

## RAINBOW INLET CANAL NEAR DINGLE, ID (10046000)

### STREAMFLOW RECORDS FOR WATER YEAR 2010

LOCATION.--Lat 42°13'48", long 111°17'43" referenced to North American Datum of 1927, in NW ¼ SW ¼ SE ¼ sec.3, T.14 S., R.44 E., BEAR LAKE County, Hydrologic Unit 16010201, on right bank 1.5 mi west of Dingle and 1.8 mi downstream from headworks at Stewart Dam.

PERIOD OF RECORD.--October 2006 to current year published by PacifiCorp. January 1922 to September 2006 published in United States Geological Survey Water-Data Reports. Monthly discharge only prior to October 1945, published in United States Geological Survey WSP 1314.

GAGE.--Water-stage recorder. Elevation of gage datum is 5,922.0 ft above NGVD of 1929, (by topographic survey). Prior to October 1, 1923, at site 300 ft downstream at different datum; October 1, 1923 to October 27, 1944, at site 0.5 mi downstream at different datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Canal diverts from Bear River at Stewart Dam in NE¼ sec. 34, T.013 S., R.0 44 E., for storage in Bear Lake. At times flow in canal is augmented by surplus water from Black Otter Slough entering at the station and by seepage and surplus water from irrigation. Flow contributions from Black Otter Slough is included in the values below.

AVERAGE DISCHARGE FOR PERIOD OF RECORD.--88 years, 344 ft³/s, 256,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 4,950 ft³/s, May 27, 1984; no flow Apr 28, 1977 and Oct 1, 1979.

DISCHARGE MEASUREMENT DATES.-- 9-12-09, 10-15-09, 11-1-09, 1-6-10, 2-8-10, 3-7-10, 5-16-10, 6-14-10, 6-20-10, 6-27-10, 7-10-10, 7-23-10, 8-7-10, 8-21-10, 9-25-10, 10-16-10.

### Rainbow Inlet Canal near Dingle, ID (10046000) Water Year 2010 (October 2009 to September 2010)

#### Daily Mean Values

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
1	77.5	262	191	133	144	161	150	280	140	781	133	81	
2	92.6	255	198	140	170	183	150	280	140	726	106	81	
3	114	241	209	143	165	171	150	280	150	666	90.2	85	
4	154	234	188	143	152	159	150	280	160	635	77.5	95	
5	174	262	178	141	155	159	150	230	215	607	69.8	95	
6	180	287	165	134	143	165	150	200	313	605	65.7	95	
7	182	294	154	125	129	162	150	190	394	612	67	95	
8	181	294	157	128	157	162	150	190	471	609	68.4	85	
9	174	294	155	141	154	162	150	80	644	601	69.7	85	
10	182	296	153	129	136	162	150	110	863	614	71.1	85	
11	175	287	168	118	121	162	150	80	1060	616	72.4	85	
12	185	275	191	119	108	162	150	85.3	1290	571	73.8	75	
13	192	270	181	124	100	162	150	95.2	1450	536	75.1	70	
14	199	260	168	128	131	162	150	102	1530	487	76.4	70	
15	240	249	176	129	128	162	160	92	1550	397	77.8	60	
16	255	241	191	136	112	162	160	82.4	1600	373	79.1	55	
17	262	230	191	141	105	170	160	83.2	1720	355	80.5	55	
18	255	233	193	144	101	170	160	77	1880	315	81.8	55	
19	241	251	200	141	127	180	160	79.8	2120	310	83.2	40	
20	233	264	198	142	168	190	170	60	2280	278	84.5	30	
21	238	241	193	145	160	170	170	135	2340	274	81	30	
22	240	216	188	143	157	170	170	50	2330	261	81	30	
23	245	211	190	136	162	170	170	60	2230	257	81	25	
24	249	204	189	137	155	170	170	70	1810	253	81	24	
25	253	199	185	156	147	160	170	70	1310	236	81	19	
26	258	198	168	148	175	160	170	85	1080	212	81	19	
27	256	199	155	135	178	160	170	90	950	202	81	19	
28	245	193	145	141	168	160	150	90	835	197	81	19	
29	245	198	135	149	168	150	150	90	757	193	81	19	
30	244	194	128	145	168	150	260	90	775	186	81	19	
31	249		127	149	168	150		90		161	81		
	<b>Monthly Statistics</b>											<b>Yearly Stats</b>	
<b>Total</b>	6,470	7,332	5,408	4,263	4,008	5,098	4,820	3,877	34,387	13,126	2,494	1,700	<b>92,983</b>
<b>Mean</b>	209	244	174	138	143	164	161	125	1,150	423	81	57	<b>255</b>
<b>Min</b>	78	193	127	118	100	150	150	50	140	161	66	19	<b>19</b>
<b>Max</b>	262	296	209	156	178	190	260	280	2,340	781	133	95	<b>2,340</b>
<b>Ins. Min</b>	67	187	124	115	96	77	39	50	140	147	57	12	<b>12</b>
<b>Ins. Max</b>	266	362	215	172	190	249	260	285	2,370	798	312	364	<b>2,370</b>
<b>Ac-ft</b>	12,830	14,540	10,730	8,460	7,950	10,110	9,560	7,690	68,210	26,040	4,950	3,370	<b>184,440</b>

