





**Figure 47.** Schematic diagram showing surface-water and water-quality stations in the Columbia River Basin from Priest Rapids Dam to Kennewick including Yakima River and Esquatzel Coulee Basins.

COLUMBIA RIVER MAIN STEM  
12472800 COLUMBIA RIVER BELOW PRIEST RAPIDS DAM, WA

LOCATION.--Lat 46°37'44", long 119°51'49", in SE 1/4 NW 1/4 sec.7, T.13 N., R.24 E., Grant County, Hydrologic Unit 17020016, on left bank 2.6 mi downstream from Priest Rapids Dam, 14.7 mi south of Beverly, and at mile 394.5.

DRAINAGE AREA.--96,000 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--January 1917 to current year. January 1917 to September 1930, at site 3.4 mi downstream, published as "at Vernita." October 1930 to July 27, 1959, at site 46.5 mi upstream, published as "at Trinidad."

REVISED RECORDS.--WSP 1933: Drainage area. WDR WA-82-2: 1965(m), 1971(m).

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929. Prior to Oct. 1, 1930, nonrecording gages at site 3.4 mi downstream at datum 388.7 ft above sea level. Oct. 1, 1930, to July 27, 1959, water-stage recorder at site 46.5 mi upstream at datum 499.3 ft above NGVD of 1929 (river-profile survey).

REMARKS.--No estimated daily discharges. Records good. Diversions for irrigation of about 600,000 acres upstream from station. Flow regulated by 10 major reservoirs and numerous smaller reservoirs and powerplants. U.S. Geological Survey satellite telemeter at station. Water temperatures March 1980 to April 1993. Temperature records for site "at Vernita Bridge, near Priest Rapids Dam" (station 12472900) for period July 1974 to September 1980 are equivalent.

AVERAGE DISCHARGE.--86 years (water years 1918-2003), 119,200 ft<sup>3</sup>/s, 86,320,000 acre-ft/yr, unadjusted. 44 years (water years 1960-2003), 119,200 ft<sup>3</sup>/s, 86,340,000 acre-ft/yr, regulated period.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 692,600 ft<sup>3</sup>/s June 12, 1948, gage height, 59.35 ft, site and datum then in use; minimum discharge, 4,120 ft<sup>3</sup>/s Feb. 10, 1932, due to construction at Rock Island Dam, site and datum then in use; minimum daily discharge prior to construction of Rock Island Dam (1932), 22,000 ft<sup>3</sup>/s Feb. 1-7, 1930, site and datum then in use; minimum daily discharge after completion of Rock Island Dam (1932), 20,000 ft<sup>3</sup>/s Jan. 31 to Feb. 10, 1937, site and datum then in use; minimum discharge since completion of Priest Rapids Dam (1959), 16,300 ft<sup>3</sup>/s Nov. 7, 1998, due to emergency flow reduction from Priest Rapids Dam.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 7, 1894, reached a discharge of about 740,000 ft<sup>3</sup>/s, based on a rating extension for a Weather Bureau gage at Wenatchee.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 250,000 ft<sup>3</sup>/s June 6, elevation, 414.53 ft; minimum discharge, 37,100 ft<sup>3</sup>/s Nov. 24, elevation, 396.52 ft; minimum daily discharge, 42,600 ft<sup>3</sup>/s Sept. 14.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	89,800	115,000	95,900	73,400	71,400	77,900	98,800	127,000	106,000	140,000	110,000	59,300
2	87,500	105,000	114,000	71,900	71,000	73,000	96,000	119,000	121,000	106,000	97,800	64,700
3	83,500	96,400	127,000	71,600	71,000	108,000	98,200	127,000	145,000	92,800	60,700	81,800
4	74,400	87,900	117,000	72,500	70,700	99,500	105,000	134,000	134,000	105,000	70,800	93,200
5	51,000	91,000	118,000	72,000	70,800	91,100	74,300	145,000	145,000	65,400	101,000	85,300
6	62,700	106,000	106,000	78,700	82,100	91,300	73,300	156,000	163,000	81,000	95,300	53,700
7	82,400	121,000	114,000	92,200	100,000	92,000	98,200	142,000	171,000	112,000	93,700	49,400
8	88,900	105,000	82,000	95,500	72,700	83,300	118,000	158,000	151,000	120,000	92,100	53,500
9	125,000	100,000	101,000	89,800	71,100	71,100	91,500	135,000	149,000	126,000	103,000	63,100
10	86,600	89,700	114,000	83,000	71,600	70,800	103,000	113,000	176,000	125,000	75,600	50,100
11	72,900	107,000	111,000	72,500	77,400	70,500	112,000	101,000	172,000	135,000	99,200	59,500
12	72,300	95,100	94,300	71,300	72,000	71,600	91,000	124,000	172,000	120,000	103,000	63,700
13	55,000	82,500	94,400	71,500	71,900	71,300	84,200	180,000	182,000	99,700	89,900	60,500
14	92,500	83,100	87,600	72,500	70,800	70,800	96,400	143,000	156,000	120,000	104,000	42,600
15	76,600	91,000	75,700	96,000	71,000	70,800	105,000	156,000	137,000	123,000	117,000	57,700
16	68,900	99,500	84,900	107,000	70,900	72,000	130,000	153,000	181,000	125,000	93,800	77,200
17	86,100	107,000	105,000	99,300	71,600	82,700	146,000	130,000	176,000	109,000	74,900	69,900
18	71,300	99,500	103,000	90,400	71,300	79,000	113,000	127,000	171,000	110,000	87,000	59,400
19	58,300	66,600	103,000	71,400	71,500	80,100	115,000	120,000	117,000	104,000	108,000	57,300
20	50,100	107,000	89,700	82,700	72,700	71,100	98,500	144,000	121,000	85,800	108,000	63,600
21	70,700	116,000	82,900	108,000	71,900	72,500	110,000	150,000	116,000	102,000	128,000	54,200
22	84,900	97,000	75,700	101,000	71,200	74,200	157,000	181,000	87,800	137,000	138,000	81,000
23	81,700	116,000	84,000	81,100	72,700	71,800	144,000	175,000	124,000	126,000	101,000	67,900
24	73,600	96,900	101,000	76,400	71,600	71,300	136,000	122,000	143,000	124,000	85,100	75,200
25	105,000	116,000	80,200	71,200	73,300	87,300	156,000	88,300	167,000	108,000	119,000	82,800
26	105,000	130,000	89,900	71,500	74,400	127,000	125,000	116,000	178,000	103,000	127,000	93,500
27	100,000	104,000	103,000	71,600	83,600	132,000	109,000	129,000	154,000	66,600	92,900	75,500
28	76,500	93,900	94,400	73,700	76,100	126,000	123,000	136,000	149,000	103,000	85,700	59,200
29	92,300	81,900	77,000	72,600	---	130,000	145,000	171,000	122,000	110,000	99,400	85,400
30	108,000	89,200	83,800	71,200	---	119,000	145,000	159,000	121,000	119,000	101,000	84,500
31	114,000	---	97,700	71,600	---	110,000	---	124,000	---	122,000	70,400	---
TOTAL	2,547,500	2,996,200	3,007,100	2,505,100	2,068,300	2,719,000	3,397,400	4,285,300	4,407,800	3,425,300	3,032,300	2,024,700
MEAN	82,180	99,870	97,000	80,810	73,870	87,710	113,200	138,200	146,900	110,500	97,820	67,490
MAX	125,000	130,000	127,000	108,000	100,000	132,000	157,000	181,000	182,000	140,000	138,000	93,500
MIN	50,100	66,600	75,700	71,200	70,700	70,500	73,300	88,300	87,800	65,400	60,700	42,600
AC-FT	5,053,000	5,943,000	5,965,000	4,969,000	4,102,000	5,393,000	6,739,000	8,500,000	8,743,000	6,794,000	6,015,000	4,016,000

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1918 - 2003, BY WATER YEAR (WY)

MEAN	72,150	73,510	77,640	80,320	81,480	82,450	104,400	191,600	265,400	196,900	120,100	82,130
MAX	119,800	121,200	163,800	168,400	195,000	201,800	196,500	348,500	590,700	385,400	192,000	131,700
(WY)	(1928)	(1991)	(1996)	(1996)	(1996)	(1983)	(1934)	(1934)	(1948)	(1950)	(1920)	(1927)
MIN	45,950	32,290	26,840	21,710	20,900	26,500	37,160	61,840	78,810	56,650	66,740	60,050
(WY)	(1932)	(1937)	(1937)	(1937)	(1937)	(1937)	(1944)	(2001)	(1977)	(2001)	(1985)	(1994)

SUMMARY STATISTICS

	FOR 2002 CALENDAR YEAR	FOR 2003 WATER YEAR	WATER YEARS 1918 - 2003
ANNUAL TOTAL	42,811,000	36,416,000	
ANNUAL MEAN	117,300	99,770	119,200
HIGHEST ANNUAL MEAN			165,600
LOWEST ANNUAL MEAN			78,070
HIGHEST DAILY MEAN	270,000	182,000	690,000
LOWEST DAILY MEAN	47,000	42,600	20,000
ANNUAL SEVEN-DAY MINIMUM	51,700	56,100	20,100
ANNUAL RUNOFF (AC-FT)	84,920,000	72,230,000	86,320,000
10 PERCENT EXCEEDS	195,000	143,000	229,000
50 PERCENT EXCEEDS	104,000	95,500	93,800
90 PERCENT EXCEEDS	67,600	70,800	46,700

12472900 COLUMBIA RIVER AT VERNITA BRIDGE, NEAR PRIEST RAPIDS DAM, WA

LOCATION.--Lat 46°38'34", long 119°43'54", in NW 1/4 SE 1/4 sec.6, T.13 N., R.25 E., Grant County, Hydrologic Unit 17020016, at State Highway 24 Vernita Bridge crossing, 9.0 mi downstream from Priest Rapids Dam, and at mile 388.1.

DRAINAGE AREA.--96,000 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--Water years 1962-63, 1972, 1974 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: July 1974 to September 1980.

REMARKS.--October 1971 to September 1972, at site 6.4 mi upstream, published as 12472800 "below Priest Rapids Dam." Prior to October 1971 published as 12472800 "at Vernita Ferry." Discharge determined by routing flows from the gaging station below Priest Rapids Dam (station 12472800) 6.4 miles upstream. National Stream Quality Accounting Network (NASQAN) 1975-2000.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity, wat unflab, Hach 2100AN NTU (99872)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfl uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO3 (00900)	Noncarb hardness, wat flt field, mg/L as CaCO3 (00904)	Calcium water, fltrd, mg/L (00915)
DEC 11...	1220	109,000	<1.0	755	10.8	93	7.7	133	4.7	8.5	59	4	17.1
APR 17...	1230	144,000	4.0	756	12.6	107	8.0	139	15.2	7.8	66	8	18.6
SEP 25...	1120	72,900	1.7	753	12.7	138	8.0	134	--	18.8	64	10	18.1

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Magnesium, water, fltrd, mg/L (00925)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total at 105 deg. C, sus-pended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)
DEC 11...	3.94	56	68	0.0	1.01	<0.17	8.0	82	<10	E.09	<0.04	0.12	<0.008
APR 17...	4.78	59	71	0.0	1.12	<0.17	9.3	83	<10	0.14	<0.04	0.13	<0.008
SEP 25...	4.51	54	65	0.0	1.02	<0.2	8.8	86	<10	0.11	<0.04	0.06	<0.008

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Organic carbon, water, fltrd, mg/L (00681)	Chromium, water, fltrd, ug/L (01030)	Iron, water, fltrd, ug/L (01046)	Suspended sediment concentration mg/L (80154)	Suspended sediment load, tons/d (80155)
DEC 11...	<0.02	<0.04	--	1.4	<0.8	<10	2	589
APR 17...	<0.02	E.03	0.26	1.2	<0.8	<10	3	1,170
SEP 25...	<0.02	<0.04	0.17	1.4	<0.8	<8	1	197

## 12473520 COLUMBIA RIVER AT RICHLAND, WA

LOCATION.--Lat 46°18'46", long 119°15'28", in NW 1/4 NW 1/4 sec.36, T.10 N., R.28 E., Benton County, Hydrologic Unit 17020016, at city of Richland pumping plant, 4.8 mi upstream from Yakima River, and at mile 340.2. Columbia River at Richland

DRAINAGE AREA.--96,900 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--October 1978 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: July 1974 to March 1993.

REMARKS.--Water temperatures as recorded for the period July 1974 to January 1977 did not represent mean stream temperatures (see previous state reports for correlation between thermal load measurements and recorded temperatures). Temperature probe, relocated January 1977, represents both horizontal and vertical cross section of the river. Unpublished records of stage at site 2.3 miles downstream are available in files of the Geological Survey and U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 22.0°C July 21, Aug. 4, 5, 1985; minimum, 0.0°C Feb. 3, 6-9, 1989.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Turbidity, wat unfltd lab, Hach 2100AN NTU (99872)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltd field, std units (00400)	Specific conductance, wat unfltd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, unfltd mg/L as CaCO3 (00900)	Noncarb hardness, wat fltd field, mg/L as CaCO3 (00904)	Calcium water, fltd, mg/L (00915)	Magnesium, water, fltd, mg/L (00925)
DEC 12...	1230	2.0	752	11.0	95	7.6	136	4.3	8.5	61	5	17.6	4.10
APR 18...	1100	2.9	763	12.4	104	8.2	141	15.1	7.9	66	6	18.4	4.74
SEP 26...	1140	3.1	755	11.7	127	7.9	138	28.3	18.7	62	6	17.4	4.50

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Alkalinity, wat fltd inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat fltd incrm. titr., mg/L (00453)	Carbonate, wat fltd incrm. titr., mg/L (00452)	Chloride, water, fltd, mg/L (00940)	Fluoride, water, fltd, mg/L (00950)	Sulfate, water, fltd, mg/L (00945)	Residue on evap. at 180degC wat fltd mg/L (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, unfltd mg/L as N (00625)	Ammonia water, fltd, mg/L as N (00608)	Nitrite + nitrate water fltd, mg/L as N (00631)	Nitrite water, fltd, mg/L as N (00613)	Orthophosphate, water, fltd, mg/L as P (00671)
DEC 12...	56	68	0.0	1.37	<0.17	8.2	83	<10	E.08	<0.04	0.14	<0.008	<0.02
APR 18...	60	73	0.0	1.19	0.06	9.4	81	<10	0.14	<0.04	0.11	<0.008	<0.02
SEP 26...	55	68	0.0	1.16	<0.2	9.2	86	<10	0.11	<0.04	0.08	<0.008	<0.02

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Phosphorus, water, unfltd mg/L (00665)	Total nitrogen, water, unfltd mg/L (00600)	Organic carbon, water, fltd, mg/L (00681)	Chromium, water, fltd, ug/L (01030)	Iron, water, fltd, ug/L (01046)	Suspended sediment concentration mg/L (80154)
DEC 12...	<0.04	--	1.3	<0.8	<10	4
APR 18...	E.03	0.26	1.3	<0.8	<10	2
SEP 26...	<0.04	0.19	1.5	<0.8	E5	2

## 12484500 YAKIMA RIVER AT UMTANUM, WA

LOCATION.--Lat 46°51'46", long 120°28'44", in SW ¼ NW ¼ sec.20, T.16 N., R.19 E., Kittitas County, Hydrologic Unit 17030001, on right bank at Umtanum railway siding, 0.5 mi upstream from Umtanum Creek, 4.2 mi upstream from McPherson Canyon, 10 mi south of Ellensburg, and at mile 140.4.

DRAINAGE AREA.--1,594 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1906 to current year. Monthly discharge for some months during the 1907, 1908, 1916-31 water years, published in WSP 1316.

REVISED RECORDS.--WSP 412: 1914. WSP 1286: 1910. WSP 1933: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,300.00 ft above NGVD of 1929. Prior to Sept. 28, 1911, nonrecording gage at approximately same site at various datums. Sept. 28, 1911, to Nov. 23, 1936, water-stage recorder at site about 300 ft upstream at datum 26.70 ft higher.

REMARKS.--No estimated daily discharges. Records good. Flow partly regulated by Keechelus, Kachess, and Cle Elum Lakes. Diversions upstream from station for irrigation of about 105,000 acres. Bureau of Reclamation satellite telemeter at station.

COOPERATION.--2 discharge measurements were provided by the Bureau of Reclamation.

