

MEMORANDUM

Date: March 27, 2009
To: Water Right File 63-31829
From: Aaron Marshall
Re: Licensing Review

Permit 63-31829 authorized the development of a water right for the use of ground water for aesthetic and aesthetic storage purposes in a 1.7-acre pond. Since the use is in the fully appropriated area of the Boise River basin, the permit requires mitigation for the consumptive use by acquisition and abandonment of a 2.2-acre portion of an irrigation right. While the permit refers to the right used for mitigation as water right 63-9972 (SRBA Claim 63-31790), this claim was split several times in the adjudication and the 2.2-acre portion was decreed as 63-32045. The permit holder, Touchmark of the Treasure Valley, LLC, acquired this right and permanently abandoned it to comply with the mitigation required by the permit.

The permit holder used water from an existing well on the property and did not drill an additional well authorized by the permit. This well is completed to a depth of 485 ft and slotted from 420 to 471 ft below ground surface. This well is also used to divert water under right 63-31383 for irrigation of 35 acres within the development. The capacity of the well and diversion works, as computed by the field examiner, is approximately 0.70 cfs. Rights 63-31383 and 63-31829, when combined, are limited to a maximum diversion rate of 0.70 cfs.

The permit authorized aesthetic and aesthetic storage uses with a diversion to storage component. Water is diverted from the well into an 8-inch diameter pipe and delivered through the buried conduit to the pond. Since this is not a flow-through system returning water to its source and there is no open channel delivering water to the pond, the license should be issued for aesthetic storage purposes only with a diversion to storage component. Using GIS to outline the extent of the pond based on satellite imagery from 2004 and 2006, the surface area of the pond is approximately 1.2 acres. The examiner reported an average depth of 6 feet. The total volume of the pond is approximately 7.2 acre-feet.

Using data from the ET Idaho web site (<http://www.kimberly.uidaho.edu/ETIdaho>), the precipitation deficit for a shallow open water pond in Kuna is 777 mm per year and 654 mm per year at the Boise airport. Averaging these data is appropriate to approximate evaporation losses from the pond authorized by permit 63-31829 in the Meridian area. The average annual loss is approximately 2.35 ft. The total annual volume of water lost to evaporation from the 1.2-acre pond is approximately 2.8 acre-feet. The sum of the pond volume and the volume of water lost to evaporation totals 10.0 acre-feet.

