

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 85-7646

Exam Date: 9/6/2012

1. Current Owner: CITY OF LEWISTON
PO BOX 617
LEWISTON ID 83501-0617
(208)746-1316



CHRIS DAVIES, PE

PUBLIC WORKS
DIRECTOR

2. Accompanied by: Chris Davies

Phone No:

Address:

Relationship to Permit Holder:

Public Works Department
215 "D" Street
P.O. Box 617
Lewiston, Idaho 83501

Cell (208) 305-6837
Office (208) 746-1316
E-mail: CDavies@CityofLewiston.org
www.cityoflewiston.org

3. SOURCE
UNNAMED STREAM

TRIBUTARY
SNAKE RIVER

B. OVERLAP REVIEW

1. Other water rights with the same place of use: City of Lewiston municipal portfolio—no significant overlaps
2. Other water rights with the same point of diversion: None

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

UNNAMED STREAM NW1/4NE1/4 Sec. 12, Twp 35N, Rge 06W, B.M. NEZ PERCE County

Method of Determination: Aerial Imagery

2.

<u>PLACE OF USE:</u>			WILDLIFE STORAGE																
Twp	Rge	Sec	NE				NW				SW				SE				
			<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>	<u>Totals</u>
35N	06W	12		X															

Method of Determination: Field visit and aerial imagery

3. NA Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.
x 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 Aerial Photo Attached (required for irrigation of 10+ acres).
NA Photo of Diversion and System Attached

4.

<u>Well or Diversion</u>	<u>Motor Make</u>	<u>Hp</u>	<u>Motor Serial No.</u>	<u>Pump Make</u>	<u>Pump Serial No. or Discharge Size</u>
NA					

D. FLOW MEASUREMENTS

1. <u>Measurement</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
<u>Equipment</u>						
NA						

2. Measurements: NA

E. FLOW CALCULATIONS☒ Additional Computation Sheets Attached

Measured Method: No flow measurements made for on-stream storage

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation: NA

2. Volume Calculations for Other Uses: Wildlife 2 acre x 1' = 2 AF + 3.7 AF (evaporation see attached worksheet) = ~~5.4~~ AF **5.7 CP**

Wetland surface area is 2.0 acres. The area that was developed above and beyond the natural channel is only 1 acre. I calculated the evaporation using only 1 acre of surface area because the losses will be made up in the natural stream channel no matter what. That also goes for seepage. The seepage losses would be occurring in the natural stream either way and trying to calculate what kind of seepage losses the wetland area is experiencing is not worth the hassle since it's most likely close to what it would be naturally.

I was not able to get into the wetland area; the vegetation was too thick to penetrate. It's obvious, given the vegetation, that there is not a lot of standing water in the wetland area.

There are no construction records that Chris Davies could find but it appears that the wetland area has been somewhat excavated especially along the north side of the pond where the wetland was expanded into the hillside. I will base the volume on 2 acres at 1' deep. The depth of the pond is unknown by city staff and could not be determined at the time of the exam so a depth of 1' is based on the wetland's characteristics.

