

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 21-7569

Exam Date: 6/19/2012

1. Current Owner: STEVEN BURK
1920 MALIBU DR
IDAHO FALLS ID 83404
(208)542-6382

Or

CAROL BURK
1920 MALIBU DR
IDAHO FALLS ID 83404
(208)542-6382

2. SOURCE

UNNAMED STREAMS

TRIBUTARY

HENRYS LAKE

B. OVERLAP REVIEW

1. Other water rights with the same place of use: None
2. Other water rights with the same point of diversion: None

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

UNNAMED STREAMS NE1/4SW1/4 Sec. 33, Twp 16N, Rge 43E, B.M. FREMONT County

Method of Determination: GPS, site visit, aerial photography

2. PLACE OF USE:

			RECREATION STORAGE																
Twp	Rge	Sec	NE				NW				SW				SE				
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	Totals
16N	43E	33																	X

Method of Determination: Site visit, aerial photography

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.
- ☐ Aerial Photo Attached (required for irrigation of 10+ acres).
- ☐ Photo of Diversion and System Attached

D. FLOW MEASUREMENTS

On-stream pond. No flow measurement required.

Based on evaporation rates from ET Idaho (Island Park station), the evaporation from the pond will be less than 2,000 gallons per day during the summer. The instantaneous evaporation rate will be less than 0.003 cfs.

$$5 \text{ mm/day} \times 1 \text{ ft}/304.8 \text{ mm} \times 0.3 \text{ acres} = 0.005 \text{ acre-feet/day} = 1,600 \text{ gal/day} = 0.0025 \text{ cfs-day}$$

E. VOLUME CALCULATIONS

Surface area of pond = 0.3 acres

Average depth of pond = 5 feet

Volume of pond = 0.3 acres x 5 feet = 1.5 acre-feet

F. NARRATIVE/REMARKS/COMMENTS

Field exam completed June 2012. Several water sources (unnamed streams) flow into the pond area and are captured by the pond control structure. Pond is complete and fish are present. There is a lockable diversion structure with a weir at the outlet. Original plans for impoundment included a dam greater than 20 feet tall. Permit required certification through the dam safety program. Actual dam is only 10 feet tall. Impoundment structure does not fall within the jurisdiction of the dam safety program. Permit required measuring devices upstream and downstream of the pond. Water District 01 does not require measuring devices at this time. Condition should be changed to only require measuring devices after notice from the watermaster.

Have conditions of permit approval been met? ☒ Yes ☐ No

G. RECOMMENDATIONS**1. Recommended Amounts**

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
RECREATION STORAGE	1/01 to 12/31		1.5 AF
<u>Totals:</u>			1.5 AF

