



**Grande Ronde Subbasin Gauging Station Operations
2017 Water Year Report**

Project # 1992-026-01
Contract #73888

Performance Period
October 1, 2016 – September 30, 2017

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Grande Ronde Model Watershed
La Grande, Oregon

November 2017

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Abstract

The GRB covers over 5,000 square miles and includes several thousand miles of perennial flowing streams. This project is in place to operate 12 existing stream gauges in combination with USGS (3 gauges), Idaho Power (1 gauge) and OWRD (one gauge) who, independent of this project, operate five additional gauges (Grande Ronde at Troy, Imnaha R. at Imnaha, Minam R. at Minam, Lookingglass Creek, and Upper Catherine Cr.) to characterize flow in both the Grande Ronde and Imnaha subbasins. These gauges are intended to inform and provide data for irrigation water management, fisheries management, long term flow and trend analysis, TMDL and SB1010 water quality management plan effectiveness, subbasin plan implementation, restoration project development and provide essential information regarding cumulative effects response to conservation in the GRB. Headwater characteristics, land management influence, and basin outlet data are all selectively collected in this network of 17 flow gauges.

Summary

This project continued the operation, maintenance, record production and review of twelve flow gauges in the GRB. The intent of this project is to produce the highest quality data possible that informs other actions. This project does not analyze actions, rather it produces data that informs and provides base stream flow data for conservation, restoration, and research activities ongoing in the basin. This has been achieved through a production partnership between the GRMW and OWRD where OWRD completes all work and GRMW is the project sponsor.

The project follows accepted USGS standards and protocols for flow measurement, data collection, analysis and reporting. This protocol is the standard flow gauging technique, rigorous, and is accepted in the scientific community. For more information regarding the protocol see Protocol 2169 at MonitoringMethods.org.

Examples of entities commonly requesting flow monitoring data and examples of use in the GRB include:

1. Nez Perce Tribe. Fisheries and project development.
2. Confederated Tribe Umatilla Indian Reservation. Fisheries and project development.
3. Natural Resources Conservation Service. Project development.
4. Soil and Water Conservation Districts. Project development.
5. GRMW. Project development.
6. Municipalities. Safety and storm water management.
7. Irrigation districts/companies. Irrigation water management.
8. Consultants. Project development & research.
9. Academia. Research.
10. ODFW. Fisheries and project development.
11. ODEQ. TMDL development and permitting.
12. ODSL. Permitting.
13. USFWS and NMFS. Consultation.

Flow Data Availability

All data, including daily, monthly, and annual statistics generated from this project and previously collected flow data are available at the following website:

http://apps.wrd.state.or.us/apps/sw/hydro_near_real_time/ . Select Grande Ronde Basin.

Final Budget

OWRD Cost Breakdown

Gage Number	Stream Name and Location	OWRD's Cost to Operate a Gage	Final Cost to GRMWP
13329770	Wallowa River above Cross Country Canal near Enterprise	\$21,062	\$16,000
13330000	Lostine River near Lostine	\$21,062	\$16,000
13330300	Lostine River at Baker Road near Lostine	\$21,062	\$16,000
13330500	Bear Creek near Wallowa	\$21,062	\$16,000
13331450	Wallowa River below Water Canyon near Wallowa	\$21,062	\$16,000
13317850	Grande Ronde River below Clear Creek near Starkey	\$21,062	\$16,000
13318960	Grande Ronde River near Perry	\$21,062	\$16,000
13318060	Meadow Creek above Bear Creek near Starkey	\$21,062	\$16,000
13318210	Meadow Creek below Dark Canyon near Starkey	\$21,062	\$16,000
13318920	Five Point Creek near Hilgard	\$21,062	\$16,000
13319900	North Fork Catherine Creek near Union	\$21,062	\$16,000
13320300	Catherine Creek at Union	\$21,062	\$16,000
	Total	\$252,744	\$192,000

OWRD Tasks	Two Year Cost for 5 Wallowa County and 7 Union County Gaging Stations Water Years 2015-2016
Measure Discharge & Temperature, Service Equipment, Data Download	\$75,440
Station Maintenance & Equipment Replacement	\$50,280
Data Processing	\$32,682
Rating Table Maintenance & Shifts	\$17,598
Manage Real-Time Data, Web site, WISKI Database, and Final Record Review & Report	\$16,000
Total	\$192,000

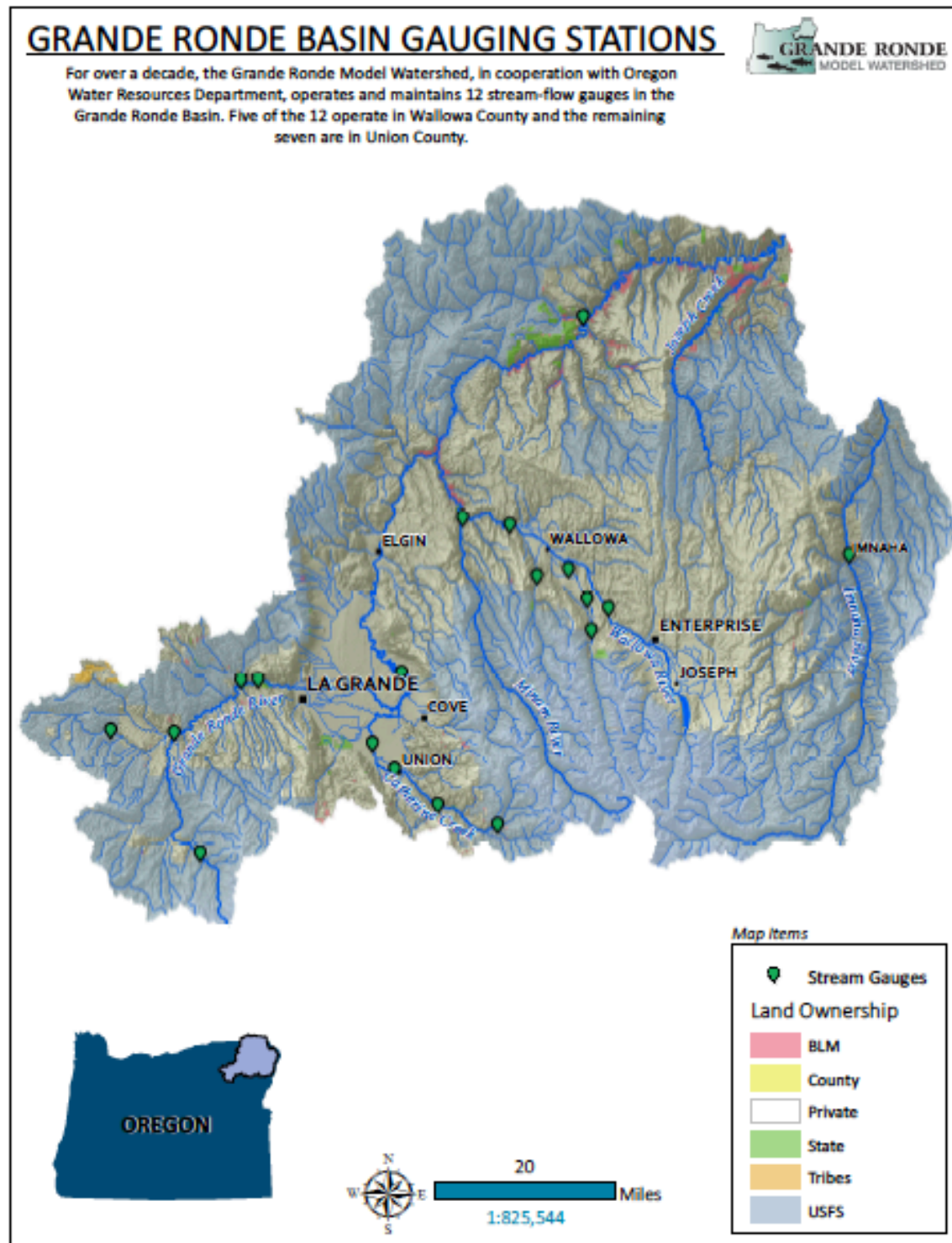
OWRD contribution = \$60,744 In-kind services over 2 water years and \$30,372 for 2017.