AVERAGE DISCHARGE.--70 years (water years 1934-2003), 2,447 ft<sup>3</sup>/s, 1,773,000 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 41,000 ft<sup>3</sup>/s Nov. 15 or 16, 1906, gage height, 41.1 ft, from floodmarks, present datum; minimum recorded discharge, 138 ft<sup>3</sup>/s Oct. 3, 1915, gage height, 2.86 ft, datum then in use.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,100 ft<sup>3</sup>/s Feb. 1, gage height, 34.75 ft; minimum discharge, 804 ft<sup>3</sup>/s Dec. 6.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,420	971	873	926	8,330	1,590	4,020	2,340	2,420	3,310	4,400	3,120
2	1,410	980	868	965	5,560	1,510	3,720	2,560	2,340	3,500	4,400	3,090
3	1,460	963	865	1,130	4,170	1,470	3,280	2,680	2,220	3,570	4,470	3,000
4	1,500	961	863	1,300	3,420	1,420	2,920	2,680	2,380	3,630	4,490	2,910
5	1,500	956	856	1,550	2,930	1,400	2,620	2,530	2,840	3,720	4,450	2,810
6	1,480	946	813	1,410	2,550	1,580	2,430	2,310	3,670	3,750	4,440	2,530
7	1,470	949	822	1,270	2,280	1,620	2,230	2,110	4,320	3,780	4,280	2,200
8	1,370	998	829	1,200	2,090	1,520	2,120	2,000	4,690	3,760	4,190	1,940
9	1,220	968	828	1,150	1,940	1,490	2,150	1,910	4,260	3,790	4,080	1,740
10	1,210	951	828	1,090	1,830	1,540	2,310	1,880	4,020	3,760	4,010	1,570
11	1,220	931	870	1,070	1,750	1,970	2,390	1,900	3,730	3,750	3,990	1,460
12	1,220	930	905	1,070	1,670	2,820	2,550	1,980	3,440	3,750	3,940	1,400
13	1,260	943	898	1,040	1,630	3,810	2,830	2,000	3,080	3,730	3,980	1,340
14	1,260	953	974	1,030	1,590	4,300	3,170	2,060	3,070	3,880	3,970	1,350
15	1,240	930	1,080	1,040	1,540	4,290	3,010	2,160	3,000	3,920	3,940	1,340
16	1,240	924	1,370	1,020	1,600	4,330	2,700	2,170	2,790	3,990	3,890	1,290
17	1,170	930	1,290	994	1,590	3,870	2,390	2,070	2,620	4,030	3,870	1,260
18	1,080	938	1,110	985	1,550	3,430	2,160	1,940	2,610	4,080	3,840	1,220
19	1,040	945	1,020	977	1,510	3,100	1,980	1,810	2,740	4,120	3,750	1,220
20	1,020	1,010	990	965	1,500	2,860	1,920	1,730	2,780	4,150	3,720	1,190
21	1,000	975	969	976	1,710	2,730	1,790	1,730	2,940	4,220	3,700	1,200
22	1,020	949	941	999	3,150	2,890	1,920	1,780	2,990	4,210	3,690	1,190
23	1,080	928	917	995	2,930	3,170	2,070	1,930	3,160	4,200	3,660	1,140
24	1,100	910	916	1,000	2,380	3,000	2,350	2,310	3,250	4,340	3,600	1,140
25	1,090	899	917	1,040	2,050	2,780	2,650	2,960	3,310	4,380	3,540	1,140
26	1,080	890	907	1,340	1,920	2,660	2,510	2,890	3,340	4,380	3,470	1,110
27	1,080	889	939	3,290	1,800	2,490	2,350	2,510	3,290	4,340	3,420	1,120
28	1,070	884	931	2,720	1,680	2,330	2,210	2,450	3,220	4,340	3,350	1,150
29	1,060	879	924	2,280	---	2,230	2,170	2,570	3,180	4,340	3,260	1,160
30	1,010	876	916	2,330	---	2,350	2,280	2,540	3,160	4,390	3,250	1,150
31	982	---	947	5,830	---	3,300	---	2,500	---	4,410	3,200	---
TOTAL	37,362	28,156	29,176	44,982	68,650	79,850	75,200	68,990	94,860	123,520	120,240	49,480
MEAN	1,205	939	941	1,451	2,452	2,576	2,507	2,225	3,162	3,985	3,879	1,649
MAX	1,500	1,010	1,370	5,830	8,330	4,330	4,020	2,960	4,690	4,410	4,490	3,120
MIN	982	876	813	926	1,500	1,400	1,790	1,730	2,220	3,310	3,200	1,110
AC-FT	74,110	55,850	57,870	89,220	136,200	158,400	149,200	136,800	188,200	245,000	238,500	98,140

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 2003, BY WATER YEAR (WY)

	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
MEAN	1,159	1,072	1,713	1,618	1,857	2,133	3,214	3,954	3,872	3,288	3,338	2,106																																																										
MAX	3,197	3,596	9,214	7,166	8,547	8,355	8,831	8,215	9,077	4,485	4,221	3,235																																																										
(WY)	(1950)	(1960)	(1934)	(1934)	(1996)	(1972)	(1972)	(1997)	(1948)	(1985)	(1978)	(1950)																																																										
MIN	412	352	331	337	463	541	1,370	1,493	1,556	2,075	1,521	1,053																																																										
(WY)	(1974)	(1953)	(1953)	(1979)	(1944)	(1977)	(2001)	(2001)	(1941)	(1941)	(1979)	(1994)																																																										

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 1934 - 2003

ANNUAL TOTAL	850,133	820,466	
ANNUAL MEAN	2,329	2,248	
HIGHEST ANNUAL MEAN			2,447
LOWEST ANNUAL MEAN			4,204
HIGHEST DAILY MEAN	7,130	Apr 15	8,330
LOWEST DAILY MEAN	805	Jan 5	813
ANNUAL SEVEN-DAY MINIMUM	834	Dec 4	834
ANNUAL RUNOFF (AC-FT)	1,686,000		1,627,000
10 PERCENT EXCEEDS	4,260		4,010
50 PERCENT EXCEEDS	1,710		2,000
90 PERCENT EXCEEDS	916		940

12488500 AMERICAN RIVER NEAR NILE, WA

LOCATION.--Lat 46°58'40", long 121°10'03", in SE ¼ NW ¼ sec.12, T.17 N., R.13 E., Yakima County, Hydrologic Unit 17030002, Snoqualmie National Forest, on right bank 300 ft upstream from Bumping Lake Road bridge, 4.9 mi downstream from Hall Creek, 16.0 mi northwest of Nile, and at mile 0.5.

DRAINAGE AREA.--78.9 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1909 to March 1912, July to September 1913, June to September 1914, June to September 1915, October 1939 to current year. Monthly discharge only for period 1909 to 1915, published in WSP 1316.

REVISED RECORDS.--WSP 982: 1940-42. WSP 1216: Drainage area. WSP 1286: 1911.

GAGE.--Water-stage recorder. Datum of gage is 2,700.00 ft above NGVD of 1929 (Washington State Highway Department benchmark). Prior to Sept. 12, 1915, nonrecording gage at site 300 ft downstream at different datum. Oct. 12 to Dec. 7, 1939, nonrecording gage at present site and datum.

REMARKS.--No estimated daily discharges. Records good except for those above 700 ft<sup>3</sup>/s, which are fair. No regulation or diversion. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.--64 years (water years, 1940-2003), 235 ft<sup>3</sup>/s, 40.41 in/yr, 170,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,230 ft<sup>3</sup>/s Dec. 26, 1980, gage height, 77.99 ft; minimum discharge, 20 ft<sup>3</sup>/s Nov. 22, 1940, Jan. 7, 1993, but may have been lower during period of ice effect that day.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,500 ft<sup>3</sup>/s Feb. 1, gage height 75.15 ft; minimum discharge, 30 ft<sup>3</sup>/s Nov. 2, 3.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	37	42	58	1,260	113	368	346	972	313	72	42
2	49	38	41	65	777	110	346	384	865	277	71	41
3	50	35	40	129	542	107	324	402	803	256	70	41
4	54	35	39	158	420	104	299	396	760	242	70	40
5	51	37	39	208	347	104	279	380	790	239	69	40
6	49	37	38	171	302	104	262	358	894	226	71	40
7	48	37	35	152	268	103	247	338	1,020	220	67	40
8	48	43	35	137	243	99	242	316	1,080	215	66	40
9	48	46	34	126	224	102	256	298	1,010	201	65	41
10	47	46	38	114	208	108	262	291	908	188	64	43
11	46	44	36	106	194	114	275	294	739	185	62	44
12	45	58	38	109	183	148	300	305	670	179	61	43
13	45	80	61	111	175	389	372	329	649	169	59	42
14	45	74	88	104	167	517	407	371	608	158	57	41
15	44	68	164	98	161	485	392	425	530	148	54	42
16	44	66	140	93	157	443	371	416	517	141	54	41
17	43	77	115	90	153	389	358	382	547	133	53	44
18	43	69	102	86	147	347	335	350	603	125	52	43
19	42	69	93	83	141	315	315	325	566	119	51	42
20	41	77	86	81	138	291	303	308	464	114	50	42
21	41	73	81	81	139	279	307	312	396	109	49	41
22	41	68	75	83	142	348	326	348	349	105	49	40
23	39	64	70	118	135	353	331	459	319	100	49	38
24	39	61	66	126	121	317	357	803	314	97	48	39
25	39	57	66	130	114	294	351	1,020	320	93	47	38
26	39	53	65	335	125	276	342	954	342	91	46	37
27	39	50	63	544	121	254	327	858	388	87	45	36
28	38	47	65	404	116	237	316	960	389	83	46	36
29	39	45	62	328	---	228	322	1,030	363	80	45	34
30	38	44	60	314	---	245	336	1,030	347	78	44	34
31	37	---	60	983	---	328	---	1,030	---	74	42	---
TOTAL	1,360	1,635	2,037	5,725	7,220	7,651	9,628	15,818	18,522	4,845	1,748	1,205
MEAN	43.9	54.5	65.7	185	258	247	321	510	617	156	56.4	40.2
MAX	54	80	164	983	1,260	517	407	1,030	1,080	313	72	44
MIN	37	35	34	58	114	99	242	291	314	74	42	34
AC-FT	2,700	3,240	4,040	11,360	14,320	15,180	19,100	31,380	36,740	9,610	3,470	2,390
CFSM	0.56	0.69	0.83	2.34	3.27	3.13	4.07	6.47	7.83	1.98	0.71	0.51
IN.	0.64	0.77	0.96	2.70	3.40	3.61	4.54	7.46	8.73	2.28	0.82	0.57

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2003, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
MEAN	70.0	130	(1948)	167	(1976)
MAX	248	407	(1996)	532	(1974)
(WY)	(1948)	(1996)	(1976)	(1974)	(1996)
MIN	28.4	30.3	(1988)	31.2	(1979)
(WY)	(1988)	(1994)	(1953)	(1979)	(1985)

SUMMARY STATISTICS

	FOR 2002 CALENDAR YEAR	FOR 2003 WATER YEAR	WATER YEARS 1940 - 2003
ANNUAL TOTAL	93,979	77,394	
ANNUAL MEAN	257	212	235
HIGHEST ANNUAL MEAN			379
LOWEST ANNUAL MEAN			94.2
HIGHEST DAILY MEAN	1,560	1,260	3,070
LOWEST DAILY MEAN	34	34	20
ANNUAL SEVEN-DAY MINIMUM	36	36	24
ANNUAL RUNOFF (AC-FT)	186,400	153,500	170,000
ANNUAL RUNOFF (CFSM)	3.26	2.69	2.97
ANNUAL RUNOFF (INCHES)	44.31	36.49	40.41
10 PERCENT EXCEEDS	741	449	587
50 PERCENT EXCEEDS	120	110	122
90 PERCENT EXCEEDS	44	40	46

12500450 YAKIMA RIVER ABOVE AHTANUM CREEK, AT UNION GAP, WA

LOCATION.--Lat 46°32'04", long 120°27'58", in NW ¼ NE ¼ sec.17, T.12 N., R.19 E., Yakima County, Hydrologic Unit 17030003, on left bank 2,200 ft upstream from Ahtanum Creek, 0.8 mi upstream from Wapato Dam, 1.4 mi southeast of Union Gap, and at about mile 107.3.

DRAINAGE AREA.--3,479 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 900.00 ft above NGVD of 1929; gage readings have been reduced to elevations above NGVD of 1929. Prior to Apr. 4, 1967, at site 1,200 ft downstream at same datum.

REMARKS.--Records fair. Diversions upstream from station for irrigation of about 212,000 acres. Flow partly regulated by Keechelus, Kachess, Cle Elum, Bumping, and Rimrock Lakes. Records at this site plus those for Ahtanum Creek at Union Gap (station 12502500) are equivalent to discontinued station 12503000, Yakima River at Union Gap. Chemical analyses, water years 1969, 1971, March 1975 to September 1993. Water temperature, March 1981 to December 1981.

AVERAGE DISCHARGE.--37 years (water years 1967-2003), 3,605 ft<sup>3</sup>/s, 2,612,000 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 53,300 ft<sup>3</sup>/s Feb. 9, 1996, elevation, 953.88 ft, from high-water mark, from rating curve extended above 18,000 ft<sup>3</sup>/s on basis of discharge information provided by the Bureau of Reclamation for their station on the Yakima River near Parker; minimum daily discharge, 300 ft<sup>3</sup>/s Jan. 1, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 19,100 ft<sup>3</sup>/s Feb. 1, elevation 946.82 ft; minimum discharge, 996 ft<sup>3</sup>/s Oct. 21.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,360	1,340	1,290	1,470	17,400	2,690	6,260	4,440	7,230	3,310	3,330	2,500
2	2,200	1,350	1,280	1,490	10,900	2,570	5,990	4,720	6,520	3,510	3,340	2,540
3	2,180	1,350	1,290	1,720	8,160	2,500	5,290	5,000	5,740	3,510	3,470	2,480
4	2,170	1,360	1,300	2,090	6,980	2,440	4,620	5,010	5,350	3,480	3,600	2,390
5	2,120	1,360	1,290	2,430	6,060	2,390	4,220	4,770	5,470	3,510	3,600	2,340
6	2,110	1,340	1,260	2,320	5,440	2,540	4,020	4,300	6,200	3,490	3,740	2,400
7	2,100	1,340	1,240	2,090	4,770	2,600	3,760	3,940	7,450	3,470	3,650	2,450
8	2,160	1,490	1,240	1,970	4,400	2,530	3,380	3,630	8,530	3,400	3,530	2,520
9	2,180	1,410	1,240	1,880	4,160	2,490	3,410	3,270	8,010	e3,410	3,380	2,500
10	2,100	1,330	1,240	1,790	3,990	2,550	3,620	3,110	7,100	e3,370	3,220	2,440
11	2,200	1,270	1,280	1,740	3,790	2,880	3,780	3,040	5,980	e3,310	3,220	2,440
12	2,130	1,330	1,320	1,770	3,380	3,690	4,000	3,150	5,220	e3,250	3,170	2,430
13	2,100	1,400	1,330	1,680	3,210	5,430	4,570	3,120	4,790	e3,180	3,140	2,310
14	2,060	1,440	1,510	1,610	3,100	7,060	5,320	3,360	4,700	e3,290	3,120	2,260
15	2,010	1,410	1,780	1,590	2,950	7,240	5,220	3,590	4,440	3,290	3,090	2,290
16	1,910	1,380	2,100	1,550	2,980	7,150	4,760	3,580	4,020	3,270	3,110	2,220
17	1,540	1,390	2,050	1,510	2,960	6,380	4,380	3,370	3,710	3,260	3,100	2,210
18	1,320	1,400	1,780	1,490	2,890	5,600	4,030	3,200	3,680	3,320	3,070	2,170
19	1,120	1,390	1,630	1,470	2,800	5,020	3,570	2,890	3,920	3,320	2,960	2,180
20	1,050	1,410	1,540	1,450	2,740	4,630	3,390	2,790	3,710	3,340	3,000	2,170
21	1,280	1,450	1,520	1,460	2,800	4,370	3,400	2,780	3,540	3,330	2,990	2,160
22	1,550	1,430	1,450	1,520	3,930	4,470	3,420	2,810	3,370	3,230	3,080	2,150
23	1,510	1,400	1,410	1,520	4,290	5,010	3,650	3,150	3,330	3,150	3,100	2,120
24	1,460	1,350	1,400	1,590	3,710	4,810	4,140	4,130	3,350	3,250	3,020	2,150
25	1,460	1,330	1,420	1,660	3,240	4,480	4,900	6,680	3,420	3,360	2,960	2,150
26	1,410	1,320	1,370	1,980	3,080	4,230	4,850	7,430	3,430	3,370	2,920	2,090
27	1,430	1,310	1,480	4,900	2,980	3,950	4,550	6,750	3,360	3,320	2,890	2,120
28	1,440	1,310	1,430	4,640	2,820	3,680	4,250	6,250	3,350	3,280	2,870	2,120
29	1,460	1,310	1,450	3,900	---	3,540	4,210	6,850	3,270	3,230	2,710	2,120
30	1,470	1,300	1,430	3,690	---	3,650	4,400	7,280	3,340	3,280	2,600	2,100
31	1,400	---	1,510	9,960	---	4,740	---	7,570	---	3,350	2,570	---
TOTAL	54,990	41,000	44,860	71,930	129,910	127,310	129,360	135,960	145,530	103,440	97,550	68,520
MEAN	1,774	1,367	1,447	2,320	4,640	4,107	4,312	4,386	4,851	3,337	3,147	2,284
MAX	2,360	1,490	2,100	9,960	17,400	7,240	6,260	7,570	8,530	3,510	3,740	2,540
MIN	1,050	1,270	1,240	1,450	2,740	2,390	3,380	2,780	3,270	3,150	2,570	2,090
AC-FT	109,100	81,320	88,980	142,700	257,700	252,500	256,600	269,700	288,700	205,200	193,500	135,900

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 2003, BY WATER YEAR (WY)

MEAN	1,712	1,900	2,853	2,912	3,569	3,901	4,709	6,068	5,860	3,779	3,343	2,673
MAX	2,574	5,354	11,200	7,490	14,290	14,340	12,780	15,160	13,410	6,878	4,123	3,355
(WY)	(1998)	(1991)	(1976)	(1976)	(1996)	(1972)	(1972)	(1997)	(1974)	(1974)	(1974)	(1974)
MIN	896	710	882	540	889	752	1,608	2,475	2,480	2,650	2,351	1,411
(WY)	(1980)	(1988)	(1994)	(1979)	(1977)	(1977)	(1977)	(1977)	(2001)	(2001)	(1979)	(1979)

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

FOR 2003 WATER YEAR

WATER YEARS 1967 - 2003

ANNUAL TOTAL	1,297,410	1,150,360	
ANNUAL MEAN	3,555	3,152	3,605
HIGHEST ANNUAL MEAN			6,622
LOWEST ANNUAL MEAN			1,884
HIGHEST DAILY MEAN	13,800	Apr 15	17,400
LOWEST DAILY MEAN	1,050	Oct 20	1,050
ANNUAL SEVEN-DAY MINIMUM	1,260	Jan 1	1,260
ANNUAL RUNOFF (AC-FT)	2,573,000		2,282,000
10 PERCENT EXCEEDS	7,330		5,220
50 PERCENT EXCEEDS	2,830		3,020
90 PERCENT EXCEEDS	1,350		1,390
			2,612,000
			6,860
			3,000
			1,270
			1972
			2001
			Feb 9, 1996
			Jan 1, 1979
			Dec 31, 1978

e Estimated



12502500 AHTANUM CREEK AT UNION GAP, WA

LOCATION.--Lat 46°32'08", long 120°28'20", in SE ¼ SW ¼ sec.8, T.12 N., R.19 E., Yakima County, Hydrologic Unit 17030003, on right downstream wingwall of Union Pacific Railway bridge at Union Gap, 1.0 mi south of town of Union Gap, and at mile 0.6.

DRAINAGE AREA.--173 mi<sup>2</sup>.

PERIOD OF RECORD.--May to November 1904, August 1907 to July 1908, March to October 1910, April 1911 to September 1914, May 1951 to April 1953, August 1960 to current year. Published as "near Yakima" 1904, 1907-08, 1910-12. Records for water years 1913-14 are published in WSP 1286.

REVISED RECORDS.--WSP 1933: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 940 ft above NGVD of 1929, from topographic map. Prior to Sept. 30, 1914, nonrecording gage at approximately same site at various datums. May 12, 1951, to Sept. 30, 1972, water-stage recorder at present site at datum 3.00 ft higher.

REMARKS.--Records good. Extreme high flows may include transbasin flow from Wide Hollow Creek. Diversions and ground-water withdrawals for irrigation of about 9,000 acres upstream from station. Return from transbasin irrigation flows contribute to base flow. Chemical data (irrigation seasons only) for 1975-76 water years. Water temperature records March to December 1981. Bureau of Reclamation satellite telemeter at station.

