

PLACE OF USE: IRRIGATION FROM STORAGE

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
51N	03W	7					0.5	4.0 L 1											4.5

Total Acres: 4.5

PLACE OF USE: IRRIGATION STORAGE

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
51N	03W	7						X L 1											

PLACE OF USE: IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
51N	03W	7					0.5	4.0 L 1											4.5

Total Acres: 4.5

Method of Determination: GPS and maps.

3.

Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.

Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.

X

X Aerial Photo Attached (required for irrigation of 10+ acres).

X Photo of Diversion and System Attached

4.

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
95-95-N-77	FRANKLIN	5			

*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

2. Measurements: 5 GALLON BUCKET TEST PERFORMED. 5 GALLON BUCKET FILLED IN 10 SECONDS WHICH IS EQUAL TO 30 GPM OR 0.07 CFS.

E. FLOW CALCULATIONS

Measured Method:

_____ Additional Computation Sheets Attached

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 4.5 \text{ AC} \times 3.0 \text{ AF} = 13.5 \text{ AF}$$

$$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.07 \times 246 \times 1.9835 = 34.2 \text{ AF}$$

$$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = 13.5 \text{ AF}$$

$$2. \text{ Volume Calculations for Other Uses: } \text{COMMERCIAL} = 50 \text{ GPD} \times 365 \text{ DAYS} / 325,850 \text{ GAL/AF} = 0.1 \text{ AF}$$

SEE ATTACHED POND ANALYSIS SHEET FOR VOLUME CALCULATIONS

G. NARRATIVE/REMARKS/COMMENTS

IN OFFICE EXAM. IDWR FIELD EXAMINER WAS AT APPLICANTS HOUSE IN 2015 FOR EXAM OF PERMIT 95-9294. PERMIT 95-9294 WAS APPLIED FOR IN 2005 AND ONLY TOOK INTO ACCOUNT THE SIZE OF THE POND AND DID NOT ACCOUNT FOR THE WATER FROM THE POND FOR IRRIGATION. LICENSE WAS ISSUED FOR 95-9294 ALONG WITH AN APPLICATION 95-17110 TO COVER EVERYTHING THAT WAS NOT COVERED UNDER LICENSE 95-9294. BECAUSE EXAM WAS ALREADY COMPLETED WITH FLOW MEASUREMENTS, POND DIMENSIONS, ANNUAL USAGE AND PHOTOS, IN OFFICE EXAM WILL BE PERFORMED ON THIS WATER RIGHT. COMMERCIAL USAGE IN GREENHOUSE WAS ONLY 50 GPD AND WILL BE GIVEN ANNUAL VOLUME OF 0.1 AF. COMMERCIAL USAGE WAS APPLIED FOR TO GIVE APPLICANT ABILITY TO IRRIGATE PLANTS IN GREENHOUSE OUTSIDE OF THE IRRIGATION SEASON.

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>
DIVERSION TO STORAGE	01/01 to 12/31	0.07 CFS	
COMMERCIAL	01/01 to 12/31	0.02 CFS	0.1 AF
IRRIGATION STORAGE	01/01 to 12/31		15.7 AF
IRRIGATION	03/15 to 11/15	0.07 CFS	13.5 AF
IRRIGATION FROM STORAGE	03/15 to 11/15		13.5 AF
AESTHETIC STORAGE	01/01 to 12/31		2.2 AF
FIRE PROTECTION STORAGE	01/01 to 12/31		2.2 AF
<u>Totals:</u>		0.070 CFS	15.80 AF

2. Recommended Amendments

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

 Change P.U. as reflected above Add P.U. as reflected above X None

I. AUTHENTICATIONField Examiner's Name Adam Furdin Date 5-26-2016Reviewer Morgan Case Date 5/31/2016

Total Storage Calculations

FILE NUMBER	95-17110
REVIEWER	Adam Frederick
DATE	5/26/2016

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.)	0.3	"Surface Area" is automatically carried over from the "Seepage Loss" sheet.
Average Pond Depth (FT.)	6	"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)	1.8	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)	0.0	The "Estimated Seepage Loss" is automatically carried over from the "Seepage Loss" sheet.
Estimated Evaporation Loss (AF)	0.4	The "Estimated Evaporation Loss" is automatically carried over from the "Evaporation Loss" sheet.
Total Volume Required (AF)	2.2	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.