# PacifiCorp Energy

## Hydro Resources Department

### Discharge Measurements Summary - Water Year 2010

#### Measurements for Station: Rainbow Inlet Canal near Dingle, ID (10046000)

No.	Date	Made by: (Initials)	Width (feet)	Area (sq. ft.)	Mean velocity (feet per second)	Gage height (feet)	Discharge (cfs)	Shift adj. (feet)	Black Otter Slough Flow (CFS)*		# Meas. Sect.	Gage height chg. (feet)	Time (hr)	Remarks
										Method				
	9/12/2009	SP	68	45.4	1.28	1.9	87	-0.69	#N/A	0.6	20	0	1	wading measurement below dam
	10/15/2009	JJ	96	103	2.29	2.27	236	-0.58	13	0.6	25	0	1	wading measurement below dam
	11/1/2009	JJ	76	96.8	2.57	2.03	249	-0.30	13	0.6	20	0	1	wading measurement below dam
	1/6/2010	SP	80	81.8	1.49	2.1	122	-0.76	13	0.6	21	0	1	wading measurement below dam
	2/8/2010	JJ	88	91.2	1.74	1.97	159	-0.53	13	0.6	23	0	1	wading measurement below dam
	3/7/2010	JJ	68	75.6	2.14	2.01	162	-0.57	13	0.6	18	0	1	wading measurement below dam
	5/16/2010	JJ	64	52		2.36	79.43	-1.19	5	0.6		0	1	wading measurement below dam
	6/14/2010	JJ	92	490		4.59	1535	-0.66	0	.2, .6, .8	24	0	1	Cableway
	6/20/2010	SP	92	595.2		5.5	2285	-0.91	0	.2, .8	24	0	1	Cableway
	6/27/2010	JJ	88	411.6		4.1	980	-0.89	0	.2, .8				Cableway
	7/10/2010	JJ	84	340		3.33	622	-0.74	0	.2,.8	22	0		Cableway
	7/23/2010	JJ	96	122		2.36	261	-0.62	5	0.6	25			wading measurement below dam
	8/7/2010	JJ	68	70		1.79	61	-0.70	5	0.6	18			wading measurement below dam
	8/21/2010	JJ	68	78		1.72	81	-0.54	5	0.6	18			wading measurement below dam
	9/25/2010					1.18	19	-0.24	15					wading measurement below dam
	10/16/2010	JJ				1.53	94	-0.29	10					wading measurement below dam

Notes: \* Record the Black Otter Slough flow ONLY when wading measurements are taken. Leave as ZERO when measurement is from Cableway.