BPA Contribution = \$55,010 for 2017 Water Year.

OWEB Contribution = \$40,990 for 2017 Water Year.

Total 2017 Cost = \$126,372

Map



Flow Gauging Station Descriptions

13317850: Grande Ronde River below Clear Creek near Starkey; T.06S, R.36E, Sec. 4; Longitude 118 Degrees, 18 Minutes, 54 Seconds; Latitude 45 Degrees, 04 Minutes, 15 Seconds; Hydrologic unit 1706010405.

13318060: Meadow Creek above Bear Creek near Starkey; T.03S, R.34E, Sec. 35; Longitude 118 Degrees, 31 Minutes, 13 Seconds; 45 Degrees, 15 Minutes, 58 Seconds; Hydrologic unit 1706010416.

13318210: Meadow Creek below Dark Canyon Creek near Starkey; T.03S, R.35E, Sec. 36; Longitude 118 Degrees, 30 Minutes, 45 Seconds; 45 Degrees, 16 Minutes, 00 Seconds; Hydrologic unit 1706010417.

13318920: Five Point Creek at Hilgard; T.02S, R.37E, Sec. 31; Longitude 118 Degrees, 13 Minutes, 41 Seconds; Latitude 45 Degrees, 21 Minutes, 06 Seconds; Hydrologic unit 1706010419.

13319900: North Fork Catherine Creek near Medical Springs; T.05S, R.41E, Sec. 13; Longitude 117 Degrees, 37 Minutes, 57 Seconds; Latitude 45 Degrees, 07 Minutes, 45 Seconds; Hydrologic unit 1706010408.

13318960: Grande Ronde River near Perry; T.2S, R.37E, Sec. 33; Longitude 118 Degrees, 10 Minutes, 53 Seconds; Latitude 45 Degrees, 21 Minutes, 09 Seconds; Hydrologic unit 1706010405.

13320300: Catherine Creek at Union; T.4S, R.39E, Sec. 13; Longitude 117 Degrees, 52 Minutes, 10 Seconds; Latitude 45 Degrees, 12 Minutes, 43 Seconds; Hydrologic unit 1706010408.

13330500: Bear Creek near Wallowa; T1N, R43E, Sec. 34; Longitude 117 Degrees, 33 Minutes, 05 Seconds; Latitude 45 Degrees, 31 Minutes, 37 Seconds; Hydrologic Unit 1706010512.

13330000: Lostine River near Lostine; T1S, R43E, Sec. 34; Longitude 117 Degrees, 25 Minutes, 35 Seconds; Latitude 45 Degrees, 26 Minutes, 20 Seconds; Hydrologic Unit 1706010506.

13330300: Lostine River at Baker Road near Lostine; T1N, R43E, Sec. 29; Longitude 117 Degrees, 28 Minutes, 43 Seconds; Latitude 45 Degrees, 32 Minutes, 14 Seconds; Hydrologic Unit 1706010506.

13329765: Wallowa River near Enterprise; T1S, R43E, Sec. 13; Longitude 117 Degrees, 23 Minutes, 15 Seconds; Latitude 45 Degrees, 28 Minutes, 30 Seconds; Hydrologic Unit 1706010505.

13331450: Wallowa River below Water Canyon near Wallowa; T2N, R42E, Sec. 31; Longitude 117 Degrees, 36 Minutes, 55 Seconds; Latitude 45 Degrees, 36 Minutes, 30 Seconds; Hydrologic unit 1706010502.

2016 Final Flow Records

13317850 GRANDE RONDE R BL CLEAR CR NR STARKEY
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCT 2015 TO SEP 2016
Daily Mean Values

