

Appendix C - Hydrologic data

Metadata in Table C1 and daily discharge data used to compile stream volumes in tables C2 and C3 downloaded from Data downloaded from U.S. Geological Survey - Surface-Water Data for Washington - Daily Streamflow for Washington at... < <http://water.usgs.gov/wa/nwis/discharge> >

Table C1 - USGS Gage station identification, location, elevation, area drained, and operational period. Operational period in year / month / day format.

Station		Period of Record	
ID#	Name	Start	Last
12175500	Thunder Creek Nr. Newhalem	1930.10.02	1998.09.30
12178100	Newhalem Creek Nr. Newhalem	1961.02.01	1998.09.30
12179000	Skagit River Abv Alma Cr	1950.10.01	1995.09.30
12181000	Skagit River At Marblemount	1943.09.01	1998.09.30
12182500	Cascade River near Marblemount	1928.10.01	1979.09.30
12205000	N.F. Nooksack R Blw Casc. Cr Nr Glacier	1937.10.01	1998.09.30
12451000	Stehekin River At Stehekin	1910.12.01	1998.09.30

Station		Location		Drainage Datum	
ID#	Name	Lat	Long	(km ²)	(m)
12175500	Thunder Creek Nr. Newhalem	48°40'	121°04"	272	372
12178100	Newhalem Creek Nr. Newhalem	48°39'	121°14'	72	329
12179000	Skagit River Abv Alma Cr	48°36'	121°21'	3300	109
12181000	Skagit River At Marblemount	48°32'	121°25'	3577	93
12182500	Cascade River near Marblemount	48°31'	121°24'	480	101
12205000	N.F. Nooksack R Blw Casc. Cr Nr Glacier	48°54'	121°50'	272	380
12451000	Stehekin River At Stehekin	48°19'	120°41'	831	335

Table C2 - Total annual stream volume by water year. Volume in km³

Year	Station ID - - - - ->						
	12175500	12178100	12179000	12181000	12182500	12205000	12451000
1958	0.65	...	5.98	...	1.20	0.80	1.62
1959	0.60	...	5.28	...	1.05	0.70	1.50
1960	0.65	0.14	5.43	...	1.04	0.77	1.44
1961	0.49	0.15	4.22	...	0.89	0.64	1.14
1962	0.52	0.14	4.77	...	0.89	0.68	1.18
1963	0.57	0.19	5.73	...	1.06	0.81	1.37
1964	0.52	0.15	4.53	...	0.91	0.66	1.23
1965	0.47	0.14	4.25	...	0.78	0.69	1.07
1966	0.62	0.17	5.42	...	1.02	0.79	1.48
1967	0.65	0.18	5.77	...	1.12	0.89	1.56
1968	0.56	0.15	4.53	...	0.91	0.73	1.37
1969	0.45	0.12	3.81	...	0.72	0.58	0.99
1970	0.57	0.16	5.27	...	1.07	0.80	1.56
1971	0.67	0.21	6.38	...	1.21	0.79	1.75
1972	0.43	0.12	3.33	...	0.73	0.57	0.83
1973	0.61	0.20	5.89	...	1.15	0.90	1.72
1974	0.51	0.15	4.36	...	0.85	0.65	1.28
1975	0.63	0.21	6.33	...	1.20	0.84	1.65
1976	0.44	0.10	3.26	3.93	0.67	0.53	0.78
1977	0.54	0.16	4.12	5.09	0.94	0.68	1.33
1978	0.47	0.11	3.41	4.05	0.75	0.52	0.89
1979	0.51	0.15	4.32	5.32	...	0.64	1.13
1980	0.56	0.16	4.75	6.01	...	0.70	1.21
1981	0.57	0.21	4.89	6.23	...	0.78	1.39
1982	0.55	0.12	4.63	5.68	...	0.77	1.27
1983	0.53	0.20	4.29	5.42	...	0.74	1.26
1984	0.48	0.15	4.00	4.86	...	0.62	1.03
1985	0.54	0.21	4.55	5.36	...	0.73	1.13
1986	0.53	0.10	4.14	4.84	...	0.66	1.09
1987	0.46	0.16	3.79	4.49	...	0.62	1.04
1988	0.53	0.11	4.22	5.07	...	0.65	1.14
1989	0.61	0.15	5.16	5.81	...	0.77	1.29
1990	0.69	0.23	7.13	8.71	...	0.93	1.73
1991	0.61	0.12	3.93	4.87	...	0.66	1.14
1992	0.45	0.12	3.19	3.88	...	0.58	0.96
1993	0.45	0.13	3.65	4.27	...	0.59	0.91
1994	0.52	0.15	4.07	5.02	...	0.67	1.28
1995	0.66	0.21	...	6.85	...	0.82	1.63
1996	0.72	0.21	...	7.08	...	0.97	1.71
1997	0.55	0.14	...	4.83	...	0.72	1.27