2. Recommended Amendments

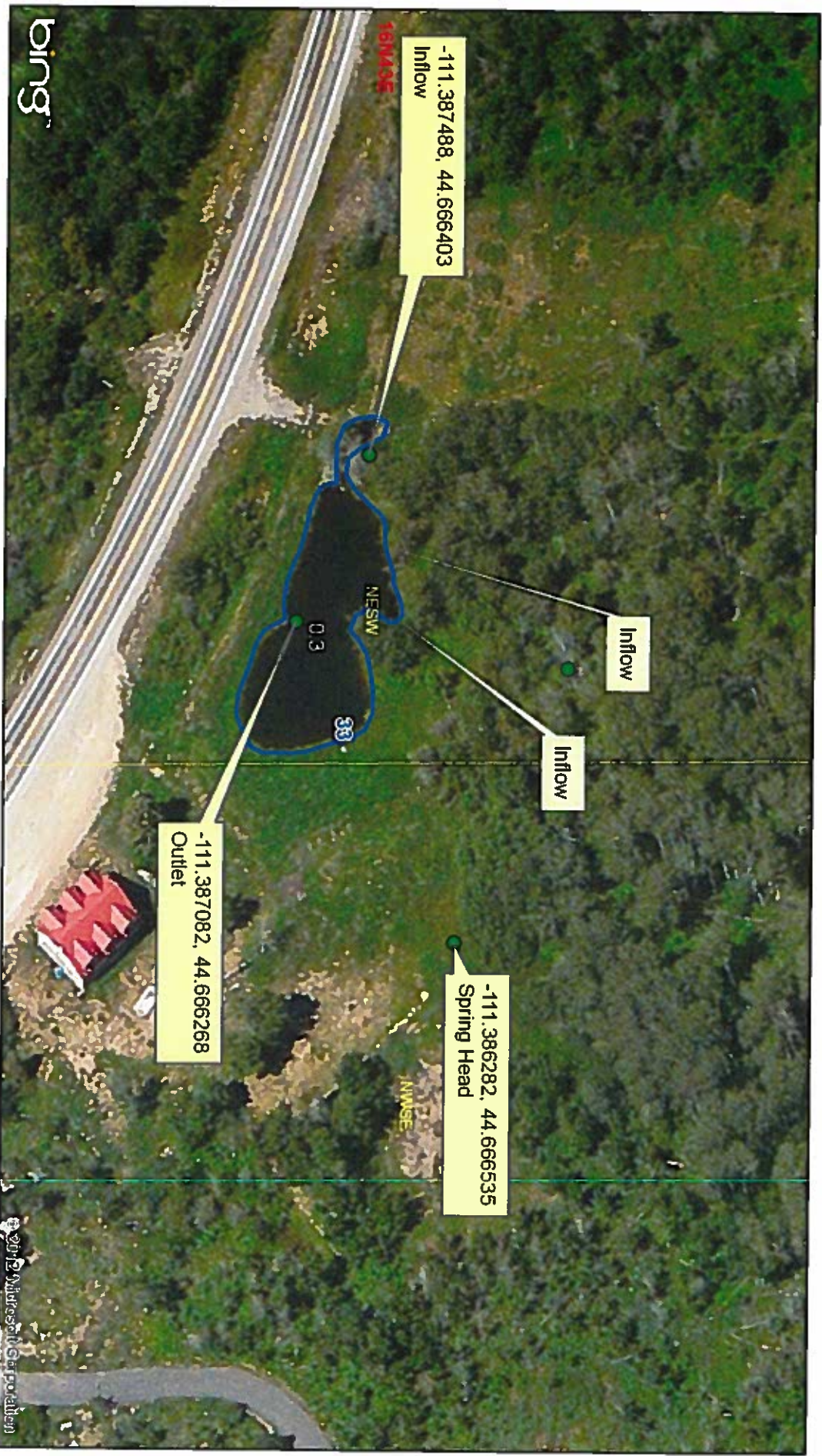
☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☒ None

