

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 74-15608

Exam Date: 5/23/2012

1. Current Owner: CITY OF SALMON
200 MAIN ST
SALMON ID 83467
(208)756-3214
2. Accompanied by: Charlie Cockrel
Phone No: (208) 940--0510
Address: Same As City of Salmon
Relationship to Permit Holder: Parks Grounds Keeper

3. **SOURCE****TRIBUTARY**

GROUND WATER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: 74-466
2. Other water rights with the same point of diversion:

C. DIVERSION AND DELIVERY SYSTEM1. **LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER

SE1/4NW1/4

Sec. 9, Twp 21N, Rge 22E, B.M.

LEMHI County

Method of Determination: Visual Inspection and Garmin GPS

2.

PLACE OF USE: IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	<u>NE</u>	<u>NW</u>	<u>SW</u>	<u>SE</u>	
21N	22E	9								2.5									2.5

Total Acres: 2.5

Method of Determination: Visual Inspection and GIS

3. YES Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.
- YES Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.
- YES Aerial Photo Attached (required for irrigation of 10+ acres).
- YES Photo of Diversion and System Attached

4.

Well or Diversion Identification No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
Sacajawea Well Site Tag # D0020729	Grundfos	1	22sQE10C	Submersible	Same as Motor

*Code to correspond with No. on map and aerial photo

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
NONE						

2. Measurements: The flow was calculated using a theoretical calculation. A pump curve or measurement was not available or possible on this system.

E. FLOW CALCULATIONSYES Additional Computation Sheets Attached

Measured Method:

Theoretical Calculation = 0.05 cfs
Permit Allows = 0.05 cfs

The theoretical calculation and the permit amount match, therefore, I am recommending 0.05 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 3.5 \times 2.5 = 8.8 \text{ af}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.05 \times 256 \times 1.9835 = 25.4 \text{ af}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = 8.8 \text{ af}$$

2. Volume Calculations for Other Uses:

NONE

G. NARRATIVE/REMARKS/COMMENTS

The water for this permit is diverted from a well located in the SENW of Section 9, Township 21 North, Range 22 East. The well is located in a grassy area across east of the main Sacajawea Building. The water from this point travels underground to a buried sprinkler system. The grassy area around the parking lot and the Amphitheater are all irrigated from this well. Another portion of ground on the eastern side of the park around the home is also irrigated from this well. There is no water right available to irrigate the ground around the home on the eastern side of the property, and the City of Salmon have been informed that they will be required to file a new water right to cover this use.

The ground irrigated around the Sacajawea main building and the garden area in front of the building is irrigated with City of Salmon water. The fields to the east and to the north of the center are irrigated by canal water and various surface sources. The Municipal water system and the surface water systems irrigating the areas around this ground water system are not connected into the ground water system described in this permit. The only way to irrigate this ground is through the ground water system. Therefore, there should not be any significant overlap issues.

Water right 74-466 is used for mitigation purposes. In a telephone conversation with the watermaster, he stated that they have placed this water right into the water bank and is not being delivered. The mitigation requirement for this system has been complied with.

Have conditions of permit approval been met? X Yes No

H. RECOMMENDATIONS**1. Recommended Amounts**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
IRRIGATION	03/15 to 11/15	0.050 CFS	8.80 AF
<u>Totals:</u>		0.050 CFS	8.80 AF