AVERAGE DISCHARGE.--43 years (water years 1961-2003), 78.2 ft<sup>3</sup>/s, 56,680 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,100 ft<sup>3</sup>/s Jan. 16, 1974, gage height, 10.36 ft; maximum gage height, 13.5 ft, from high-water mark, backwater from Yakima River; no flow many days during September and October 1904.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,010 ft<sup>3</sup>/s Feb. 1, gage height, 7.63 ft; minimum discharge, 11 ft<sup>3</sup>/s part of each day July 27-31, Aug. 1.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	18	22	37	875	102	214	148	265	16	13	16
2	34	20	22	38	654	95	211	152	244	17	14	15
3	34	22	23	54	437	90	196	159	225	23	17	20
4	35	25	23	82	340	87	179	162	208	17	17	21
5	35	29	23	67	261	84	163	155	195	15	15	21
6	34	30	22	49	238	85	153	141	192	13	20	21
7	32	30	21	44	214	81	147	133	197	14	30	21
8	32	39	21	49	194	79	140	131	206	13	24	22
9	31	32	21	44	179	79	135	122	202	15	22	21
10	31	27	20	41	165	81	131	115	188	16	20	23
11	33	25	23	42	157	85	140	114	171	14	19	24
12	37	25	23	45	147	84	148	116	153	21	19	24
13	36	26	24	44	140	114	173	119	141	21	21	25
14	37	27	39	41	134	e270	185	133	135	21	19	24
15	37	25	55	39	128	e260	175	146	120	21	17	24
16	37	24	72	37	133	e245	166	141	108	19	18	24
17	37	25	47	36	125	e225	158	135	102	18	21	25
18	34	25	42	37	123	e205	146	126	94	18	20	25
19	26	24	37	36	123	189	134	114	88	17	21	24
20	24	24	40	35	116	175	134	107	77	15	21	24
21	23	23	40	36	114	168	139	106	69	14	21	25
22	23	23	36	36	122	173	145	111	62	14	21	25
23	23	22	32	40	118	185	156	117	53	14	21	24
24	24	21	33	44	105	176	172	146	48	13	20	23
25	24	22	34	48	98	172	174	202	43	13	20	22
26	23	24	32	74	110	170	181	227	29	14	19	21
27	24	24	36	170	107	160	167	213	23	12	18	21
28	23	23	36	129	111	150	154	225	20	11	18	20
29	22	23	36	111	---	145	148	243	18	11	18	21
30	23	22	35	110	---	149	152	262	16	11	18	21
31	20	---	40	317	---	179	---	279	---	12	17	---
TOTAL	924	749	1,010	2,012	5,768	4,542	4,816	4,800	3,692	483	599	667
MEAN	29.8	25.0	32.6	64.9	206	147	161	155	123	15.6	19.3	22.2
MAX	37	39	72	317	875	270	214	279	265	23	30	25
MIN	20	18	20	35	98	79	131	106	16	11	13	15
AC-FT	1,830	1,490	2,000	3,990	11,440	9,010	9,550	9,520	7,320	958	1,190	1,320

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2003, BY WATER YEAR (WY)

MEAN	21.0	29.4	51.2	74.7	124	136	136	164	138	33.4	15.8	20.1
MAX	34.4	96.7	210	413	564	408	270	383	438	124	26.7	31.8
(WY)	(1983)	(1963)	(1978)	(1974)	(1996)	(1972)	(1974)	(1995)	(1972)	(1974)	(1999)	(1978)
MIN	9.30	8.99	8.64	10.3	15.7	21.5	16.5	22.8	12.2	8.31	7.33	9.34
(WY)	(1978)	(1995)	(1989)	(1993)	(1994)	(1994)	(1977)	(1977)	(1992)	(1994)	(1977)	(1981)

SUMMARY STATISTICS

FOR 2002 CALENDAR YEAR

FOR 2003 WATER YEAR

WATER YEARS 1961 - 2003

ANNUAL TOTAL	21,624	30,062		
ANNUAL MEAN	59.2	82.4		
HIGHEST ANNUAL MEAN			78.2	
LOWEST ANNUAL MEAN			171	1974
HIGHEST DAILY MEAN	346	Apr 15	2,560	Jan 16, 1974
LOWEST DAILY MEAN	11	Jul 27	11	Jul 28
ANNUAL SEVEN-DAY MINIMUM	13	Jul 25	12	Jul 25
ANNUAL RUNOFF (AC-FT)	42,890		59,630	56,680
10 PERCENT EXCEEDS	133		185	198
50 PERCENT EXCEEDS	35		37	35
90 PERCENT EXCEEDS	21		18	12

e Estimated

## 12504508 SUNNYSIDE CANAL DIVERSIONS ABOVE NORTH OUTLOOK ROAD NEAR SUNNYSIDE, WA

## WATER-QUALITY RECORDS

LOCATION.--Lat. 46°22'05", long. 120°06'13", and Lat. 46°21'58", long. 120°05'41", in NE ¼ SW ¼ sec.8, T. 10 N., R. 22 E., Yakima County, Hydrologic Unit 17030003, on right bank, 1.3 and 0.5 mi upstream from North Outlook Road, 4 mi northwest of Sunnyside.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--April to September 2003.

REMARKS.--Samples are composites taken from two head gate diversions (29.15 and 29.68) from the canal.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium adsorption ratio (00931)
APR 23...	0940	740	10.4	101	7.7	106	14.5	12.5	41	10.4	3.55	0.95	0.3
MAY 14...	1110	744	10.4	103	7.7	117	23.2	14.0	46	11.6	4.11	1.28	0.3
JUN 11...	1030	735	9.7	100	7.8	75	22.8	15.2	30	7.81	2.58	0.66	0.3
JUL 17...	1000	743	9.0	101	7.8	93	28.2	19.5	38	9.14	3.79	0.87	0.3
AUG 26...	0930	736	8.8	99	7.9	104	22.6	19.4	43	10.1	4.24	0.89	0.3
SEP 23...	0910	739	8.5	90	8.0	124	17.6	16.2	48	12.3	4.20	1.36	0.3

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alkalinity, wat fltrd inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat fltrd incrm. titr., mg/L (00453)	Carbonate, wat fltrd incrm. titr., mg/L (00452)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue water, fltrd, tons/ acre-ft (70303)	Residue on evap. at 180degC wat fltrd mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)
APR 23...	5.01	21	45	54	0.0	1.58	0.07	15.5	3.6	68	0.10	71	0.16
MAY 14...	5.37	20	--	--	--	2.30	<0.17	16.6	4.1	--	--	84	0.49
JUN 11...	3.28	19	34	42	0.0	1.19	<0.2	13.6	2.5	53	0.07	55	0.94
JUL 17...	3.93	18	39	47	0.0	1.78	<0.2	11.7	2.8	58	0.08	62	0.20
AUG 26...	4.27	18	45	55	0.0	2.23	<0.2	12.0	2.5	64	0.09	64	0.22
SEP 23...	5.47	19	51	62	0.0	2.62	<0.2	15.1	4.8	78	0.12	85	0.18

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Particulate nitrogen, susp, water, mg/L (49570)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Iron, water, fltrd, ug/L (01046)	Manganese, water, fltrd, ug/L (01056)	1-Naphthol, water, fltrd 0.7u GF ug/L (49295)
APR 23...	<0.04	0.09	<0.008	0.02	0.04	0.041	0.25	0.3	<0.1	0.3	15	6.9	<0.09
MAY 14...	<0.04	0.13	0.011	0.02	0.07	0.166	0.62	0.5	<0.1	0.5	18	22.1	E.01
JUN 11...	<0.04	0.14	<0.008	0.02	0.62	0.31	1.1	6.8	<0.1	6.8	14	9.2	<0.09
JUL 17...	<0.04	0.17	<0.008	0.03	0.07	0.076	0.36	0.5	<0.1	0.5	22	2.1	M
AUG 26...	<0.04	0.13	<0.008	0.03	0.08	0.068	0.35	0.7	<0.1	0.6	26	1.7	<0.09
SEP 23...	<0.04	0.24	<0.008	0.04	0.04	0.059	0.43	0.3	<0.1	0.3	17	1.8	<0.09

## 12504508 SUNNYSIDE CANAL DIVERSIONS ABOVE NORTH OUTLOOK ROAD NEAR SUNNYSIDE, WA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	2,6-Diethyl-aniline water fltrd 0.7u GF (82660)	2-[(2-Et-6-Me-Ph)-amino]propan-1-ol, ug/L (61615)	2Chloro-2,6-diethyl acet-anilide wat flt ug/L (61618)	CIAT, water, fltrd, ug/L (04040)	2-Ethyl-6-methyl-aniline water, fltrd, ug/L (61620)	3,4-Di-chloro-aniline water fltrd, ug/L (61625)	4Chloro 2methyl phenol, water, fltrd, ug/L (61633)	Aceto-chlor ESA, water, fltrd 0.7u GF (61029)	Aceto-chlor OA, water, fltrd 0.7u GF (61030)	Aceto-chlor, water, fltrd, ug/L (49260)	Ala-chlor ESA, water, fltrd 0.7u GF (50009)	Ala-chlor OA, water, fltrd 0.7u GF (61031)	Ala-chlor, water, fltrd, ug/L (46342)
APR 23...	<0.006	<0.1	<0.005	<0.006	<0.004	<0.004	<0.006	<0.05	<0.05	<0.006	<0.05	<0.05	<0.004
MAY 14...	<0.006	<0.1	<0.005	E.003	<0.004	<0.004	<0.006	<0.05	<0.05	<0.006	<0.05	<0.05	<0.004
JUN 11...	<0.006	<0.1	<0.005	<0.006	<0.004	<0.004	<0.006	<0.05	<0.05	<0.006	<0.05	<0.05	<0.004
JUL 17...	<0.006	<0.1	<0.005	E.003	<0.004	<0.004	<0.006	<0.05	<0.05	<0.006	<0.05	<0.05	<0.004
AUG 26...	<0.006	<0.1	<0.005	E.006	<0.004	<0.004	<0.006	<0.05	<0.05	<0.006	<0.05	<0.05	<0.004
SEP 23...	<0.006	<0.1	<0.005	<0.006	<0.004	<0.004	<0.006	<0.05	<0.05	<0.006	<0.05	<0.05	<0.004

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	alpha-HCH-d6, surrog, Sch2003 wat flt percent recovry (99995)	Atra-zine, water, fltrd, ug/L (39632)	Azin-phos-methyl oxon, water, fltrd, ug/L (61635)	Azin-phos-methyl, water, fltrd 0.7u GF (82686)	Ben-flur-alin, water, fltrd 0.7u GF (82673)	Car-baryl, water, fltrd 0.7u GF (82680)	Chlor-pyri-fos oxon, water, fltrd, ug/L (61636)	Chlor-pyri-fos water, fltrd, ug/L (38933)	cis-Per-methrin water fltrd 0.7u GF (82687)	Cyflu-thrin, water, fltrd, ug/L (61585)	Cyper-methrin water, fltrd, ug/L (61586)	DCPA, water fltrd 0.7u GF (82682)	Desulf-inyl fipronil, water, fltrd, ug/L (62170)
APR 23...	93.7	E.003	<0.02	<0.050	<0.010	E.007	<0.06	0.005	<0.006	<0.008	<0.009	<0.003	<0.004
MAY 14...	93.5	E.004	<0.02	<0.050	<0.010	E.022	<0.06	E.004	<0.006	<0.008	<0.009	<0.003	<0.004
JUN 11...	96.3	E.003	<0.02	E.037	<0.010	E.012	<0.06	<0.005	<0.006	<0.008	<0.009	<0.003	<0.004
JUL 17...	87.7	0.014	<0.02	E.020	<0.010	E.007	<0.06	<0.005	<0.006	<0.008	<0.009	<0.003	<0.004
AUG 26...	86.6	E.006	<0.02	<0.050	<0.010	<0.041	<0.06	<0.005	<0.006	<0.008	<0.009	<0.003	<0.004
SEP 23...	103	E.006	<0.03	E.010	<0.010	<0.041	<0.06	<0.005	<0.006	<0.008	<0.009	<0.003	<0.004

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Diaz-inon oxon, water, fltrd, ug/L (61638)	Diaz-inon, water, fltrd, ug/L (39572)	Diaz-inon-d10 surrog, Sch2003 wat flt percent recovry (99994)	Dicro-tophos, water, fltrd, ug/L (38454)	Diel-drin, water, fltrd, ug/L (39381)	Dimeth-enamid ESA, water, fltrd, ug/L (61951)	Dimeth-enamid OA, water, fltrd, ug/L (62482)	Dimeth-oate, water, fltrd 0.7u GF (82662)	Ethion monooxon water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)	Fenami-phos sulfone water, fltrd, ug/L (61645)	Fenami-phos sulf-oxide, water, fltrd, ug/L (61646)	Fenami-phos, water, fltrd, ug/L (61591)
APR 23...	<0.04	<0.005	96.4	<0.08	<0.005	<0.05	<0.05	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03
MAY 14...	<0.01	<0.005	111	<0.08	<0.005	<0.05	<0.05	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03
JUN 11...	<0.01	<0.005	92.6	<0.08	<0.005	<0.05	<0.05	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03
JUL 17...	<0.01	E.004	93.5	<0.08	<0.005	<0.05	<0.05	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03
AUG 26...	<0.01	<0.005	90.8	<0.08	<0.005	<0.05	<0.05	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03
SEP 23...	<0.01	<0.005	114	<0.08	<0.005	<0.05	<0.05	<0.006	<0.03	<0.004	<0.008	<0.03	<0.03

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Desulf-inyl-fipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)	Fipronil, water, fltrd, ug/L (62166)	Flufen-acet ESA, water, fltrd, ug/L (61952)	Flufe-naacet OA, water, fltrd, ug/L (62483)	Fonofos oxon, water, fltrd, ug/L (61649)	Fonofos water, fltrd, ug/L (04095)	Hexa-zinone, water, fltrd, ug/L (04025)	Ipro-dione, water, fltrd, ug/L (61593)	Isofen-phos, water, fltrd, ug/L (61594)	Malaoxon, water, fltrd, ug/L (61652)	Malathion, water, fltrd, ug/L (39532)
APR 23...	<0.009	<0.005	<0.005	<0.007	<0.05	<0.05	<0.002	<0.003	--	<1	<0.003	<0.008	<0.027
MAY 14...	<0.009	<0.005	<0.005	<0.007	<0.05	<0.05	<0.002	<0.003	<0.013	<1	<0.003	<0.008	<0.027
JUN 11...	<0.009	<0.005	<0.005	<0.007	<0.05	<0.05	<0.002	<0.003	<0.013	<1	<0.003	<0.008	<0.027
JUL 17...	<0.009	<0.005	<0.005	<0.007	<0.05	<0.05	<0.002	<0.003	<0.013	<1	<0.003	<0.008	<0.027
AUG 26...	<0.009	<0.005	<0.005	<0.007	<0.05	<0.05	<0.002	<0.003	<0.013	<1	<0.003	<0.008	<0.027
SEP 23...	<0.009	<0.005	<0.005	<0.007	<0.05	<0.05	<0.002	<0.003	<0.013	<1	<0.003	<0.008	<0.027

## 12504508 SUNNYSIDE CANAL DIVERSIONS ABOVE NORTH OUTLOOK ROAD NEAR SUNNYSIDE, WA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Meta-laxyl, water, fltrd, ug/L (61596)	Methi-althion water, fltrd, ug/L (61598)	Methyl para-oxon, water, fltrd, ug/L (61664)	Methyl para-thion, water, fltrd, 0.7u GF ug/L (82667)	Metola-chlor ESA, water, fltrd, 0.7u GF ug/L (61043)	Metola-chlor OA, water, fltrd, 0.7u GF ug/L (61044)	Metola-chlor, water, fltrd, ug/L (39415)	Metri-buzin, water, fltrd, ug/L (82630)	Myclo-butanil water, fltrd, ug/L (61599)	Pendi-meth-alin, water, fltrd, 0.7u GF ug/L (82683)	Phorate oxon, water, fltrd, ug/L (61666)	Phorate water fltrd, 0.7u GF ug/L (82664)	Phosmet oxon, water, fltrd, ug/L (61668)
APR 23...	<0.005	0.021	<0.03	<0.006	<0.05	<0.05	<0.013	<0.006	E.006	<0.022	<0.10	<0.011	<0.06
MAY 14...	<0.005	0.007	<0.03	<0.006	<0.05	<0.05	<0.013	<0.006	E.005	<0.022	<0.10	<0.011	<0.06
JUN 11...	<0.005	<0.006	<0.03	<0.006	<0.05	<0.05	<0.013	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06
JUL 17...	<0.005	<0.006	<0.03	<0.006	<0.05	<0.05	<0.013	<0.006	E.005	<0.022	<0.10	<0.011	<0.06
AUG 26...	<0.005	<0.006	<0.03	<0.006	<0.05	<0.05	<0.013	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06
SEP 23...	<0.005	<0.006	<0.03	<0.006	<0.05	<0.05	<0.013	<0.006	<0.008	<0.022	<0.10	<0.011	<0.06

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Phosmet water, fltrd, ug/L (61601)	Prome-ton, water, fltrd, ug/L (04037)	Prome-tryn, water, fltrd, ug/L (04036)	Pron-amide, water, fltrd, 0.7u GF ug/L (82676)	Sima-zine, water, fltrd, ug/L (04035)	Tebu-thiuron water fltrd, 0.7u GF ug/L (82670)	Ter-bufos oxon sulfone water, fltrd, ug/L (61674)	Terbu-fos, water, fltrd, 0.7u GF ug/L (82675)	Ter-buthyl-azine, water, fltrd, ug/L (04022)	Tri-flur-alin, water, fltrd, 0.7u GF ug/L (82661)	Di-chlor-vo-s, water, fltrd, ug/L (38775)	Suspnd. sedi-ment, sieve diametr <.063mm (70331)	Sus-pended sedi-ment concen-tration mg/L (80154)
APR 23...	<0.008	<0.01	<0.005	<0.004	E.004	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01	--	7
MAY 14...	<0.008	<0.01	<0.005	<0.004	<0.005	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01	78	116
JUN 11...	<0.008	<0.01	<0.005	<0.004	<0.005	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01	78	315
JUL 17...	<0.008	<0.01	<0.005	<0.004	<0.005	<0.02	<0.07	<0.02	<0.01	E.004	<0.01	81	28
AUG 26...	<0.008	<0.01	<0.005	<0.004	<0.005	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01	79	25
SEP 23...	<0.008	<0.01	<0.005	<0.004	<0.005	<0.02	<0.07	<0.02	<0.01	<0.009	<0.01	87	15

## YAKIMA RIVER BASIN

462023120075200 DR2 AT YAKIMA VALLEY HIGHWAY NEAR GRANGER, WA

LOCATION.--Lat 46°20'23", long 120°07'52", in SW ¼ NE ¼ sec.24, T.10 N., R.21 E., Yakima County, Hydrologic Unit 17030003, on left bank, 50 ft upstream from highway, 3.5 mi east of Granger.