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

H. AUTHENTICATION

Field Examiner's Name Kerrie Mathews Date 6/19/2012

Reviewer James Cefalo Date Jan 8, 2016



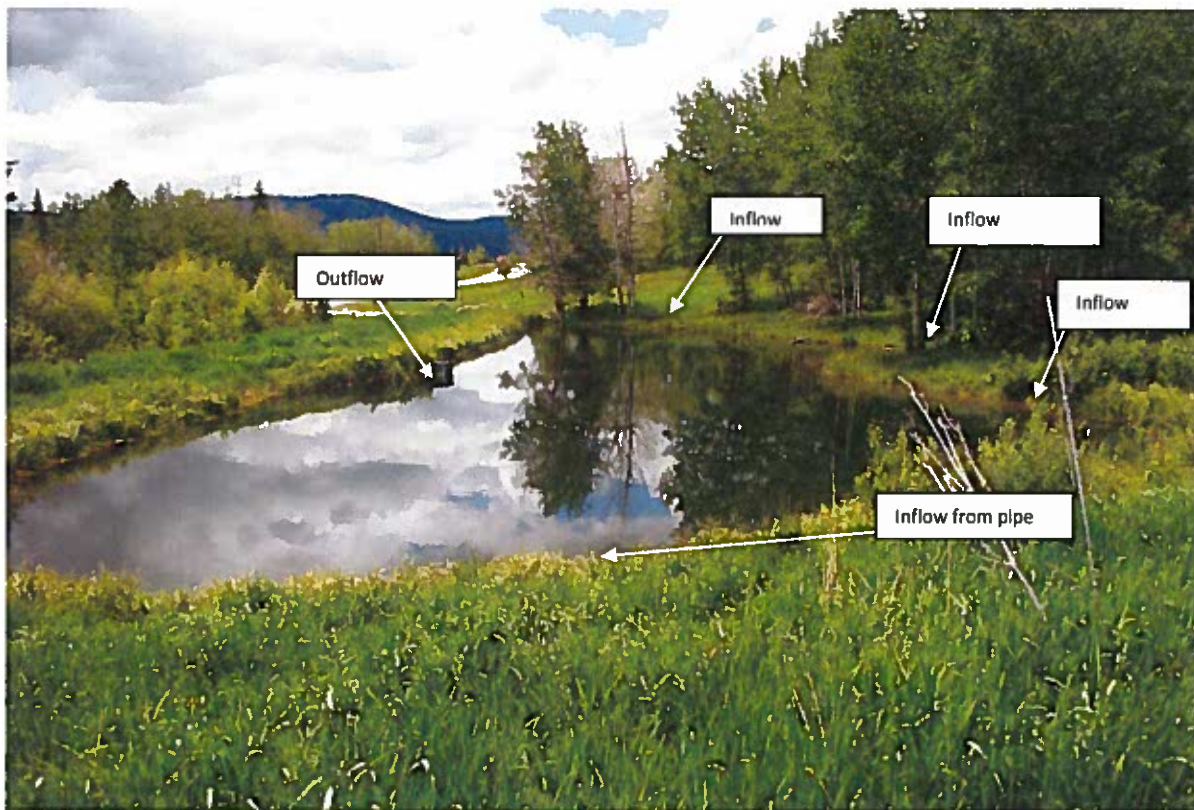
Field Exam - 21-7569



- Pond
- Township/Range
- Sections
- QQ



21-7569 – Steven Burke – Field Exam – June 19, 2012



Pond



