

MEMORANDUM

TO: Water Right File – 57-11765
FROM: Aaron Skinner – Water Resource Agent
DATE: January 19, 2017
SUBJECT: Field Exam Review

This water right permit was approved on October 5, 2009 for wildlife storage and diversion to storage for a volume limit of 50.0 af and diversion rate of 2.0 cfs. The field exam was completed by Mr. Terry Scanlan of SPF Engineering on October 19, 2009. The field exam was submitted with the Proof of Beneficial Use form and was received by the Western Region office on December 1, 2009. The beneficial use period for this permit was two months. This is a very short period. Because of the short window, 2009 aerial imagery was used to estimate the pond surface area. The pond surface area in 2009 was 9.7 acres and is the extent of the pond development to date. I have reviewed the field exam that was submitted and find the document complete and accurate.

Although the surface area for this permit has dropped significantly, pond analysis suggests the full volume of 50.0 af is justified and will be recommended for licensing. My review of the documentation supplied with the field exam is as follows:

Ownership: Permit 57-11765 is in the name of TFR Partnership. Owyhee County taxlot data shows TFR Partnership as the current owners of the place of use.

Source, POU, POD: The source of this permit is an unnamed drain tributary to the Snake River. The water is gravity fed into the pond via an unnamed stream adjacent to the east side of the pond as described in Mr. Scanlan's field exam notes. The place of use was calculated using ArcMap tools. The place of use area encompasses four QQs that are properly described in the field exam and permit. A discrepancy in the exam versus my review is the POU. Mr. Scanlan used the same shapefile from WR no. 2-10434 that was planned to have the same 17.5 acre POU as this permit. As aforementioned, aerial imagery proves otherwise totaling 9.7 acres. Therefore, 9.7 acres was used to calculate volume and combine use limits associated to this permit.

Diversion rate and Volume: The permitted diversion rate for this right is 2.0 cfs with a volume limit of 50.0 af. The storage facility was described in Mr. Scanlan's field exam as a capacity of approximately 44.0 af with a surface area of 17.5 acres. A pond loss analysis was completed using the parameters outlined in the field exam, but with the new surface area of 9.7 acres. The pond loss analysis suggests a seepage loss of 10.6 af (soil layer indicates CL @ 0-69" or 0.003ft/d), evaporation loss of 23.7 af, and established a pond capacity of 27.2 af. The total volume required for the pond is 61.5 af. An average discharge velocity was noted in the field exam as 5.3 ft/s. A pygmy meter was used to obtain the velocity. This is a reasonable velocity based on the average speed of water through a pipe.

Overlap Review: Overlap analysis for the POD was completed and identified no overlap. POU analysis revealed several WRs that correlate to the POU for this permit, but hold different use descriptions and/or are local irrigation companies' rights. WR nos. 2-7188, 2-10416, 63-21048, 2-2434, and 63-27703 are either domestic, irrigation, or stockwater use WRs that are not

pertinent to this permit. WR no. 2-10343 is a 50.0 af wildlife storage right that does overlap with this permit's POU. A combined use condition will be added to the license to acknowledge the overlap.

Summary: A diversion to storage rate of 2.0 cfs and a volume limit of 50.0 af for wildlife storage is recommended for licensing. The permitted conditions 01M, WB9, 004, and 103 are forwarded to licensing. Conditions 219 and 220 were added and also forwarded to licensing.

Seepage Loss Calculations

This spreadsheet has been designed by Idaho Department of Water Resources to estimate the total annual seepage losses from a pond.

FILE NUMBER	57-11765
REVIEWER	Aaron Skinner
DATE	1/19/2017

User Input
Calculated value
Formula Explanations

INPUTS

Pond Surface Area (AC.)	9.7	AC.
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Pond Surface Area (SQ. FT.)	422532	SQ. FT.
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I used the following method to obtain my Soil Classification information:	NRCS Web Soil Survey	
My Soil Classification is	CL	
Suggested Seepage Rate (FT./DAY)	0.0030	FT./DAY

Formula: (Surface Area X Seepage Rate) X 7.48 = Gallons Per Day Loss
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Convert to GPD	9482	GPD
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Total Seepage Loss (AFA)	10.6	AFA
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Though sand and gravel seepage rates may actually be higher, the maximum allowable rate is 0.2 ft/day, pursuant to Administrative Memo "Seepage Loss Standards for Ponds and Reservoirs."