Day	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16
1	5.3	13	e8.0	e7.1	e7.0	12	14	58	45	14	7.8	4.7
2	5.3	10	e7.9	e7.1	e7.0	12	17	70	46	14	7.6	5.1
3	5.4	9.5	e7.8	e7.3	e7.0	12	23	71	42	14	7.6	5.3
4	5.7	8.9	e8.1	e7.4	e7.0	e13	29	81	39	13	7.6	5.4
5	5.6	8.3	e8.5	e7.2	e7.0	13	24	97	39	13	7.3	5.7
6	5.5	8.6	e9.2	e7.1	e7.0	24	24	153	38	13	7.3	6.2
7	5.8	8.5	47	e7.0	e7.0	19	33	151	34	12	7.1	7.7
8	7.6	8.4	82	e7.0	e7.0	16	47	e150	31	13	7.2	6.3
9	6.4	9.0	78	e6.9	e7.0	14	58	e128	29	16	8.7	5.6
10	5.8	8.6	43	e6.8	e7.0	15	66	e103	32	20	8.7	5.4
11	5.9	8.4	20	e6.8	e7.0	15	70	e95	35	19	7.9	5.0
12	5.8	8.3	13	e6.9	e7.5	16	75	e87	28	15	7.4	5.0
13	5.6	8.6	e11	e6.8	e9.0	16	77	95	26	16	7.0	5.4
14	5.6	9.6	e11	e6.7	e11	15	65	108	32	13	6.6	5.5
15	5.5	9.5	e10	e6.6	e22	14	56	121	35	12	6.5	5.4
16	5.5	8.7	e9.8	e6.7	26	14	53	135	42	12	6.3	5.1
17	5.4	8.9	e9.3	e6.8	17	13	56	112	38	12	6.4	5.0
18	6.3	11	e8.9	e6.7	20	e13	64	101	46	12	6.2	9.0
19	6.8	e11	e8.7	e7.0	16	e12	77	116	37	12	5.9	7.9
20	7.7	e9.3	e8.5	e7.0	e15	13	90	93	30	11	5.8	6.6
21	7.1	e8.8	e8.6	e7.0	e14	18	106	92	26	11	5.6	6.4
22	6.7	e8.7	e8.7	e7.0	e13	17	111	96	24	10	5.5	6.8
23	6.5	e8.5	e8.4	e7.0	e12	15	107	82	23	10	5.5	8.4
24	6.4	e8.3	e7.8	e7.0	e11	15	94	71	24	9.9	5.7	7.5
25	6.5	e8.2	e7.6	e7.0	e11	14	79	67	22	9.6	5.7	6.7
26	7.9	e7.8	e7.7	e7.0	e11	e14	70	66	20	9.2	5.5	6.3
27	7.3	e7.9	e7.8	e7.0	e11	14	66	59	18	9.0	5.2	6.0
28	7.2	e7.9	e7.7	e7.0	13	13	62	52	17	8.8	5.1	5.6
29	10	e8.0	e7.6	e7.0	e13	12	60	49	16	8.6	4.8	5.4
30	9.5	e7.9	e7.5	e7.0	---	e12	56	47	15	8.3	4.6	5.6
31	11	---	e7.5	e7.0	---	13	---	44	---	8.1	4.7	---
Total	204.6	268.1	496.6	215.9	329.5	448	1829	2850	929	378.5	200.8	182
Mean	6.61	8.91	16.0	6.96	11.4	14.5	61.0	91.9	31.0	12.2	6.49	6.07
Max	11	13	82	7.4	26	24	111	153	46	20	8.7	9.0
Min	5.3	7.8	7.5	6.6	7.0	12	14	44	15	8.1	4.6	4.7
AC-FT	406	532	985	428	654	889	3630	5650	1840	751	398	361
CAL YEAR	2015	TOTAL	8202	MEAN	22.5	MAX	108.0	MIN	5.3	AC-FT	16270	
WTR YEAR	2016	TOTAL	8332	MEAN	22.8	MAX	153.0	MIN	4.6	AC-FT	16530	
Legend:	'e' Estimated				Created on		11/29/17 10:33			by nuddce		

13318060 MEADOW CR AB BEAR CR NR STARKEY
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCT 2015 TO SEP 2016
Daily Mean Values

Day	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16
1	2.0	5.1	3.3	e13	41	95	64	9.8	6.9	1.7	1.3	1.2
2	1.9	3.6	e3.4	e13	e37	106	66	8.6	6.5	1.7	1.3	1.2
3	2.0	3.0	e3.6	e13	e34	110	70	8.7	6.2	1.7	1.3	1.3
4	2.0	2.8	e4.4	13	e32	120	76	8.4	5.4	1.6	1.3	1.3
5	2.0	2.5	e5.4	e13	30	126	71	9.6	4.9	1.6	1.4	1.3
6	2.0	2.8	e8.9	e13	26	175	63	10	4.4	1.6	1.3	1.6
7	2.2	2.4	26	e14	24	155	60	8.8	4.1	1.6	1.2	1.7
8	2.6	2.5	35	e14	24	125	58	7.6	3.9	1.9	1.3	1.6
9	2.4	4.4	42	e14	27	107	55	6.9	4.1	3.4	1.8	1.5
10	2.2	3.8	40	e14	32	110	51	6.6	4.3	3.5	2.1	1.4
11	2.1	2.9	34	e14	38	120	46	6.0	4.8	2.8	1.7	1.4
12	2.1	2.6	28	e15	49	121	42	5.4	4.2	2.4	1.4	1.4
13	2.0	2.5	26	e15	64	116	41	4.9	3.7	2.2	1.3	1.5
14	2.1	2.5	23	e15	113	113	40	9.8	4.3	1.9	1.2	1.5
15	2.1	2.5	22	e15	208	101	41	21	4.6	1.7	1.1	1.5
16	2.1	2.5	e21	15	198	97	38	21	5.2	1.6	1.1	1.5
17	2.1	3.4	e21	16	168	95	33	19	4.6	1.9	1.1	1.6
18	2.3	6.3	22	e17	187	89	30	17	6.4	2.7	1.0	2.1
19	2.3	5.2	e21	18	155	86	29	16	6.3	2.6	1.0	1.9
20	2.3	e4.4	e21	20	126	86	26	14	4.7	2.3	1.0	1.8
21	2.3	e3.7	e20	20	104	112	23	16	3.9	2.0	1.0	1.7
22	2.3	e3.5	19	22	89	123	21	19	3.3	1.8	1.0	1.9
23	2.2	e3.8	18	26	75	117	20	16	3.1	1.7	1.0	2.2
24	2.2	e3.8	e17	34	67	112	18	15	3.2	1.6	1.1	2.0
25	2.3	e3.6	e16	35	61	105	17	14	2.9	1.6	1.1	1.8
26	2.8	e3.4	e15	e32	59	95	14	12	2.6	1.4	1.1	1.7
27	2.7	e3.2	e15	32	69	90	13	11	2.3	1.4	1.1	1.7
28	2.5	e3.1	e14	32	90	83	13	10	2.2	1.5	1.1	1.7
29	4.0	e3.1	14	40	94	78	12	9.5	2.0	1.2	1.1	1.6
30	3.6	e3.1	13	44	---	71	11	8.7	1.9	1.3	1.1	1.6
31	3.4	---	13	46	---	66	---	7.7	---	1.2	1.2	---
Total	73.1	102	585	657	2321	3305	1162	358	126.9	59.1	38.1	48.2
Mean	2.36	3.40	18.9	21.2	80.0	107	38.7	11.5	4.23	1.90	1.22	1.61
Max	4.0	6.3	42	46	208	175	76	21	6.9	3.5	2.1	2.2
Min	1.9	2.4	3.3	13	24	66	11	4.9	1.9	1.2	1.0	1.2
AC-FT	145	202	1160	1300	4600	6560	2300	710	252	117	76	96
CAL YEAR	2015	TOTAL	7482	MEAN	20.5	MAX	140.0	MIN	0.73	AC-FT	14840	
WTR YEAR	2016	TOTAL	8835	MEAN	24.1	MAX	208.0	MIN	1.0	AC-FT	17530	
Legend:	'e' Estimated				Created on		11/29/17 10:35			by nuddce		