Total Storage Calculations

FILE NUMBER	95-17110
REVIEWER	Adam Frederick
DATE	5/26/2016

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.)	0.3	"Surface Area" is automatically carried over from the "Seepage Loss" sheet.
Average Pond Depth (FT.)	6	"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.
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Multiple Fill Volume Above Initial Fill to Fulfill From Storage Needs- "Multiple Fills" (AF)	13.5	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)	0.0	The "Estimated Seepage Loss" is automatically carried over from the "Seepage Loss" sheet.
Estimated Evaporation Loss (AF)	0.4	The "Estimated Evaporation Loss" is automatically carried over from the "Evaporation Loss" sheet.
Total Volume Required (AF)	15.7	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.

Form 28-7
1984

RECEIVED

2/13/96 db

JUN 12 1995

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

RECEIVED

NOV 03 2015

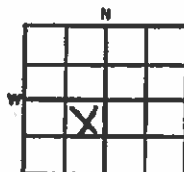
Use Typewriter
or
Ball Point Pen1. DRILLING PERMIT NO. 95-95-N-77-000
Other IDWR No. _____

2. OWNER:

Name Ben Rolphe
Address S. Johnson RD Box 12582
City Hayden Lake State ID Zip 83835

3. LOCATION OF WELL

Sketch map location must be

Twp. _____
Rgs. _____
Sec. _____
Gov'l _____Film in
inspected
location
5/1N3W7Address of Well Site London to South
Johnson S 1/4 mile City Hayden Lake

L1. _____ Bldg. _____ 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			AMOUNT Sacks or Pounds	METHOD
Material	From	To		
<u>Portland</u>	<u>0</u>	<u>20</u>	<u>400 P</u>	<u>Onshore</u>

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 20Was drive shoe seal tested? ☐ Y ☐ N How? _____

8. CASING/LINER:

Diameter	From	To	Material	Casing	Liner	Welded	Threaded
<u>8</u>	<u>0</u>	<u>20</u>	<u>Steel</u>	☒	☐	☐	☐
<u>4</u>	<u>205</u>	<u>545</u>	<u>PVC</u>	☐	☐	☐	☐

Length of Headpipe _____ Length of Tailpipe _____

9. PERFORATIONS/SCREENS

☒ Perforations Method Drill
☐ Screens Screen Type _____

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
<u>205</u>	<u>545</u>	<u>1/2"</u>	<u>300</u>	<u>4"</u>	<u>PVC</u>	☐	☒
						☐	☐
						☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

325 ft. below ground Artesian pressure _____ lb.

Depth flow encountered _____ ft. Describe access port or control devices:

NE SW 1/4 S1N 4W

11. WELL TESTS:

☒ Pump ☐ Baller ☒ Air ☐ Flowing Artesian

Yield gal/min.	Drawdown	Pumping Level	Time
<u>40</u>			
<u>20</u>	<u>80 ft</u>	<u>405</u>	<u>24 hr</u>

Water Temp. _____ Bottom hole temp. _____

Water Quality test or comments: _____

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
<u>10</u>	<u>0</u>	<u>2 Top Soil</u>		☒
<u>10</u>	<u>2</u>	<u>4 Clay and Basalt</u>		☒
<u>10</u>	<u>4</u>	<u>6 Brown Clay</u>		☒
<u>10</u>	<u>6</u>	<u>9 Gray Clay</u>		☒
<u>10</u>	<u>9</u>	<u>16 Reddish Brown Clay</u>		☒
<u>10</u>	<u>16</u>	<u>20 Black Basalt</u>		☒
<u>8</u>	<u>20</u>	<u>145 Hard Black Basalt</u>		☒
<u>8</u>	<u>145</u>	<u>207 Gray Shale</u>		☒
<u>8</u>	<u>207</u>	<u>247 Hard Black Basalt</u>		☒
<u>8</u>	<u>247</u>	<u>267 Yellow Clay</u>		☒
<u>8</u>	<u>267</u>	<u>287 Gray Clay</u>		☒
<u>8</u>	<u>287</u>	<u>307 Gray Clay Sand</u>		☒
<u>8</u>	<u>307</u>	<u>327 Gray Clay Sand and Water</u>	☒	
<u>8</u>	<u>327</u>	<u>347 Gray Sand Water</u>	☒	
<u>8</u>	<u>347</u>	<u>367 Gray Clay Sand</u>	☒	
<u>8</u>	<u>367</u>	<u>387 Hard Gray Clay</u>		☒
<u>8</u>	<u>387</u>	<u>407 Brown Clay and Water</u>	☒	
<u>8</u>	<u>407</u>	<u>450 Brown Sandstone Basalt</u>	☒	
<u>8</u>	<u>450</u>	<u>470 Hard Brown Sandstone</u>	☒	
<u>8</u>	<u>470</u>	<u>545 Decomposed Basalt Water</u>	☒	