G. NARRATIVE/REMARKS/COMMENTS

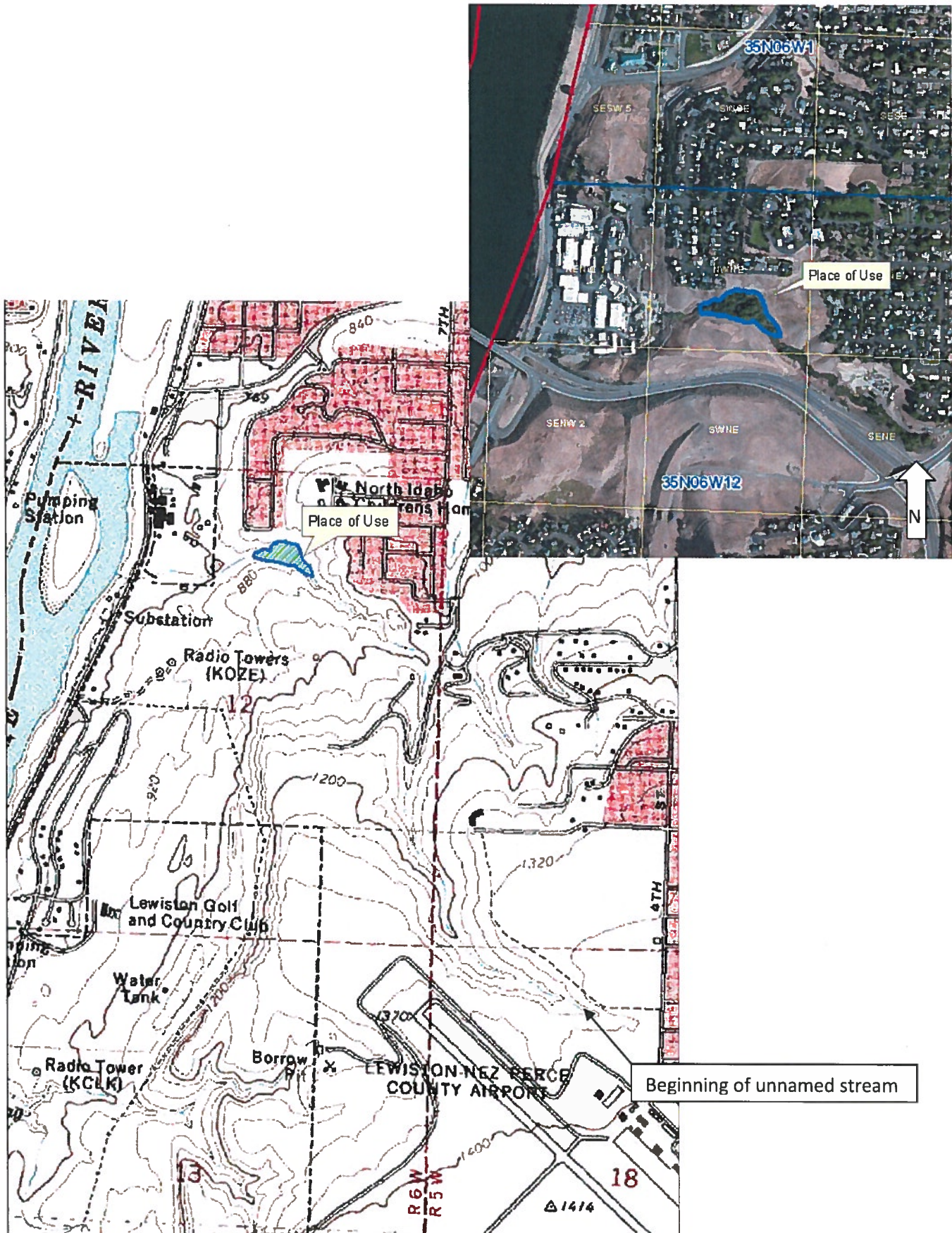
According to Chris Davies, there is not a diversion structure in place, the natural stream channel intercepts storm run-off at the airport. At the end of the wetland area there is a culvert in place where all the water is carried directly to the Snake River. I measured the water that is discharging from the culvert at the discharge point and got a result of 0.90 cfs. I measured the water because this right was permitted for a flow through for wildlife purposes only. In order to avoid creating a de facto minimum stream flow, this right should be for wildlife storage only. The development is an on-stream wetland that has been widened where more water is being impounded than before the development. It's clear in the application that the applicant's intent was to impound water; therefore, changing the nature of use from wildlife to wildlife storage is a clarification and an amendment is not necessary.

Have conditions of permit approval been met? ☒ Yes ☐ No**H. RECOMMENDATIONS****1. Recommended Amounts**

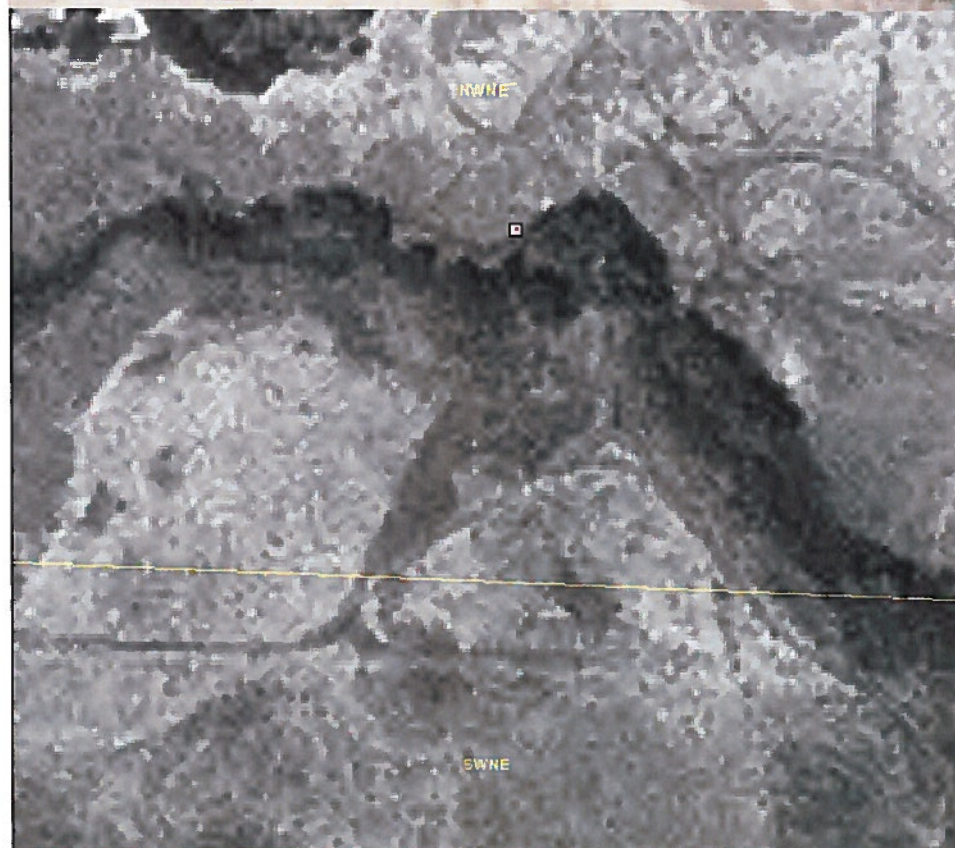
<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
WILDLIFE	1/01 to 12/31	0.100 CFS	5.7 AF CP
<u>Totals:</u>		0.100 CFS	5.7 AFA

