Conveyance Losses. Whether the proposed change would move part or all of a right from a canal impacting conveyance losses associated with the delivery of multiple water rights in the canal.

If such application for transfer is otherwise approvable, the approval must require that the applicant retain an appropriate amount of water in the canal to prevent any additional reduction in the amount of water available from the canal to fill other water rights because of the portion of the conveyance losses that, prior to the transfer, were attributable to the right being transferred.

Additional Considerations. In addition to the considerations above, the following information may be needed to evaluate injury involving an application for transfer for a ground water right, depending on the specific circumstances of the proposed transfer. If the information is not available in the department's records, the applicant must provide the following information that department staff determines is necessary:

(1) Location of Nearby Wells. The location of the nearest production well, including domestic wells, to the proposed point of diversion, and if different, the nearest production well down gradient from the proposed point of diversion (the location of other nearby production wells may also be required);

(2) Location of Nearby Springs. The location of nearby springs from which water is diverted under existing rights, including domestic uses, that could be affected by ground water diversions from the proposed point of diversion;

(3) Ground Water Levels. The depth to water, the stability of ground water levels, or the stability of confined aquifer pressures, in the area of the proposed point of diversion; and

(4) Water-Bearing Zones. The depth and thickness of water-bearing zones, including identification of the zone or zones sought for the proposed use.

5d. Enlargement of Use

For any application for transfer, the department must determine whether the proposed change will enlarge the use of water under the water right(s). Enlargement will occur if

the total diversion rate, annual diversion volume, or extent of beneficial use (except for nonconsumptive water rights), exceeds the amounts or beneficial use authorized under the water right(s) prior to the proposed transfer. The following factors must be considered when processing an application for transfer, which may require that additional information be provided by the applicant:

(1) Diversion Rate, Annual Diversion Volume, and Number of Acres Licensed or Decreed. The authorized diversion rate, annual diversion volume (ground water rights only and certain surface water rights), and number of acres authorized for irrigation (if applicable), as licensed or decreed for the water right, shall not be increased. If the annual diversion volume is not specifically stated on the license or decree for a ground water right, then the amount will be based on the most current standards adopted by the department.

(2) Beneficial Use. An application for transfer proposing to change the place of use or nature of use for all or part of a water right or water rights, which change would not result in an equivalent reduction in beneficial use under the original right(s), will be presumed to enlarge the water right(s). For example, hydropower use cannot be added to a right used for irrigation, even though no additional water would be diverted for the hydropower use. The irrigation use, or part thereof, could be changed to hydropower use by reducing the irrigation use by an equivalent amount, or the new use could be provided without reducing the irrigation use by obtaining a new permit to appropriate water for hydropower use.

(3) Stacked Water Rights. Water rights are "stacked" when two or more water rights, generally of different priorities and often from different sources, are used for the same use and overlie the same place of use. Water rights for irrigating a permissible place of use are not stacked when the water rights in total provide for irrigating up to the maximum acreage authorized within a permissible place of use. An application for transfer proposing to "unstack" one or more water rights used for irrigation or other use, without changing all the rights for the same use, is presumed to enlarge the water right. However, the place of use for a supplemental irrigation right may be changed for continued use as a supplemental irrigation right at a different place of use without, by definition, enlarging the original right or the supplemental right proposed for transfer, so long as the primary rights at the original and proposed places of use provide comparable water supplies. In other words, use of the supplemental right at the proposed place of use can not materially exceed use of the supplemental right at the current place of use.

(4) Changing Supplemental Right to Primary Water Right. An application for transfer proposing to change a supplemental irrigation right to a use

as a primary water right for irrigation or other use constitutes an enlargement. An exception is when the applicant can demonstrate there would be no enlargement of the water right being changed or other related water rights because the supplemental right has been used on a regular basis and the extent of beneficial use under all associated rights prior to the transfer will be proportionately reduced.

(5) Historic Beneficial Use. For an application for transfer seeking to change the nature or purpose of use, season of use, or for a supplemental water right, the place of use, the historic extent of beneficial use under the right must not be enlarged. The extent of historic beneficial use may also have to be considered for other proposed changes in the place of use under some circumstances when there are other sources of water, such as natural subirrigation, even when the purpose of use or period of use are not proposed to be changed. For a transfer seeking to change a water right for irrigation, the consumptive water use based on the cropping pattern or rotation, or estimated from records of water diverted and system efficiency, for the most recent, five consecutive years is presumed to provide a reasonable basis to establish historic use under the water right proposed for transfer, unless information provided by the applicant supports using a longer historic period. Exceptions or defenses to forfeiture may also justify extending the time period considered in establishing the historic use prior to the proposed transfer. The highest-year historic consumptive use, except for supplemental rights, will be the basis for the annual volume of consumptive use available for transfer. When it is necessary to determine the historic consumptive use under a supplemental right, the average annual historic consumptive use, over an appropriately representative time period that may be greater than five years, will be the basis for the volume available for transfer. In some rare instances, the diversion rate, the annual diversion volume, and season of use could also be limited based on the extent of historic use.