13318210 MEADOW CR BL DARK CANYON NR STARKEY
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCT 2015 TO SEP 2016
Daily Mean Values

Day	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16
1	3.2	8.3	e5.9	e30	148	376	282	34	13	3.3	1.8	2.2
2	3.3	7.6	e5.9	e29	124	416	276	29	12	3.3	1.7	2.3
3	3.4	6.6	e5.9	e29	112	435	278	25	12	3.2	1.8	2.3
4	3.5	6.4	e5.9	e29	121	476	288	22	11	3.0	1.9	2.5
5	3.5	6.3	e6.1	e29	114	480	274	23	9.3	3.0	1.8	2.6
6	3.5	6.7	e8.0	e28	108	600	246	29	8.4	3.0	1.7	3.0
7	3.7	6.3	e15	e28	108	558	228	24	7.7	3.1	1.7	3.4
8	4.5	6.1	e57	e29	116	464	215	19	7.3	3.6	1.8	3.4
9	4.3	7.3	77	e29	133	400	203	17	7.4	6.8	2.8	3.2
10	4.0	7.7	89	e28	151	419	188	17	8.1	7.9	3.4	3.1
11	3.8	6.9	80	e29	168	472	170	15	8.9	6.6	3.4	2.9
12	3.7	6.5	71	e29	215	465	158	14	8.1	5.6	3.0	2.9
13	3.6	6.2	67	e29	300	448	156	13	7.2	4.9	2.6	3.0
14	3.7	6.0	60	e28	e590	445	150	15	7.9	4.2	2.4	3.2
15	3.8	6.1	55	30	1470	422	156	39	9.3	3.7	2.2	3.2
16	3.8	6.1	50	29	990	441	145	40	11	3.4	2.0	3.2
17	3.8	7.2	e45	e31	769	434	129	42	9.7	3.5	1.9	3.4
18	4.1	9.6	e48	36	863	397	117	35	12	4.4	1.8	4.7
19	4.3	11	e47	42	746	373	105	33	12	5.0	1.8	4.6
20	4.3	8.4	e45	54	578	360	94	30	9.8	4.5	1.8	4.2
21	4.2	e7.0	e45	66	471	434	84	33	8.0	3.8	1.8	4.1
22	4.1	e6.5	e45	77	399	489	78	42	7.0	3.2	1.7	4.7
23	4.2	e7.3	e43	107	346	464	74	34	6.3	3.1	1.8	5.7
24	4.2	e7.5	e42	152	312	440	68	30	6.4	2.9	1.9	5.1
25	4.4	e6.6	e37	141	285	415	62	27	6.1	2.7	2.0	4.6
26	5.3	e6.3	e35	129	271	389	54	24	5.4	2.5	2.0	4.3
27	4.9	e6.0	e37	111	303	378	48	21	4.7	2.3	1.9	4.1
28	5.1	e5.8	e36	123	363	362	45	19	4.3	2.1	1.9	4.1
29	6.3	e5.7	e35	184	368	341	40	17	3.9	2.0	2.0	4.1
30	6.8	e5.6	e33	183	---	318	38	16	3.6	1.9	2.0	4.0
31	7.0	---	e31	168	---	297	---	14	---	1.8	2.1	---
Total	132.3	207.6	1262.7	2066	11042	13208	4449	792	247.8	114.3	64.4	108.1
Mean	4.27	6.91	40.7	66.6	381	426	148	25.5	8.25	3.69	2.08	3.59
Max	7.0	11	89	184	1470	600	288	42	13	7.9	3.4	5.7
Min	3.2	5.6	5.9	28	108	297	38	13	3.6	1.8	1.7	2.2
AC-FT	262	412	2500	4100	21900	26200	8820	1570	492	227	128	214
CAL YEAR	2015	TOTAL	23582	MEAN	64.6	MAX	468.0	MIN	2.1	AC-FT	46780	
WTR YEAR	2016	TOTAL	33694	MEAN	92.1	MAX	1470.0	MIN	1.7	AC-FT	66830	
Legend:	'e' Estimated											
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13318920 FIVE POINTS CR AT HILGARD
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCT 2015 TO SEP 2016
Daily Mean Values

Day	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16
1	0.83	2.9	2.2	e17	42	235	131	45	15	2.3	0.32	0.19
2	0.82	2.3	2.2	e16	39	251	152	45	14	2.2	0.30	0.21
3	0.89	1.9	2.1	e17	36	253	189	46	13	2.1	0.30	0.22
4	0.90	1.9	2.6	e17	35	266	214	47	12	1.9	0.28	0.24
5	0.92	2.2	2.7	e17	34	300	189	49	11	1.9	0.24	0.28
6	0.93	2.9	2.6	16	34	443	165	81	9.8	1.7	0.21	0.39
7	0.94	2.4	26	16	34	371	173	69	9.0	1.7	0.18	0.43
8	0.91	2.1	112	16	36	278	211	61	8.4	1.9	0.23	0.57
9	1.0	2.3	110	16	43	224	246	53	7.9	3.3	0.40	e0.75
10	1.0	2.4	91	16	63	273	249	45	8.3	4.1	0.78	e0.60
11	1.0	2.2	61	e16	80	309	224	40	8.3	4.0	0.83	e0.60
12	0.98	2.2	46	e16	120	296	204	37	7.2	3.2	0.68	e0.60
13	1.0	2.3	41	16	168	264	180	35	6.6	2.6	0.57	e0.60
14	0.98	2.3	35	16	323	240	161	36	7.3	2.1	0.47	e0.70
15	0.96	2.2	31	16	581	205	138	38	7.7	1.9	0.39	e0.70
16	0.97	2.1	29	16	488	179	119	38	7.8	1.7	0.34	e0.70
17	0.96	3.3	26	15	438	167	108	34	7.0	1.7	0.29	e0.70
18	1.0	6.4	28	16	580	153	110	32	7.9	1.7	0.27	e1.0
19	1.1	6.8	28	17	440	140	119	31	7.8	1.8	0.23	e1.0
20	1.2	5.1	26	19	315	135	126	30	6.2	1.7	0.22	e0.90
21	1.1	3.9	26	21	233	205	132	30	5.5	1.4	0.20	e0.90
22	1.1	3.1	26	24	179	275	138	30	5.0	1.2	0.20	e1.0
23	0.98	3.0	25	28	145	265	133	27	4.6	1.1	0.22	e1.2
24	0.97	3.0	24	40	123	259	110	25	4.7	1.0	0.21	e1.1
25	1.0	3.2	21	42	111	245	90	23	4.4	0.87	0.20	e1.0
26	1.1	e3.0	e20	39	112	215	75	22	3.8	0.75	0.18	e0.90
27	1.3	e2.8	21	37	168	193	65	20	3.4	0.64	0.18	e0.90
28	1.3	e2.6	21	39	277	171	57	19	3.1	0.55	0.17	e0.90
29	1.5	e2.5	20	48	242	149	52	18	2.7	0.48	0.17	e0.90
30	1.8	e2.3	19	50	---	132	47	17	2.5	0.41	0.17	e0.80
31	2.5	---	e18	46	---	126	---	16	---	0.36	0.18	---
Total	33.94	87.6	945.4	741	5519	7217	4307	1139	221.9	54.26	9.61	20.98
Mean	1.10	2.92	30.4	23.8	190	233	144	36.7	7.36	1.75	0.31	0.70
Max	2.5	6.8	112	50	581	443	249	81	15	4.1	0.83	1.2
Min	0.82	1.9	2.1	15	34	126	47	16	2.5	0.36	0.17	0.19
AC-FT	67	174	1880	1470	10950	14310	8540	2260	440	108	19	42
CAL YEAR	2015	TOTAL	14581	MEAN	39.9	MAX	455.0	MIN	0.18	AC-FT	28920	
WTR YEAR	2016	TOTAL	20297	MEAN	55.5	MAX	581.0	MIN	0.17	AC-FT	40260	
Legend:	'e' Estimated				Created on		11/29/17 10:38			by nuddce		