Suggested Seepage Rates for Different Soil Types:

GW, GP, GM, GC, SW, SP and SM (silty sand, sand silt mixtures and gravel mixtures) = 0.2 ft per day
OL and ML (Inorganic silts - very fine sands, silty, or clayey fine sands) = 0.02 ft per day
SC (clayey sands, sand clay mixtures) = 0.007 ft per day
CL (Low to medium plasticity clays) = 0.003 ft per day
MH, OH, PT and CH (high plasticity clays) = 0.0003 ft per day
LINED PONDS (liners can be chemical, fabric, or bentonite) = 0 ft per day
Ponds Intercepting Groundwater (excavated ponds filled by ground water) = 0 ft per day

PLEASE NOTE: The initial basis for the Suggested Seepage Rates in the table above is found on Page 16 of Seepage from Fish Ponds, Bulletin 599, August 1989 Alabama Agricultural experiment Station, Auburn University, Auburn University Alabama. If you don't know the soil type, please refer to the map provided at the NRCS Web Soil Survey (Tab #1), an ArcMap Soil Classification Map (Tab #1.1), or published NRCS Soil Survey (Tab #1.2). Use "0" if the pond fill relies on the water table.

Evaporation Loss Calculations

This spreadsheet has been designed by Idaho Department of Water Resources to estimate the annual evaporation losses from a pond.

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User Input
Calculated value
Formula Explanations

The acronyms used on the Kimberly Research Center website are defined below:

P = Precipitation
ET = Evapotranspiration
P _d = Precipitation deficit
P _d = ET - P

USING THIS SPREADSHEET

Use the link below to access the Kimberly Research Center website. This website provides the Precipitation Deficit for a station most representative of the pond under examination. The Precipitation Deficit is the total amount of free water surface evaporation minus the precipitation for a given area, which gives the total amount of evaporative losses incurred by the pond. There are several weather sites that are used throughout the state. IDWR staff can find the nearest site using Arc Map. The shape file containing the sites can be found at <X:/Spatial/Climate/ETIdahostations.shp>.

Instructions:

1. Use the link below to navigate to ET Idaho 2012.
2. Select the station which is most representative to your pond location.
3. Click Submit Query.
4. Under "Land Covers with Evapotranspiration Estimates," select "Open Water - Shallow Systems (ponds, streams)" or "Open Water - small stock ponds" depending on the pond size.
5. Click the link to "Precipitation Deficit."
6. Reference and copy (ctrl + C) the first subheading "Mean" values.
7. Click the "Paste Values from ET Idaho" button. The table will automatically enter a zero (0) for any

Found at: <http://data.kimberly.uidaho.edu/ETIdaho/>

Precipitation Deficit

Station: Deer Flat Dam (NWS--102444)			
Month	mm/day ¹	Days per month	mm/Month
Jan	-0.53	31	0.00
Feb	0.34	28	9.52
March	1.29	31	39.99
April	2.38	30	71.40
May	3.45	31	106.95
June	3.81	30	114.30
July	4.56	31	141.36
August	3.85	31	119.35
September	3.01	30	90.30
October	1.67	31	51.77
November	-0.14	30	0.00
December	-0.58	31	0.00

Total mm/year = 744.94

PLEASE NOTE: The seasonal average for precipitation deficit should not be used for calculations because precipitation often exceeds evaporation during wetter months of the year. If the pond is kept full, excess precipitation during wetter months does not serve to refill the pond during drier months.

For example, see Sandpoint KSPT (NWS - 108137), the annual precipitation deficit is -106 mm. However, April through September have positive precipitation deficit values. To properly estimate the annual volume of water necessary to refill a pond due to evaporation losses, the table will automatically enter a zero (0) for each month that the precipitation value is reported as a negative value.

As described above, precipitation offsets evaporation in winter months, so the net effect is that wintertime precipitation deficit is usually zero.

((mm/yr) + (convert to feet)) X (Surface area of pond, in acres) = Evaporation Loss in Acre Feet