OFFICE USE ONLY

Inspected by TOKTwp 5/1N Rgs 03W Sec 071/4 NE 1/4 NW 1/4Completed Depth 545 (Measurable)
Date: Started 5 25 95 Completed 6 6 95

13. DRILLER'S CERTIFICATION

I/We certify that all minimum well construction standards were complied with at the time the rig was removed. MC Quality Drilling DBAFirm Name Blue Water Drilling Firm No. 452Firm Official John Cannon Date 6 13 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
Water Right License
95-17110

IRRIGATION FROM STORAGE and IRRIGATION

03W

51N



0 0.035 0.07 0.14 Miles

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

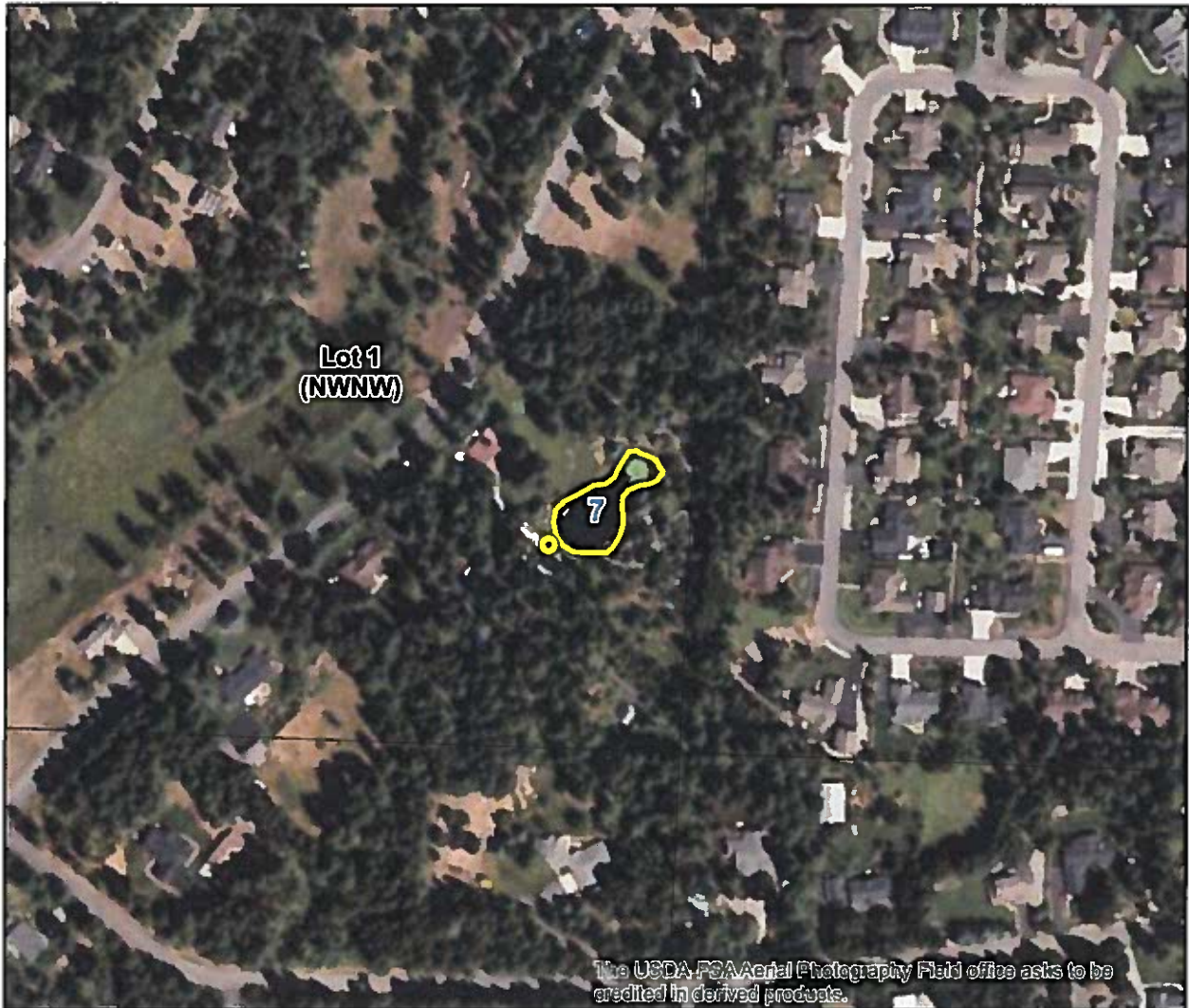


State of Idaho
Department of Water Resources
Water Right License
95-17110

IRRIGATION STORAGE, AESTHETIC STORAGE, and FIRE PROTECTION STORAGE

03W

51N