13318960 GRANDE RONDE R NR PERRY
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCT 2015 TO SEP 2016
Daily Mean Values

Day	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16
1	18	45	33	e86	292	771	592	358	128	39	17	12
2	18	46	e34	e81	246	856	607	353	125	37	17	12
3	18	41	34	e80	226	869	676	358	124	36	16	12
4	18	37	47	e82	234	953	777	377	115	34	16	12
5	19	35	69	e86	231	984	778	401	106	32	16	12
6	19	37	76	e100	226	1350	706	528	99	32	15	14
7	18	35	179	144	229	1320	697	488	93	31	15	16
8	21	33	268	119	239	1040	772	461	88	32	15	17
9	25	35	290	102	271	867	883	422	85	47	19	16
10	24	38	283	e98	327	917	958	361	85	57	24	14
11	22	37	234	e96	378	1040	944	316	104	65	25	13
12	21	33	194	e96	503	1020	923	288	94	57	22	13
13	20	33	177	e97	727	979	930	268	80	46	19	13
14	20	32	161	92	2020	982	862	268	80	44	17	13
15	20	33	142	93	3430	913	783	313	92	38	16	14
16	20	35	135	92	2480	913	691	323	111	35	15	14
17	20	41	103	90	1870	921	621	301	112	34	14	15
18	21	47	124	97	2260	817	608	265	113	36	13	18
19	21	56	180	105	1900	759	650	263	125	38	13	21
20	23	52	149	118	1410	715	712	248	100	39	13	22
21	23	35	154	133	1080	928	780	254	84	36	12	19
22	24	e35	167	148	865	1160	828	275	74	31	12	18
23	23	e35	155	184	693	1110	822	253	68	29	12	21
24	23	e35	143	271	599	1050	739	227	67	27	12	22
25	23	e33	97	275	525	989	650	211	66	25	13	22
26	25	e34	e88	229	490	905	552	197	60	24	13	20
27	27	e33	e89	227	558	874	491	183	54	22	12	18
28	28	e33	e89	230	777	822	447	169	49	21	12	17
29	30	e31	e90	329	765	741	416	158	45	20	11	17
30	37	e32	e91	358	---	669	385	147	42	19	12	16
31	42	---	e89	313	---	619	---	137	---	18	12	---
Total	711	1117	4164	4651	25851	28853	21280	9171	2668	1081	470	483
Mean	22.8	37.2	134	150	891	931	709	296	88.9	34.8	15.2	16.2
Max	42	56	290	358	3430	1350	958	528	128	65	25	22
Min	18	31	33	80	226	619	385	137	42	18	11	12
AC-FT	1410	2220	8260	9230	51280	57230	42210	18190	5290	2140	932	958
CAL YEAR	2015	TOTAL	82669	MEAN	226	MAX	1558.0	MIN	13	AC-FT	164000	
WTR YEAR	2016	TOTAL	100500	MEAN	275	MAX	3430.0	MIN	11	AC-FT	199300	
Legend:	'e' Estimated				Created on		11/29/17 10:45			by nudce		

13319900 N FK CATHERINE CR NR MEDICAL SPRINGS
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCT 2015 TO SEP 2016
Daily Mean Values

Day	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16
1	12	19	e16	e15	e14	40	48	131	149	52	28	17
2	11	15	e17	e15	14	37	61	133	151	50	28	17
3	12	14	e18	e15	e14	36	77	157	142	49	27	17
4	12	13	e18	e16	13	35	85	190	163	47	27	22
5	12	13	e18	e17	13	39	76	231	194	46	27	20
6	11	14	e17	e15	13	70	73	289	202	45	26	18
7	12	13	19	14	13	70	82	332	208	43	26	18
8	13	13	37	15	14	59	107	317	192	43	26	17
9	12	15	48	14	16	51	142	261	164	45	27	17
10	12	14	39	e14	19	48	166	229	137	47	26	16
11	12	14	31	e14	20	51	198	199	119	44	25	16
12	12	13	27	e14	21	65	206	199	106	43	24	15
13	11	14	24	14	21	67	186	218	97	41	24	15
14	11	14	22	14	29	64	150	231	93	39	23	15
15	11	14	20	14	58	59	126	235	88	37	23	15
16	11	13	20	14	54	54	110	216	85	36	22	14
17	11	15	e20	14	49	48	111	215	77	36	22	15
18	13	16	e20	14	58	44	126	214	75	35	21	20
19	12	15	e21	14	54	41	147	238	71	34	21	16
20	12	15	e21	14	45	41	199	201	69	34	20	15
21	12	e13	19	14	39	48	259	189	68	33	20	15
22	11	e12	17	14	34	53	294	172	67	32	20	14
23	11	e13	17	14	30	52	314	141	66	32	19	14
24	11	e14	17	15	27	51	253	129	65	31	19	14
25	11	14	e17	14	25	49	203	122	61	31	19	13
26	13	e14	e17	14	26	46	174	122	58	30	18	13
27	12	e13	e18	14	36	45	159	120	57	30	18	13
28	12	e13	e19	14	42	42	145	117	57	29	18	13
29	19	e13	e18	15	41	40	139	122	55	29	17	13
30	18	e14	e17	14	---	39	132	124	54	28	17	13
31	28	---	e15	14	---	41	---	133	---	28	17	---
Total	393	419	664	446	852	1525	4548	5927	3190	1179	695	470
Mean	12.6	14.1	21.4	14.3	29.4	49.1	152	191	106	38.1	22.5	15.7
Max	28	19	48	17	58	70	314	332	208	52	28	22
Min	11	12	15	14	13	35	48	117	54	28	17	13
AC-FT	780	831	1320	885	1690	3020	9020	11760	6330	2340	1380	932
CAL YEAR	2015	TOTAL	15620	MEAN	42.8	MAX	170.0	MIN	11	AC-FT	30980	
WTR YEAR	2016	TOTAL	20308	MEAN	55.5	MAX	332.0	MIN	11	AC-FT	40280	
Legend:	e' Estimated				Created on		11/29/17 10:47			by nuddce		

