

DUWAMISH RIVER BASIN

12105800 HOWARD A. HANSON RESERVOIR NEAR PALMER, WA

LOCATION.--Lat 47°16'38", long 121°47'03", in NE 1/4 SE 1/4 sec.28, T.21 N., R.8 E., King County, Hydrologic Unit 17110013, near left bank on outlet gate structure, just upstream from Howard A. Hanson Dam on Green River, 1.4 mi upstream from Bear Creek, 5.1 mi southeast of Palmer, and at mile 64.5.

DRAINAGE AREA.--220 mi², approximately.

PERIOD OF RECORD.--December 1961 to current year.

REVISED RECORDS.--WDR WA-96-1: 1985-1995 maximum and minimum contents.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929, supplementary adjustment of 1947.

REMARKS.--Reservoir is formed by earth-fill dam; completed Mar. 31, 1962; storage began Dec. 5, 1961. Capacity, 105,463 acre-ft between elevations 1,035 ft, invert of outlet tunnel, and 1,206 ft, top of spillway gates. Retained during initial flood conditions, storage is released as soon as possible after a flood to attenuate flows downstream and to maintain reservoir capacity for possible future floods. Storage is used during summer months to augment the natural river flow.

COOPERATION.--Elevations and capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 68,811 acre-ft Feb. 10, 1996, elevation, 1,182.0 ft; minimum contents observed, 34 acre-ft Nov. 2, 1962, elevation, 1,037.6 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 51,200 acre-ft June 19, elevation, 1,167.7 ft; minimum contents 777 acre-ft Dec. 16, elevation, 1,065.0 ft.

Capacity table (elevation, in feet, and total contents, in acre-feet)
(Based on conic method by Corps of Engineers in 1984)

1,045	13	1,080	2,422	1,140	24,622
1,050	64	1,090	4,081	1,150	32,982
1,055	201	1,100	6,313	1,160	42,804
1,060	439	1,110	9,271	1,170	53,902
1,065	777	1,120	13,140	1,180	66,186
1,070	1,220	1,130	18,126	1,190	79,912

RESERVOIR STORAGE, in (ACRE-FEET), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 0800 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13300	3950	1660	2200	1760	2710	22800	43300	49700	50500	26900	22900
2	12900	4320	2040	2020	1900	3600	23500	44000	50100	49900	26900	22600
3	12500	4320	2310	1920	1950	4280	23500	44200	50600	49200	26800	22400
4	12100	3870	1900	1790	1950	4790	24500	43700	50600	48400	26800	22300
5	11600	3290	1930	1820	1820	5510	24800	42800	50600	47700	26700	22100
6	11300	2810	1900	1920	1900	6190	25300	41800	50800	46700	26700	21800
7	11000	2460	2080	3240	2020	6760	26400	40900	50600	45600	26700	21600
8	10600	2350	1530	3650	2110	7230	27800	40600	50500	44600	26700	21300
9	10400	2130	1760	2540	2260	7430	28300	39900	50200	43800	26600	21000
10	10300	2310	2030	1920	2300	7570	29200	39400	50700	42800	26500	20800
11	10100	2390	1850	1700	2310	7780	30300	38600	50900	41900	26500	20600
12	10500	2370	1490	1650	2240	10100	30700	37900	50800	40800	26400	20300
13	10800	2370	2390	1810	2070	11800	31100	37900	50900	39700	26300	20000
14	11400	3490	3140	1440	1840	12700	35700	39000	50900	38500	26100	19800
15	12600	2170	1350	1500	1570	13200	39700	40000	50900	37300	26100	19500
16	13100	1520	1230	1890	1750	13200	39600	40300	50800	36200	25900	19300
17	13000	3110	1290	2020	1920	14100	39100	40900	50800	35000	25700	19100
18	12600	3460	1420	1890	2080	14200	39400	41900	50800	33700	25500	18900
19	12200	3200	1150	2270	1890	14300	39700	42900	51200	32700	25400	18600
20	11600	2000	1990	2620	2040	15000	39800	44200	51000	31800	25200	18400
21	10900	2000	2080	3560	1630	16300	39800	45500	50800	31000	25100	18100
22	10300	2070	2520	3600	2620	16800	39600	46300	50800	30100	24900	17800
23	10900	3840	2680	2210	2590	17100	39600	46500	50700	29400	24800	17600
24	11400	4420	2620	1470	3070	17300	39700	46800	50600	28900	24500	17200
25	10800	3870	2410	2150	2490	17300	39700	47000	50600	28400	24300	16800
26	9900	2880	2080	1790	2000	18200	39800	47700	50500	28100	24200	16400
27	8080	2030	1930	2440	1900	18900	40100	48500	50600	27800	24000	15900
28	6390	1780	1830	2650	1900	19500	40300	49300	50700	27500	23800	15400
29	4620	1560	2090	2910	---	20500	40500	49300	51000	27300	23600	15000
30	3870	1340	2260	2990	---	21300	41400	49100	50900	27100	23400	14600
31	3440	---	2370	2390	---	22100	---	49200	---	26900	23100	---
MEAN	10468	2789	1978	2257	2067	12508	34057	43529	50687	37074	25552	19270
MAX	13300	4420	3140	3650	3070	22100	41400	49300	51200	50500	26900	22900
MIN	3440	1340	1150	1440	1570	2710	22800	37900	49700	26900	23100	14600
(++)	1088.1	1073.1	1078.8	1076.7	1079.9	1137.1	1160.0	1166.2	1167.1	1143.0	1137.7	1122.4
(+)	3725	1548	2255	1979	2407	22547	42804	49552	50567	26942	22963	14228
(‡)	-9680	-2177	+707	-276	+428	+20140	+20257	+6748	+1015	-23625	-3979	-8735

CAL YR 2001 MEAN 15080 MAX 31800 MIN 1150 AC-FT(‡) -786
WTR YR 2002 MEAN 20264 MAX 51200 MIN 1150 AC-FT(‡) +823

++ Monthend elevation, in feet, at 2400 hours.
+ Monthend contents, in acre-feet.
‡ Change in Contents, in acre-feet.