Point of Diversion



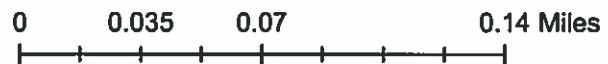
Place Of Use Boundary



Townships



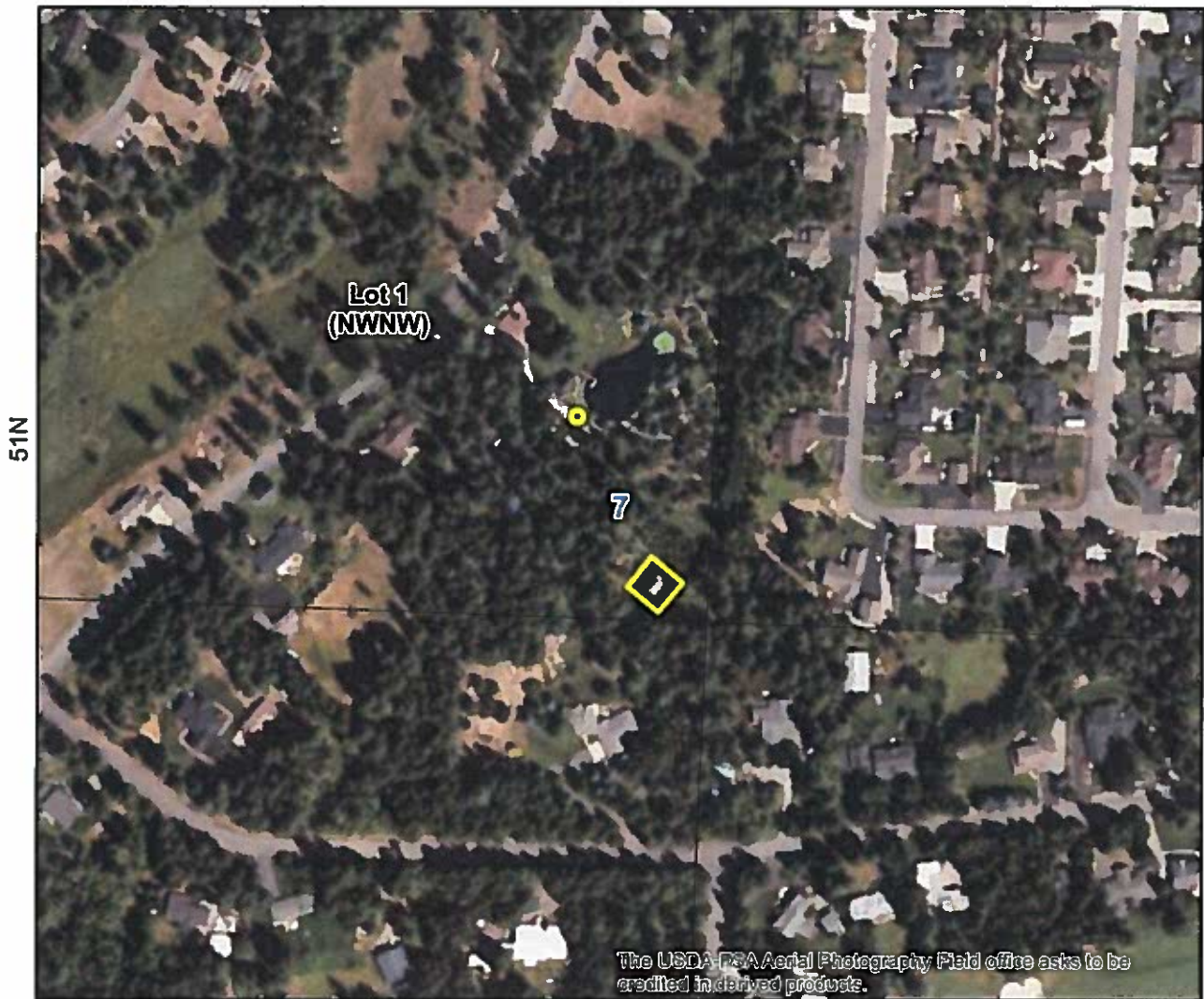
PLS Sections



State of Idaho
Department of Water Resources
Water Right License
95-17110

COMMERCIAL

03W



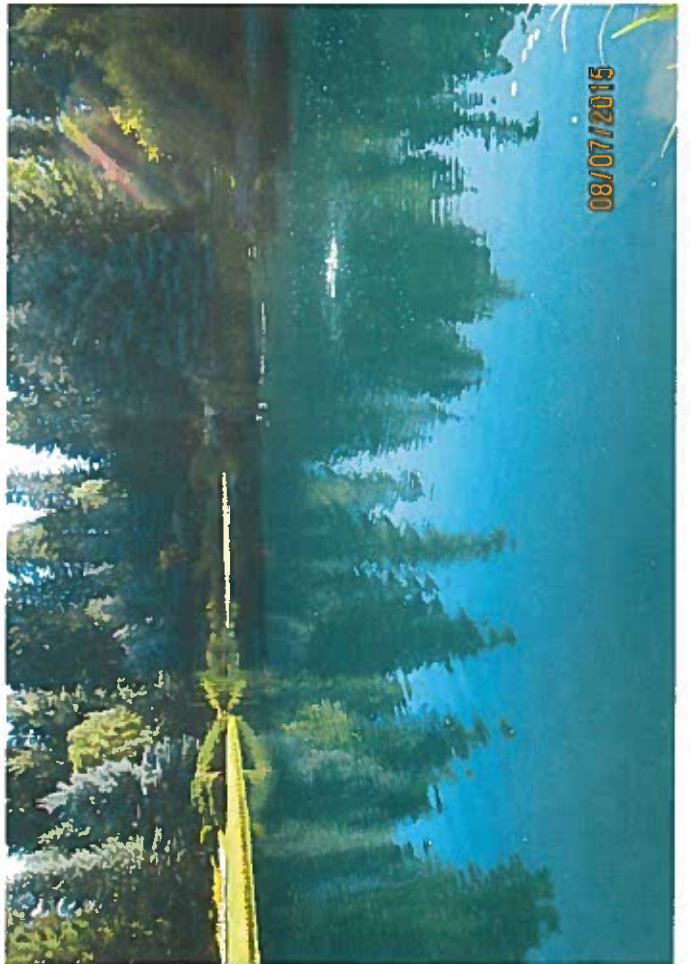
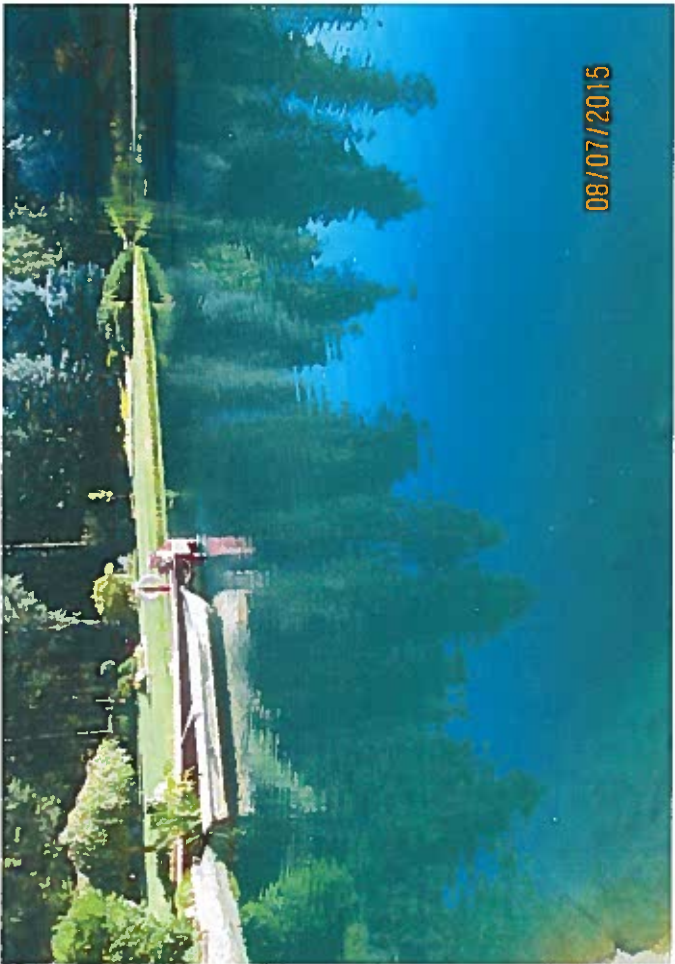
- Point of Diversion
- Place Of Use Boundary
- Townships
- PLS Sections