$$\left(\frac{744.94}{304.8} \right) \times 9.70 = 23.7 \text{ AFA}$$

Total Storage Calculations

FILE NUMBER	57-11765
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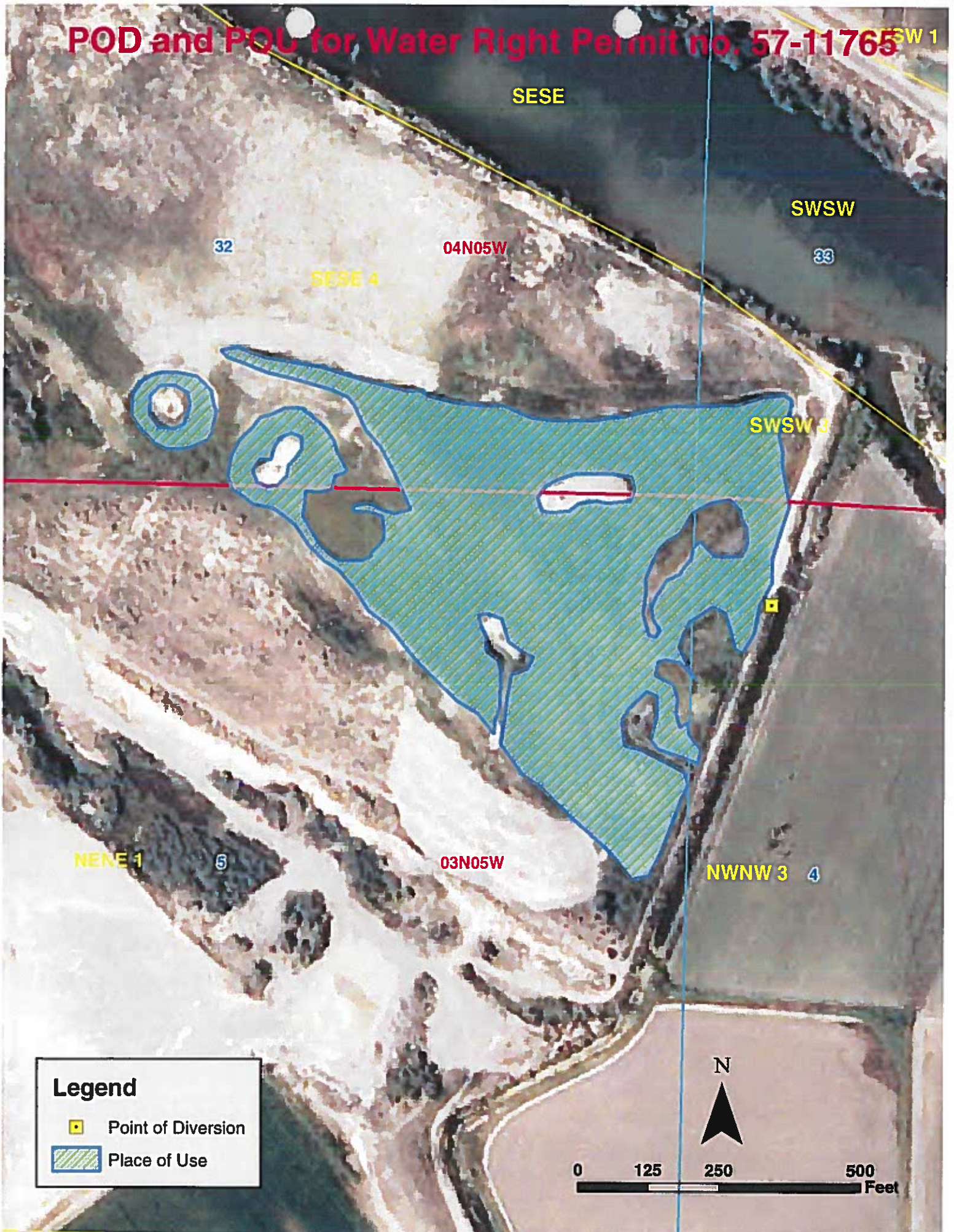
This spreadsheet has been designed by Idaho Department of Water Resources to estimate the total seepage, evaporation and fill capacity required for a pond.

