Water-Data Report 2007

14209000 OAK GROVE FORK ABOVE POWERPLANT INTAKE, OR

Willamette Basin
Clackamas Subbasin

LOCATION.--Lat 45°04′17″, long 121°56′22″ referenced to North American Datum of 1927, in SW ¼ SE ¼ sec.3, T.6 S., R.7 E., Clackamas County, OR, Hydrologic Unit 17090011, Mount Hood National Forest, on left bank, 0.8 mi upstream from Spring Creek, 1.3 mi upstream from Kink Creek, 1.7 mi upstream from Portland General Electric Co. diversion dam, 24 mi southeast of Estacada and at mile 6.7.

DRAINAGE AREA.--124 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--May 1909 to current year. Monthly discharge only for some periods, published in WSP 1318. Published as both Oak Grove Fork of Clackamas River at proposed intake, near Cazadero and Oak Grove Fork of Clackamas River at intake, near Cazadero, May 1909 to September 1910; as Oak Grove Fork of Clackamas River at intake, near Cazadero, October 1910 to September 1921; as Oak Grove Fork at Portland General Electric Power Co. intake, October 1921 to September 1929.

REVISED RECORDS.--WSP 1248:1909, 1910(M), 1916, 1918, 1923, 1932. WSP 1935: 1914, 1921.

GAGE.--Water-stage recorder. Elevation of gage is 2,100 ft above NGVD of 1929, from topographic map. May 21, 1909 to Nov. 17, 1911, nonrecording gage and Mar. 26, 1912 to Sept. 30, 1923, water-stage recorder, at various sites 0.7 mi downstream, below Kink Creek, at different datum. December 1923 to September 1996, at site 0.6 mi downstream at different datum.

REMARKS.--No estimated daily discharges. Records poor. Flow regulated since 1956 by Timothy Lake (station 14208600). Low flows are affected at times by diversion to Stone Creek Hydroelectric Project. Unit value discharges may not be representative of instantaneous flow conditions, however, daily discharge values are representative of the average daily flow rate.

AVERAGE DISCHARGE FOR PERIOD OF RECORD.--47 years (water years 1910-56), 511 ft^3/s, 369,900 acre-ft/yr. 51 years (water years 1957-2007), 475 ft^3/s, 343,900 acre-ft/yr, regulated period.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,000 ft^3/s Jan. 7, 1923, gage height, 5.45 ft, site and datum then in use, from rating curve extended above 2,300 ft^3/s on basis of peak discharge for other stations in Clackamas River basin; minimum discharge, 128 ft^3/s Aug. 16, 2004.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,660 ft^3/s Nov. 7, gage height, 7.36 ft; minimum discharge, 159 ft^3/s Aug. 27.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	352	359	589	616	627	621	635	553	344	296	260	284
2	373	381	611	645	627	625	626	570	340	293	260	284
3	387	465	613	1,310	628	634	624	553	336	299	320	284
4	386	448	604	1,060	629	636	624	543	335	299	362	343
5	385	573	598	842	627	640	630	530	341	299	348	360
6	379	546	594	749	632	648	642	489	349	297	348	364
7	353	1,320	590	703	634	662	662	494	343	292	348	366
8	353	756	587	741	637	665	660	491	335	287	348	366
9	351	643	598	688	640	655	678	491	335	281	347	364
10	351	601	600	655	626	656	646	485	345	414	346	352
11	351	594	633	619	625	696	644	477	343	473	336	355
12	359	568	641	614	551	768	639	457	338	261	315	365
13	365	651	824	617	491	722	636	436	332	232	319	352
14	366	625	1,140	613	497	657	647	424	321	231	319	241
15	382	664	1,220	612	694	636	639	423	311	230	319	242
16	398	766	900	614	1,030	614	641	421	301	230	318	245
17	366	645	728	618	898	632	641	416	299	230	318	246
18	369	617	629	626	764	626	637	410	296	239	318	256
19	408	614	612	625	675	614	639	434	294	234	304	349
20	382	628	614	625	673	670	634	509	292	230	261	302
21	368	621	612	626	628	629	623	425	295	230	275	349
22	367	624	616	625	624	630	539	402	303	228	301	354
23	365	627	628	630	625	630	493	383	302	228	304	353
24	368	629	613	631	621	639	489	373	302	227	320	352
25	371	480	641	630	620	806	490	368	303	226	308	352
26	364	610	701	630	622	735	525	364	299	231	306	351
27	363	604	698	627	622	684	550	361	296	235	276	352
28	362	586	622	622	623	641	559	357	297	234	275	347
29	365	559	605	622	---	636	561	350	300	236	291	359
30	362	587	605	626	---	632	556	347	298	252	285	375
31	360	---	614	627	---	636	---	344	---	261	284	---
Total	11,431	18,391	20,880	21,088	18,190	20,375	18,209	13,680	9,525	8,235	9,639	9,864
Mean	369	613	674	680	650	657	607	441	318	266	311	329
Max	408	1,320	1,220	1,310	1,030	806	678	570	349	473	362	375
Min	351	359	587	612	491	614	489	344	292	226	260	241
Ac-ft	22,670	36,480	41,420	41,830	36,080	40,410	36,120	27,130	18,890	16,330	19,120	19,570