0 0.035 0.07 0.14 Miles

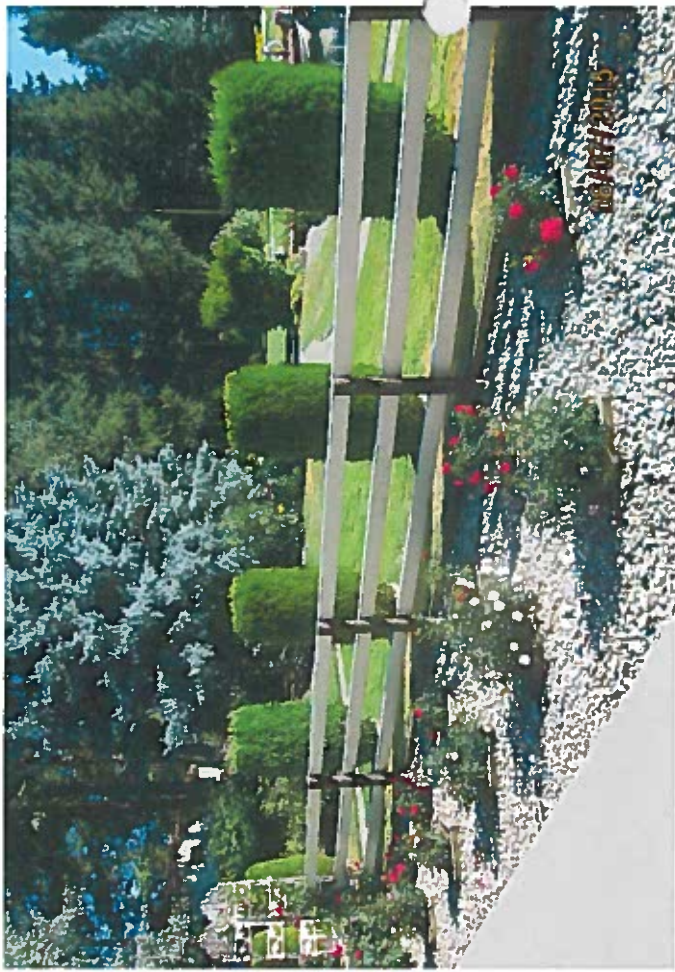