User Input
Calculated value
Formula Explanations

Surface Area (AC.)	9.7	"Surface Area" is automatically carried over from the "Seepage Loss" sheet.
Average Pond Depth (FT.)	2.8	"Average Pond Depth" depicts the actual depth of the pond either measured or estimated. Note: If you know the maximum depth and not the average depth, the Field Examiner's Handbook suggests multiplying the maximum depth by 0.4 to get the average depth, or you can use any method that seems reasonable to attain average depth.
Pond Capacity (AF)	27.16	Pond Capacity is calculated by multiplying the Pond Surface Area by the Average Pond Depth. If you know the capacity, divide the capacity by surface area and enter the average pond depth in the space above. Note: If pond capacity is determined using a method shown on the "Pond Capacity" sheet, the user may need to modify the value of "Pond Capacity" (cell B9) manually. Note that if the value is modified manually, the formula will be altered for future use.
Multiple Fill Volume Above Initial Fill to Fulfill From Storage Needs- "Multiple Fills" (AF)	0	The "Multiple Fill Volume Above Initial Fill" is the acre-feet of water required to meet a <i>from storage</i> component if the <i>from storage</i> component exceeds a one time fill. This section should not include the amount of water needed to fill the pond initially or the amount of water needed to maintain the pond level due to evaporation or seepage. For example: if a pond has a capacity of 5 acre feet and 2.5 acre feet of seepage and evaporation, but the pond is used for irrigation that requires 10 acre feet of from storage for the irrigation use, then you would insert 5 acre feet into this location (10 acre feet needed - 5 acre feet from the initial fill = 5 acre feet of additional storage needed). Note: You must have a "From Storage" component exceeding the initial fill on the permit to include a volume in this space.
Estimated Seepage Loss (AF)	10.6	The "Estimated Seepage Loss" is automatically carried over from the "Seepage Loss" sheet.
Estimated Evaporation Loss (AF)	23.7	The "Estimated Evaporation Loss" is automatically carried over from the "Evaporation Loss" sheet.
Total Volume Required (AF)	61.5	The "Total Volume Required" is calculated by adding the Pond Capacity, Multiple Fills, Seepage Loss, and Evaporation Loss amounts to determine the total amount of storage required.

Flow Rate Into Pond (CFS)	2.00	The "Flow Rate Into Pond" depicts the actual flow, either measured or estimated, into the pond. For offstream facilities, this will be equivalent to "diversion to storage" rate.
Highest Daily Evaporation Rate From Evaporation Tab. (mm/Day)	4.56	This number is carried over from the "Evaporation Loss" sheet. It is the highest recorded number in the "Precipitation Deficit Table".
Required Daily Maintenance Volume (AF/Day)	0.17	"Required Daily Maintenance Volume" is the maximum volume of water needed on any given day during the year to maintain pond volume. It is calculated by adding the highest daily evaporation loss to the average daily seepage loss in acre feet. The average daily seepage loss is calculated by dividing the "Estimated Seepage Loss" by 365 days. This is acceptable, since the seepage rate shouldn't vary throughout the season unless the pond completely freezes over during the winter months. The highest daily evaporation loss is calculated by dividing the Highest Daily Evaporation Rate by the 304.8 conversion factor and multiplying this number by the pond surface area to attain a combined daily acre feet requirement.
Minimum Maintenance Flow (CFS)	0.09	The "Minimum Maintenance Flow" is the minimum amount of flow required to maintain the level of the pond. This number is determined by dividing the "Maximum Required Daily Maintenance Volume" by 1.9835. This flow can be used to determine if the flow rate into the pond is adequate to maintain the pond level.
Days Required to Fill the Pond	7	The "Days Required to Fill the Pond" is calculated by dividing the "Pond Capacity" by the "Flow Rate" minus "Minimum Maintenance Flow" multiplied by 1.9835. This section will assist you in determining if the flow rate being diverted to the pond is adequate to fill the pond while maintaining the pond level. The length of time to fill the pond will help determine if the flow rate is adequate for the size of pond being proposed. If this number is approximately 6 months (180 days) or more, the reviewer should have a discussion with the applicant to make sure he/she understands that it will take a significant length of time to fill the pond.
Days Required to Fill the Pond at 13,000 Gallons per Day	-202	Some water users may want to fill a pond under the 13,000 gallons per day domestic exemption. The "Days Required to Fill the Pond at 13,000 Gallons per Day" is calculated by converting the "Pond Capacity" and the "Required Daily Maintenance Volume" to gallons. The "Pond Capacity" is then divided by 13,000 gallons minus the "Required Daily Maintenance Volume" in gallons to determine the number of days to fill pond. If this number is approximately 6 months (180 days) or more, the reviewer should have a discussion with the applicant to make sure he/she understands that it will take a significant length of time to fill the pond. Negative values indicate that the supply of 13,000 gallons per day is not enough volume to overcome the required daily maintenance volume; the pond will never fill.