Outflow from Pond



Spring



At spring looking towards pond

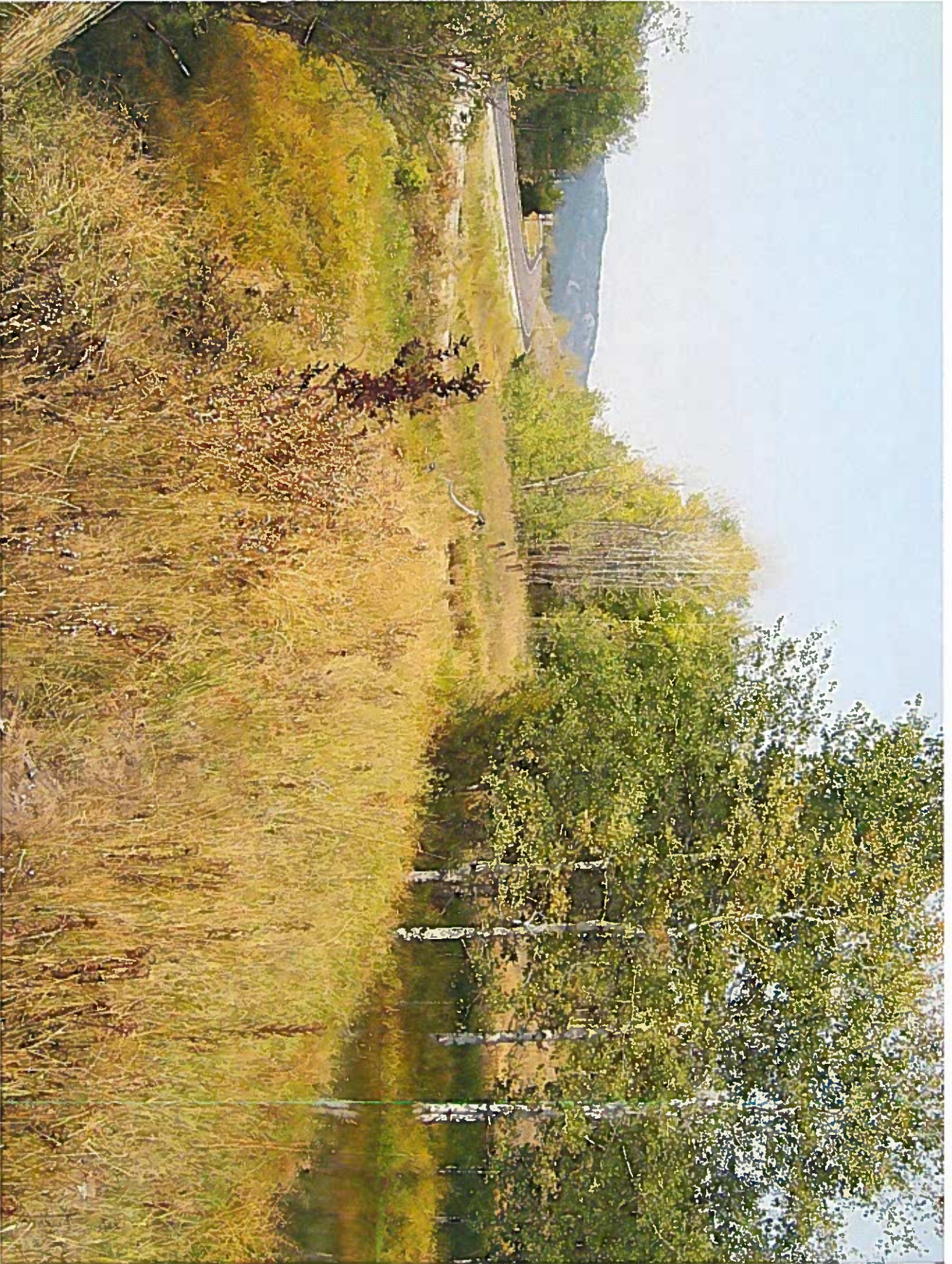


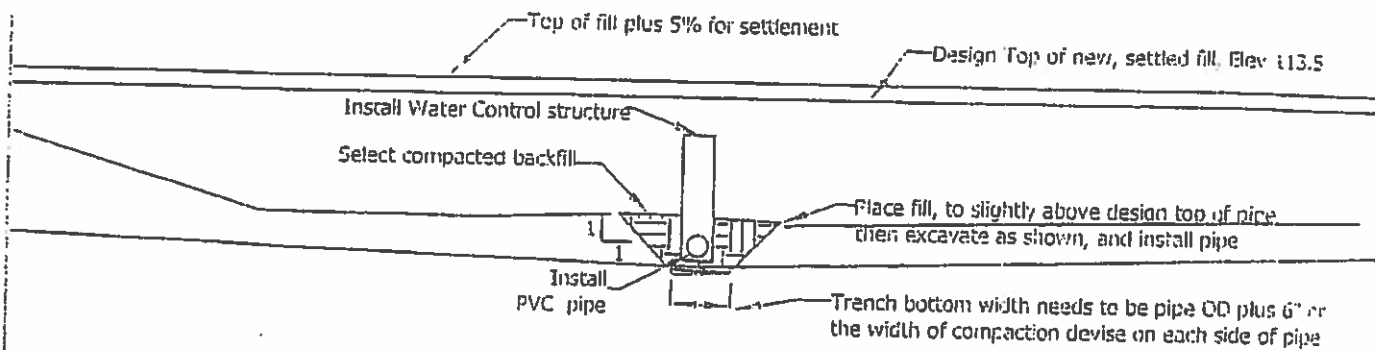
Pipe from spring



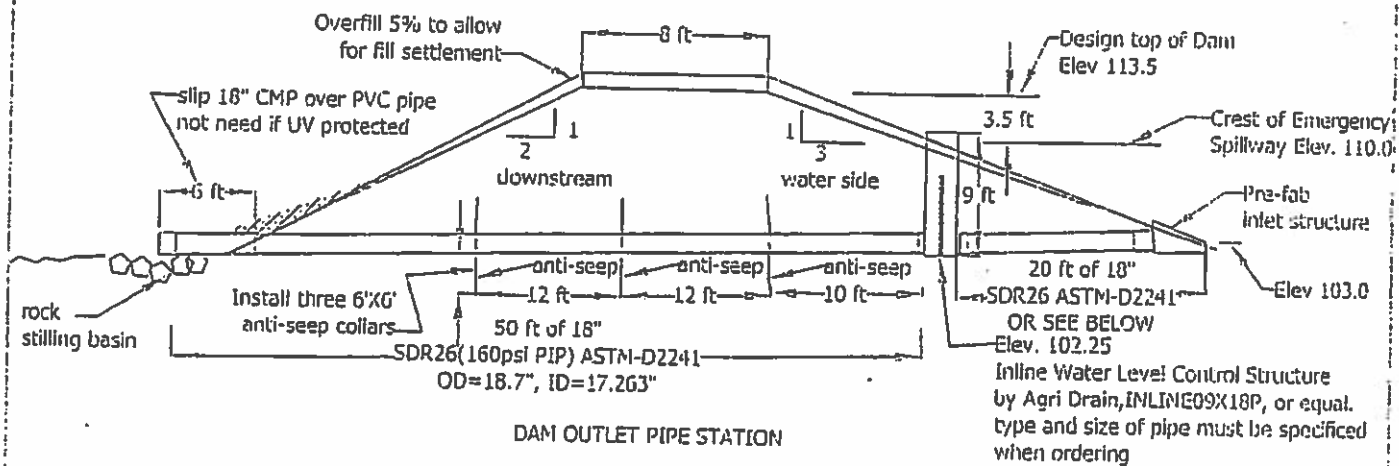








PIPE TRENCH CROSS SECTION



DAM OUTLET PIPE STATION

PIPE OPTIONS:
 18" dia. SDR26 (160 psi IPS) PVC,
 16" dia. DR25 (165 psi CIOD) AWWA-C905.