13320300 CATHERINE CR AT UNION
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCT 2015 TO SEP 2016
Daily Mean Values

Day	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16
1	e5.9	26	e23	e29	30	97	123	222	158	23	6.2	2.5
2	e6.0	19	e23	e30	29	92	155	228	164	19	6.1	2.8
3	e6.5	19	e24	e30	e28	87	208	252	156	18	6.0	2.6
4	e6.7	17	e25	e32	e27	83	252	290	169	16	6.2	2.6
5	e6.4	15	e27	35	27	92	235	326	194	14	5.9	9.2
6	6.6	19	e32	35	27	178	219	387	210	14	5.7	4.9
7	7.4	17	e45	35	29	198	231	441	209	11	5.6	6.0
8	10	16	58	33	29	164	281	427	205	8.9	5.5	5.1
9	8.6	22	72	33	31	142	348	380	182	12	6.4	5.7
10	8.2	20	70	e33	35	139	422	307	155	16	5.7	5.9
11	8.4	17	55	e32	39	152	437	253	133	14	5.0	5.5
12	9.7	16	48	e32	43	218	435	245	109	11	4.6	5.6
13	10	15	48	e30	47	231	418	251	91	10	4.2	5.9
14	10	16	43	e28	69	242	374	271	89	7.5	4.2	6.4
15	9.9	19	37	e26	161	213	322	295	82	7.1	4.8	6.2
16	9.1	20	34	26	162	189	279	268	88	7.1	4.4	6.2
17	8.6	18	31	26	146	164	274	253	74	6.4	4.6	6.1
18	11	30	e31	28	173	140	295	247	71	5.2	3.8	13
19	11	29	e31	29	160	130	326	275	65	10	2.8	9.4
20	12	26	e31	36	131	122	366	251	58	12	3.7	7.1
21	9.5	e23	e32	35	106	148	426	232	56	13	4.8	7.3
22	7.6	e23	32	34	90	170	487	222	53	12	3.7	7.7
23	7.5	e26	30	38	74	164	438	201	51	11	4.6	8.2
24	6.1	e29	30	44	69	162	388	182	51	8.7	4.7	7.2
25	5.4	27	31	43	63	155	329	163	47	6.1	4.6	6.9
26	7.1	e28	e30	35	63	141	287	155	42	6.3	3.4	6.4
27	7.5	e26	e30	33	78	135	260	153	38	8.2	3.1	9.2
28	6.7	e25	e29	35	99	123	238	149	35	7.6	2.9	12
29	16	e24	e30	36	101	112	242	148	31	7.3	2.6	13
30	17	e24	e30	34	---	105	225	153	27	6.7	2.3	12
31	35	---	e29	32	---	107	---	152	---	6.5	2.4	---
Total	297.4	651	1121	1017	2166	4595	9320	7779	3093	335.6	140.5	208.6
Mean	9.60	21.7	36.2	32.8	74.7	148	311	251	103	10.8	4.53	6.97
Max	35	30	72	44	173	242	487	441	210	23	6.4	13
Min	5.4	15	23	26	27	83	123	148	27	5.2	2.3	2.5
AC-FT	590	1290	2220	2020	4300	9110	18490	15430	6130	666	279	414
CAL YEAR	2015	TOTAL	21540	MEAN	59.0	MAX	303.0	MIN	2.7	AC-FT	42720	
WTR YEAR	2016	TOTAL	30724	MEAN	83.9	MAX	487.0	MIN	2.3	AC-FT	60940	
Legend:	'e' Estimated				Created on		11/29/17 10:49			by nuddce		

13329765 WALLOWA R NR ENTERPRISE
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCT 2015 TO SEP 2016
Daily Mean Values

Day	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16
1	133	199	116	e123	121	165	164	299	306	328	111	143
2	137	179	120	e124	121	167	167	295	325	276	110	144
3	146	176	130	e128	116	166	170	310	335	221	109	144
4	150	173	145	130	119	163	172	329	366	210	109	149
5	145	172	141	134	119	163	171	365	436	168	111	165
6	145	173	151	141	120	195	175	416	508	135	102	160
7	149	172	197	138	119	200	187	438	543	132	102	151
8	152	170	241	139	118	183	194	482	598	131	117	144
9	148	189	213	138	118	176	219	465	585	153	139	142
10	146	187	188	130	119	184	235	421	547	222	140	139
11	145	e172	167	125	121	188	238	404	561	256	130	141
12	147	e166	163	129	131	207	252	388	528	187	122	146
13	147	e161	163	133	137	207	254	391	531	171	121	151
14	146	e159	157	132	139	217	253	416	575	146	122	159
15	147	e154	156	132	220	212	250	503	530	146	117	160
16	148	e150	155	132	221	204	245	469	443	153	117	150
17	150	e148	147	133	213	197	240	444	383	150	117	153
18	155	e150	155	136	222	186	242	461	355	145	123	171
19	163	e148	157	135	216	180	246	540	346	137	122	167
20	163	e143	151	135	197	177	259	500	303	141	125	179
21	164	e130	154	133	184	191	293	462	276	130	128	183
22	161	e124	150	138	176	198	342	427	247	122	125	189
23	158	e124	149	140	172	189	354	413	258	120	115	176
24	159	127	145	142	167	189	340	407	276	119	122	164
25	160	131	139	135	164	191	315	390	210	121	123	158
26	162	118	137	129	163	185	289	346	191	113	123	158
27	162	113	132	133	165	185	286	335	220	119	123	157
28	164	113	133	138	167	187	316	328	252	119	126	155
29	167	114	137	141	165	180	328	338	282	109	138	155
30	168	115	139	134	---	172	337	328	319	113	138	161
31	185	---	126	124	---	166	---	310	---	109	136	---
Total	4772	4550	4754	4134	4530	5770	7533	12420	11635	4902	3763	4714
Mean	154	152	153	133	156	186	251	401	388	158	121	157
Max	185	199	241	142	222	217	354	540	598	328	140	189
Min	133	113	116	123	116	163	164	295	191	109	102	139
AC-FT	9470	9020	9430	8200	8990	11440	14940	24640	23080	9720	7460	9350
CAL YEAR	2015	TOTAL	73627	MEAN	202	MAX	803.0	MIN	100	AC-FT	146000	
WTR YEAR	2016	TOTAL	73477	MEAN	201	MAX	598.0	MIN	102	AC-FT	145700	
Legend:	'e' Estimated				Created on		11/29/17 10:55			by nuddce		