POD and POU for Water Right Permit no. 57-11765



NENE	NNNE	SWNE	SENE	NENW	NNNW	SWNW	SENW	NESW	NNSW	SSWSW	SESW	NESF	NNSF	SWSE	SESE	Total Acres
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Process	BasinSequence	Draft	Owner	Source	Use	NENE	MWNE	SWNE	SENE	NENW	MWRW	SWNW	SENW	NESW	MWSW	SWSW	SESW	NESE	NWSE	SWSE	SESE	TotalAcres
Water Right	2-10343	N	MCCLAIN, CHERISE; SPF WATER ENGINEERING LLC; TFR PARTNERSHIP	SNAKE RIVER	WILDLIFE STORAGE	X																
Water Right	2-10416	N	BARKER, ALBERT P; GEM IRRIGATION DISTRICT	SNAKE RIVER	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Water Right	2-64	N	BARKER, ALBERT P; GEM IRRIGATION DISTRICT	SNAKE RIVER	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Water Right	2-65	N	BARKER, ALBERT P; GEM IRRIGATION DISTRICT	SNAKE RIVER	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Water Right	2-7188	N	LASSELLE, RICHARD E; RAGAN, JAMES P; SMITH, BRUCE M; TFR PARTNERSHIP	SNAKE RIVER	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Water Right	57-10265	N	GRIMES, EDNA E; GRIMES, WINFRED D	GROUND WATER	DOMESTIC												X					
Water Right	57-10312	N	CAMDEN, GEORGE O	GROUND WATER	DOMESTIC															X		
Water Right	57-10332	N	GEERTSON, RONALD C	SPRING	IRRIGATION																	
Water Right	57-10335	N	HYDE, NINA E; HYDE, ROSEL L	GROUND WATER	DOMESTIC							29.6										29.6
Water Right	57-10511	N	MARTHA GRIMES TRUST; RILEY GRIMES TRUST	GROUND WATER	DOMESTIC										X							
Water Right	57-10553	N	METZER, DARLENE; METZER, KENNETH L	GROUND WATER	DOMESTIC											X						
Water Right	57-10565	N	PHELPS, LYNN M; PHELPS, RANDEL E	GROUND WATER	DOMESTIC																X	
Water Right	57-10565	N	PHELPS, LYNN M; PHELPS, RANDEL E	GROUND WATER	STOCKWATER																	
Water Right	57-10648	N	MATTESON, MRS D H	GROUND WATER	DOMESTIC								X									
Water Right	57-10670	N	SULLIVAN, WANDA M	GROUND WATER	DOMESTIC																	
Water Right	57-10670	N	SULLIVAN, WANDA M	GROUND WATER	STOCKWATER																X	
Water Right	57-10711	N	SNOW, JUANITA J; SNOW, RALPH H	GROUND WATER	DOMESTIC																	
Water Right	57-10711	N	SNOW, JUANITA J; SNOW, RALPH H	GROUND WATER	STOCKWATER													X				
Water Right	57-10766	N	FREHNER, GRAEME H; FREHNER, MAVIS; LEAVITT, DEB; LEAVITT, ED	GROUND WATER	DOMESTIC															X		
Water Right	57-10872	N	FREHNER, GRAEME H	GROUND WATER	DOMESTIC						X											
Water Right	57-10892	N	FREHNER, GRAEME H	GROUND WATER	DOMESTIC																	
Water Right	57-10915	N	STALEY, JIM M	GROUND WATER	DOMESTIC																	
Water Right	57-11765	Y	SPF WATER ENGINEERING LLC; TFR PARTNERSHIP	UNNAMED DRAIN	WILDLIFE STORAGE	X											X					
Water Right	57-4091	N	METZER, DARLENE; METZER, KENNETH L	UNNAMED DRAIN	IRRIGATION																	
Water Right	57-7242	N	VANCE, BARBARA; VANCE, MARION L	SUCCOR CREEK	IRRIGATION														14			14
Water Right	57-7481	N	BILL R PURDOM & JUDY K PURDOM TRUST; HARTWIG, GARY L; HARTWIG, LAURA L	SUCCOR CREEK	IRRIGATION															0.8		0.8
Water Right	57-7571	N	SUCCOR CREEK DISTRICT IMPROVEMENT COMPANY; SUCCOR CREEK WATER CONTROL DIST	SUCCOR CREEK	STOCKWATER FROM STORAGE												17	14		3		34