2. Recommended Amendments

☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☐ None

☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☐ Other

I. AUTHENTICATION Daniel A. Nelson (Staff Hydrologist)

Field Examiner's Name



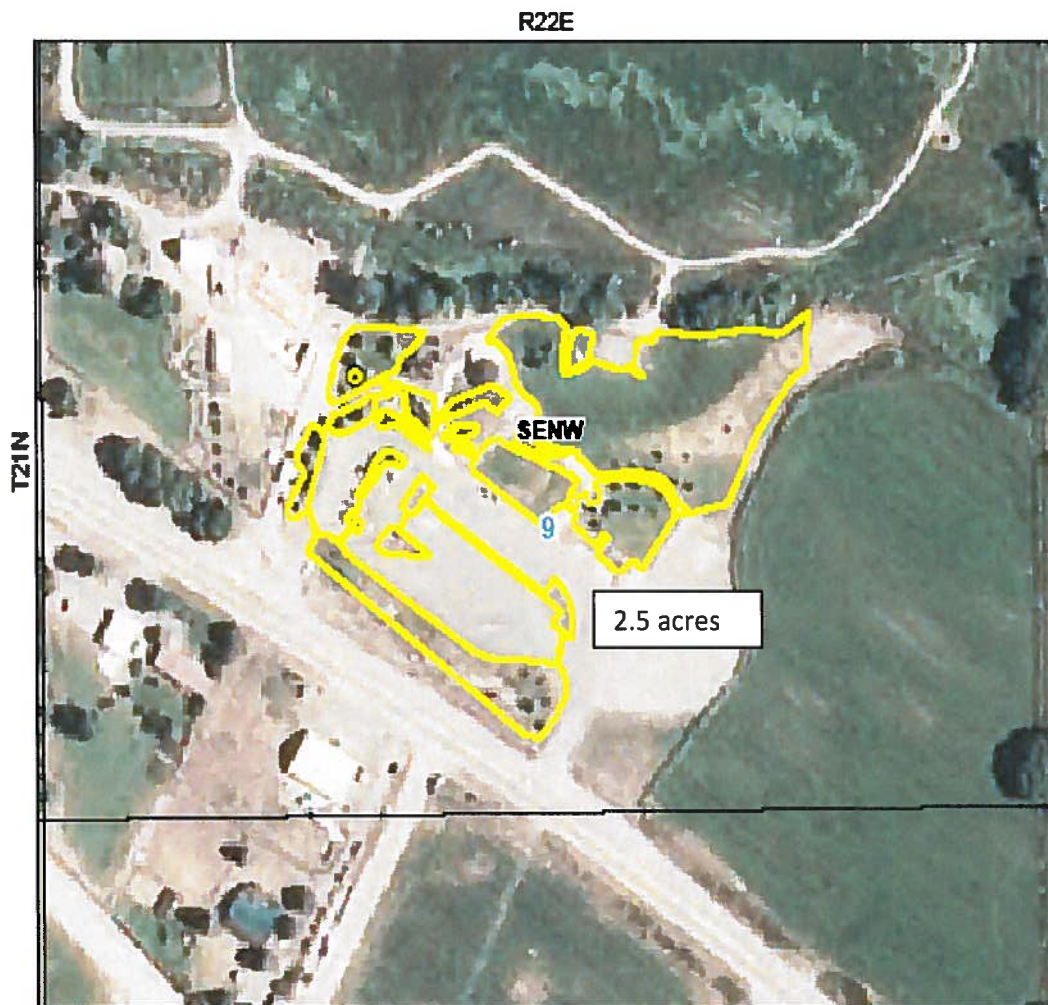
Date

7-16-2012

Reviewer

Date

State of Idaho
Department of Water Resources
Water Right License
74-15608
Water Service Area Boundary for City Of Salmon