DRAINAGE AREA.--Not determined

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March to September 2003.

GAGE.--Water-stage recorder. Elevation of gage is 735 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good, except for estimated daily discharges, which are poor. Most flow is return and waste from water imported for irrigation and stock use.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9.2 ft<sup>3</sup>/s Aug. 17, gage height, 1.09 ft; minimum discharge, 2.6 ft<sup>3</sup>/s Mar. 8, 16-19, 23-25.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR MARCH 2003 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e3.0	4.1	4.2	6.1	6.0	6.9	6.8
2	e3.0	4.2	3.9	6.0	5.8	7.1	6.6
3	e3.0	4.3	4.2	5.6	6.1	7.3	6.4
4	e3.0	4.4	3.8	6.0	6.3	7.3	6.0
5	3.0	4.1	3.7	6.3	6.2	7.3	6.0
6	2.9	4.1	4.4	5.8	6.3	7.5	6.0
7	2.9	3.8	4.4	5.3	6.2	7.8	6.2
8	2.8	3.9	4.3	5.0	5.9	7.3	6.2
9	2.9	3.8	4.4	5.0	6.1	6.6	5.8
10	2.9	3.7	4.5	4.9	5.9	7.0	5.6
11	3.1	4.4	4.5	5.0	5.9	6.8	5.3
12	3.1	4.7	e4.5	5.0	5.9	6.9	5.2
13	3.1	4.8	e4.0	5.4	6.5	7.2	5.4
14	3.0	5.8	e4.0	5.3	6.1	7.3	5.6
15	3.0	5.2	e4.8	6.0	5.9	7.6	5.8
16	2.8	4.9	e5.2	6.4	5.6	7.7	5.6
17	2.7	4.8	e5.4	5.7	6.0	8.0	5.3
18	2.8	4.5	e5.4	6.1	6.5	7.7	5.0
19	2.9	4.2	e5.2	5.9	7.1	7.2	4.8
20	3.0	4.3	e5.0	6.3	7.2	7.0	4.8
21	3.0	4.3	e5.0	6.3	7.0	7.1	4.4
22	3.0	4.0	e5.2	6.3	7.0	7.3	4.5
23	2.7	4.1	e5.2	6.5	7.0	7.4	4.8
24	2.7	4.1	e5.4	6.7	6.8	7.6	5.2
25	2.8	3.8	e5.6	6.8	6.7	6.8	5.0
26	3.2	3.8	e5.6	6.6	6.6	6.4	5.1
27	3.3	3.5	e5.6	5.9	6.7	5.9	4.7
28	3.5	3.7	e5.8	5.8	6.6	5.9	4.7
29	3.5	4.0	6.1	6.2	6.4	5.9	4.8
30	3.6	4.3	6.4	5.9	6.4	6.3	4.7
31	3.7	6.1	6.4	7.0	---	---	---
TOTAL	93.9	127.6	151.8	176.1	197.1	219.1	162.3
MEAN	3.03	4.25	4.90	5.87	6.36	7.07	5.41
MAX	3.7	5.8	6.4	6.8	7.2	8.0	6.8
MIN	2.7	3.5	3.7	4.9	5.6	5.9	4.4
AC-FT	186	253	301	349	391	435	322
CFSM	0.73	1.02	1.18	1.41	1.53	1.70	1.30
IN.	0.84	1.14	1.36	1.58	1.77	1.96	1.45

e Estimated

462023120075200 DR2 AT YAKIMA VALLEY HIGHWAY NEAR GRANGER, WA—Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--February to September 2003.

REMARKS.--Nutrient samples collected March 18 were delayed in route to the laboratory by weather conditions and were received warm, and are coded with an "E" as estimated.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO3 (00900)	Noncarb hardness, wat fltr field, mg/L as CaCO3 (00904)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)
FEB													
19...	1440	--	746	8.4	80	7.8	713	--	12.1	270	24	66.3	25.4
MAR													
04...	1350	3.2	--	9.4	--	8.1	688	13.5	13.0	260	27	64.4	25.0
11...	1220	3.2	744	9.5	94	8.0	660	16.9	13.6	260	25	62.6	24.3
18...	1440	2.9	757	9.4	94	8.0	662	21.8	14.9	250	23	62.4	23.7
25...	1440	3.0	752	9.4	90	8.1	660	13.5	12.9	250	22	61.4	23.3
APR													
03...	1530	4.5	--	9.6	--	8.0	472	12.8	11.8	180	11	43.8	16.2
08...	1800	3.8	752	8.8	86	8.1	511	24.2	13.9	200	21	48.7	18.4
15...	1520	5.1	--	9.0	--	8.1	465	17.8	14.2	170	7	42.5	16.3
22...	1410	4.0	--	9.4	--	8.2	539	20.4	16.1	210	26	51.4	19.9
MAY													
01...	1330	4.4	--	10.1	--	8.1	448	23.1	15.9	180	22	44.2	16.8
08...	1350	4.2	747	9.4	96	8.1	463	18.2	15.2	170	11	42.9	16.2
15...	1340	--	748	9.8	101	8.2	455	23.8	16.0	180	16	43.3	16.3
20...	1340	--	756	10.5	105	8.2	430	26.0	15.1	160	12	41.0	15.2
28...	1010	--	740	9.7	100	8.0	362	30.3	15.3	140	7	33.4	12.8
JUN													
02...	1510	6.3	--	10.0	--	8.2	360	26.9	17.5	150	22	36.8	13.3
10...	1500	4.8	736	9.6	106	8.2	403	34.5	18.6	150	6	38.4	12.7
16...	1510	6.9	744	9.8	110	8.1	357	31.8	19.6	130	13	32.5	12.3
24...	1420	6.8	743	9.1	100	8.0	380	28.0	18.8	140	5	35.2	13.2
30...	1230	6.2	741	8.0	88	7.9	406	24.9	18.5	150	8	38.1	14.1
JUL													
07...	1500	6.4	735	8.6	99	8.1	389	31.4	20.2	140	13	35.5	13.2
16...	1410	5.7	741	7.9	91	7.9	436	29.8	20.6	170	10	41.6	15.5
21...	1500	6.6	742	6.8	80	7.9	403	35.2	21.6	150	3	36.4	13.2
29...	1420	6.5	739	9.3	107	7.7	373	37.2	21.0	150	15	35.9	14.1
AUG													
06...	1250	7.4	740	8.0	89	7.9	363	28.0	19.1	130	--	33.2	11.3
12...	1430	6.6	741	7.6	85	8.0	411	29.1	19.4	160	7	38.0	14.9
20...	1600	6.9	741	7.1	81	7.9	371	30.4	20.3	150	12	36.0	13.6
25...	1500	6.4	741	7.7	85	7.9	438	32.0	18.9	170	23	41.2	16.8
SEP													
04...	0930	6.2	739	7.2	78	7.9	478	24.3	17.4	180	13	43.6	17.7
08...	1420	6.3	738	7.4	82	7.8	441	26.3	18.5	170	9	40.0	16.0
16...	1320	5.8	737	8.0	83	8.0	413	20.3	15.8	160	15	40.0	15.5
22...	1500	4.8	740	8.4	90	8.0	435	29.1	16.8	160	5	38.6	15.3
30...	1010	4.8	745	8.2	85	8.0	450	22.3	15.8	170	14	41.8	16.1

## 462023120075200 DR2 AT YAKIMA VALLEY HIGHWAY NEAR GRANGER, WA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Potas- sium, water, fltrd, mg/L (00935)	Sodium adsorp- tion ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alka- linity, wat flt inc tit field, mg/L as CaCO <sub>3</sub> (39086)	Bicar- bonate, wat flt incrm. titr., field, mg/L (00453)	Carbon- ate, wat flt incrm. titr., field, mg/L (00452)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of consti- tuents mg/L (70301)	Residue water, fltrd, tons/ acre-ft (70303)
FEB													
19...	7.13	1	45.0	26	248	300	0.0	16.2	0.59	44.3	74.0	453	0.63
MAR													
04...	6.11	1	42.6	25	240	289	0.0	15.5	0.59	44.9	67.6	433	0.59
11...	5.32	1	41.6	26	234	282	0.0	14.7	0.61	43.9	68.5	424	0.60
18...	5.79	1	40.1	25	233	281	0.0	16.8	0.59	43.7	67.2	399	0.59
25...	5.70	1	40.6	26	232	277	0.0	16.7	0.59	42.5	67.4	418	0.59
APR													
03...	4.37	0.9	27.7	25	166	202	0.0	10.0	0.41	33.8	43.2	294	0.42
08...	4.56	0.9	30.1	24	178	214	0.0	10.7	0.47	37.1	48.8	321	0.45
15...	4.25	1	28.9	26	168	202	0.0	11.9	0.41	32.8	46.2	297	0.41
22...	5.65	1	32.2	24	188	225	0.0	11.8	0.46	37.9	53.8	343	0.48
MAY													
01...	4.15	0.9	28.6	25	160	192	0.0	9.08	0.39	35.1	41.2	289	0.40
08...	5.29	0.9	27.6	25	165	198	0.0	11.5	0.42	34.0	43.9	294	0.41
15...	4.47	0.9	27.3	25	160	194	0.0	11.0	0.37	33.9	43.6	289	0.41
20...	4.73	0.8	25.1	24	154	186	0.0	9.95	0.4	32.7	40.5	273	0.39
28...	4.25	0.7	18.9	23	131	158	0.0	8.02	0.3	29.6	30.9	226	0.32
JUN													
02...	4.19	0.7	20.8	23	126	152	0.0	7.89	0.3	30.1	32.7	233	0.33
10...	4.29	0.9	24.8	26	144	173	0.0	9.36	0.4	30.9	34.5	256	0.36
16...	4.82	0.8	19.8	24	121	145	0.0	8.29	0.3	27.7	28.5	218	0.31
24...	4.64	0.8	21.1	24	138	167	0.0	8.46	0.3	29.3	29.6	238	0.33
30...	5.25	0.8	22.9	24	146	177	0.0	8.42	0.3	30.2	30.1	252	0.35
JUL													
07...	4.53	0.8	21.9	24	132	158	0.0	9.24	0.3	26.8	32.1	237	0.34
16...	6.37	0.8	25.3	24	160	193	0.0	9.87	0.4	33.1	34.3	278	0.40
21...	5.64	0.8	22.6	24	144	174	0.0	9.48	0.3	29.4	29.9	246	0.35
29...	4.42	0.8	22.2	24	134	161	0.0	9.38	0.3	28.3	28.6	236	0.33
AUG													
06...	4.19	0.8	20.9	25	134	163	0.0	8.62	0.3	25.5	26.8	224	0.32
12...	4.46	0.9	25.2	25	151	182	0.0	9.67	0.3	29.8	30.7	256	0.37
20...	3.84	0.7	20.8	23	135	163	0.0	8.06	0.3	27.5	28.3	230	0.38
25...	4.28	0.8	23.9	23	151	182	0.0	10.5	0.4	30.0	39.0	269	0.38
SEP													
04...	5.41	0.8	25.9	23	170	205	0.0	11.3	0.4	33.1	42.8	296	0.43
08...	4.87	0.7	22.2	22	158	191	0.0	10.3	0.4	33.2	39.0	273	0.39
16...	4.57	0.8	23.8	23	150	181	0.0	9.61	0.4	33.5	35.9	265	0.39
22...	4.20	0.7	21.4	22	156	189	0.0	10.2	0.4	32.2	38.1	266	0.39
30...	4.51	0.9	26.3	24	158	191	0.0	10.4	0.4	34.3	39.6	281	0.40

## 462023120075200 DR2 AT YAKIMA VALLEY HIGHWAY NEAR GRANGER, WA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Residue water, fltrd, tons/d (70302)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Partic- ulate nitro- gen, susp, water, mg/L (49570)	Phos- phorus, water, unfltrd mg/L (00665)	Total nitro- gen, wat unf by anal ysis, mg/L (62855)	Total nitro- gen, water, unfltrd mg/L (00600)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inor- ganic carbon, suspnd sedimnt total, mg/L (00688)
FEB													
19...	--	463	0.61	E.03	5.92	0.011	0.10	0.27	0.30	--	6.5	2.6	<0.1
MAR													
04...	3.77	437	0.39	<0.04	5.43	0.010	0.08	0.07	0.19	--	5.8	0.5	<0.1
11...	3.82	442	0.35	E.03	5.29	0.011	0.08	0.09	0.196	--	5.6	0.8	<0.1
18...	3.39	433	E.36	E.03	E5.65	E.010	E.08	E.15	E.184	--	--	E1.4	<0.1
25...	3.52	434	0.42	E.03	5.32	0.009	0.08	0.08	0.150	--	5.7	0.7	<0.1
APR													
03...	3.72	306	0.38	<0.04	3.46	E.006	0.06	0.12	0.165	--	3.8	1.0	<0.1
08...	3.37	328	0.49	<0.04	3.85	0.012	0.08	0.31	0.34	--	4.3	3.0	0.2
15...	4.15	301	0.56	<0.04	3.24	E.007	0.06	0.14	0.22	--	3.8	1.4	<0.1
22...	3.81	353	0.41	<0.04	4.24	E.006	0.08	0.15	0.184	--	4.7	1.3	<0.1
MAY													
01...	3.52	297	0.40	<0.04	3.28	E.004	0.07	0.09	0.163	--	3.7	0.7	<0.1
08...	3.43	302	0.59	<0.04	3.17	0.009	0.15	0.18	0.36	--	3.8	1.5	<0.1
15...	--	302	0.29	<0.04	3.07	0.009	0.08	0.08	0.158	--	3.4	0.7	<0.1
20...	--	284	0.44	<0.04	2.71	0.010	0.15	0.12	0.24	--	3.2	0.9	<0.1
28...	--	235	0.60	<0.04	2.21	0.009	0.22	0.19	0.41	--	2.8	1.7	<0.1
JUN													
02...	4.15	244	0.53	<0.04	2.62	0.008	0.11	0.15	0.23	--	3.2	1.3	<0.1
11...	3.38	261	0.39	<0.04	3.50	0.012	0.12	0.09	0.195	--	3.9	0.7	<0.1
16...	4.24	228	0.56	<0.04	2.68	0.012	0.18	0.12	0.28	--	3.2	1.1	<0.1
24...	4.51	246	0.47	<0.04	3.00	0.010	0.13	0.08	0.20	--	3.5	0.6	<0.1
30...	4.33	259	0.60	E.03	3.35	0.019	0.15	0.18	0.32	--	3.9	1.9	<0.1
JUL													
07...	4.34	251	0.57	<0.04	3.49	0.024	0.13	0.08	0.22	--	4.1	0.6	<0.1
16...	4.52	294	0.73	<0.04	3.53	0.029	0.27	0.12	0.38	--	4.3	1.1	<0.1
21...	4.58	257	0.67	0.04	2.75	0.030	0.18	0.12	0.27	--	3.4	1.0	<0.1
29...	4.21	240	0.56	<0.04	2.90	0.028	0.14	0.11	0.26	--	3.5	0.9	<0.1
AUG													
06...	4.68	234	0.55	E.03	2.79	0.020	0.09	0.21	0.30	--	3.3	2.0	<0.1
12...	4.79	269	0.81	<0.04	3.17	0.023	<0.18	0.13	0.48	--	4.0	1.4	<0.1
20...	5.15	277	0.72	<0.04	2.62	0.015	0.09	0.12	0.37	--	3.4	1.0	<0.1
25...	4.83	280	0.55	E.02	2.91	0.014	0.09	0.08	0.30	--	3.5	0.8	<0.1
SEP													
04...	5.23	313	0.75	E.04	3.35	0.014	0.12	0.08	0.25	--	4.1	0.7	<0.1
08...	4.83	284	0.74	E.03	2.88	0.015	0.12	0.14	0.28	--	3.6	1.3	<0.1
16...	4.46	285	0.58	<0.04	2.73	0.010	0.09	0.18	0.30	--	3.3	1.6	<0.1
22...	3.70	285	0.56	<0.04	2.72	0.012	0.08	0.16	0.23	--	3.3	1.6	<0.1
30...	3.78	291	0.55	E.03	3.06	0.009	0.092	0.12	0.20	3.58	3.6	1.1	<0.1