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Rainbow Inlet Canal near Dingle, ID (10046000)

## Rating Table

Gage Height in Feet - Discharge in Cubic Feet Per Second

Gage Height	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.5	0	0	0	0	0	0	0	0	0	1.25
0.6	1.4	1.56	1.74	1.94	2.15	2.38	2.64	2.92	3.22	3.55
0.7	3.91	4.29	4.71	5.17	5.66	6.18	6.75	7.37	8.03	8.74
0.8	9.51	11.2	12.2	13.3	14.5	15.8	17.3	18.8	20.4	22.1
0.9	24	26	28.2	30.5	33	35.6	38.4	41.4	44.6	48
1.0	51.7	49.3	51	52.8	54.6	56.5	58.4	60.3	62.3	64.4
1.1	66.5	68.6	70.8	73.1	75.4	77.7	80.2	82.6	85.1	87.7
1.2	90.3	93	95.7	98.5	101	104	107	110	113	116
1.3	120	123	126	130	133	137	140	144	148	151
1.4	155	159	163	167	171	176	180	184	189	193
1.5	186	189	192	195	198	201	204	207	210	213
1.6	217	220	223	226	229	233	236	239	243	246
1.7	249	253	256	260	263	267	270	274	278	281
1.8	285	289	292	296	300	304	308	311	315	319
1.9	323	327	331	335	339	343	347	352	356	360
2.0	361	365	369	373	377	380	384	388	392	396
2.1	400	404	408	412	416	421	425	429	433	437
2.2	441	446	450	454	458	463	467	471	476	480
2.3	485	489	493	498	502	507	511	516	521	525
2.4	530	535	539	544	549	553	558	563	568	572
2.5	577	582	587	592	597	602	607	612	617	622
2.6	627	632	637	642	647	652	658	663	668	673
2.7	679	684	689	695	700	705	711	716	722	727
2.8	733	738	744	749	755	760	766	772	777	783
2.9	789	794	800	806	812	817	823	829	835	841
3.0	842	848	855	861	867	874	880	886	893	899
3.1	906	912	919	925	932	938	945	952	958	965
3.2	972	979	985	992	999	1010	1010	1020	1030	1030
3.3	1040	1050	1050	1060	1070	1080	1080	1090	1100	1100
3.4	1110	1120	1130	1130	1140	1150	1160	1160	1170	1180
3.5	1190	1190	1200	1210	1220	1220	1230	1240	1250	1250
3.6	1260	1270	1280	1290	1290	1300	1310	1320	1330	1330
3.7	1340	1350	1360	1370	1370	1380	1390	1400	1410	1420
3.8	1420	1430	1440	1450	1460	1470	1470	1480	1490	1500
3.9	1510	1520	1530	1530	1540	1550	1560	1570	1580	1590
4.0	1600	1600	1610	1620	1630	1640	1650	1660	1670	1680
4.1	1700	1710	1720	1730	1740	1750	1760	1770	1780	1800
4.2	1810	1820	1830	1840	1850	1860	1870	1890	1900	1910
4.3	1920	1930	1940	1960	1970	1980	1990	2000	2020	2030
4.4	2040	2050	2060	2080	2090	2100	2110	2130	2140	2150

<b>Gage Height</b>	<b>0.00</b>	<b>0.01</b>	<b>0.02</b>	<b>0.03</b>	<b>0.04</b>	<b>0.05</b>	<b>0.06</b>	<b>0.07</b>	<b>0.08</b>	<b>0.09</b>
4.5	2160	2180	2190	2200	2210	2230	2240	2250	2270	2280
4.6	2290	2300	2320	2330	2340	2360	2370	2380	2400	2410
4.7	2420	2440	2450	2470	2480	2490	2510	2520	2530	2550
4.8	2560	2580	2590	2600	2620	2630	2650	2660	2670	2690
4.9	2700	2720	2730	2750	2760	2780	2790	2810	2820	2840
5.0	2850	2870	2880	2900	2910	2930	2940	2960	2970	2990
5.1	3000	3020	3030	3050	3060	3080	3090	3110	3130	3140
5.2	3160	3170	3190	3210	3220	3240	3250	3270	3290	3300
5.3	3320	3370	3390	3410	3430	3450	3470	3490	3510	3530
5.4	3550	3570	3590	3610	3630	3660	3680	3700	3720	3740
5.5	3760	3780	3800	3830	3850	3870	3890	3910	3930	3960
5.6	3980	4000	4020	4040	4070	4090	4110	4130	4160	4180
5.7	4200	4230	4250	4270	4300	4320	4340	4370	4390	4410
5.8	4440	4460	4480	4510	4530	4560	4580	4610	4630	4650
5.9	4680	4700	4730	4750	4780	4800	4830	4850	4880	4900