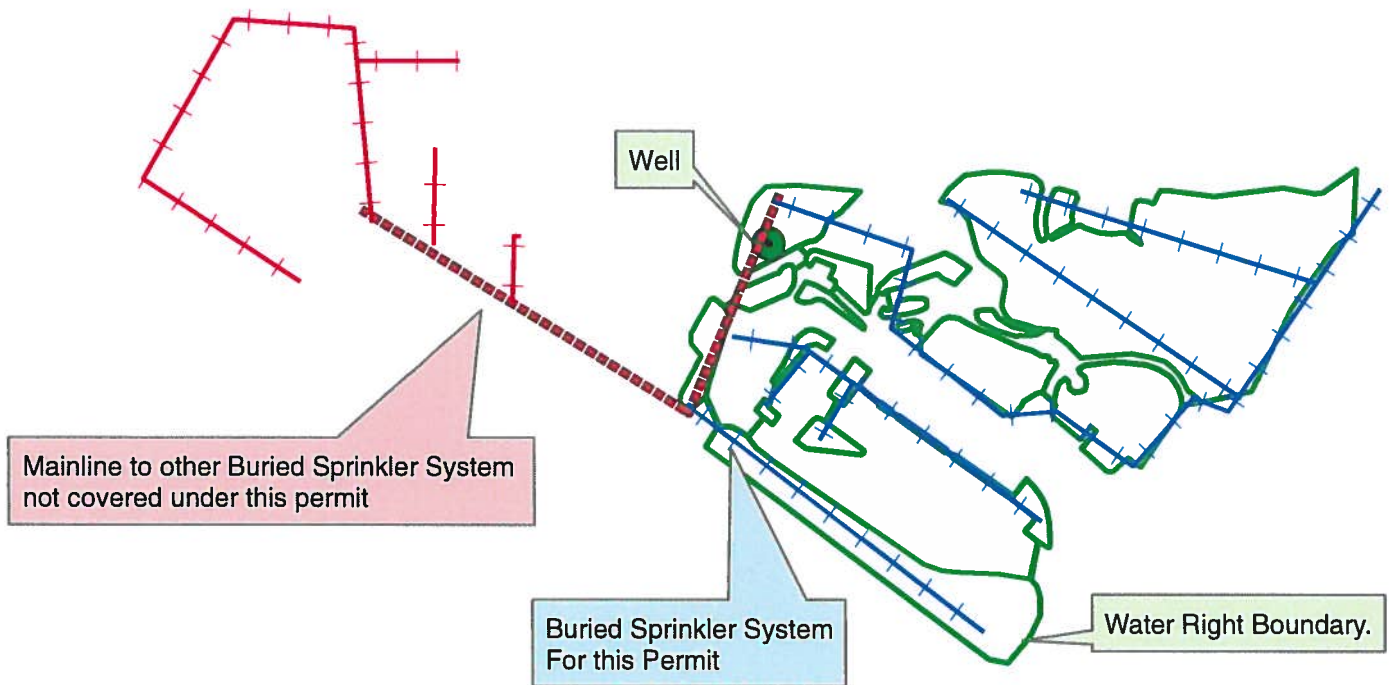


0 0.025 0.05 0.1 Miles

-  Point of Diversion
-  Place Of Use Boundary
-  Townships
-  PLS Sections
-  Quarter Quarters



System Diagram
Water Right 74-75608
By Dan Nelson



GROUNDWATER THEORETICAL ANALYSIS

FILE: 74-15608

DATE: 5-23-2012

BY: Dan Nelson

THEORETICAL RATE OF FLOW: $Q = \frac{(8.8 \times (HP) \times (EFF.))}{TDH}$

Q = CFS

HP = Total Brake Horsepower of pumping plant (including booster)

Eff. = Pumping plant efficiency (assume 70% or 0.70)

TDH = Total dynamic head = [(LIFT) + (PSI X 2.31)]

LIFT = Depth to water in FEET from land surface to pumping water level

PSI = Pumping pressure measured in PSI near pump (if open discharge assume [0])

Q = $(8.8) \times (\underline{1 \text{ Hp}}) \times (0.70) = 6.16$ = 0.05 CFS.

$[(\underline{22 \text{ FT.}}) + (\underline{45} \times 2.31)] = 125.95$

LIFT FROM:

Measurement ()

Owner ()

Area estimate ()

Well Logs (X)

Booster (Y) (N)

PSI FROM:

Measurement ()

Owner ()

Estimate (X)

Owner Gage ()

NOTES ON PUMP:

Motor Make, Serial or ID

Pump Make, Serial or ID, rating

REMARKS: I used The well LOG TO DETERMINE
STATIC WATER LEVEL @ 12 FT AND added 10 FT
FOR DRAW DOWN FOR a TOTAL OF 22 FT. The standard
SPRINKLER OPERATES @ approximately 40-60 PSI, I
used 45 PSI FOR this calculation.