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 (change nature of use)**I. AUTHENTICATION**Field Examiner's Name Chris Palmer Date 10/23/2012

Reviewer _____ Date _____



2009 Imagery



1992 Imagery



Place of use

Photo looking in
the SE direction

→ downstream



Directly right of
this photo is the
point of discharge
into the Snake

Photo is looking SW



Culvert discharging
to Snake



Measured 0.90 cfs
using timed float
given a known
x the water's
area

$$0.45 \text{ sqft} = A$$

$$10' / 5 \text{ seconds} = V$$

ET_{Idaho} 2012 -- Evapotranspiration and Consumptive Irrigation Water Requirements for Idaho

Please send suggestions for improving this site to robison@kimberly.uidaho.edu Copyright 2012, University of Idaho.

Lewiston WB AP (NWS -- 105241)

Statistics based on thirty year normal spans 1978 to 2010 years

For a different land cover or crop click on the above link.

You can highlight this table and copy via the clipboard to a Microsoft Excel or OpenOffice spreadsheet to plot or otherwise work with this data.

Wetlands - narrow stands															
Precipitation Deficit (Click here for a graph)															
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Growing Season ^a	Non Growing Season ^b	Annual
				4.5	53.3	204	326	277	179	77					
Mean ^j	mm/day												mm		
Monthly ^c	0.63	0.25	-0.05	0.15	1.72	6.79	10.51	9.24	5.96	2.48	0.33	0.64	1132	-61	1071
15-Day Moving Average ^d	0.61	0.32	-0.03	0.07	1.59	6.82	10.56	9.28	5.83	2.50	0.45	0.61	1,121 MM or 3.68 af X 1.0 acre 3.7 af of evaporation		
7-Day Moving Average ^e	0.62	0.29	-0.07	0.08	1.67	6.84	10.56	9.27	5.88	2.50	0.41	0.62			
3-Day Moving Average ^f	0.62	0.26	-0.06	0.11	1.70	6.80	10.52	9.25	5.95	2.48	0.36	0.63			
Standard Deviation ^k	mm/day												mm		
Monthly ^c	0.71	0.42	0.46	0.41	1.98	1.63	1.77	1.50	1.04	1.34	0.65	0.60	96	44	119
15-Day Moving Average ^d	0.61	0.57	0.50	0.51	1.79	2.12	1.66	1.55	1.42	1.32	0.88	0.50			
7-Day Moving Average ^e	0.90	0.80	0.85	0.86	2.15	2.89	2.06	2.21	1.87	1.77	1.23	0.77			
3-Day Moving Average ^f	1.37	1.16	1.34	1.40	2.78	3.67	2.84	3.06	2.54	2.22	1.71	1.12			
20% Exceedance ^l	mm/day												mm		
Monthly ^c	0.28	0.13	0.18	0.34	3.07	7.96	11.42	10.04	6.85	3.08	0.13	0.33	1227	-26	1164
15-Day Moving Average ^d	0.19	0.39	0.55	0.83	4.72	10.59	12.65	10.94	8.08	4.32	0.75	0.05			
7-Day Moving Average ^e	0.43	0.70	1.05	1.54	5.70	12.18	13.41	12.20	8.99	5.55	1.45	0.25			
3-Day Moving	0.60	0.99	1.59	2.65	7.04	13.70	14.59	13.49	9.89	6.07	2.36	0.41			