## 462023120075200 DR2 AT YAKIMA VALLEY HIGHWAY NEAR GRANGER, WA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Organic carbon, suspd sediment total, mg/L (00689)	Iron, water, fltrd, ug/L (01046)	Manganese, water, fltrd, ug/L (01056)	1-Naphthol, water, fltrd 0.7u GF ug/L (49295)	2,6-Diethyl-aniline water fltrd 0.7u GF ug/L (82660)	2-[(2-Et-6-Me-Ph)-amino]propan-1-ol, ug/L (61615)	2Chloro-2,6-diethyl acetanilide wat flt ug/L (61618)	CIAT, water, fltrd, ug/L (04040)	2-Ethyl-6-methyl-aniline water, fltrd, ug/L (61620)	3,4-Di-chloro-aniline water fltrd, ug/L (61625)	4Chloro 2methyl phenol, water, fltrd, ug/L (61633)	Aceto-chlor ESA, water, fltrd 0.7u GF ug/L (61029)	Aceto-chlor OA, water, fltrd 0.7u GF ug/L (61030)
FEB													
19...	2.6	19	75.9	<0.09	<0.006	<0.1	<0.005	E.015	<0.004	<0.004	<0.006	<0.05	<0.05
MAR													
04...	0.5	E6	65.0	<0.09	<0.006	<0.1	<0.005	E.017	<0.004	<0.004	<0.006	<0.05	<0.05
11...	0.8	E9	69.0	<0.09	<0.006	<0.1	<0.005	E.013	<0.004	<0.004	<0.006	<0.05	<0.05
18...	E1.4	10	84.7	<0.09	<0.006	<0.1	<0.005	E.014	<0.004	<0.004	<0.006	<0.05	<0.05
25...	0.7	11	65.7	<0.09	<0.006	<0.1	<0.005	E.015	<0.004	<0.004	<0.006	<0.05	<0.05
APR													
03...	1.0	12	48.1	<0.09	<0.006	<0.1	<0.005	E.008	<0.004	<0.004	<0.006	<0.05	<0.05
08...	2.9	<10	58.5	<0.09	<0.006	<0.1	<0.005	E.007	<0.004	<0.004	<0.006	<0.05	<0.05
15...	1.4	12	61.4	<0.09	<0.006	<0.1	<0.005	E.007	<0.004	<0.004	<0.006	<0.05	<0.05
22...	1.3	E6	60.0	<0.09	<0.006	<0.1	<0.005	E.010	<0.004	<0.004	<0.006	<0.05	<0.05
MAY													
01...	0.7	E9	53.5	<0.09	<0.006	<0.1	<0.005	E.008	<0.004	<0.004	<0.006	<0.05	<0.05
08...	1.5	E10	44.6	<0.09	<0.006	<0.1	<0.005	E.007	<0.004	0.062	<0.006	<0.05	<0.05
15...	0.7	E9	42.2	<0.09	<0.006	<0.1	<0.005	E.008	<0.004	<0.004	<0.006	<0.05	<0.05
20...	0.9	14	43.0	<0.09	<0.006	<0.1	<0.005	E.007	<0.004	<0.004	<0.006	<0.05	<0.05
28...	1.7	25	42.6	<0.09	<0.006	<0.1	<0.005	E.008	<0.004	0.007	<0.006	<0.05	<0.05
JUN													
02...	1.3	21	33.0	<0.09	<0.006	<0.1	<0.005	E.016	<0.004	0.007	<0.006	<0.05	<0.05
10...	0.7	13	33.5	<0.09	<0.006	<0.1	<0.005	E.013	<0.004	0.005	<0.006	<0.05	<0.05
16...	1.1	24	28.5	<0.09	<0.006	<0.1	<0.005	E.020	<0.004	<0.004	<0.006	<0.05	<0.05
24...	0.6	39	39.8	<0.09	<0.006	<0.1	<0.005	E.023	<0.004	<0.004	<0.006	<0.05	<0.05
30...	1.8	35	32.8	<0.09	<0.006	<0.1	<0.005	E.029	<0.004	<0.004	<0.006	<0.05	<0.05
JUL													
07...	0.6	33	41.1	<0.09	<0.006	<0.1	<0.005	E.028	<0.004	<0.004	<0.006	<0.05	<0.05
16...	1.1	49	47.3	E.01	<0.006	<0.1	<0.005	E.036	<0.004	E.004	<0.006	<0.05	<0.05
21...	1.0	53	52.3	<0.09	<0.006	<0.1	<0.005	E.037	<0.004	<0.004	<0.006	<0.05	<0.05
29...	0.9	34	54.0	<0.09	<0.006	<0.1	<0.005	E.020	<0.004	<0.004	<0.006	<0.05	<0.05
AUG													
06...	2.0	32	65.4	<0.09	<0.006	<0.1	<0.005	E.021	<0.004	E.003	<0.006	0.11	<0.05
12...	1.4	20	69.9	<0.09	<0.006	<0.1	<0.005	E.026	<0.004	<0.004	<0.006	<0.05	<0.05
20...	1.0	21	51.0	E.01	<0.006	<0.1	<0.005	E.018	<0.004	<0.004	<0.006	<0.05	<0.05
25...	0.7	25	60.7	<0.09	<0.006	<0.1	<0.005	E.018	<0.004	<0.004	<0.006	<0.05	<0.05
SEP													
04...	0.6	49	46.7	<0.09	<0.006	<0.1	<0.005	E.017	<0.004	<0.004	<0.006	<0.05	<0.05
08...	1.2	46	53.7	<0.09	<0.006	<0.1	<0.005	E.013	<0.004	<0.004	<0.006	<0.05	<0.05
16...	1.6	39	65.1	E.02	<0.006	<0.1	<0.005	E.011	<0.004	<0.004	<0.006	0.07	<0.05
22...	1.5	22	59.6	E.01	<0.006	<0.1	<0.005	E.007	<0.004	<0.004	<0.006	0.07	<0.05
30...	1.1	36	62.7	<0.09	<0.006	<0.1	<0.005	E.008	<0.004	<0.004	<0.006	<0.05	<0.05

## 462023120075200 DR2 AT YAKIMA VALLEY HIGHWAY NEAR GRANGER, WA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Aceto- chlor, water, fltrd, ug/L (49260)	Ala- chlor ESA, water, fltrd 0.7u GF (50009)	Ala- chlor OA, water, fltrd 0.7u GF (61031)	Ala- chlor, water, fltrd, ug/L (46342)	alpha- HCH-d6, surrog, Sch2003 wat flt percent recovry (99995)	Atra- zine, water, fltrd, ug/L (39632)	Azin- phos- methyl oxon, water, fltrd, ug/L (61635)	Azin- phos- methyl, water, fltrd 0.7u GF (82686)	Ben- flur- alin, water, fltrd 0.7u GF (82673)	Car- baryl, water, fltrd 0.7u GF (82680)	Chlor- pyrifos oxon, water, fltrd, ug/L (61636)	Chlor- pyrifos water, fltrd, ug/L (38933)	cis- Per- methrin water fltrd 0.7u GF (82687)
FEB													
19...	<0.006	0.14	<0.05	<0.004	93.5	0.018	<0.02	<0.050	<0.010	<0.041	<0.06	<0.005	<0.006
MAR													
04...	<0.006	0.11	<0.05	<0.004	85.2	0.015	<0.02	<0.050	<0.010	<0.041	<0.06	<0.005	<0.006
11...	<0.006	0.12	<0.05	<0.004	95.5	0.015	<0.02	<0.050	<0.010	<0.041	<0.06	<0.005	<0.006
18...	<0.006	0.15	<0.05	<0.004	91.2	E.014	<0.02	<0.050	<0.010	<0.041	<0.06	E.004	<0.006
25...	<0.006	0.14	<0.05	<0.004	97.3	0.014	<0.02	<0.050	<0.010	<0.041	<0.06	E.004	<0.006
APR													
03...	<0.006	0.08	<0.05	<0.004	91.2	0.009	<0.02	<0.050	<0.010	<0.041	<0.06	0.007	<0.006
08...	<0.006	<0.05	<0.05	<0.004	83.2	0.010	<0.02	<0.050	<0.010	<0.041	<0.06	0.006	<0.006
15...	<0.006	0.10	<0.05	0.005	88.7	0.014	<0.02	<0.050	<0.010	<0.041	<0.06	E.005	<0.006
22...	<0.006	0.07	<0.05	<0.004	94.5	0.012	<0.02	<0.050	<0.010	E.005	<0.06	<0.005	<0.006
MAY													
01...	<0.006	<0.05	<0.05	<0.004	92.1	0.043	<0.02	<0.050	<0.010	E.009	<0.06	E.003	<0.006
08...	<0.006	0.06	<0.05	<0.004	96.3	0.016	<0.02	<0.050	<0.010	E.010	<0.06	<0.005	<0.006
15...	<0.006	0.11	<0.05	<0.004	89.4	0.011	<0.02	<0.050	<0.010	E.009	<0.06	<0.005	<0.006
20...	0.007	0.08	<0.05	0.098	96.4	0.010	<0.02	E.044	<0.010	E.015	<0.06	E.002	<0.006
28...	<0.006	0.11	<0.05	0.015	92.9	0.010	<0.02	E.016	<0.010	E.006	<0.06	<0.005	<0.006
JUN													
02...	<0.006	<0.05	<0.05	0.005	92.8	0.022	<0.03	E.016	<0.010	E.006	<0.06	<0.005	<0.006
10...	<0.006	0.05	0.05	0.133	92.8	0.027	<0.02	E.018	<0.010	E.006	<0.06	<0.005	<0.006
16...	<0.006	<0.05	<0.05	0.021	91.2	0.156	<0.02	E.017	<0.010	<0.041	<0.06	<0.005	<0.006
24...	<0.006	0.18	<0.05	0.043	94.7	0.081	<0.02	E.013	<0.010	E.009	<0.06	<0.005	<0.006
30...	<0.006	0.13	<0.05	0.018	95.5	0.094	<0.02	E.014	<0.010	E.010	<0.06	<0.005	<0.006
JUL													
07...	<0.006	0.14	<0.05	0.038	94.6	0.071	<0.02	E.013	<0.010	E.005	<0.06	<0.005	<0.006
16...	<0.006	0.09	<0.05	0.008	90.4	0.080	<0.02	E.024	<0.010	E.008	<0.06	<0.005	<0.006
21...	<0.006	0.10	<0.05	E.004	86.5	0.048	<0.02	E.013	<0.010	<0.041	<0.06	<0.005	<0.006
29...	<0.006	0.08	<0.05	0.007	92.9	0.041	<0.02	E.018	<0.010	<0.041	<0.06	<0.005	<0.006
AUG													
06...	<0.006	<0.05	<0.05	<0.004	97.2	0.042	<0.03	E.016	<0.010	E.012	<0.06	<0.005	<0.006
12...	<0.006	0.13	<0.05	<0.004	84.5	0.041	<0.02	E.009	<0.010	E.010	<0.06	<0.005	<0.006
20...	<0.006	0.10	<0.05	E.002	90.7	0.034	<0.02	<0.050	<0.010	E.174	<0.06	<0.005	<0.006
25...	<0.006	0.10	<0.05	<0.004	81.9	0.029	<0.02	<0.050	<0.010	<0.041	<0.06	<0.005	<0.006
SEP													
04...	<0.006	0.10	<0.05	<0.004	84.2	0.030	<0.02	<0.050	<0.010	E.020	<0.06	<0.005	<0.006
08...	<0.006	0.07	<0.05	<0.004	85.9	0.020	<0.02	<0.050	<0.010	E.012	<0.06	<0.005	<0.006
16...	<0.006	0.06	<0.05	<0.004	89.4	0.017	--	<0.050	<0.010	E.195	<0.06	<0.005	<0.006
22...	<0.006	<0.05	<0.05	<0.004	90.6	0.012	<0.03	<0.050	<0.010	E.070	<0.06	<0.005	<0.006
30...	<0.006	0.08	<0.05	<0.004	85.6	0.010	<0.02	<0.050	<0.010	<0.041	<0.06	<0.005	<0.006

## 462023120075200 DR2 AT YAKIMA VALLEY HIGHWAY NEAR GRANGER, WA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Cyfluthrin, water, fltrd, ug/L (61585)	Cypermethrin, water, fltrd, ug/L (61586)	DCPA, water, fltrd 0.7u GF (82682)	Desulf-inyl fipronil, water, fltrd, ug/L (62170)	Diazinon oxon, water, fltrd, ug/L (61638)	Diazinon, water, fltrd, ug/L (39572)	Diazinon-d10 surrog, Sch2003 wat flt percent recovry (99994)	Dicrotophos, water, fltrd, ug/L (38454)	Dieldrin, water, fltrd, ug/L (39381)	Dimethenamid ESA, water, fltrd, ug/L (61951)	Dimethenamid OA, water, fltrd, ug/L (62482)	Dimethoate, water, fltrd 0.7u GF (82662)	Ethion monoxon, water, fltrd, ug/L (61644)
FEB													
19...	<0.008	<0.009	<0.003	<0.004	<0.04	<0.005	102	<0.08	<0.005	<0.05	<0.05	<0.006	<0.03
MAR													
04...	<0.008	<0.009	<0.003	<0.004	<0.04	<0.005	92.9	<0.08	<0.005	<0.05	<0.05	<0.006	<0.03
11...	<0.008	<0.009	<0.003	<0.004	<0.04	<0.005	104	<0.08	<0.005	<0.05	<0.05	<0.006	<0.03
18...	<0.008	<0.009	<0.003	<0.004	<0.04	<0.005	95.6	<0.08	<0.005	<0.05	<0.05	<0.006	<0.03
25...	<0.008	<0.009	<0.003	<0.004	<0.04	<0.005	99.1	<0.08	<0.005	<0.05	<0.05	<0.006	<0.03
APR													
03...	<0.008	<0.009	<0.003	<0.004	<0.04	<0.005	89.4	<0.08	<0.005	<0.05	<0.05	<0.006	<0.03
08...	<0.008	<0.009	<0.003	<0.004	<0.04	<0.005	91.9	<0.08	<0.005	<0.05	<0.05	<0.006	<0.03
15...	<0.008	<0.009	<0.003	<0.004	<0.04	<0.005	87.3	<0.08	<0.005	<0.05	<0.05	<0.006	<0.03
22...	<0.008	<0.009	<0.003	<0.004	<0.04	<0.005	94.5	<0.08	<0.005	<0.05	<0.05	<0.006	<0.03
MAY													
01...	<0.008	<0.009	E.001	<0.004	<0.01	<0.005	102	<0.08	<0.005	<0.05	<0.05	E.008	<0.03
08...	<0.008	<0.009	<0.003	<0.004	<0.01	<0.005	104	<0.08	<0.005	<0.05	<0.05	<0.006	<0.03
15...	<0.008	<0.009	<0.003	<0.004	<0.01	<0.005	106	<0.08	<0.005	<0.05	<0.05	<0.006	<0.03
20...	<0.008	<0.009	E.001	<0.004	<0.01	<0.005	112	<0.08	<0.005	<0.05	<0.05	<0.006	<0.03
28...	<0.008	<0.009	E.002	<0.004	<0.01	<0.005	99.1	<0.08	<0.005	<0.05	<0.05	<0.006	<0.03
JUN													
02...	<0.008	<0.009	<0.003	<0.004	<0.01	<0.005	113	<0.08	<0.005	<0.05	<0.05	<0.006	<0.03
10...	<0.008	<0.009	<0.003	<0.004	<0.01	<0.005	89.7	<0.08	<0.005	<0.05	<0.05	<0.006	<0.03
16...	<0.008	<0.009	<0.003	<0.004	<0.01	<0.005	103	<0.08	<0.005	<0.05	<0.05	<0.006	<0.03
24...	<0.008	<0.009	<0.003	<0.004	<0.01	<0.005	107	<0.08	<0.005	<0.05	<0.05	<0.006	<0.03
30...	<0.008	<0.009	<0.003	<0.004	<0.01	<0.005	103	<0.08	<0.005	<0.05	<0.05	<0.006	<0.03
JUL													
07...	<0.008	<0.009	<0.003	<0.004	<0.01	<0.005	107	<0.08	<0.005	<0.05	<0.05	<0.006	<0.03
16...	<0.008	<0.009	<0.003	<0.004	<0.01	<0.005	102	<0.08	<0.005	<0.05	<0.05	<0.006	<0.03
21...	<0.008	<0.009	<0.003	<0.004	<0.01	<0.005	101	<0.08	<0.005	<0.05	<0.05	<0.006	<0.03
29...	<0.008	<0.009	<0.003	<0.004	<0.01	<0.005	102	<0.08	<0.005	<0.05	<0.05	<0.006	<0.03
AUG													
06...	<0.008	<0.009	<0.003	<0.004	<0.01	<0.005	107	<0.08	E.002	<0.05	<0.05	<0.006	<0.03
12...	<0.008	<0.009	<0.003	<0.004	<0.01	<0.005	95.6	<0.08	<0.005	<0.05	<0.05	<0.006	<0.03
20...	<0.008	<0.009	<0.003	<0.004	<0.01	<0.005	108	<0.08	<0.005	<0.05	<0.05	<0.006	<0.03
25...	<0.008	<0.009	<0.003	<0.004	<0.01	<0.005	89.6	<0.08	<0.005	<0.05	<0.05	<0.006	<0.03
SEP													
04...	<0.008	<0.009	E.001	<0.004	<0.01	<0.005	103	<0.08	<0.005	<0.05	<0.05	<0.006	<0.03
08...	<0.008	<0.009	<0.003	<0.004	<0.01	<0.005	83.7	<0.08	<0.005	<0.05	<0.05	<0.006	<0.03
16...	<0.008	<0.009	<0.003	<0.004	<0.01	<0.005	101	<0.08	<0.005	<0.05	<0.05	<0.006	<0.03
22...	<0.008	<0.009	<0.003	<0.004	<0.01	<0.005	104	<0.08	<0.005	<0.05	<0.05	<0.006	<0.03
30...	<0.008	<0.009	<0.003	<0.004	<0.01	<0.005	93.6	<0.08	<0.005	<0.05	<0.05	<0.006	<0.03

## 462023120075200 DR2 AT YAKIMA VALLEY HIGHWAY NEAR GRANGER, WA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Ethion, water, fltrd, ug/L (82346)	Fenami- phos sulfone water, fltrd, ug/L (61645)	Fenami- phos sulf- oxide, water, fltrd, ug/L (61646)	Fenami- phos, water, fltrd, ug/L (61591)	Desulf- inyl- fipro- nil amide, wat flt ug/L (62169)	Fipro- nil sulfide water, fltrd, ug/L (62167)	Fipro- nil sulfone water, fltrd, ug/L (62168)	Fipro- nil, water, fltrd, ug/L (62166)	Flufen- acet ESA, water, fltrd, ug/L (61952)	Flufe- nacet OA, water, fltrd, ug/L (62483)	Fonofos oxon, water, fltrd, ug/L (61649)	Fonofos water, fltrd, ug/L (04095)	Hexa- zinone, water, fltrd, ug/L (04025)
FEB													
19...	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.05	<0.05	<0.002	<0.003	--
MAR													
04...	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.05	<0.05	<0.002	<0.003	--
11...	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.05	<0.05	<0.002	<0.003	--
18...	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.05	<0.05	<0.002	<0.003	--
25...	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.05	<0.05	<0.002	<0.003	--
APR													
03...	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.05	<0.05	<0.002	<0.003	--
08...	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.05	<0.05	<0.002	<0.003	--
15...	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.05	<0.05	<0.002	<0.003	--
22...	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.05	<0.05	<0.002	<0.003	--
MAY													
01...	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.05	<0.05	<0.002	<0.003	--
08...	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.05	<0.05	<0.002	<0.003	--
15...	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.05	<0.05	<0.002	<0.003	<0.013
20...	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.05	<0.05	<0.002	<0.003	<0.013
28...	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.05	<0.05	<0.002	<0.003	<0.013
JUN													
02...	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.05	<0.05	<0.002	<0.003	<0.013
10...	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.05	<0.05	<0.002	<0.003	<0.013
16...	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.05	<0.05	<0.002	<0.003	<0.013
24...	<0.004	<0.031	<0.03	<0.03	<0.031	<0.005	<0.005	<0.007	<0.05	<0.05	<0.002	<0.003	<0.013
30...	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.05	<0.05	<0.002	<0.003	<0.013
JUL													
07...	<0.004	<0.031	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.05	<0.05	<0.002	<0.003	<0.013
16...	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.05	<0.05	<0.002	<0.003	<0.013
21...	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.05	<0.05	<0.002	<0.003	<0.013
29...	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.05	<0.05	<0.002	<0.003	<0.013
AUG													
06...	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.05	<0.05	<0.002	<0.003	<0.013
12...	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.05	<0.05	<0.002	<0.003	<0.013
20...	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.05	<0.05	<0.002	<0.003	<0.013
25...	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.05	<0.05	<0.002	<0.003	<0.013
SEP													
04...	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.05	<0.05	<0.002	<0.003	<0.013
08...	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.05	<0.05	<0.002	<0.003	<0.013
16...	<0.004	<0.008	--	<0.03	<0.009	<0.005	<0.005	<0.007	<0.05	<0.05	<0.002	<0.003	<0.013
22...	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.05	<0.05	<0.002	<0.003	<0.013
30...	<0.004	<0.008	<0.03	<0.03	<0.009	<0.005	<0.005	<0.007	<0.05	<0.05	<0.002	<0.003	<0.013