The Theoretical calculation Matches the
Permitted amount, so I feel this
measure ment is acceptable.

Harber Drilling Company**Post Office Box 194
Carmen ID 83462-0194**Phone: (208) 756-3531
FAX: (208) 756-3541
Email: harber@lda.net**Invoice**

DATE	INVOICE #
8/9/2005	776

BILL TO
City of Salmon Sacajawea Center-Irrigation 200 Main Street Salmon ID 83467

SHIP TO

TERMS	DATE(S)	LOCATION	ID Tag #
Due on receipt	6/17/2005	Sacajawea Ctr	D0020729

QUANTITY	ITEM CODE	DESCRIPTION	PRICE EACH	AMOUNT
44	8" Drilled	8" diameter drilled	28.00	1,232.00
40	Casing 8"	8" steel casing and cap	18.00	720.00
	Miscellaneous	Sediment Control	400.00	400.00
	Mobilization	Mobilization	250.00	250.00
	Miscellaneous	Drawdown Test	400.00	400.00
	Well Sealant	Well Sealant: gravel pack , grout	525.00	525.00
	Pump Sales	Submersible Grundfos pump installation complete with control box, pipe and wire (22SQE10C-160 set on 1-1/2" PVC)	3,610.00	3,610.00
1 HP 230V 3" MTR 1 1/2" NPT 2-wire 13.7" Pump end				
Thank you for your business. Please call with any problems or questions you may have.			Total	\$7,137.00

All bills are due upon receipt. Past due drilling accounts subject to monthly 5% interest charges as per contract. Other past due accounts subject to 2% monthly interest charges.

1/31/03

Drilling Permit No. _____

Drilling Permit I.D. Tag No. D0020729Water Right Permit No. 74-15608

Injection Permit No. _____

State of Idaho
Department of Water Resources

74

RECEIVED

JUN 10 2005

Department of Water Resources
Eastern RegionAPPLICATION FOR DRILLING PERMIT
(FOR THE CONSTRUCTION OF A WELL)1. Owner (please print): City of Salmon2. Mailing Address: 200 Main St.City: Salmon State: ID Zip Code: 83467 Telephone () 208-756-32143. Proposed Well Location: Twp. 21 N, Rge. 22 E, Sec. 9, SW 1/4 SE 1/4 NW 1/4;Gov't Lot No. NA County Lemhi Lat. _____: _____: _____ Long. _____: _____: _____Street Address of Well Site 60 Hwy 28 100 yards from Entrance to Sac. Ctr.- flagpole area City Salmon

Give at least name of road + Distance to Road or Landmark

Lot, block and subdivision RP 21N 22E 094201

4. Proposed Use of Well:

- ☐ DOMESTIC: The use of water for homes, organization camps, public campgrounds, livestock and for any other purpose in connection therewith, including irrigation of up to 1/2 acre of land, if the total use is not in excess of 13,000 gpd; or any other uses, if the total use does not exceed a diversion rate of 0.04 cfs and a diversion volume of 2500 gpd.

Domestic does not include water for multiple ownership subdivisions, mobile home parks, commercial or business establishments, unless the use does not exceed a diversion rate of 0.04 cfs and a diversion volume of 2500 gpd.

NON-DOMESTIC: ☒ Irrigation ☐ Municipal ☐ Industrial
☐ Livestock ☐ Test ☐ Other _____
 Type _____ Number Hd. _____ (Describe)

☐ INJECTION☐ MONITORING: A well bore schematic and map is required for each blanket permit. No. of proposed wells: 1

5. Well Construction Information:

A. ☒ New well ☐ Modify ☐ ReplaceB. Proposed Casing Diameter 8-10" Proposed Maximum Depth 50-100 feet

C. Anticipated bottom hole temperature:

☒ 85 F or less
(Cold Water Well)☐ 85 F to 212 F
(Low Temp. Geo. Well)☐ 212 F. or more
(Geothermal Well)6. Construction Start Date: June, 20057. Anticipated Well Driller: Harbor Drilling Company Driller's Lic. No. 430

NOTE: The actual well driller must be identified prior to drilling.

