DESCHUTES RIVER BASIN

12079000 DESCHUTES RIVER NEAR RAINIER, WA

LOCATION.--Lat 46°51'08", long 122°40'03", in SE 1/4 SW 1/4 sec.22, T.16 N., R.1 E., Thurston County, Hydrologic Unit 17110016, on right bank 75 ft upstream from county road crossing, 0.4 mi downstream from outlet of Reichel Lake, 2.7 mi southeast of Rainier, and at mile 25.9.

DRAINAGE AREA.--89.8 mi^2.

PERIOD OF RECORD.--June 1949 to September 1975; water years 1976-79 (annual maximum); June 1980 to July 1982; June 1983 to October 1987 (seasonal records); October 1987 to September 1998; October 1998 to April 1999 (seasonal record); October 1999 to current year.

REVISED RECORDS.--WSP 1246: Drainage area. WDR WA-83-1: 1978(P).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 348.77 ft above NGVD of 1929.

REMARKS.--No estimated daily discharges. Records good except for flows above 700 ft^3/s, which are fair. Probably some small diversions for irrigation and domestic use upstream from station. No regulation. U.S. Geological Survey satellite telemeter at station. Chemical analyses July 1959 to July 1960, October 1971 to September 1972. Water temperatures August 1968 to September 1970.

AVERAGE DISCHARGE.--41 years (water years 1950-75, 1981, 1988-98, 2000-02), 262 ft^3/s, 39.64 in/yr, 189,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,600 ft^3/s Jan. 9, 1990, gage height, 17.01 ft, from outside high-water mark, from rating curve extended above 3,900 ft^3/s; minimum discharge, 16 ft^3/s Sept. 7, 1963, gage height, 2.60 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 14	1545	2,170	8.31	Jan. 08	0230	3,340	10.20
Dec. 01	2215	2,450	8.79	Jan. 25	1200	2,540	8.95
Dec. 14	0115	3,660	10.66	Mar. 11	2015	2,530	8.93
Dec. 17	0615	*4,860	*12.29	Apr. 14	0800	2,060	8.12

Minimum discharge, 19 ft^3/s Sept. 27-30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	272	1740	211	352	260	231	172	116	92	35	24
2	26	199	1690	290	322	237	224	173	108	81	33	24
3	25	155	941	294	353	218	216	168	102	74	33	25
4	25	126	677	258	380	204	207	158	97	70	33	25
5	25	109	538	235	345	198	207	156	98	66	35	24
6	24	95	571	286	390	202	218	166	94	62	41	24
7	24	84	646	2000	787	188	226	160	90	61	39	28
8	25	75	495	2500	958	177	215	152	88	71	35	27
9	25	69	441	1150	782	169	215	144	86	63	33	26
10	26	64	381	692	568	262	333	139	81	58	32	25
11	31	60	371	498	502	1310	418	135	82	54	33	24
12	33	60	381	488	417	1750	529	130	79	52	32	22
13	31	74	1110	516	358	1210	645	135	76	50	30	22
14	35	1480	2370	436	310	833	1630	147	73	48	29	21
15	41	1090	1040	360	278	607	992	138	72	48	28	21
16	37	697	1990	309	261	486	694	132	70	46	28	22
17	35	429	3370	275	249	407	557	131	70	45	28	23
18	34	303	1380	247	249	350	456	128	73	45	27	24
19	32	285	1090	247	315	390	380	128	74	44	27	22
20	32	491	800	275	355	686	335	131	68	44	27	21
21	31	714	595	378	637	565	300	147	66	41	27	21
22	35	1030	475	333	866	460	272	139	62	40	27	21
23	90	1220	387	297	672	401	249	128	60	40	27	20
24	109	650	334	500	621	370	229	120	60	39	26	20
25	102	427	296	1890	479	351	213	115	57	39	25	20
26	96	322	266	1170	389	329	205	113	56	39	25	20
27	96	263	245	687	330	310	210	113	55	38	26	20
28	114	465	244	494	292	289	203	128	64	37	26	19
29	87	1370	233	390	---	271	186	164	147	37	25	19
30	78	1030	217	341	---	255	178	152	118	36	24	20
31	228	---	209	339	---	242	---	129	---	35	24	---
TOTAL	1658	13708	25523	18386	12817	13987	11173	4371	2442	1595	920	674
MEAN	53.5	457	823	593	458	451	372	141	81.4	51.5	29.7	22.5
MAX	228	1480	3370	2500	958	1750	1630	173	147	92	41	28
MIN	24	60	209	211	249	169	178	113	55	35	24	19
AC-FT	3290	27190	50620	36470	25420	27740	22160	8670	4840	3160	1820	1340
CFSM	0.60	5.09	9.17	6.60	5.10	5.02	4.15	1.57	0.91	0.57	0.33	0.25
IN.	0.69	5.68	10.57	7.62	5.31	5.79	4.63	1.81	1.01	0.66	0.38	0.28

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2002, BY WATER YEAR (WY)

MEAN	102	346	526	579	532	414	308	163	102	55.2	39.8	41.8
MAX	385	725	1063	1071	1087	839	659	287	233	110	74.1	89.7
(WY)	1998	1961	1956	1953	1999	1972	1991	1960	1990	1974	1968	1968
MIN	23.1	35.9	163	111	126	116	118	72.2	42.8	37.6	24.0	22.5
(WY)	1988	1953	2001	2001	1993	1992	1973	1994	1992	1970	1992	2002

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1949 - 2002	
ANNUAL TOTAL	71322		107254			
ANNUAL MEAN	195		294		262	
HIGHEST ANNUAL MEAN					407	1997
LOWEST ANNUAL MEAN					109	2001
HIGHEST DAILY MEAN	3370	Dec 17	3370	Dec 17	6000	Jan 9 1990
LOWEST DAILY MEAN	24	Oct 6	19	Sep 28	19	Oct 11 1994
ANNUAL SEVEN-DAY MINIMUM	25	Oct 3	20	Sep 23	20	Sep 23 2002
ANNUAL RUNOFF (AC-FT)	141500		212700		189800	
ANNUAL RUNOFF (CFSM)	2.18		3.27		2.92	
ANNUAL RUNOFF (INCHES)	29.55		44.43		39.64	
10 PERCENT EXCEEDS	400		689		621	
50 PERCENT EXCEEDS	103		147		140	
90 PERCENT EXCEEDS	28		25		35	