## 462023120075200 DR2 AT YAKIMA VALLEY HIGHWAY NEAR GRANGER, WA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Ipro- dione, water, fltrd, ug/L (61593)	Isofen- phos, water, fltrd, ug/L (61594)	Mala- oxon, water, fltrd, ug/L (61652)	Mala- thion, water, fltrd, ug/L (39532)	Meta- laxyl, water, fltrd, ug/L (61596)	Methi- althion water, fltrd, ug/L (61598)	Methyl para- oxon, water, fltrd, ug/L (61664)	Methyl para- thion, water, fltrd 0.7u GF ug/L (82667)	Metola- chlor ESA, water, fltrd 0.7u GF ug/L (61043)	Metola- chlor OA, water, fltrd 0.7u GF ug/L (61044)	Metola- chlor, water, fltrd, ug/L (39415)	Metri- buzin, water, fltrd, ug/L (82630)	Myclo- butanil water, fltrd, ug/L (61599)
FEB													
19...	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.05	<0.05	<0.013	<0.006	<0.008
MAR													
04...	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.05	<0.05	<0.013	<0.006	<0.008
11...	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.05	<0.05	<0.013	<0.006	<0.008
18...	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.05	<0.05	<0.013	<0.006	<0.008
25...	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.05	<0.05	<0.013	<0.006	<0.008
APR													
03...	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.05	<0.05	<0.013	<0.006	<0.008
08...	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.05	<0.05	<0.013	<0.006	<0.008
15...	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.05	<0.05	E.003	<0.006	<0.008
22...	<1	<0.003	<0.008	<0.027	<0.005	E.005	<0.03	<0.006	<0.05	<0.05	<0.013	<0.006	<0.008
MAY													
01...	<1	<0.003	<0.008	<0.027	<0.005	0.009	<0.03	<0.006	<0.05	<0.05	<0.013	E.005	E.006
08...	<1	<0.003	<0.008	<0.027	<0.005	E.003	<0.03	<0.006	<0.05	<0.05	<0.013	<0.006	E.005
15...	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.05	<0.05	<0.013	<0.006	<0.008
20...	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.05	<0.05	<0.013	<0.006	E.006
28...	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.05	<0.05	<0.013	<0.006	<0.008
JUN													
02...	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.05	<0.05	<0.013	<0.006	E.004
10...	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.05	<0.05	<0.013	<0.006	<0.008
16...	<1	<0.003	<0.008	0.052	<0.005	<0.006	<0.03	<0.006	<0.05	<0.05	<0.013	<0.006	<0.008
24...	<1	<0.003	<0.008	E.015	<0.005	<0.006	<0.03	<0.006	<0.05	<0.05	<0.013	<0.006	E.006
30...	<1	<0.003	<0.008	E.005	<0.005	<0.006	<0.03	<0.006	<0.05	<0.05	<0.013	<0.006	<0.008
JUL													
07...	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.05	<0.05	<0.013	<0.006	<0.008
16...	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.05	<0.05	<0.013	<0.006	E.006
21...	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.05	<0.05	<0.013	<0.006	<0.008
29...	<1	<0.003	<0.008	E.013	<0.005	<0.006	<0.03	<0.006	<0.05	<0.05	<0.013	<0.006	<0.008
AUG													
06...	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.05	<0.05	<0.013	<0.006	<0.008
12...	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.05	<0.05	<0.013	<0.006	<0.008
20...	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.05	<0.05	<0.013	<0.006	<0.008
25...	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.05	<0.05	<0.013	<0.006	<0.008
SEP													
04...	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.05	<0.05	<0.013	<0.006	<0.008
08...	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.05	<0.05	<0.013	<0.006	<0.008
16...	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.05	<0.05	<0.013	<0.006	<0.008
22...	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.05	<0.05	<0.013	<0.006	<0.008
30...	<1	<0.003	<0.008	<0.027	<0.005	<0.006	<0.03	<0.006	<0.05	<0.05	<0.013	<0.006	<0.008

## 462023120075200 DR2 AT YAKIMA VALLEY HIGHWAY NEAR GRANGER, WA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Pendi- meth- alin, water, fltrd 0.7u GF ug/L (82683)	Phorate oxon, water, fltrd, ug/L (61666)	Phorate water fltrd 0.7u GF ug/L (82664)	Phosmet oxon, water, fltrd, ug/L (61668)	Phosmet water, fltrd, ug/L (61601)	Prome- ton, water, fltrd, ug/L (04037)	Prome- tryn, water, fltrd, ug/L (04036)	Pron- amide, water, fltrd 0.7u GF ug/L (82676)	Sima- zine, water, fltrd, ug/L (04035)	Tebu- thiuron water fltrd 0.7u GF ug/L (82670)	Ter- bufos oxon sulfone water, fltrd, ug/L (61674)	Terbu- fos, water, fltrd 0.7u GF ug/L (82675)	Ter- butyl- azine, water, fltrd, ug/L (04022)
FEB													
19...	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	E.002	<0.02	<0.07	<0.02	<0.01
MAR													
04...	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	E.003	<0.02	<0.07	<0.02	<0.01
11...	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	<0.005	<0.02	<0.07	<0.02	<0.01
18...	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	<0.005	<0.02	<0.07	<0.02	<0.01
25...	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	<0.005	<0.02	<0.07	<0.02	<0.01
APR													
03...	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	0.006	<0.02	<0.07	<0.02	<0.01
08...	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	E.003	<0.02	<0.07	<0.02	<0.01
15...	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	E.005	<0.02	<0.07	<0.02	<0.01
22...	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	E.004	<0.02	<0.07	<0.02	<0.01
MAY													
01...	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	0.048	<0.02	<0.07	<0.02	<0.01
08...	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	0.011	<0.02	<0.07	<0.02	<0.01
15...	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	<0.005	<0.02	<0.07	<0.02	<0.01
20...	<0.022	<0.10	<0.011	<0.06	<0.008	<0.03	<0.005	<0.004	<0.005	<0.02	<0.07	<0.02	<0.01
28...	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	0.007	<0.02	<0.07	<0.02	<0.01
JUN													
02...	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	<0.005	<0.02	<0.07	<0.02	<0.01
10...	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	0.008	<0.02	<0.07	<0.02	<0.01
16...	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	<0.005	<0.02	<0.07	<0.02	<0.01
24...	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	0.005	<0.02	<0.07	<0.02	<0.01
30...	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	<0.005	<0.02	<0.07	<0.02	<0.01
JUL													
07...	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	<0.005	<0.02	<0.07	<0.02	<0.01
16...	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	E.004	<0.02	<0.07	<0.02	<0.01
21...	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	0.006	<0.02	<0.07	<0.02	<0.01
29...	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	0.006	<0.02	<0.07	<0.02	<0.01
AUG													
06...	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	E.004	<0.02	<0.07	<0.02	<0.01
12...	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	E.005	<0.02	<0.07	<0.02	<0.01
20...	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	E.004	<0.02	<0.07	<0.02	<0.01
25...	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	<0.005	<0.02	<0.07	<0.02	<0.01
SEP													
04...	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	E.005	<0.02	<0.07	<0.02	<0.01
08...	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	<0.005	<0.02	<0.07	<0.02	<0.01
16...	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	<0.005	<0.02	<0.07	<0.02	<0.01
22...	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	E.004	<0.02	<0.07	<0.02	<0.01
30...	<0.022	<0.10	<0.011	<0.06	<0.008	<0.01	<0.005	<0.004	E.004	<0.02	<0.07	<0.02	<0.01

YAKIMA RIVER BASIN

462023120075200 DR2 AT YAKIMA VALLEY HIGHWAY NEAR GRANGER, WA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Tri-fluor-alin, fltrd 0.7u GF (82661) ug/L	Di-chlor-ovos, water fltrd, ug/L (38775)	Suspnd. sedi-ment, sieve diametr percent <.063mm (70331)	Sus-pended sedi-ment concen-tration mg/L (80154)	Sus-pended sedi-ment load, tons/d (80155)
FEB 19...	<0.009	<0.01	--	--	--
MAR 04...	<0.009	<0.01	73	87	0.75
11...	<0.009	<0.01	76	77	0.67
18...	<0.009	<0.01	89	67	0.52
25...	<0.009	<0.01	82	48	0.39
APR 03...	0.019	<0.01	81	71	0.86
08...	<0.009	<0.01	92	154	1.6
15...	<0.009	<0.01	77	132	1.8
22...	<0.009	<0.01	75	77	0.83
MAY 01...	<0.009	<0.01	67	63	0.75
08...	0.205	<0.01	83	123	1.4
15...	0.011	<0.01	72	50	--
20...	0.009	<0.01	84	47	--
28...	0.080	<0.01	78	103	--
JUN 02...	0.018	<0.01	82	79	1.3
10...	E.016	<0.01	73	26	0.34
16...	0.025	<0.01	83	51	0.95
24...	0.018	<0.01	82	36	0.66
30...	E.009	<0.01	93	85	1.4
JUL 07...	E.007	<0.01	69	45	0.78
16...	E.004	<0.01	95	42	0.65
21...	<0.009	<0.01	91	29	0.52
29...	E.005	<0.01	83	50	0.88
AUG 06...	E.005	<0.01	77	152	3.0
12...	E.003	<0.01	67	304	5.4
20...	E.006	<0.01	62	213	4.0
25...	<0.009	<0.01	68	165	2.9
SEP 04...	E.004	<0.01	60	99	1.7
08...	<0.009	<0.01	67	114	1.9
16...	E.002	<0.01	72	149	2.3
22...	E.007	<0.01	71	115	1.5
30...	E.006	<0.01	74	73	0.95

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Amino-methyl-phos-phonic acid, wat flt ug/L (62649)	Glufosinate, water, fltrd 0.7u GF ug/L (62721)	Glypho-sate, water, fltrd 0.7u GF ug/L (62722)
SEP 16...	1320	<0.1	<0.1	0.1

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Biomass peri-phyton, ashfree drymass g/m2 (49954)	Peri-phyton biomass ash weight, g/m2 (00572)	Peri-phyton biomass dry weight, g/m2 (00573)	Biomass chloro-phyll ratio, peri-phyton, number (70950)	Pheo-phytin a, peri-phyton, mg/m2 (62359)	Pheo-phytin a, phyto-plank-ton, ug/L (62360)	Chloro-phyll a peri-phyton, chromo-fluoro, mg/m2 (70957)	Chloro-phyll a phyto-plank-ton, fluoro, ug/L (70953)
SEP 24...	1000	--	--	--	--	--	0.9	--	0.5
24...	1400	8.0	390	399.1	409	8.2	--	19.6	--
24...	1420	18.9	450	468.0	22,000	2.1	--	0.9	--

## 12505450 GRANGER DRAIN AT GRANGER, WA

LOCATION.--Lat 46°20'37", long 120°11'09", in NW ¼ NW ¼ sec.22, T.10 N., R.21 E., Yakima County, Hydrologic Unit 17030003, on right bank, 330 ft upstream from E Street, at Granger, WA.

DRAINAGE AREA.--Not determined.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1975 to September 1976, August to September 1981 (discharge measurements only), May to September 1991, August 1999 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 720 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Most flow is return and waste from irrigation.

COOPERATION.--Gage-height records for Oct. 1 to March 27 were provided by Sunnyside Valley Irrigation District.

AVERAGE DISCHARGE.--4 years (water years 2000-2003), 34.4 ft<sup>3</sup>/s, 24,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 175 ft<sup>3</sup>/s June 20, 1991, gage height, 4.62 ft; minimum discharge, 15 ft<sup>3</sup>/s part or all of each day Mar. 26-29, 2002.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 78 ft<sup>3</sup>/s Aug. 7, gage height 3.34 ft; minimum discharge, 17 ft<sup>3</sup>/s part or all of each day Mar. 20, 21, 28, 29.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	20	19	22	21	20	19	43	49	51	49	51
2	58	20	19	22	21	20	23	42	49	51	48	49
3	60	20	19	22	21	20	25	43	47	52	51	49
4	63	19	19	23	20	20	25	43	48	52	52	48
5	60	19	19	23	20	20	25	42	49	52	51	47
6	62	19	19	22	21	19	27	39	49	53	52	48
7	60	19	19	22	20	19	28	41	48	52	59	49
8	55	19	19	21	20	19	34	41	49	50	53	51
9	53	19	19	20	20	20	33	40	49	53	52	49
10	56	19	19	20	20	19	31	40	48	51	56	49
11	57	19	19	20	20	19	34	42	49	51	52	49
12	58	19	19	24	20	19	36	41	50	51	53	48
13	57	19	19	22	20	19	36	40	50	53	51	46
14	54	19	22	22	21	19	45	40	51	52	50	46
15	52	20	20	21	22	19	40	43	52	51	49	47
16	52	20	22	21	25	19	39	45	51	49	48	46
17	52	20	20	21	22	18	38	45	51	51	51	45
18	52	20	20	21	22	18	36	46	49	52	50	44
19	36	20	20	21	22	18	36	44	49	56	48	44
20	21	20	20	20	22	18	37	43	54	57	49	44
21	22	20	19	20	21	17	37	43	54	54	49	43
22	21	20	19	23	21	18	36	44	55	55	50	43
23	20	20	19	23	21	18	37	45	53	56	53	43
24	19	19	19	21	21	18	40	45	51	55	54	44
25	20	19	19	21	21	19	40	48	51	50	53	42
26	21	19	19	21	20	19	42	48	51	51	50	43
27	21	19	21	21	20	18	42	47	48	51	49	44
28	21	19	20	20	20	18	42	47	49	51	48	43
29	21	20	21	20	---	18	42	49	52	49	49	44
30	21	19	22	20	---	18	43	48	55	50	49	43
31	21	---	26	22	---	18	---	49	---	49	51	---
TOTAL	1,304	583	615	662	585	581	1,048	1,356	1,510	1,611	1,579	1,381
MEAN	42.1	19.4	19.8	21.4	20.9	18.7	34.9	43.7	50.3	52.0	50.9	46.0
MAX	63	20	26	24	25	20	45	49	55	57	59	51
MIN	19	19	19	20	20	17	19	39	47	49	48	42
AC-FT	2,590	1,160	1,220	1,310	1,160	1,150	2,080	2,690	3,000	3,200	3,130	2,740

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2003, BY WATER YEAR (WY)

	2000	2001	2002	2003	2000	2001	2002	2003	2000	2001	2002	2003
MEAN	41.2	21.9	21.1	21.5	21.2	20.1	32.6	42.1	45.9	47.4	48.8	47.8
MAX	49.9	24.2	22.1	23.0	24.5	23.8	36.0	46.2	55.1	58.7	59.2	61.4
(WY)	(2000)	(2000)	(2000)	(2000)	(2000)	(2000)	(2000)	(2000)	(2000)	(2000)	(2000)	(2000)
MIN	26.5	19.4	19.8	20.1	18.2	17.7	26.0	32.3	30.9	28.8	32.2	25.8
(WY)	(2002)	(2003)	(2003)	(2002)	(2002)	(2002)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 2000 - 2003

ANNUAL TOTAL	12,978	12,815		
ANNUAL MEAN	35.6	35.1	34.4	
HIGHEST ANNUAL MEAN			40.4	2000
LOWEST ANNUAL MEAN			27.6	2001
HIGHEST DAILY MEAN	66	Sep 3	63	Oct 4
LOWEST DAILY MEAN	15	Mar 27	17	Mar 21
ANNUAL SEVEN-DAY MINIMUM	16	Mar 25	18	Mar 17
ANNUAL RUNOFF (AC-FT)	25,740	25,420	24,900	
10 PERCENT EXCEEDS	56	52	57	
50 PERCENT EXCEEDS	38	37	28	
90 PERCENT EXCEEDS	18	19	19	



(National Water-Quality Assessment Station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1990 to September 1991, August 1999 to June 2000, November 2000 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: August 1999 to June 2000, October 2001 to current year.

WATER TEMPERATURE: August 1999 to June 2000, October 2001 to current year.

REMARKS.--Specific conductance records excellent except those for Nov. 2-20, Mar. 1-4, and Apr. 2-3, which are good. Water temperature records excellent, except those for Aug. 8-12, 23-25, and Sept. 3-8, which are good. Interruptions in the record were caused by instrument malfunction.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 883 microsiemens Nov. 29, 2001; minimum, 268 microsiemens July 1, 2002.

WATER TEMPERATURE: Maximum, 24.7°C July 13, 2002; minimum 7.1°C Oct. 31, 2002, Feb. 24, 25, 2003.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 808 microsiemens Mar. 20, 21 but may have been higher during periods of missing record; minimum, 302 microsiemens July 24, but may have been less during periods of missing record.

WATER TEMPERATURE: Maximum, 23.6°C July 23, but may have been higher during period of missing record; minimum, 7.1°C Oct. 31 and Feb. 24, 25.