04MDSW32

Process	Basin/Sequence	Draft	Owner	Source	Use	HEHE	HWHE	SWHE	SENE	HEHW	ROWHW	SWHW	SEHW	NEHW	HWHSW	SWSW	SESW	HESE	HWSE	SWSE	SESE	Total/Acres
Water Right	2-10307	N	CARPENTER, RANDALL S; HOWARD JR, QUENTIN E; HOWARD, SHIRLEY K; WENGER, E D; WENGER, JULIE E	SNAKE RIVER	IRRIGATION																	24.7
Water Right	2-10308	N	CARPENTER, RANDALL S; HOWARD JR, QUENTIN E; HOWARD, SHIRLEY K; THE KLOSTER FAMILY TRUST; WENGER, E D; WENGER, JULIE E	SNAKE RIVER	IRRIGATION														24.7			1.3
Water Right	2-10343	N	MCLEAN, CHERISE; SPF WATER ENGINEERING LLC; TFR PARTNERSHIP	SNAKE RIVER	WILDLIFE STORAGE														1.3			
Water Right	2-10416	N	BARKER, ALBERT P; GEM IRRIGATION DISTRICT	SNAKE RIVER	IRRIGATION																	
Water Right	2-10473	N	HARMON, FRED J; HARMON, SHIRLEY; MAC ABBE, JUDY A	SNAKE RIVER	IRRIGATION																	
Water Right	2-10474	N	EUBANKS, LAURA K; EUBANKS, ROGER S; HARMON, FRED J; HARMON, SHIRLEY	SNAKE RIVER	IRRIGATION																	
Water Right	2-2401	N	ARCHABAL JR, JOHN; ECHEVARRIA, RICHARD D; JUMP CREEK SHEEP CO; UNITED STATES OF AMERICA ACTING THROUGH	SNAKE RIVER	IRRIGATION																	
Water Right	2-24368	N	CLOUDCROFT INC; MAC CORMACK, ANDREW J	SNAKE RIVER	IRRIGATION																	
Water Right	2-44	N	BARKER, ALBERT P; GEM IRRIGATION DISTRICT	SNAKE RIVER	IRRIGATION																	
Water Right	2-45	N	BARKER, ALBERT P; GEM IRRIGATION DISTRICT	SNAKE RIVER	IRRIGATION																	
Water Right	2-7188	N	LASSELLE, RICHARD E; NAGAN, JAMES P; SMITH, BRUCE M; TFR PARTNERSHIP	SNAKE RIVER	IRRIGATION																	
Water Right	7-73	N	CLOUDCROFT INC	SNAKE RIVER	IRRIGATION																	
Water Right	2-7420	N	JOLLEY, RAHAEE; WILSON, BEVERLY; WILSON, CLAY	SNAKE RIVER	IRRIGATION																	
Water Right	57-10020	N	WILSON, BEVERLY; WILSON, CLAY	GROUND WATER	DOMESTIC																	
Water Right	57-10362	N	CRUFFIELD, JEAN E	GROUND WATER	DOMESTIC																	
Water Right	57-10362	N	CRUFFIELD, JEAN E	GROUND WATER	STOCKWATER																	
Water Right	57-10455	N	GOOLEVSKY, ALAN; GOOLEVSKY, LONNIE	GROUND WATER	DOMESTIC																	
Water Right	57-10456	N	GOOLEVSKY, JUANITA; GOOLEVSKY, LONNIE	GROUND WATER	DOMESTIC																	
Water Right	57-10555	N	METZER, DARLENE; METZER, KENNETH L	GROUND WATER	DOMESTIC																	
Water Right	57-18765	Y	SPF WATER ENGINEERING LLC; TFR PARTNERSHIP	UNNAMED DRAIN	WILDLIFE STORAGE																	