STEVE BURKE

POND

YELLOWSTONE SCD ISLAND PARK, ID

Designed

Drawn

rel

Checked

Date

File Name

Drawn Name

Checked Name

ETIdaho 2012 -- Evapotranspiration and Consumptive Irrigation Water Requirements for Idaho

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

Island Park (NWS -- 104598)

Statistics based on thirty year normal spans 1955 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.

Open water - shallow systems (ponds, streams)													
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
Mean ^j	mm/day												mm
Monthly ^c	-3.14	-1.58	-0.73	0.38	1.33	1.61	3.39	2.68	1.56	0.34	-1.61	-2.86	45
15-Day Moving Average ^d	-3.23	-1.81	-0.71	0.33	1.31	1.33	3.50	2.65	1.26	0.48	-1.66	-2.79	0
7-Day Moving Average ^e	-3.18	-1.72	-0.77	0.32	1.34	1.39	3.47	2.69	1.37	0.37	-1.69	-2.81	
3-Day Moving Average ^f	-3.15	-1.64	-0.76	0.36	1.34	1.52	3.41	2.68	1.49	0.35	-1.63	-2.85	
Standard Deviation ^k	mm/day												mm
Monthly ^c	2.96	1.23	1.98	1.07	1.77	1.79	1.36	1.75	1.23	1.66	1.39	2.24	166
15-Day Moving Average ^d	2.93	1.77	1.72	1.35	1.80	2.60	1.27	1.92	1.71	1.64	1.74	2.17	0
7-Day Moving Average ^e	3.57	2.53	2.36	2.15	2.48	3.68	1.70	2.41	2.39	2.54	2.40	2.91	
3-Day Moving Average ^f	4.74	3.40	3.21	3.18	3.62	4.70	2.39	3.19	3.31	3.50	3.25	4.13	
20% Exceedance ^l	mm/day												mm
Monthly ^c	-1.75	-0.58	0.39	1.11	2.40	2.76	4.13	3.60	2.73	1.10	-0.54	-1.66	172
15-Day Moving Average ^d	0.15	0.31	1.53	2.17	3.82	4.09	4.77	4.51	3.50	2.44	0.75	0.00	0

7-Day Moving Average ^e	0.70	1.50	2.05	3.25	4.89	5.14	5.15	4.87	4.21	3.06	1.40	0.75
3-Day Moving Average ^f	1.12	1.84	2.55	3.94	5.36	5.86	5.42	5.14	4.75	3.47	1.82	1.05
80% Exceedance^m	mm/day											
Monthly ^c	-4.64	-2.45	-1.79	-0.44	0.18	-0.06	2.39	2.05	0.32	-0.50	-2.97	-4.81
15-Day Moving Average ^d	-5.91	-4.76	-3.22	-2.06	-2.52	-3.06	0.86	0.32	-2.09	-2.58	-4.90	-6.88
7-Day Moving Average ^e	-9.74	-8.68	-5.27	-4.35	-4.02	-7.23	-0.66	-2.11	-4.28	-5.85	-7.55	-9.82
3-Day Moving Average ^f	-15.92	-15.06	-10.34	-10.11	-11.10	-14.64	-5.54	-8.39	-9.68	-10.79	-11.88	-16.21
Ave Highest P_{def}	mm/day											
15-Day Moving Average ^g	0.13	0.15	0.85	1.59	2.56	3.40	4.38	3.82	2.64	1.76	0.27	0.08
7-Day Moving Average ^h	0.35	0.88	1.50	2.69	4.25	4.68	4.92	4.54	3.73	2.71	1.03	0.39
3-Day Moving Average ⁱ	0.74	1.47	2.18	3.45	4.94	5.46	5.18	4.99	4.27	3.20	1.44	0.76
Ave Lowest P_{def}	mm/day											
15-Day Moving Average ^g	-4.82	-2.99	-2.07	-0.98	-0.04	-0.52	2.51	1.45	0.14	-1.07	-3.07	-4.44
7-Day Moving Average ^h	-7.50	-5.20	-4.14	-3.17	-2.14	-3.51	1.24	-0.47	-1.90	-3.45	-5.06	-6.93
3-Day Moving Average ⁱ	-13.04	-9.09	-7.56	-7.14	-6.76	-8.40	-1.78	-4.42	-5.99	-7.43	-8.33	-11.23
Special normal distribution parameters for monthly, seasonal, and annual intervals												
Skew ^m	-0.42	-0.41	-0.43	-0.18	0.00	-0.61	-0.40	-0.64	-0.21	-0.07	-0.44	-0.14
Kurtosis ^o	1.47	2.70	1.37	3.07	0.64	2.88	0.82	2.07	2.14	0.82	3.36	0.66
											0.00	-0.05
											2.87	0.00
											0.00	2.87