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS  
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	417	330	360	740	719	730	---	---	---	---	---	---
2	374	352	359	720	708	715	---	---	---	---	---	---
3	379	352	365	732	705	725	---	---	---	---	---	---
4	399	340	362	733	717	727	---	---	---	---	---	---
5	382	362	369	735	721	730	---	---	---	---	---	---
6	372	355	361	737	723	732	---	---	---	---	---	---
7	422	355	371	743	723	737	---	---	---	---	---	---
8	460	367	394	793	741	774	---	---	---	---	---	---
9	425	390	401	766	751	760	---	---	---	---	---	---
10	401	371	382	757	745	749	---	---	---	---	---	---
11	378	363	371	765	738	745	---	---	---	---	---	---
12	369	355	362	750	741	746	---	---	---	---	---	---
13	387	365	374	746	737	742	---	---	---	---	---	---
14	566	379	395	739	736	738	---	---	---	---	---	---
15	590	409	458	742	730	736	---	---	---	---	---	---
16	421	398	406	748	736	741	---	---	---	---	---	---
17	416	405	410	745	734	739	---	---	---	---	---	---
18	454	397	412	738	727	733	---	---	---	---	---	---
19	578	454	511	734	722	727	---	---	---	---	---	---
20	698	576	620	688	---	---	---	---	---	---	---	---
21	636	576	609	---	---	---	---	---	---	---	---	---
22	661	616	639	---	---	---	---	---	---	---	---	---
23	669	605	646	---	---	---	---	---	---	---	---	---
24	690	662	674	---	---	---	---	---	---	---	---	---
25	701	640	653	---	---	---	---	---	---	---	---	---
26	672	636	652	---	---	---	---	---	---	---	---	---
27	705	656	678	---	---	---	---	---	---	---	---	---
28	723	702	708	---	---	---	---	---	---	---	---	---
29	738	712	725	---	---	---	---	---	---	---	---	---
30	770	709	727	---	---	---	---	---	---	---	---	---
31	765	735	751	---	---	---	---	---	---	---	---	---
MONTH	770	330	500	793	705	738	---	---	---	---	---	---



12505450 GRANGER DRAIN AT GRANGER, WA  
(National Water-Quality Assessment Station)—Continued

TEMPERATURE, WATER, DEGREES CELSIUS  
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	14.8	12.4	13.4	10.0	7.3	8.5	9.7	9.3	9.5	10.5	9.4	9.9
2	14.7	11.5	13.1	10.1	7.4	8.6	10.1	9.6	9.9	11.8	10.2	10.8
3	14.5	13.2	13.8	10.3	7.5	8.8	10.5	9.8	10.2	11.6	10.0	10.9
4	15.5	13.5	14.4	10.6	7.9	9.2	10.5	9.6	10.2	11.3	10.1	11.0
5	15.9	13.5	14.6	11.5	9.0	10.2	11.0	10.2	10.5	10.7	9.3	9.9
6	16.1	13.3	14.6	11.5	8.9	10.2	11.1	10.5	10.8	10.6	8.9	9.7
7	16.4	13.9	14.9	12.0	10.3	11.1	11.1	10.7	10.9	10.7	9.2	10
8	15.7	13.0	14.3	12.5	11.2	11.7	11.0	10.7	10.9	10.4	10.0	10.2
9	15.5	12.9	14.1	12.6	10.8	11.7	11.2	10.6	10.9	10.2	9.0	9.8
10	14.9	12.7	13.7	12.4	10.6	11.4	11.0	9.9	10.5	10.0	8.6	9.3
11	13.9	11.5	12.6	12.2	9.9	11.1	10.8	9.6	10.3	10.7	9.7	10.1
12	13.3	10.7	11.9	12.7	11.7	12.0	11.2	10.3	10.8	10.0	9.3	9.7
13	13.1	10.2	11.5	12.6	10.8	11.7	11.6	10.7	11.2	10.5	9.7	10.1
14	13.0	10.1	11.5	12.2	10.6	11.5	11.3	10.7	11.0	10.9	10.2	10.5
15	13.1	10.0	11.5	12.2	10.0	10.9	11.4	10.6	11.1	10.7	10.3	10.4
16	13.4	10.4	11.8	11.7	9.8	10.7	11.2	10.2	10.8	11.1	10.2	10.6
17	13.4	10.4	11.8	12.1	10.3	11.1	10.5	9.2	9.8	10.7	10.2	10.5
18	13.4	10.5	11.8	12.4	10.1	11.2	10.3	9.2	9.7	10.3	10.0	10.1
19	14.2	11.2	12.6	13.8	11.7	12.6	10.2	9.3	9.7	10.4	9.9	10.1
20	15.0	12.0	13.3	13.3	11.2	12.2	11.0	9.8	10.2	10.4	10.0	10.1
21	14.4	11.8	13.0	12.7	10.8	11.7	10.7	9.6	10.3	10.4	10.0	10.1
22	14.4	11.9	12.9	12.5	11.6	12.1	10.6	9.3	9.8	10.2	8.6	9.5
23	13.3	10.9	12.0	13.2	11.5	12.4	10.4	9.4	9.9	10.9	8.5	9.6
24	12.7	9.7	11.0	11.5	9.5	10.4	9.9	9.2	9.6	11.5	9.6	10.5
25	12.0	9.1	10.5	10.2	8.5	9.3	10.2	9.7	9.9	11.4	9.8	10.6
26	11.8	9.1	10.3	10.3	8.6	9.4	10.5	9.4	10	12.6	10.8	11.5
27	11.5	9.3	10.2	10.3	8.6	9.3	10.2	9.1	9.7	11.9	10.5	11.0
28	12.4	9.5	10.9	10.1	8.9	9.5	10.5	9.7	10.2	11.6	10.0	10.6
29	11.4	9.5	10.9	10.0	9.5	9.7	10.2	9.3	9.7	11.2	9.9	10.5
30	10.4	8.0	9.2	9.9	9.6	9.7	10.6	9.5	10.1	11.3	10.6	10.9
31	9.7	7.1	8.3	---	---	---	10.3	9.0	9.6	12.6	10.9	11.6
MONTH	16.4	7.1	12.3	13.8	7.3	10.7	11.6	9.0	10.2	12.6	8.5	10.3
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	11.6	10.1	10.9	12.8	9.2	10.7	14.5	10.7	12.2	18.0	11.2	14.1
2	11.4	9.5	10.4	11.5	8.9	10.3	14.6	10.0	11.6	18.4	11.3	14.4
3	11.0	9.3	10.1	13.5	9.7	11.1	13.2	9.3	10.9	16.4	12.3	13.9
4	11.1	9.1	9.9	13.4	9.6	11.0	14.5	8.1	10.7	16.6	11.9	13.6
5	11.2	9.1	10	13.0	9.4	10.9	12.2	8.5	10.3	14.9	10.6	12.6
6	10.8	8.3	9.4	12.6	9.4	10.6	14.4	9.4	11.3	16.4	10.2	12.8
7	10.7	8.3	9.4	12.8	10.0	10.9	14.3	9.4	11.4	15.6	10.4	12.7
8	10.9	8.6	9.6	12.9	9.5	10.9	16.0	9.8	12.4	16.1	11.0	13.1
9	11.0	8.4	9.6	14.5	10.7	12.1	16.3	10.6	12.9	16.8	11.1	13.4
10	---	8.8	---	14.5	10.9	12.3	15.8	10.9	12.8	16.8	11.7	13.9
11	---	---	---	14.1	10.6	12.1	16.2	11.5	13.3	16.7	12.0	13.9
12	---	---	---	13.4	11.2	12.2	15.8	11.2	13.1	18.4	12.8	14.9
13	---	---	---	13.8	11.8	12.7	15.5	11.5	13.1	18.9	11.7	14.9
14	---	---	---	15.0	11.4	12.8	15.2	10.8	12.4	17.6	13.0	15.0
15	---	---	---	13.7	11.1	12.5	---	10.1	---	16.4	12.6	14.2
16	---	---	---	15.0	9.8	12.0	---	---	---	15.9	11.3	13.3
17	---	---	---	14.8	9.6	11.8	---	---	---	14.8	10.5	12.5
18	12.2	---	---	14.9	9.2	11.7	---	---	---	16.5	10.0	12.8
19	12.5	9.8	10.9	14.9	9.6	11.9	---	---	---	16.8	10.2	13.2
20	---	---	---	15.2	10.9	12.6	---	---	---	15.6	11.6	13.6
21	---	---	---	14.8	11.1	12.5	---	---	---	18.6	12.4	14.9
22	12.6	---	---	13.9	10.5	12.3	16.7	---	---	18.0	13.1	15.3
23	---	---	---	14.7	9.5	11.6	16.7	10.9	13.5	20.3	13.5	16.5
24	10.2	7.1	8.4	14.6	9.1	11.5	13.8	11.1	12.7	20.1	14.4	16.8
25	10.8	7.1	8.6	13.8	10.3	11.9	16.5	10.0	12.6	17.8	15.1	16.1
26	11.3	7.8	9.2	14.5	10.2	11.7	14.2	10.8	12.1	19.0	13.7	15.9
27	12.3	9.1	10.2	15.4	9.6	11.7	16.3	9.6	12.4	19.8	13.4	16.2
28	12.6	9.2	---	15.5	9.2	11.9	16.3	10.9	13.0	20.0	14.5	16.8
29	---	---	---	16.4	10.9	13.1	16.4	11.7	13.5	20.8	14.4	17.2
30	---	---	---	15.0	11.2	12.8	16.4	10.9	13.2	16.8	15.1	15.9
31	---	---	---	14.6	11.5	12.9	---	---	---	19.7	14.6	16.6
MONTH	12.6	7.1	9.8	16.4	8.9	11.8	16.7	8.1	12.3	20.8	10.0	14.5



(National Water-Quality Assessment Station)—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO3 (00900)	Noncarb hardness, wat fltr field, mg/L as CaCO3 (00904)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)
OCT													
16...	1230	52	749	9.7	92	8.0	407	17.6	12.0	--	--	--	--
NOV													
20...	1130	20	755	9.3	88	8.2	708	15.0	12.5	260	28	63.3	23.7
DEC													
18...	1220	20	746	9.2	83	8.2	723	4.8	10.0	270	26	66.1	25.1
JAN													
21...	1300	20	749	9.5	86	7.9	767	2.3	10.3	270	44	66.0	25.0
FEB													
19...	1100	22	748	9.6	87	8.0	778	10.4	10.2	290	42	71.3	27.6
MAR													
04...	0940	20	746	10.2	93	8.1	719	11.4	10.1	280	40	69.2	26.4
18...	0930	18	757	11.4	106	8.3	692	10.3	11.7	260	31	64.1	24.9
25...	1130	18	752	11.6	110	8.3	636	13.8	12.1	230	16	56.4	21.9
APR													
03...	0950	24	745	10.7	100	8.1	494	14.6	11.3	180	11	44.0	16.5
08...	1050	36	752	10.0	94	8.0	406	17.8	11.8	150	14	37.2	14.1
15...	1020	40	749	9.2	87	8.1	416	9.7	11.8	150	7	35.9	13.9
22...	0920	38	745	9.3	89	7.9	399	16.9	12.2	150	10	36.2	14.0
MAY													
01...	0910	44	751	9.4	89	8.0	369	12.8	12.0	140	11	33.4	12.7
08...	0940	43	746	9.8	93	8.0	358	16.3	11.9	130	6	31.1	12.1
15...	0900	43	748	10.2	99	8.0	375	12.0	13.0	140	7	33.5	12.9
20...	0950	45	755	9.8	93	7.9	365	21.8	12.6	130	7	32.6	12.4
JUN													
02...	0950	50	747	9.9	99	8.0	322	16.0	14.5	120	10	30.1	10.8
10...	1000	51	736	9.4	99	8.1	335	26.2	16.2	120	6	31.7	10.2
16...	1100	52	744	11.2	119	8.2	337	31.1	17.0	120	7	29.9	11.6
24...	0920	54	745	9.2	93	7.9	345	21.2	14.8	130	4	31.2	11.6
JUL													
07...	0930	58	737	8.9	97	7.9	330	25.1	17.7	120	9	29.9	11.1
16...	0930	52	741	8.2	89	7.9	366	23.7	18.0	130	9	32.9	12.7
21...	0950	59	745	8.3	91	7.9	314	21.4	18.8	110	1	27.8	10.2
29...	0950	51	742	9.3	102	8.0	342	17.5	18.3	130	11	31.5	13.1
AUG													
06...	0830	54	740	7.9	86	7.9	342	18.1	17.7	120	--	30.5	10.4
12...	1050	54	743	8.2	90	8.0	338	21.9	18.5	120	1	29.7	12.0
20...	1000	52	745	8.0	88	7.8	342	26.3	18.6	130	9	31.2	12.4
25...	1020	55	743	7.9	85	7.9	342	26.0	17.5	120	8	28.6	12.6
25...	1440	53	743	8.3	93	8.1	354	32.4	19.9	--	--	--	--
SEP													
08...	1000	52	739	6.6	72	7.8	340	16.3	17.6	130	6	30.7	12.6
16...	0850	47	737	8.3	84	8.0	367	10.7	14.0	140	15	35.4	13.6
22...	1050	45	742	9.6	101	8.0	382	19.7	16.6	140	11	34.6	13.9

(National Water-Quality Assessment Station)—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Potas- sium, water, fltrd, mg/L (00935)	Sodium adsorp- tion ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alka- linity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicar- bonate, wat flt incrm. titr., field, mg/L (00453)	Carbon- ate, wat flt incrm. titr., field, mg/L (00452)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)
OCT 16...	--	--	--	--	138	166	0.0	8.13	--	--	37.8	--	0.52
NOV 20...	5.53	1	46.8	28	231	277	0.0	18.1	0.53	43.4	84.2	466	0.45
DEC 18...	6.57	1	49.5	28	244	295	0.0	18.9	0.57	44.7	87.7	482	1.2
JAN 21...	5.68	1	50.3	28	224	273	0.0	19.1	0.47	41.0	88.2	466	0.52
FEB 19...	7.41	1	52.6	28	250	304	0.0	19.9	0.51	44.8	96.6	511	0.50
MAR 04...	5.70	1	53.5	29	241	294	0.0	19.3	0.52	44.1	89.5	484	0.32
18...	5.64	1	47.3	28	232	278	2	17.7	0.50	43.2	79.7	451	E.29
25...	5.32	1	42.6	28	215	257	2	16.3	0.52	39.1	72.9	424	0.38
APR 03...	4.62	1	31.4	27	166	203	0.0	10.6	0.37	33.1	52.2	321	0.38
08...	3.63	0.9	26.3	27	137	167	0.0	8.23	0.30	30.4	40.4	259	0.52
15...	4.52	1	26.9	28	140	171	0.0	10.8	0.32	28.8	44.4	275	0.51
22...	4.03	0.9	24.3	26	138	168	0.0	9.01	0.28	29.6	38.9	255	0.45
MAY 01...	4.89	0.9	23.7	27	125	152	0.0	8.98	0.27	28.3	34.5	248	0.55
08...	4.11	0.8	21.4	26	121	148	0.0	9.21	0.27	27.1	34.4	227	0.45
15...	4.27	0.9	23.5	26	130	158	0.0	8.84	0.26	28.0	36.3	247	0.51
20...	4.13	0.8	22.2	26	126	153	0.0	8.30	0.3	27.4	34.7	230	0.44
JUN 02...	3.85	0.8	19.7	26	110	134	0.0	7.12	0.2	27.3	30.7	211	0.41
10...	3.74	0.8	20.8	26	115	140	0.0	8.16	0.2	26.0	32.4	220	0.39
16...	4.36	0.8	19.7	25	116	141	0.0	7.65	0.3	26.0	30.3	215	0.41
24...	3.98	0.8	20.4	25	122	148	0.0	8.26	0.3	26.5	31.5	224	0.36
JUL 07...	3.93	0.8	19.9	26	111	135	0.0	9.13	0.2	22.3	31.3	205	0.46
16...	4.15	0.8	22.1	26	125	152	0.0	8.52	0.3	25.8	34.6	238	0.45
21...	3.68	0.8	18.5	26	110	134	0.0	7.43	0.2	22.8	25.8	197	0.46
29...	4.26	0.8	20.6	24	122	149	0.0	7.74	0.2	25.5	28.8	205	0.35
AUG 06...	4.76	0.8	19.9	26	122	148	0.0	8.14	0.2	23.6	28.5	218	0.56
12...	3.86	0.8	19.8	25	122	149	0.0	8.20	0.2	24.5	26.9	221	0.48
20...	4.08	0.7	18.8	23	120	146	0.0	7.90	0.2	24.8	28.8	218	0.56
25...	4.13	0.7	18.5	24	116	141	0.0	7.81	0.2	24.1	27.9	214	0.57
25...	--	--	--	--	124	149	0.0	--	--	--	--	--	0.56
SEP 08...	4.33	0.7	17.3	22	123	150	0.0	8.08	0.3	26.1	28.2	214	0.49
16...	4.07	0.8	22.6	25	130	158	0.0	8.38	0.3	29.6	32.3	240	0.65
22...	4.19	0.7	20.4	23	133	162	0.0	8.94	0.3	28.7	35.2	255	0.59

(National Water-Quality Assessment Station)—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Partic- ulate nitro- gen, susp, water, mg/L (49570)	Phos- phorus, water, unfltrd mg/L (00665)	Total nitro- gen, water, unfltrd mg/L (00600)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inor- ganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Iron, water, fltrd, ug/L (01046)	Mangan- ese, water, fltrd, ug/L (01056)
OCT 16...	<0.04	2.80	0.018	0.09	0.16	0.22	3.3	1.6	<0.1	1.6	2.5	--	--
NOV 20...	<0.04	6.08	0.034	0.08	0.17	0.18	6.5	1.4	<0.1	1.4	2.1	E6	76.4
DEC 18...	0.42	6.46	0.049	0.12	0.34	0.27	7.6	2.9	<0.1	2.9	3.0	12	77.8
JAN 21...	E.04	7.51	0.030	0.10	0.13	0.25	8.0	1.1	<0.1	1.0	2.5	12	47.2
FEB 19...	E.03	7.26	0.031	0.10	0.09	0.20	7.8	0.7	<0.1	0.6	2.4	E6	43.0
MAR 04...	<0.04	6.75	0.028	0.07	0.13	0.124	7.1	1.2	<0.1	1.2	--	<10	47.2
18...	<0.04	E6.04	E.035	E.07	E.06	E.119	--	E.4	<0.1	E.4	E2.0	E7	58.3
25...	<0.04	5.33	0.036	0.07	0.09	0.124	5.7	0.5	<0.1	0.5	--	E6	53.0
APR 03...	<0.04	3.81	0.019	0.06	0.15	0.131	4.2	1.0	<0.1	1.0	--	<10	62.6
08...	<0.04	2.96	0.018	0.05	0.26	0.27	3.5	2.2	<0.1	2.1	--	11	68.2
15...	E.03	2.94	0.016	0.09	0.27	0.40	3.5	2.5	<0.1	2.4	3.2	13	44.8
22...	<0.04	2.96	0.010	0.06	0.19	0.26	3.4	1.8	<0.1	1.7	--	12	32.5
MAY 01...	<0.04	2.81	0.014	0.17	0.21	0.35	3.4	2.0	<0.1	1.9	--	17	30.8
08...	<0.04	2.39	0.012	0.13	0.16	0.39	2.8	1.4	<0.1	1.4	--	14	27.0
15...	<0.04	2.57	0.017	0.09	0.16	0.23	3.1	1.4	<0.1	1.4	--	16	25.8
20...	<0.04	2.48	0.016	0.10	0.14	0.22	2.9	1.2	<0.1	1.2	2.5	18	25.5
JUN 02...	<0.04	2.26	0.017	0.10	0.13	0.20	2.7	1.1	<0.1	1.1	--	20	28.4
10...	<0.04	2.51	0.026	0.10	0.08	0.19	2.9	0.6	<0.1	0.6	--	19	24.4
16...	<0.04	2.29	0.029	0.15	0.09	0.22	2.7	0.5	<0.1	0.5	3.1	21	19.8
24...	<0.04	2.29	0.030	0.11	0.05	0.171	2.6	0.3	<0.1	0.3	--	23	23.1
JUL 07...	<0.04	2.16	0.041	0.11	0.05	0.190	2.6	0.3	<0.1	0.3	--	34	24.7
16...	E.03	2.58	0.045	0.13	0.05	0.195	3.0	0.4	<0.1	0.4	--	23	19.3
21...	<0.04	2.10	0.032	0.12	0.06	0.19	2.6	0.4	<0.1	0.4	3.2	39	20.2
29...	<0.04	2.25	0.026	0.14	0.06	0.162	2.6	0.5	<0.1	0.5	--	31	23.9
AUG 06...	0.06	2.38	0.026	0.12	0.09	0.20	2.9	0.7	<0.1	0.7	--	36	27.6
12...	<0.04	2.24	0.016	E.12	0.10	0.20	2.7	0.7	--	--	--	27	31.3
20...	<0.04	2.20	0.022	0.10	0.09	0.23	2.8	0.6	<0.1	0.6	2.9	26	44.5
25...	E.03	2.09	0.021	0.10	0.16	0.26	2.7	1.2	0.2	1.0	--	33	51.0
25...	E.03	2.20	0.021	0.12	0.14	0.28	2.8	1.2	<0.1	1.2	2.8	--	--
SEP 08...	<0.04	1.73	0.029	0.09	0.27	0.35	2.2	2.2	<0.1	2.1	--	62	129
16...	E.04	2.48	0.018	0.09	0.26	0.37	3.1	2.4	<0.1	2.3	2.5	24	59.2
22...	E.03	2.37	0.019	0.08	0.20	0.36	3.0	1.8	<0.1	1.8	--	20	55.3