Water Right	57-2306	N	ARCHABAL JR, JOHN; ECHEVARRIA, RICHARD D	UNNAMED DRAIN	IRRIGATION																	
Water Right	57-7265	N	ARCHABAL JR, JOHN; ECHEVARRIA, RICHARD D	UNNAMED DRAIN	IRRIGATION																	
Water Right	57-7265	N	ARCHABAL JR, JOHN; ECHEVARRIA, RICHARD D	UNNAMED DRAIN	STOCKWATER																	
Water Right	63-136	N	BARKER ROSHOLT & SIMPSON LLP; BOISE PROJECT BOARD OF CONTROL; GIVENS, RAYMOND D; H L RANDAL ET AL; PIONEER DIXIE DITCH CO	BOISE RIVER	IRRIGATION																	
Water Right	63-1378	N	BARKER ROSHOLT & SIMPSON LLP; BOISE PROJECT BOARD OF CONTROL; GIVENS, RAYMOND D; PIONEER DIXIE DITCH CO	BOISE RIVER	IRRIGATION																	
Water Right	63-200A	N	BARKER ROSHOLT & SIMPSON LLP; BOISE PROJECT BOARD OF CONTROL; GIVENS, RAYMOND D; NAMPA-MERIDIAN IRR DIST	BOISE RIVER	IRRIGATION																	
Water Right	63-21048	N	CARPENTER, RANDALL S; HOWARD JR, QUENTIN E; HOWARD, SHIRLEY K; THE KLOSTER FAMILY TRUST; WENGER, E D; WENGER, JULIE E	SPRING	DOMESTIC																	
Water Right	63-21048	N	CARPENTER, RANDALL S; HOWARD JR, QUENTIN E; HOWARD, SHIRLEY K; THE KLOSTER FAMILY TRUST; WENGER, E D; WENGER, JULIE E	SPRING	STOCKWATER																	
Water Right	63-2388	N	UNITED STATES OF AMERICA ACTING THROUGH	SPRING	STOCKWATER																	
Water Right	63-233K	N	AMERICAN DITCH CO; BARKER ROSHOLT & SIMPSON LLP; BOISE PROJECT BOARD OF CONTROL; GIVENS, RAYMOND D; RANDALL ET AL	FIVEMILE CREEK	IRRIGATION																	
Water Right	63-2388A	N	UNITED STATES OF AMERICA ACTING THROUGH	BOISE RIVER	IRRIGATION																	
Water Right	63-2392F	N	BOISE PROJECT BOARD OF CONTROL	BOISE RIVER	IRRIGATION																	
Water Right	63-251A	N	UNITED STATES OF AMERICA ACTING THROUGH	BOISE RIVER	IRRIGATION																	
Water Right	63-301A	N	UNITED STATES OF AMERICA ACTING THROUGH	WASTE WATER	IRRIGATION																	
Water Right	63-302A	N	UNITED STATES OF AMERICA ACTING THROUGH	BOISE RIVER	IRRIGATION																	
Water Right	63-3220A	N	THE KLOSTER FAMILY TRUST	BOISE RIVER	IRRIGATION																	
Water Right	63-33251	N	BOISE PROJECT BOARD OF CONTROL	GROUND WATER	DOMESTIC																	
Water Right	63-33253	N	BOISE PROJECT BOARD OF CONTROL	INDIAN CREEK	IRRIGATION																	
Water Right	63-373A	N	UNITED STATES OF AMERICA ACTING THROUGH	TEXMILE CREEK	IRRIGATION																	
Water Right	63-373A	N	UNITED STATES OF AMERICA ACTING THROUGH	BOISE RIVER	IRRIGATION																	