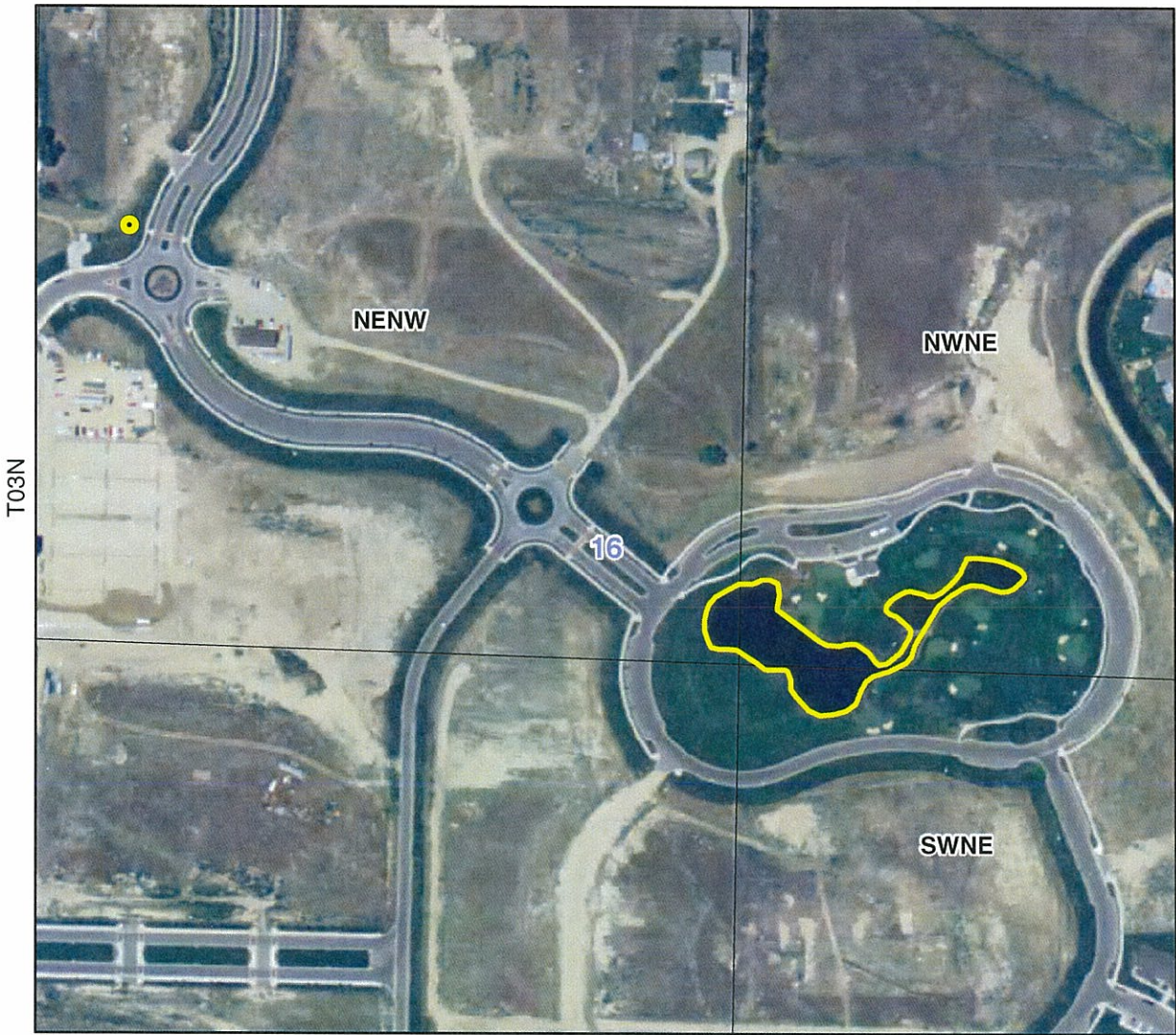
A licensing amendment is necessary to correctly describe the place of use for the pond.

Water Right 63-31829

Touchmark of the Treasure Valley LLC

March 27, 2009

R01E



Legend

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

0 0.1 0.2 Miles



ET Idaho --- Evapotranspiration and Consumptive Irrigation Water Requirements for Idaho

Please send suggestions for improving this site to robinson@kimberly.uidaho.edu *Copyright 2007, University of Idaho.*

Boise WSFO Airport (NWS NOAA--101022)