13330000 LOSTINE R NR LOSTINE
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCT 2015 TO SEP 2016
Daily Mean Values

Day	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16
1	22	90	21	e30	38	77	82	221	642	583	90	42
2	22	57	22	30	e37	77	96	254	741	501	84	43
3	22	46	25	30	e36	74	125	322	817	453	80	43
4	22	40	28	29	e37	71	153	422	964	416	76	43
5	22	37	28	26	37	82	146	569	1150	349	73	52
6	21	38	31	e25	36	164	142	815	1310	308	70	46
7	22	37	72	e26	35	163	159	955	1330	285	70	46
8	25	39	153	e27	35	139	216	1080	1400	289	68	42
9	23	44	137	e28	37	127	298	934	1220	321	75	40
10	22	40	105	e25	40	135	359	656	937	332	68	38
11	23	36	82	e24	43	143	375	543	782	279	64	37
12	23	35	72	e29	51	169	378	546	663	233	61	36
13	22	36	67	37	57	154	359	632	619	218	58	35
14	21	37	60	37	60	145	315	737	581	209	56	35
15	21	35	56	37	107	130	269	852	475	206	55	34
16	20	32	51	37	107	117	235	690	418	195	53	33
17	20	35	45	38	104	107	223	666	363	180	52	32
18	21	45	61	38	124	99	243	757	364	167	51	64
19	23	38	59	36	110	94	291	936	357	174	50	47
20	25	36	49	36	95	95	349	734	406	169	49	39
21	23	25	54	36	84	110	425	580	485	161	48	36
22	22	30	50	37	76	110	561	488	518	158	54	36
23	22	31	49	36	69	104	562	419	557	148	54	36
24	22	33	48	36	66	103	430	381	541	134	53	34
25	22	33	42	34	62	100	357	373	459	127	51	33
26	22	22	38	34	61	94	302	391	467	125	50	32
27	22	21	37	35	78	92	280	414	525	122	48	32
28	22	22	39	41	80	86	258	414	603	115	46	31
29	24	22	40	47	78	82	246	460	648	109	45	30
30	27	20	38	43	---	79	227	530	633	104	43	30
31	88	---	e34	41	---	79	---	567	---	98	43	---
Total	758	1092	1693	1045	1880	3401	8461	18338	20975	7268	1838	1157
Mean	24.4	36.5	54.6	33.7	64.8	110	282	592	699	234	59.4	38.6
Max	88	90	153	47	124	169	562	1080	1400	583	90	64
Min	20	20	21	24	35	71	82	221	357	98	43	30
AC-FT	1500	2170	3360	2070	3730	6750	16780	36370	41600	14420	3650	2290
CAL YEAR	2015	TOTAL	54937	MEAN	151	MAX	989.0	MIN	20	AC-FT	109000	
WTR YEAR	2016	TOTAL	67906	MEAN	186	MAX	1400.0	MIN	20	AC-FT	134700	
Legend:	'e' Estimated				Created on		11/29/17 10:53			by nuddce		

13330300 LOSTINE R AT BAKER RD NR LOSTINE
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCT 2015 TO SEP 2016
Daily Mean Values

Day	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16
1	36	90	23	e37	42	88	87	204	e460	e440	e41	e30
2	26	67	25	e38	e41	90	95	159	e510	e360	e47	e31
3	26	55	30	e40	e41	88	114	160	e630	e293	e46	e34
4	28	49	42	e40	43	83	135	234	751	e277	e45	37
5	34	46	43	e38	41	89	133	346	e920	e225	e42	41
6	36	47	46	36	40	138	130	e575	e1100	e188	e39	41
7	36	46	75	35	40	150	137	695	e1060	e149	e38	40
8	37	44	142	39	41	134	179	856	e1090	e146	e41	38
9	34	54	134	41	43	124	251	770	e1020	e168	e47	37
10	31	51	113	35	45	129	310	e500	e802	e183	e42	25
11	32	45	93	33	46	131	328	e370	e678	e168	e39	e24
12	31	44	82	36	53	146	362	344	518	e157	e42	29
13	30	43	79	38	59	140	349	e365	468	e149	e39	32
14	29	46	74	37	64	139	310	e425	444	e148	e32	29
15	27	43	69	39	107	129	270	598	358	e141	e27	26
16	24	41	66	43	115	119	239	473	307	e135	e17	26
17	24	42	58	43	110	110	225	454	265	e117	e18	24
18	25	55	70	44	125	103	241	531	276	e106	e23	45
19	27	51	67	43	118	99	277	738	277	e87	e22	52
20	30	50	58	43	106	97	345	586	302	e92	e14	52
21	29	39	62	42	96	109	434	440	378	e79	e14	53
22	27	e40	60	43	90	111	576	368	378	e77	e15	62
23	26	43	56	43	84	107	605	343	e436	e65	e22	62
24	26	47	53	43	82	106	456	305	426	e52	e22	57
25	27	49	49	40	78	105	368	283	329	e52	e22	53
26	27	38	43	e39	75	101	299	316	329	e50	e22	46
27	25	32	43	e40	85	101	274	352	e390	e42	e23	46
28	21	30	44	43	91	97	256	340	e453	e39	e22	43
29	22	29	47	51	90	93	246	364	e500	e33	e23	48
30	23	25	42	47	---	90	227	e380	e490	e34	e25	56
31	66	---	e40	45	---	88	---	e420	---	e34	e27	---
Total	922	1381	1928	1254	2091	3434	8258	13294	16345	4286	938	1219
Mean	29.8	46.1	62.3	40.4	72.2	111	275	429	545	138	30.3	40.6
Max	66	90	142	51	125	150	605	856	1100	440	47	62
Min	21	25	23	33	40	83	87	159	265	33	14	24
AC-FT	1830	2740	3820	2490	4150	6810	16380	26370	32420	8500	1860	2420
CAL YEAR	2015	TOTAL	48324	MEAN	132	MAX	1030.0	MIN	6.5	AC-FT	95850	
WTR YEAR	2016	TOTAL	55350	MEAN	151	MAX	1100.0	MIN	14	AC-FT	109800	
Legend:	'e' Estimated				Created on		11/29/17 10:54			by nuddce		