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	385	493	555	580	585	561	569	571	436	322	303	345
Max	527	798	1,047	1,095	1,433	1,377	1,024	1,104	1,126	595	473	619
(WY)	(1997)	(1996)	(1965)	(1997)	(1996)	(1972)	(1997)	(1971)	(1974)	(1996)	(1996)	(1996)
Min	236	288	265	255	228	256	297	279	236	213	218	215
(WY)	(1982)	(1988)	(1994)	(1977)	(2001)	(2001)	(2001)	(1994)	(2001)	(2005)	(1994)	(1994)

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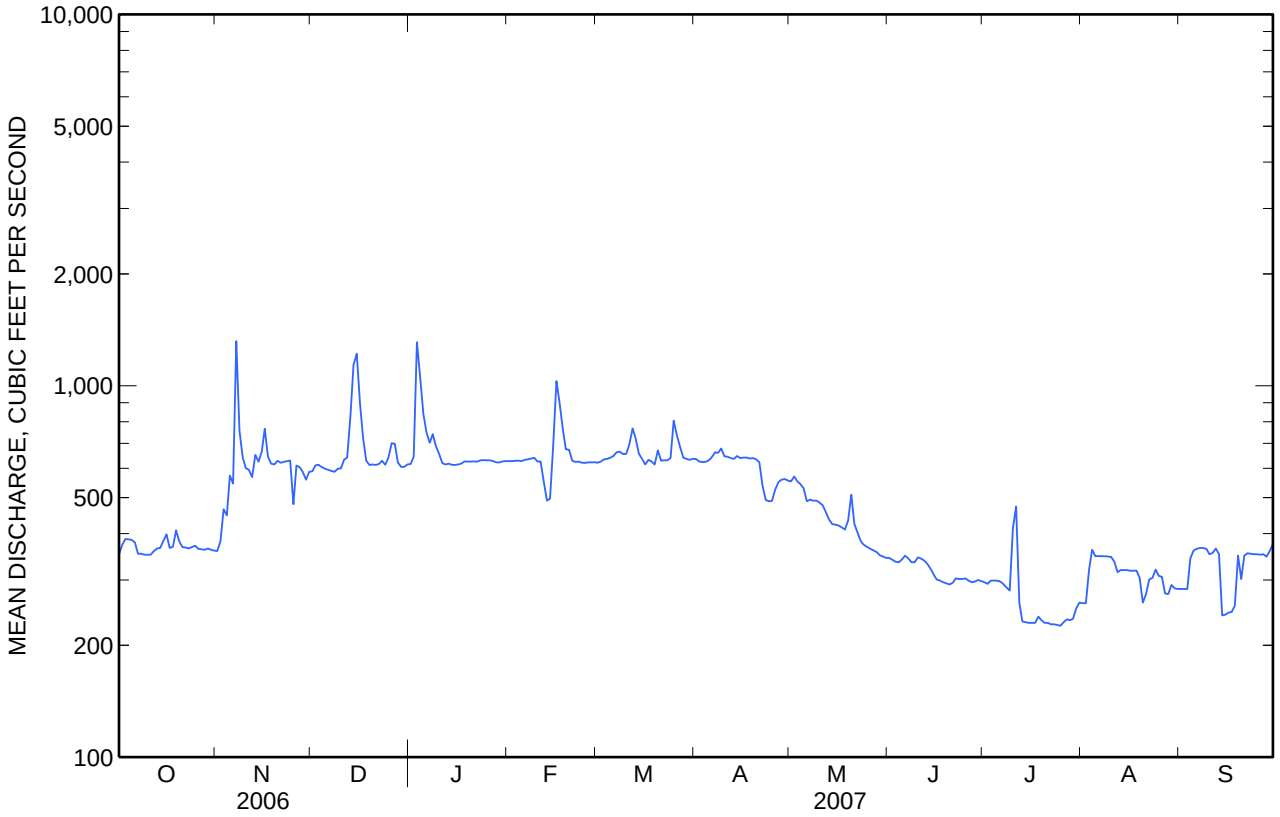
SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1957 - 2007	
Annual total	199,549		179,507			
Annual mean	547		492		475	
Highest annual mean					739	1996
Lowest annual mean					286	2001
Highest daily mean	1,590	Jan 11	1,320	Nov 7	3,940	Feb 7, 1996
Lowest daily mean	250	Aug 21	226	Jul 25	170	Feb 25, 2001
Annual seven-day minimum	252	Aug 17	229	Jul 20	193	Mar 5, 2001
Annual runoff (ac-ft)	395,800		356,100		343,900	
10 percent exceeds	745		658		685	
50 percent exceeds	587		491		454	
90 percent exceeds	285		285		264