Table C3 - Total August / September stream volume by water year. Volume in km³

Year	Station ID						
	12175500	12178100	12179000	12181000	12182500	12205000	12451000
1958	0.14	...	0.69	...	0.18	0.12	0.21
1959	0.11	...	0.55	...	0.12	0.09	0.14
1960	0.13	0.01	0.54	...	0.11	0.09	0.12
1961	0.11	0.02	0.51	...	0.14	0.12	0.14
1962	0.12	0.02	0.57	...	0.11	0.11	0.15
1963	0.11	0.03	0.66	...	0.17	0.13	0.17
1964	0.12	0.01	0.49	...	0.11	0.10	0.15
1965	1.45	0.42	0.48	...	0.10	0.10	0.14
1966	0.15	0.01	0.60	...	0.13	0.13	0.17
1967	0.12	0.02	0.57	...	0.14	0.13	0.16
1968	0.11	0.02	0.53	...	0.11	0.12	0.13
1969	0.10	0.01	0.55	...	0.09	0.09	0.11
1970	0.14	0.02	0.56	...	0.15	0.14	0.20
1971	0.14	0.03	0.69	...	0.19	0.11	0.24
1972	0.11	0.01	0.40	...	0.10	0.09	0.12
1973	0.14	0.02	0.59	...	0.17	0.16	0.28
1974	0.11	0.01	0.45	...	0.11	0.11	0.16
1975	1.77	0.27	0.77	...	0.19	0.16	0.28
1976	0.14	0.01	0.29	0.38	0.12	0.10	0.14
1977	0.14	0.02	0.60	0.77	0.17	0.15	0.17
1978	0.13	0.01	0.47	0.53	0.10	0.10	0.11
1979	0.10	0.01	0.49	0.60	...	0.09	0.12
1980	0.14	0.01	0.58	0.71	...	0.10	0.15
1981	0.14	0.02	0.60	0.78	...	0.11	0.17
1982	0.12	0.02	0.61	0.76	...	0.10	0.16
1983	0.12	0.02	0.50	0.64	...	0.11	0.16
1984	0.09	0.01	0.47	0.58	...	0.08	0.12
1985	1.39	0.28	0.48	9.59	...	0.10	0.11
1986	0.11	0.01	0.45	0.53	...	0.08	0.10
1987	0.10	0.01	0.57	0.64	...	0.09	0.15
1988	0.09	0.01	0.49	0.59	...	0.08	0.12
1989	0.13	0.01	0.61	0.65	...	0.09	0.14
1990	0.14	0.02	0.68	0.80	...	0.14	0.23
1991	0.12	0.01	0.44	0.57	...	0.10	0.10
1992	0.09	0.01	0.42	0.50	...	0.08	0.10
1993	0.10	0.01	0.49	0.56	...	0.07	0.10
1994	0.10	0.01	0.40	0.55	...	0.07	0.12
1995	...	0.18	0.09	0.13
1996	0.16	0.02	...	0.69	...	0.14	0.22
1997	0.12	0.01	...	0.53	...	0.09	0.12