13330500 BEAR CR NR WALLOWA
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCT 2015 TO SEP 2016
Daily Mean Values

Day	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16
1	6.5	16	e14	e32	50	122	97	234	310	143	22	8.9
2	6.5	13	e15	e32	46	107	121	254	329	120	19	9.1
3	6.6	13	e23	e32	43	102	175	300	351	104	17	9.2
4	6.9	12	e26	e31	42	96	212	404	445	95	16	9.8
5	6.8	13	e26	e30	39	102	199	609	587	83	15	12
6	6.8	14	e50	e29	38	183	183	945	650	75	14	11
7	7.1	13	142	e30	36	214	194	988	634	69	15	11
8	7.7	13	e180	e31	35	195	251	941	639	66	15	9.8
9	6.6	17	169	e30	37	161	332	765	446	72	18	9.2
10	6.4	14	134	e28	44	162	417	424	313	83	15	9.2
11	6.7	13	96	e26	52	176	414	306	265	78	14	8.9
12	6.6	13	79	e27	62	174	446	308	227	67	13	8.7
13	6.4	14	68	e26	74	171	387	361	211	61	13	8.4
14	6.4	16	58	e26	88	174	320	470	203	55	15	8.2
15	6.4	16	51	e26	184	154	275	595	176	51	15	7.9
16	6.4	15	46	e25	225	138	237	435	168	48	12	7.7
17	6.4	17	44	e24	238	116	220	389	150	46	12	8.3
18	6.6	23	50	e24	234	104	239	463	156	44	13	14
19	7.2	19	42	24	216	93	282	690	151	42	11	10
20	7.4	17	42	25	187	99	335	426	155	40	11	9.1
21	6.7	e16	41	26	147	130	471	306	175	38	11	9.4
22	6.7	e17	38	28	126	157	768	270	177	36	11	10
23	6.7	e18	37	29	108	158	833	237	184	34	11	11
24	6.6	e18	35	31	90	149	542	217	178	32	11	9.4
25	6.7	e16	e33	32	78	146	353	207	151	31	11	8.8
26	7.3	15	e32	32	78	131	284	215	149	29	10	8.9
27	7.4	e15	e32	32	97	118	261	229	161	28	10	8.4
28	7.2	e17	e32	37	112	110	252	222	174	26	10	8.1
29	10	e16	e33	48	124	107	254	240	171	25	9.3	7.8
30	9.8	e14	e32	52	---	98	244	265	161	24	9.2	7.8
31	14	---	e32	52	---	94	---	280	---	24	8.9	---
Total	223.5	463	1732	957	2930	4241	9598	12995	8247	1769	407.4	280
Mean	7.21	15.4	55.9	30.8	101	137	320	419	275	57.1	13.2	9.36
Max	14	23	180	52	238	214	833	988	650	143	22	14
Min	6.4	12	14	24	35	93	97	207	149	24	8.9	7.7
AC-FT	443	918	3440	1900	5810	8410	19040	25780	16360	3510	808	555
CAL YEAR	2015	TOTAL	33260	MEAN	91.1	MAX	788.0	MIN	6.4	AC-FT	65970	
WTR YEAR	2016	TOTAL	43843	MEAN	120	MAX	988.0	MIN	6.4	AC-FT	86960	
Legend:	'e' Estimated				Created on		11/29/17 10:51			by nudce		

13331450 WALLOWA R BL WATER CAN NR WALLOWA
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCT 2015 TO SEP 2016
Daily Mean Values

Day	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16
1	206	325	213	209	315	547	490	684	1010	799	147	179
2	228	294	219	e211	307	578	507	642	1110	692	149	185
3	238	277	232	e223	290	553	550	668	1170	593	152	189
4	243	268	252	e238	300	537	607	795	1390	581	144	189
5	242	263	252	250	295	538	589	983	1710	508	152	207
6	237	271	259	250	298	691	559	1440	2030	446	138	212
7	238	263	366	250	297	719	563	1640	2070	397	136	226
8	253	259	538	248	294	649	638	1970	2140	379	151	218
9	248	288	532	245	297	605	779	1830	2000	418	189	215
10	240	286	487	229	307	654	896	1280	1570	520	188	192
11	237	273	423	213	323	652	911	1040	1380	549	185	171
12	232	265	385	232	368	687	974	981	1180	458	186	177
13	235	262	382	251	423	682	955	1050	1110	418	180	191
14	234	267	364	247	509	730	885	1210	1130	379	164	197
15	232	262	343	241	1050	693	806	1430	1010	358	162	201
16	230	256	332	243	940	651	725	1310	928	341	150	190
17	230	260	307	247	832	617	685	1240	807	335	147	196
18	237	284	331	255	881	576	702	1340	775	310	150	232
19	242	276	333	255	870	548	779	1820	752	279	138	247
20	244	269	309	264	731	537	883	1490	735	295	137	254
21	242	243	318	265	640	596	1040	1270	812	275	143	263
22	240	244	317	272	581	642	1320	1110	819	254	129	272
23	235	251	303	279	534	619	1400	1030	856	240	138	281
24	234	261	294	294	506	621	1150	940	867	235	148	266
25	236	263	280	292	480	606	957	894	719	200	148	254
26	236	237	267	280	467	580	840	882	676	192	154	238
27	236	219	250	282	553	583	785	909	720	177	158	234
28	233	216	263	296	581	563	762	849	811	148	149	226
29	241	217	266	339	558	538	770	872	852	138	162	233
30	242	218	264	337	---	516	744	921	836	137	158	242
31	284	---	233	326	---	499	---	953	---	137	169	---
Total	7385	7837	9914	8063	14827	18807	24251	35473	33975	11188	4801	6577
Mean	238	261	320	260	511	607	808	1144	1132	361	155	219
Max	284	325	538	339	1050	730	1400	1970	2140	799	189	281
Min	206	216	213	209	290	499	490	642	676	137	129	171
AC-FT	14650	15540	19660	15990	29410	37300	48100	70360	67390	22190	9520	13050
CAL YEAR	2015	TOTAL	175040	MEAN	480	MAX	2482.0	MIN	80	AC-FT	347200	
WTR YEAR	2016	TOTAL	183098	MEAN	500	MAX	2140.0	MIN	129	AC-FT	363200	
Legend:	'e' Estimated				Created on		11/29/17 10:56			by nuddce		