(6) Period of Use. An application for transfer, which proposes an increased period of use in connection with a changed nature of use for ground water, is presumed not to be an enlargement in use if the rate of diversion, total annual volume diverted, and annual volume of consumptive use are not increased. However, a change to an increased period of use for a surface water right is presumed to be an enlargement and would cause injury where there are junior priority rights that rely on surface water during the time period outside of the historic period of use for the right proposed to be changed.

(7) Confined Animal Feeding Operations. For the purpose of quantifying the amount of water needed or used in connection with a confined

animal feeding operation, such as a feedlot or dairy, the water use will be considered fully (100 percent) consumptive.

(8) Fish Propagation. An application for transfer, which proposes to increase the number or volume of raceways in a fish propagation facility, will not be presumed to be an enlargement of the water right, unless the diversion rate or annual volume of water diverted are proposed to be increased.

(9) Disposal of Waste Water. An application for transfer filed to provide for the disposal of wastewater, by land application on cultivated fields or other beneficial use disposing of the wastewater, resulting from use of water under "commercial," "municipal," or "industrial" water rights where the use of water is considered to be fully consumptive, is not considered an enlargement of the commercial, municipal, or industrial water right. While not an enlargement of the water right, such use of wastewater must not injure other water rights (see Application Processing Memorandum No. 61) and must comply with best management practices required by the Idaho Department of Environmental Quality, the U. S. Environmental Protection Agency, or other state or federal agency having regulatory jurisdiction.

(10) Enhanced Water Supply. An application for transfer, which proposes to change a point of diversion from a surface water source to a new location where the water available is greater or more reliable, such as moving from the tributary of a stream downstream to the mainstem of the stream, is presumed to enlarge the water right, unless the proposed change is subject to conditions limiting diversion of water at the proposed new point of diversion to times when water is available and the water right is in priority at the original point of diversion.

(11) Water Held for Reasonably Anticipated Future Needs. Section 42-222, *Idaho Code*, provides that when a water right, or part thereof, to be changed is held by a municipal provider for municipal purposes, that portion of the right held for reasonably anticipated future needs can not be changed to a new place of use outside the service area of the municipal provider or to a new nature of use. See Section 42-202B, *Idaho Code* for applicable definitions related to municipal water use.

(12) Changing the Purpose of Use for a Water Right to Municipal Purposes. An application for transfer, which proposes to convey an established water right to a municipal provider and change the nature of use to municipal purposes, as defined in Section 42-202B, *Idaho Code*, shall not be approved without limiting the volume of water divertible under the right to the historic consumptive use under the water right prior to the proposed change. If the proposed transfer involves a surface water

right, the transfer shall not be approved without also limiting the right to the historic period of use under the right prior to the proposed change.

(13) Historic Use Recognized for Municipal Purposes. An application for transfer, which proposes to change the nature of use to municipal purposes for an established water right held by a municipal provider that lists the purpose(s) of use as domestic, commercial, industrial, irrigation, or any combination of those uses, where those uses have historically been essentially for municipal purposes, as defined in Section 42-202B, *Idaho Code*, will not be presumed to be an enlargement of the right.

(14) Stored Water. Section 42-222(1), *Idaho Code*, provides that a transfer of a water right for the use of stored water for irrigation purposes does not constitute an enlargement in the use of the original water right, even when more acres are irrigated, provided that no other water rights are injured.

(15) Conveyance Losses. An application for transfer, which proposes to change the purpose of use for a portion of a water right covering conveyance losses to a use that would provide for irrigating additional acres, or other additional use, is presumed to be an enlargement of the water right.

(16) Measuring Requirements for Ground Water Diversions. Any water right transfer authorizing one or more changes to the diversion and use of ground water approved subsequent to the date of this memorandum shall include a condition of approval that requires the installation and maintenance of one or more measuring devices or means of measurement approved by the department. Until and unless changed pursuant to Section 42-701, *Idaho Code*, the following flow meter installation is required for the transferred right prior to diverting and using ground water under the transferred right:

a. One or more magnetic flow meters shall be installed, as required by the department, having an accuracy of 0.5 percent of rate of flow for flow velocities between 0.1 and 33 ft/sec in pipe sizes up to 4 inches in diameter and for flow velocities between 0.1 and 20 ft/sec in pipe sizes greater than 4 inches in diameter;

b. Each magnetic flow meter must be installed and maintained in accordance with the manufacture's specifications and equipped with an LCD backlit display unit that displays instantaneous flow rate and total volume of water diverted in accordance with the department's requirements;

c. Each magnetic flow meter must provide analog output for flow rate, scaled pulse frequency for total volume of water diverted, and an RS232 port for communications; and

d. Each magnetic flow meter must be equipped with a data logger specified by the department and capable of storing 120 days of data including dates and cumulative volume of ground water diverted updated daily, as a minimum.