Statistics based on 30 years between 1974 to 2004

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	Annual
Mean						mm/day							mm	
Monthly ^b	-0.64	-0.09	0.84	2.04	2.90	4.14	4.70	4.03	2.71	1.60	-0.27	-0.61	654	654
15-Day Moving Average ^c	-0.65	-0.31	0.78	2.05	3.00	4.26	4.77	3.96	2.63	1.64	-0.27	-0.58		
7-Day Moving Average ^d	-0.67	-0.19	0.81	2.01	2.92	4.22	4.75	3.99	2.62	1.59	-0.31	-0.61		
3-Day Moving Average ^e	-0.65	-0.11	0.84	2.03	2.90	4.19	4.71	4.02	2.68	1.59	-0.28	-0.62		
Standard Deviation						mm/day							mm	
Monthly	0.70	0.76	1.26	0.88	1.79	0.81	0.65	0.77	0.91	1.06	0.73	1.12	102	102
15-Day Moving Average	0.85	1.02	1.25	1.07	1.61	1.03	0.60	0.82	1.20	1.01	0.92	0.96		
7-Day Moving Average	1.21	1.35	1.55	1.63	2.17	1.53	0.85	1.11	1.61	1.41	1.20	1.23		
3-Day Moving Average	1.62	1.72	2.05	2.34	2.86	2.15	1.35	1.51	2.11	1.85	1.64	1.65		
20% Exceedance						mm/day							mm	
Monthly	-0.18	0.46	1.58	2.73	3.75	4.90	5.07	4.53	3.49	2.12	0.24	-0.07	743	743
15-Day Moving Average	0.40	0.97	2.15	3.60	4.95	5.46	5.48	4.86	3.90	2.75	1.08	0.46		
7-Day Moving Average	0.67	1.50	2.83	4.41	5.64	5.92	5.87	5.20	4.35	3.16	1.40	0.61		
3-Day Moving Average	0.84	1.83	3.66	5.19	6.35	6.71	6.40	5.64	4.85	3.68	1.80	0.84		
80% Exceedance						mm/day							mm	
Monthly	-1.08	-0.60	0.01	1.25	2.47	3.10	4.38	3.47	1.81	1.02	-0.95	-1.20	555	555
15-Day Moving Average	-2.05	-1.35	-1.45	0.25	0.91	2.26	3.54	2.31	0.34	-0.28	-1.90	-1.87		

ET Idaho --- Evapotranspiration and Consumptive Irrigation Water Requirements for Idaho

Please send suggestions for improving this site to robinson@kimberlyuidaho.edu Copyright 2007, University of Idaho.

Kuna (NWS NOAA--105038)

Statistics based on 30 years between 1959 to 1988

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)

Mean	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Growing Season ^a	Annual
Monthly ^b	-0.45	0.46	1.57	2.74	3.45	4.28	4.93	4.08	2.88	1.93	-0.11	-0.37	777	777
15-Day Moving Average ^c	-0.49	0.33	1.53	2.72	3.46	4.37	4.99	4.01	2.76	1.89	-0.12	-0.43		
7-Day Moving Average ^d	-0.47	0.42	1.55	2.71	3.43	4.27	4.98	4.07	2.81	1.88	-0.18	-0.42		
3-Day Moving Average ^e	-0.45	0.46	1.56	2.74	3.44	4.27	4.95	4.09	2.85	1.92	-0.14	-0.38		
Standard Deviation	mm/day												mm	
Monthly	0.90	0.68	0.89	0.95	1.22	0.85	0.59	1.14	0.83	0.98	0.79	1.04	90	90
15-Day Moving Average	1.03	0.96	0.92	1.16	1.25	1.17	0.63	1.14	1.19	0.90	0.92	0.92		
7-Day Moving Average	1.29	1.24	1.26	1.57	1.75	1.72	0.88	1.35	1.48	1.32	1.33	1.18		
3-Day Moving Average	1.72	1.55	1.69	2.19	2.37	2.33	1.29	1.70	1.91	1.70	1.85	1.59		
20% Exceedance	mm/day												mm	
Monthly	-0.02	0.95	2.09	3.54	3.97	5.18	5.19	4.68	3.53	2.51	0.56	0.27	827	827
15-Day Moving Average	0.51	1.38	2.84	4.14	5.12	5.59	5.54	5.01	4.11	3.07	1.22	0.59		
7-Day Moving Average	0.80	2.00	3.32	4.60	5.89	6.38	5.85	5.39	4.52	3.56	1.68	0.88		
3-Day Moving Average	1.01	2.43	4.22	5.47	6.64	7.00	6.40	5.70	4.91	4.08	2.15	1.07		
80% Exceedance	mm/day												mm	
Monthly	-0.98	-0.06	1.06	1.76	3.10	3.28	4.62	3.47	2.38	1.33	-0.71	-1.04	686	686
15-Day Moving Average	-2.03	-0.90	-0.20	0.89	1.60	2.37	3.72	1.96	0.79	0.45	-1.78	-1.88		