Overlap Analysis For Permit No. 57-11765 PDU

Process	Basin/Sequence	Draft	Owner	Source	Use	NENE	NWNE	SWNE	SENE	NENW	NWNW	SWNW	SEHW	NESW	NWSW	SWSW
Water Right	2-10343	N	MCCLAIN, CHERISE; SP7 WATER ENGINEERING LLC, TFR PARTNERSHIP	SNAKE RIVER	WILDLIFE STORAGE											X
Water Right	2-10415	N	BARBER, ALBERT P; GEM IRRIGATION DISTRICT	SNAKE RIVER	IRRIGATION											X
Water Right	2-2434	N	CLAGG, RICHARD; CLAGG, VELMA; KRZESNIK, JOHN W; PAINE, BENJAMIN	SNAKE RIVER	IRRIGATION											X
Water Right	2-64	N	BARBER, ALBERT P; GEM IRRIGATION DISTRICT	SNAKE RIVER	IRRIGATION											X
Water Right	2-62	N	BARBER, ALBERT P; GEM IRRIGATION DISTRICT	SNAKE RIVER	IRRIGATION											X
Water Right	2-7184	N	LASSELLE, RICHARD E; RAGAN, JAMES P; SMITH, BRUCE M; TFR PARTNERSHIP	SNAKE RIVER	IRRIGATION											X
Water Right	57-11765	Y	SP7 WATER ENGINEERING LLC, TFR PARTNERSHIP	UNNAMED DRAIN	WILDLIFE STORAGE											X
Water Right	63-156	N	BARBER ROSHOLT & SIMPSON LLP; BOISE PROJECT BOARD OF CONTROL, GIVENS, RAYMOND D; H L RANDAL ET AL; PIONEER DIXIE DITCH CO	BOISE RIVER	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X
Water Right	63-1378	N	BARBER ROSHOLT & SIMPSON LLP; BOISE PROJECT BOARD OF CONTROL, GIVENS, RAYMOND D; PIONEER DIXIE DITCH CO	BOISE RIVER	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X
Water Right	63-2004	N	BARBER ROSHOLT & SIMPSON LLP; BOISE PROJECT BOARD OF CONTROL, GIVENS, RAYMOND D; NAMPA-MERIDIAN IRR DIST	BOISE RIVER	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X
Water Right	63-2106	N	UNITED STATES OF AMERICA ACTING THROUGH	FIVEMILE CREEK	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X
Water Right	63-21931	N	ROSS, PATRICK; ROSS, PRISCILLA	GROUND WATER	DOMESTIC											
Water Right	63-21931	N	ROSS, PATRICK; ROSS, PRISCILLA	GROUND WATER	STOCKWATER											
Water Right	63-23322	N	CARPENTER, HAROLD; THE CARPENTER FAMILY TRUST	GROUND WATER	DOMESTIC											
Water Right	63-23322	N	CARPENTER, HAROLD; THE CARPENTER FAMILY TRUST	GROUND WATER	STOCKWATER											
Water Right	63-2334	N	AMERICAN DITCH CO; BARBER ROSHOLT & SIMPSON LLP; BOISE PROJECT BOARD OF CONTROL, GIVENS, RAYMOND D; RANDALL ET AL	BOISE RIVER	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X
Water Right	63-2388A	N	UNITED STATES OF AMERICA ACTING THROUGH	BOISE RIVER	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X
Water Right	63-2392F	N	BOISE PROJECT BOARD OF CONTROL	WASTE WATER	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X
Water Right	63-23975	N	WASON, BEN	GROUND WATER	DOMESTIC											
Water Right	63-23975	N	WASON, BEN	GROUND WATER	STOCKWATER											
Water Right	63-251A	N	UNITED STATES OF AMERICA ACTING THROUGH	BOISE RIVER	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X
Water Right	63-26103	N	BRUNEL, JANIS L; BRUNEL, RICHARD J; GREEN, BARBARA A; GREEN, MARTIN B	GROUND WATER	DOMESTIC											
Water Right	63-26103	N	BRUNEL, JANIS L; BRUNEL, RICHARD J; GREEN, BARBARA A; GREEN, MARTIN B	GROUND WATER	STOCKWATER											
Water Right	63-26233	N	BROWN, BENNETT J; BROWN, MOLLY J; SMITH, GLADYS J	GROUND WATER	DOMESTIC											
Water Right	63-27292	N	HUMPHREY, HOMER	GROUND WATER	DOMESTIC											
Water Right	63-27371	N	BUTLER, CAROL; BUTLER, FRED	GROUND WATER	DOMESTIC											
Water Right	63-27371	N	BUTLER, CAROL; BUTLER, FRED	GROUND WATER	STOCKWATER											
Water Right	63-27662	N	DAYTON, CHERYL E; DAYTON, VANCE R	GROUND WATER	DOMESTIC											
Water Right	63-27703	N	DE SHAZER, GARY L; DE SHAZER, SHARON L	GROUND WATER	DOMESTIC											
Water Right	63-27703	N	DE SHAZER, GARY L; DE SHAZER, SHARON L	GROUND WATER	STOCKWATER											
Water Right	63-27914	N	GRABER, CLEORA M; LANFORD, WANDA L	GROUND WATER	DOMESTIC											
Water Right	63-27914	N	GRABER, CLEORA M; LANFORD, WANDA L	GROUND WATER	STOCKWATER											
Water Right	63-27917	N	GRABER, CLEORA M; LANFORD, WANDA L	GROUND WATER	DOMESTIC											
Water Right	63-301A	N	UNITED STATES OF AMERICA ACTING THROUGH	BOISE RIVER	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X
Water Right	63-302A	N	UNITED STATES OF AMERICA ACTING THROUGH	BOISE RIVER	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X
Water Right	63-32231	N	FAIR ACRES INC; ITANO, JOE; LEONARD, HENRY R; LEONARD, ROSENE D; SCHROEDER, MARK J; SCHROEDER, PEGGY L; THE TROOST FAMILY LIVING TRUST; WATKINS, JIM; WATKINS, LINDA	GROUND WATER	IRRIGATION	58										
Water Right	63-33251	N	BOISE PROJECT BOARD OF CONTROL	INDIAN CREEK	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X
Water Right	63-33255	N	BOISE PROJECT BOARD OF CONTROL	INDIAN CREEK	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X
Water Right	63-373A	N	UNITED STATES OF AMERICA ACTING THROUGH	BOISE RIVER	IRRIGATION	X	X	X	X	X	X	X	X	X	X	X
Water Right	63-8853	N	BUTLER, CAROL; BUTLER, FRED; BUTLER, LARRY	GRIFITH DRAIN	IRRIGATION											

overlap

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