^a Growing Season: This is usually the time from green up or planting in the spring to a killing frost or harvest in the fall. It is not applicable for entries without a growing season and will be blank.

^b Nongrowing Season: This is usually the time from a killing frost or harvest in the fall to the of green up in the spring. It is not applicable for entries without a growing season.

^c Mean of the average daily value for month

^d Mean of the fourteen 15-day period averages contained in the month

^e Mean of the twenty three 7-day period averages contained in the month

^f Mean of the twenty seven 3-day period averages contained in the month

^g Mean of the highest/lowest 15-day period average in month

^h Mean of the highest/lowest 7-day period average in month

ⁱ Mean of the highest/lowest 3-day period average in month

^j This value represents the *mean value* for the parameter for the month over the 'normal' period of record. Generally, the 'normal' period is the last thirty years with data.

^k This value represents the *standard deviation* for the parameter for the month over the 'normal' period.

^l This value represents the *value* for the parameter that has a 20% chance of being exceeded that month during any particular year. Conversely, there is an 80% chance that the parameter value will be less than the *value* shown.

^m This value represents the *value* for the parameter that has a 80% chance of being exceeded that month during any particular year. Conversely, there is an 20% chance that the parameter value will be less than the *value* shown.

ⁿ This value represents the *skewness (asymmetry) of the distribution of the parameter values* for the month (year) over the 'normal' period. A value near zero indicates that the distribution approximates a normal (Gaussian) and symmetrical distribution. A negative skew indicates that the parameter distribution has relatively few low values compared to high values. A positive skew indicates that the distribution has relatively few high values compared to the number of low values. A skew value near 1 indicates that the underlying distribution approximates a lognormal distribution.

^o This value represents the *kurtosis* of the parameter value distribution for the month (year) over the 'normal' period. Kurtosis is a measurement of the height to width ratio of the probability distribution, or the *peakedness (slenderness)*. A normal (Gaussian) distribution has a kurtosis of 3. A high kurtosis distribution has a sharper peak and longer tails, while a low kurtosis distribution has a more rounded peak and shorter tails.

This work and report were prepared by the University of Idaho Research and Extension Center at Kimberly, Idaho under contract with the Idaho Department of Water Resources. Work was supported by funding from IDWR and the Idaho Agricultural Experiment Station and Idaho Engineering Experiment Station. The authors gratefully acknowledge the long-term evapotranspiration data collection and long-standing advice provided by Dr. James L. Wright, USDA-ARS Kimberly (ret.), the more than two decades of high quality agricultural weather data collection by the U.S. Bureau of Reclamation AgriMet system, and the very long-standing, routine data collection by the hundreds of cooperative weather station volunteers across the state who, for more than one-hundred years, have faithfully observed daily air temperature and precipitation.

The citation for the evapotranspiration data used from this site should be: *Allen, Richard G. and Clarence W. Robison, 2012. Evapotranspiration and Consumptive Irrigation Water Requirements for Idaho: Supplement updating the Time Series through December 2008, Research Technical Completion Report, Kimberly Research and Extension Center, University of Idaho, Moscow, ID.*

Questions regarding the data should be addressed to [Clarence W. Robison](mailto:Clarence.W.Robison@idaho.edu) or [Richard G. Allen](mailto:Richard.G.Allen@idaho.edu), University of Idaho, Kimberly Research and Extension Center, 3793 North 3600 East, Kimberly, ID 83341. Telephone (208)-423-6610



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