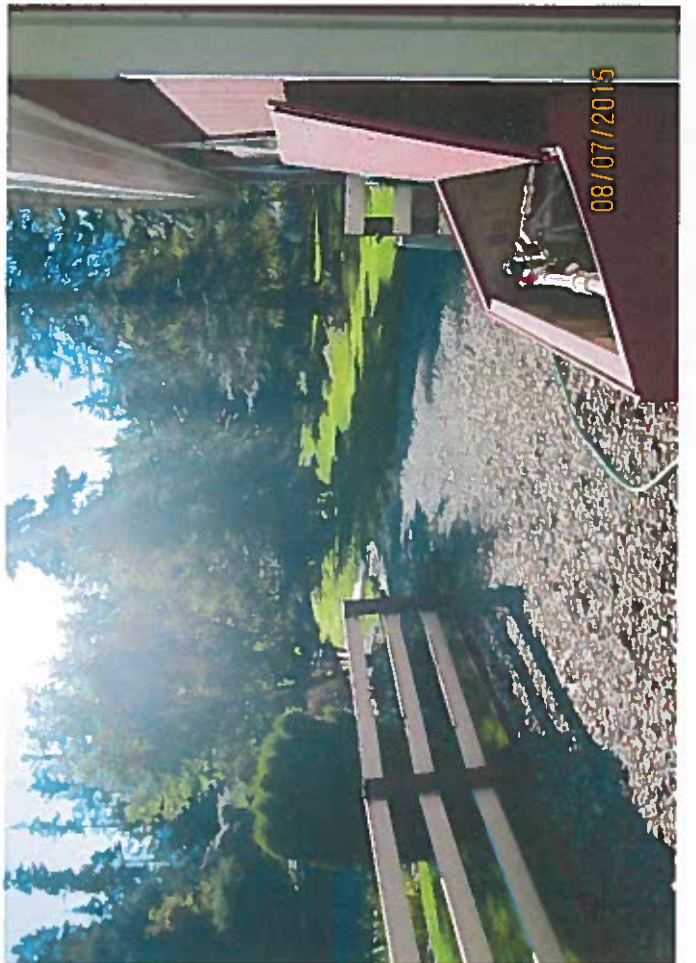
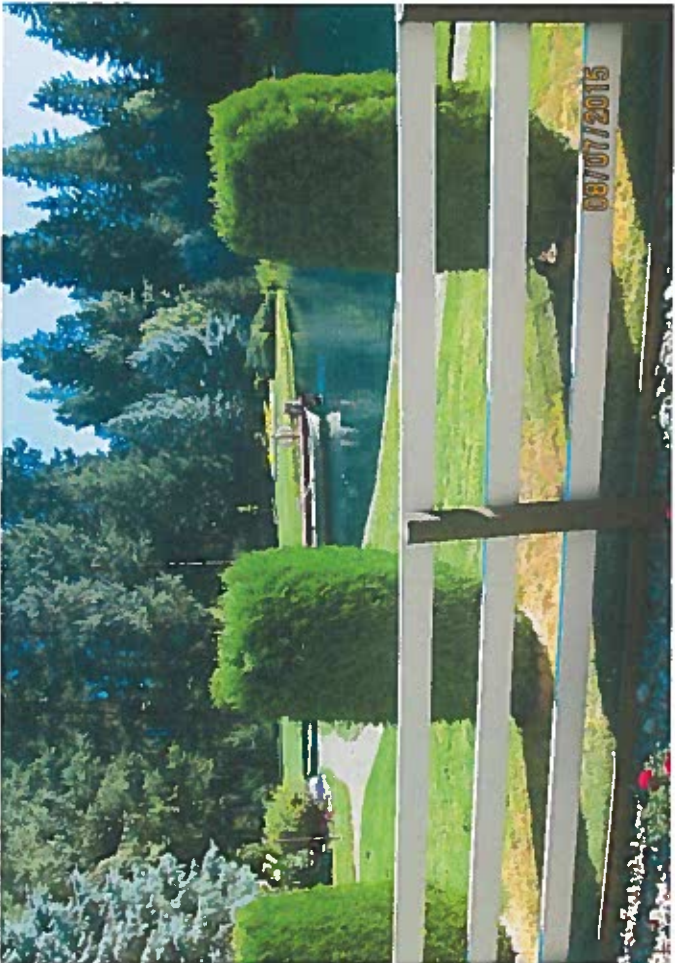
95-17116