8. Applicant's Signature: Stanley B. Davis Date May 11, 2005

Address (if different than owner): _____

City: Salmon State: ID Zip Code: 83467 Telephone 208-756-3214Title: Mayor, City of Salmon

(Owner, Firm Representative, Other)

ACTION OF THE DEPARTMENT OF WATER RESOURCES

This Permit is Approved Date 6-8-2005

If approved, this permit authorizes the construction or modification of a well subject to the following conditions. **READ CAREFULLY!**

GENERAL CONDITIONS:

1. This drilling permit is valid for two (2) months from the above approval date for the start of construction and is valid for one(1) year from the approval date for completion of the well unless an extension has been granted.
2. This permit does not constitute an approval of the District Health Department or the Idaho Department of Health and Welfare, which may be required before construction of the well. All wells must be drilled a minimum distance of 100 feet from a drain field. Domestic and Public Water Supply wells must be drilled a minimum of 50 feet and 100 feet respectively from a septic tank.
3. The well shall be constructed by a driller currently licensed in the State of Idaho who must maintain a copy of the drilling permit at the drilling site.
4. Approval of this drilling permit does not authorize trespass on the land of another party.
5. This permit does not constitute other local, county, state or federal approvals, which may be required for construction of a well.
6. This drilling permit does not represent a right to divert and use the water of the State of Idaho.
7. If a bottom hole temperature of 85 or greater is encountered, well construction shall cease and the well driller and the well owner shall contact the Department immediately.
8. Idaho Code, S 55-2201 - 55-2210 requires the applicant and/or his contractors to contact "Digline" (DigLine is a one-call center for utility notification) not less than 2 working days prior to the start of any excavation for this project. The "DigLine" Number for your area is 1-800-342-1585.
9. Please be advised that this drilling permit should be considered and treated as a preliminary permit. If you are in disagreement with this preliminary permit you have fourteen (14) days of the service date of this permit to petition the Department for reconsideration pursuant to Section 67-5243, Idaho Code.
10. The well tag for the drilling permit/start card shall be securely and permanently attached to the well casing through welding or by the use of four closed end domed stainless steel pop rivets. The tag attachment will be done at the time of completion of the well, and prior to removing the drill rig from the drill site.

SPECIFIC CONDITIONS:

Robert E. Iate
Signature of Authorized Department Representative

Sr. Water Rights Agent Salma
Title

Receipt No. E030971 Received by JK Fee \$200⁰⁰ Date 6/10/05

EXTENSION OF DRILLING PERMIT

Extension approved by _____ Approval Date _____

This extension expires: _____



Drilling Permit No. D0020729

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

REQUEST FOR EXPEDITED ISSUANCE OF A DRILLING PERMIT

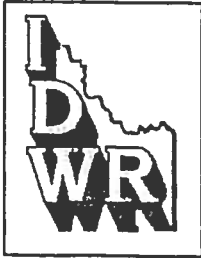
The City of Salmon, Applicant, requests issuance of a drilling permit prior to approval of a pending Application for Permit or Application for Transfer on file with this department. The request is made for the following reasons:

Installation of an irrigation well at the
Sacajawea Interpretive, Cultural, and Educational
Center for the purposes of irrigating approximately
2.5 acres of turf and tree landscaping.

Applicant acknowledges that by accepting a drilling permit and commencing construction he accepts all risk that the well may not ultimately be approved for use.