Detailed specifications for the above requirements will be provided by the Water Distribution Section of the department upon request. A municipal provider subject to other measurement provisions that satisfy the department's measuring and reporting requirements are exempt from the above condition. Holders of ground water rights approved for transfer for diversion through existing systems may request a variance from the above requirements, which may or may not be granted.

5e. Local Public Interest

For any application for transfer, the department must consider whether the proposed change(s) are in the local public interest as defined in Section 42-203A(5), *Idaho Code*. Consistent with earlier guidance herein regarding use of discretion and sound judgement, department staff are to address the following items, as well as other issues that are pertinent to specific circumstances, in considering whether sufficient information has been provided regarding local public interest issues. When there are one or more significant questions about whether a particular transfer would be in the local public interest, additional information from the applicant or comments from other state or local governmental entities that have germane expertise on local public interest issues must be sought. The applicant shall be informed when written comments regarding an application are solicited or received from another agency.

(1) Economic Impacts. The positive and negative impacts the proposed transfer could have on the economy of the local area, indicated by changes in short-term and long-term employment, short-term and long-term changes in economic activity, and the stability of economic activity;

(2) Recreation, Fish, and Wildlife Impacts. The effect the proposed transfer could have on recreation, fish, and wildlife resources in the local area that would be affected by the proposed change (Transfer Processing Memoranda Nos. 19 and 21 provide guidance related to state protected river reaches and minimum stream flow reaches);

(3) Agricultural Base. The effect the proposed transfer could have on the agricultural base of the local area (Section 42-222(1), *Idaho Code*, provides that a change in nature of use from agricultural use shall not be approved if it would significantly affect the agricultural base of the local area);

(4) Air, Water, and Hazardous Substance Standards. Whether the proposed transfer would comply with applicable air, water, and hazardous substance standards;

(5) Local and State Requirements. Whether the proposed transfer would comply with local government and state government, if any, planning and zoning ordinances, regulations, and records of decisions;

(6) Neighboring Jurisdictions. Whether the proposed transfer would comply with existing land use and other uses of natural resources, if any, adjacent to the place of use proposed by the transfer but beyond the jurisdiction of the local government having authority or control over the proposed place of use; and

(7) State Water Plan. Whether the proposed transfer would be compatible with the objectives and policies of the State Water Plan pertaining to the local public interest.

5f. Beneficial Use and Conservation of Water Resources

For any application for transfer, the department must consider whether the proposed use of water is a beneficial use consistent with the conservation of water resources within the State of Idaho. The following factors must be considered when processing a transfer and may require additional information from the applicant:

(1) Efficiency of Diversion and Use. Whether the water delivery and distribution/application systems for the use proposed by the transfer would be consistent with contemporary standards for reasonably efficient use of water.

(2) Diversion Rates for Irrigation Use. Whether the proposed transfer, if involving irrigation, proposes a diversion rate in excess of 0.02 cfs per acre of land irrigated (see Section 42-220, *Idaho Code*), and if the application for transfer proposes a higher diversion rate, whether the higher rate would be justified based on soils, crop types, irrigation system, climate, and reasonable conveyance losses from the point of diversion to the place of use. A higher diversion rate may also be justified for irrigating lands that because of public access can only be irrigated during certain times of the day (see Application Processing Memorandum No. 60). For the irrigation of five acres or less, justification is not necessary for a diversion rate of up to 0.03 cfs per acre (see Application Processing Memorandum No. 17). If the right proposed for transfer is based on a decree or license authorizing a diversion rate greater than 0.02 cfs per acre, then additional justification is not necessary unless:

a. The proposed transfer would change the place of use to a new place of use, rather than simply rearranging acreage at the general location of the existing place of use;

b. The proposed transfer would change the point of diversion with the intent to abandon the existing conveyance system and replace it with a new conveyance system that would reduce conveyance losses; or

c. The proposed transfer would add additional rights to an existing place of use from the same source as the existing water right(s) at the place of use.

(3) State Water Plan. Whether the proposed transfer would be compatible with the objectives and policies of the State Water Plan pertaining to beneficial use and conservation of water resources.