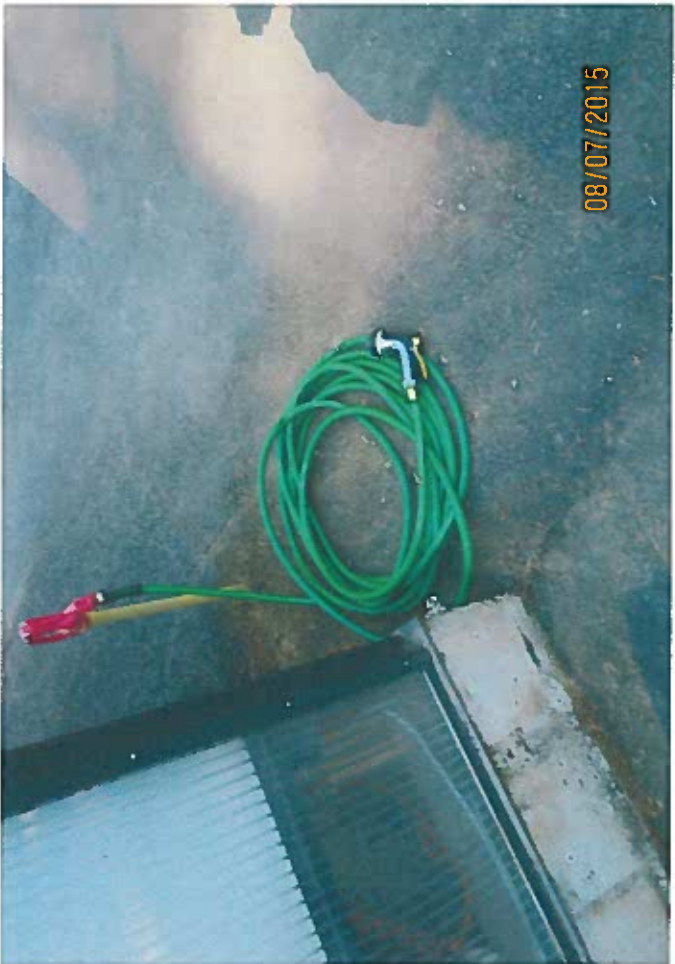
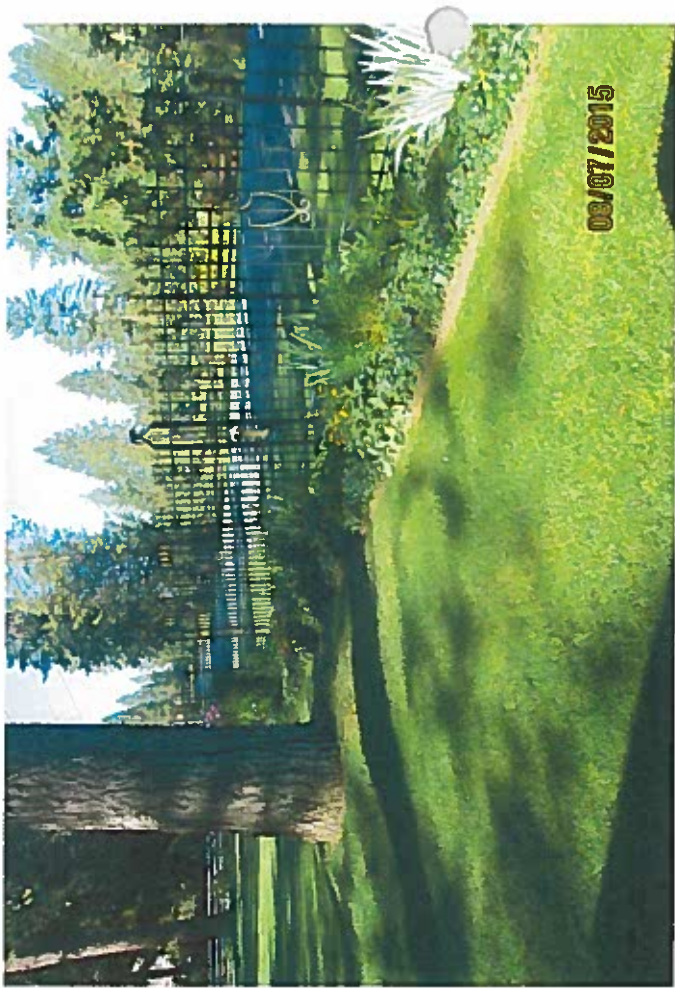
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