June 8, 2005
Date

Gary A. Van Hoffel City Administrator
Signature



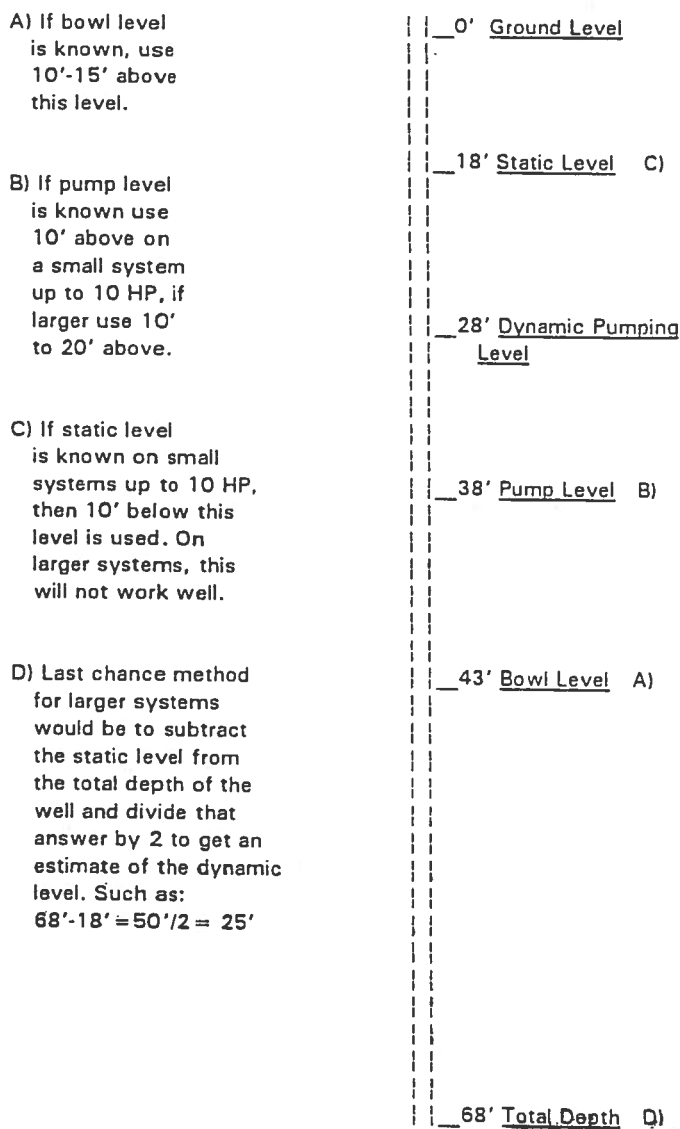
THEORETICAL DYNAMIC PUMPING LEVEL DIAGRAM FOR WELLS

(8/95)rdh

Many considerations may be needed to estimate the dynamic pumping level when you cannot measure it or cannot get the information from either the claimant or the installer of the pump.

Some are: Type of pump, large or small system, type of aquifer, bowl level, pump level, static level and depth of well.

The diagram shown below gives a practical example from A to D, in order of best to least preferred methods, of how you could base your estimate for finding the dynamic pumping level. This is not an absolute or complete set of methods for obtaining your estimates, use only as a guide:



Open Discharge

BW - +10' = 4.31 PSI

SW - +20' = 8.62 PSI

SW - +30' = 12.93 PSI

PHOTOGRAPHER AND DATE OF PHOTOS DANIEL A NELSON 5/23/2012

FILE NUMBER 74-15608



The picture above show the well casing



The picture above shows a portion of the area being irrigated in the well area. This picture was taken looking in an easterly direction from the well.

PHOTOGRAPHER AND DATE OF PHOTOS DANIEL A NELSON 5/23/2012

FILE NUMBER 74-15608



The picture above shows the main buildings of the Sacajawea Center. The well and irrigation is located behind or east of the photographer.



The photo above shows the main amphitheater area, which is the largest portion of the irrigated area.



The photo above shows the parking area in front of the amphitheater area, and the small irrigated portion southeast of the amphitheater.