## (National Water-Quality Assessment Station)—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	1,4-Naphthoquinone, water, fltrd, ug/L (61611)	1-Naphthol, water, fltrd 0.7u GF (49295)	2-(4-t-Butylphenoxy)cyclohexanol wat flt ug/L (61637)	2,5-Dichloroaniline water, fltrd, ug/L (61614)	2,6-Diethyl-aniline water fltrd 0.7u GF (82660)	2-[(2-Et-6-Me-Ph)-amino]propan-1-ol, ug/L (61615)	2Amino-N-iso-propyl-benzamide, wat flt ug/L (61617)	2Chloro-2,6-diethyl acetanilide wat flt ug/L (61618)	CIAT, water, fltrd, ug/L (04040)	2-Ethyl-6-methyl-aniline water, fltrd, ug/L (61620)	3-(Tri-fluoro-methyl)aniline water, fltrd, ug/L (61630)	3,4-Dichloroaniline water fltrd, ug/L (61625)	3,5-Dichloroaniline water, fltrd, ug/L (61627)
OCT													
16...	<0.05	<0.09	<0.01	<0.03	<0.006	<0.1	<0.005	<0.005	E.010	<0.004	<0.01	<0.004	<0.005
NOV													
20...	<0.05	<0.09	<0.01	<0.03	<0.006	<0.1	<0.005	<0.005	E.013	<0.004	<0.01	<0.004	<0.005
DEC													
18...	<0.05	<0.09	<0.01	<0.03	<0.006	<0.1	<0.005	<0.005	E.015	<0.004	<0.01	<0.004	<0.005
JAN													
21...	<0.05	<0.09	<0.01	<0.03	<0.006	<0.1	<0.005	<0.005	E.015	<0.004	<0.01	<0.004	<0.005
FEB													
19...	<0.05	<0.09	<0.01	<0.03	<0.006	<0.1	<0.005	<0.005	E.015	<0.004	<0.01	<0.004	<0.005
MAR													
04...	<0.05	<0.09	<0.01	<0.03	<0.006	<0.1	<0.005	<0.005	E.013	<0.004	<0.01	<0.004	<0.005
18...	<0.05	<0.09	<0.01	<0.03	<0.006	<0.1	<0.005	<0.005	E.012	<0.004	<0.01	<0.004	<0.005
25...	--	<0.09	--	--	<0.006	<0.1	--	<0.005	E.008	<0.004	--	<0.004	--
APR													
03...	<0.05	<0.09	<0.01	<0.03	<0.006	--	<0.005	<0.005	E.007	--	<0.01	--	<0.005
08...	--	<0.09	--	--	<0.006	<0.1	--	<0.005	E.004	<0.004	--	<0.004	--
15...	<0.05	<0.09	<0.01	<0.03	<0.006	--	<0.005	<0.005	E.006	<0.004	<0.01	0.007	<0.005
22...	--	<0.09	--	--	<0.006	<0.1	--	<0.005	E.005	<0.004	--	<0.004	--
MAY													
01...	--	<0.09	--	--	<0.006	<0.1	--	<0.005	E.005	<0.004	--	<0.004	--
08...	<0.05	<0.09	<0.01	<0.03	<0.006	<0.1	<0.005	<0.005	E.003	<0.004	<0.01	0.006	<0.005
15...	--	<0.09	--	--	<0.006	<0.1	--	<0.005	E.005	<0.004	--	<0.004	--
20...	<0.05	<0.09	<0.01	<0.03	<0.006	<0.1	<0.005	<0.005	E.005	<0.004	<0.01	<0.004	<0.005
JUN													
02...	<0.05	<0.09	<0.01	<0.03	<0.006	<0.1	<0.005	<0.005	<0.006	<0.004	<0.01	<0.004	<0.005
10...	--	<0.09	--	--	<0.006	<0.1	--	<0.005	E.004	<0.004	--	E.003	--
16...	<0.05	<0.09	<0.01	<0.03	<0.006	<0.1	<0.005	<0.005	<0.006	<0.004	<0.01	<0.004	<0.005
24...	--	<0.09	--	--	<0.006	<0.1	--	<0.005	E.009	<0.004	--	<0.005	--
JUL													
07...	--	--	<0.01	<0.03	<0.006	<0.1	<0.005	<0.005	E.009	<0.004	<0.01	<0.004	<0.005
16...	--	E.01	--	--	<0.006	<0.1	--	<0.005	E.009	<0.004	--	0.009	--
21...	<0.05	<0.09	<0.01	<0.03	<0.006	<0.1	<0.005	<0.005	E.007	<0.004	<0.01	E.003	<0.005
29...	--	<0.09	--	--	<0.006	<0.1	--	<0.005	E.008	<0.004	--	<0.004	--
AUG													
06...	<0.05	<0.09	<0.01	<0.03	<0.006	<0.1	<0.005	<0.005	<0.006	<0.004	<0.01	<0.004	<0.005
12...	--	M	--	--	<0.006	<0.1	--	<0.005	E.009	<0.004	--	<0.004	--
20...	<0.05	E.01	<0.01	<0.03	<0.006	<0.1	<0.005	<0.005	<0.006	<0.004	<0.01	<0.004	<0.005
25...	--	E.01	--	--	<0.006	<0.1	--	<0.005	E.009	<0.004	--	<0.004	--
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
08...	--	E.01	--	--	<0.006	<0.1	--	<0.005	E.008	<0.004	--	<0.004	--
16...	<0.05	--	<0.01	<0.03	<0.006	<0.1	<0.005	<0.005	E.006	<0.004	<0.01	<0.004	<0.005
22...	--	E.03	--	--	<0.006	<0.1	--	<0.005	E.005	<0.004	--	<0.004	--



(National Water-Quality Assessment Station)—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	3-Phen- oxy- benzyl alcohol water, fltrd, ug/L (61629)	4- (MeOH)- pendi- meth- alin, wat flt ug/L (61665)	4,4-Di' chloro- benzo- pheno- one, wat flt ug/L (61631)	4Chloro 2methyl phenol, water, fltrd, ug/L (61633)	4Chloro phenyl- methyl sulfone water, fltrd, ug/L (61634)	Aceto- chlor ESA, water, fltrd 0.7u GF ug/L (61029)	Aceto- chlor OA, water, fltrd 0.7u GF ug/L (61030)	Aceto- chlor, water, fltrd, ug/L (49260)	Ala- chlor ESA, water, fltrd 0.7u GF ug/L (50009)	Ala- chlor OA, water, fltrd 0.7u GF ug/L (61031)	Ala- chlor, water, fltrd, ug/L (46342)	alpha- Endo- sulfan, water, fltrd, ug/L (34362)	alpha- HCH, water, fltrd, ug/L (34253)
OCT													
16...	<0.05	<0.1	<0.003	<0.006	<0.03	<0.05	<0.05	<0.006	0.08	<0.05	<0.004	<0.005	<0.005
NOV													
20...	<0.05	<0.1	<0.003	<0.006	<0.03	0.07	0.05	<0.006	0.13	<0.05	<0.004	<0.005	<0.005
DEC													
18...	<0.05	<0.1	<0.003	<0.006	<0.03	0.08	0.10	<0.006	0.14	<0.05	<0.004	<0.005	<0.005
JAN													
21...	<0.05	<0.1	<0.003	<0.006	<0.03	0.14	0.18	<0.006	0.13	0.06	<0.004	<0.005	<0.005
FEB													
19...	<0.05	<0.1	<0.003	<0.006	<0.03	<0.05	0.14	<0.006	0.30	<0.05	<0.004	<0.005	<0.005
MAR													
04...	<0.05	<0.1	<0.003	<0.006	<0.03	<0.05	0.08	<0.006	0.12	<0.05	<0.004	<0.005	<0.005
18...	<0.05	<0.1	<0.003	<0.006	<0.03	0.07	<0.05	<0.006	0.13	<0.05	<0.004	<0.005	<0.005
25...	--	--	--	<0.006	--	0.05	<0.05	<0.006	0.12	<0.05	<0.004	--	--
APR													
03...	<0.05	--	<0.003	--	<0.03	0.05	<0.05	<0.006	0.08	<0.05	<0.004	<0.005	<0.005
08...	--	--	--	<0.006	--	<0.05	<0.05	<0.006	<0.05	<0.05	<0.004	--	--
15...	--	--	<0.003	<0.006	<0.03	<0.05	<0.05	<0.006	0.06	<0.05	<0.004	<0.005	<0.005
22...	--	--	--	<0.006	--	<0.05	<0.05	<0.006	<0.05	<0.05	<0.004	--	--
MAY													
01...	--	--	--	<0.006	--	<0.05	<0.05	<0.006	<0.05	<0.05	<0.004	--	--
08...	<0.05	<0.1	<0.003	<0.006	<0.03	<0.05	<0.05	<0.006	<0.05	<0.05	<0.004	<0.005	<0.005
15...	--	--	--	<0.006	--	<0.05	<0.05	<0.006	0.09	<0.05	E.004	--	--
20...	<0.05	<0.1	<0.003	<0.006	<0.03	<0.05	<0.05	<0.006	<0.05	<0.05	0.023	<0.005	<0.005
JUN													
02...	<0.05	<0.1	<0.003	<0.006	<0.03	<0.05	<0.05	0.009	<0.05	<0.05	0.120	<0.005	<0.005
10...	--	--	--	<0.006	--	0.05	<0.05	0.015	<0.05	<0.05	0.008	--	--
16...	<0.05	<0.1	<0.003	<0.006	<0.03	<0.05	<0.05	<0.006	<0.05	<0.05	<0.004	<0.005	<0.005
24...	--	--	--	<0.006	--	<0.05	<0.05	<0.006	0.12	0.05	0.019	--	--
JUL													
07...	<0.05	<0.1	<0.003	<0.006	<0.03	<0.05	<0.05	<0.006	<0.05	<0.05	<0.004	<0.005	<0.005
16...	--	--	--	<0.006	--	0.11	<0.05	E.004	<0.05	<0.05	E.004	--	--
21...	--	--	<0.003	<0.006	<0.03	<0.05	<0.05	<0.006	0.06	<0.05	<0.004	<0.005	<0.005
29...	--	--	--	<0.006	--	0.05	<0.05	<0.006	0.08	<0.05	0.005	--	--
AUG													
06...	<0.05	--	<0.003	<0.006	<0.03	0.08	0.06	<0.006	0.08	<0.05	<0.004	<0.005	<0.005
12...	--	--	--	<0.006	--	<0.05	<0.05	<0.006	0.06	<0.05	<0.004	--	--
20...	--	--	<0.003	<0.006	<0.03	--	--	<0.006	--	--	<0.004	<0.005	<0.005
25...	--	--	--	<0.006	--	<0.05	<0.05	<0.006	<0.05	<0.05	<0.004	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
08...	--	--	--	<0.006	--	<0.05	<0.05	<0.006	<0.05	<0.05	<0.004	--	--
16...	--	--	<0.003	<0.006	<0.03	0.08	<0.05	<0.006	<0.05	<0.05	<0.004	<0.005	<0.005
22...	--	--	--	<0.006	--	0.07	<0.05	<0.006	<0.05	<0.05	<0.004	--	--

## (National Water-Quality Assessment Station)—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	alpha-HCH-d6, sur2002 /9002, wat unf percent recovry (99224)	alpha-HCH-d6, surrog, wat flt 0.7u GF percent recovry (91065)	Amino-methyl-phosphonic acid, wat flt ug/L (62649)	Atrazine, water, fltrd, ug/L (39632)	Azin-phos-methyl oxon, water, fltrd, ug/L (61635)	Azin-phos-methyl, water, fltrd 0.7u GF ug/L (82686)	Ben-flur-alin, water, fltrd 0.7u GF ug/L (82673)	beta-Endo-sulfan, water, fltrd, ug/L (34357)	Bifen-thrin, water, fltrd, ug/L (61580)	Butyl-ate, water, fltrd, ug/L (04028)	Car-baryl, water, fltrd 0.7u GF (82680)	Carbo-furan, water, fltrd 0.7u GF (82674)	Chlor-pyrifos oxon, water, fltrd, ug/L (61636)
OCT													
16...	103	94.6	<0.1	0.011	<0.02	<0.050	<0.010	<0.01	<0.005	<0.002	E.008	<0.020	<0.06
NOV													
20...	104	88.9	<0.1	0.011	<0.02	<0.050	<0.010	<0.01	<0.005	<0.002	<0.041	<0.020	<0.06
DEC													
18...	91.7	101	<0.1	0.013	<0.02	<0.050	<0.010	<0.01	<0.005	<0.002	<0.041	<0.020	<0.06
JAN													
21...	96.7	94.0	<0.1	0.014	<0.02	<0.050	<0.010	<0.01	<0.005	<0.002	<0.041	<0.020	<0.06
FEB													
19...	93.7	87.3	<0.1	0.014	<0.02	<0.050	<0.010	<0.01	<0.005	<0.002	<0.041	<0.020	<0.06
MAR													
04...	94.8	90.4	<0.1	0.012	<0.02	<0.050	<0.010	<0.01	<0.005	<0.002	<0.041	<0.020	<0.06
18...	96.4	83.3	<0.1	0.010	<0.02	<0.050	<0.010	<0.01	<0.005	<0.002	<0.041	<0.020	<0.06
25...	--	--	--	E.007	<0.02	<0.050	<0.010	--	--	--	<0.041	--	<0.06
APR													
03...	95.6	96.4	<0.1	0.008	--	<0.050	<0.010	<0.01	<0.005	<0.002	<0.041	<0.020	--
08...	--	--	--	E.005	<0.02	<0.050	<0.010	--	--	--	<0.041	--	<0.06
15...	90.7	96.4	<0.1	0.016	<0.02	<0.050	<0.010	<0.01	<0.005	<0.002	<0.041	<0.020	<0.06
22...	--	--	--	E.006	<0.02	<0.050	<0.010	--	--	--	E.006	--	<0.06
MAY													
01...	--	--	--	E.006	<0.02	<0.050	<0.010	--	--	--	E.016	--	<0.06
08...	96.3	94.5	<0.1	0.007	<0.02	<0.050	<0.010	<0.01	<0.005	<0.002	E.008	<0.020	<0.06
15...	--	--	--	0.007	<0.02	<0.050	<0.010	--	--	--	E.011	--	<0.06
20...	97.2	93.6	<0.1	0.037	<0.02	E.016	<0.010	<0.01	<0.005	<0.002	E.006	<0.020	<0.06
JUN													
02...	101	93.8	0.1	0.035	<0.03	<0.050	<0.010	<0.01	<0.005	<0.002	<0.041	<0.020	<0.06
10...	--	--	--	0.019	<0.02	E.028	<0.010	--	--	--	E.008	--	<0.06
16...	96.4	102	<0.1	0.061	<0.02	E.179	<0.010	<0.01	<0.005	<0.002	<0.041	<0.020	<0.06
24...	--	--	--	0.049	<0.02	E.016	<0.010	--	--	--	E.011	--	<0.06
JUL													
07...	94.6	90.2	<0.1	0.019	<0.02	E.031	<0.010	<0.01	<0.005	<0.002	<0.041	<0.020	<0.06
16...	--	--	--	0.031	<0.02	E.020	<0.010	--	--	--	E.026	--	<0.06
21...	87.0	85.9	0.1	0.017	<0.03	E.032	<0.010	<0.01	<0.005	<0.002	E.019	<0.020	<0.06
29...	--	--	--	0.020	<0.02	E.018	<0.010	--	--	--	<0.041	--	<0.06
AUG													
06...	91.0	94.6	0.2	0.021	<0.02	E.027	<0.010	<0.01	<0.005	<0.002	<0.041	<0.020	<0.06
12...	--	--	--	0.018	<0.02	E.013	<0.010	--	--	--	E.022	--	<0.06
20...	100	102	<0.1	<0.010	<0.02	<0.050	<0.010	<0.01	<0.005	<0.002	E.069	<0.020	<0.06
25...	--	--	--	0.013	<0.02	<0.050	<0.010	--	--	--	E.012	--	<0.06
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
08...	--	--	--	0.009	<0.02	<0.050	<0.010	--	--	--	E.039	--	<0.06
16...	96.4	91.9	<0.1	0.009	<0.02	<0.050	<0.010	<0.01	<0.005	<0.002	E.011	<0.020	<0.06
22...	--	--	--	0.008	<0.03	E.010	<0.010	--	--	--	E.212	--	<0.06

(National Water-Quality Assessment Station)—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Chlorpyrifos water, fltrd, ug/L (38933)	cis-Permethrin water fltrd 0.7u GF (82687)	cis-Propiconazole, water, fltrd, ug/L (79846)	Cyanazine, water, fltrd, ug/L (04041)	Cycloate, water, fltrd, ug/L (04031)	Cyfluthrin, water, fltrd, ug/L (61585)	lambda-Cyhalothrin, water, fltrd, ug/L (61595)	Cypermethrin water, fltrd, ug/L (61586)	DCPA, water fltrd 0.7u GF (82682)	Desulf-inyl fipronil, water, fltrd, ug/L (62170)	Diazinon oxon, water, fltrd, ug/L (61638)	Diazinon, water, fltrd, ug/L (39572)	Diazinon-d10 sur2002 /9002, wat unf percent recovry (99223)
OCT 16...	<0.005	<0.006	<0.008	<0.018	<0.005	<0.008	<0.009	<0.009	<0.003	<0.004	--	<0.005	91.5
NOV 20...	<0.005	<0.006	<0.008	<0.018	<0.005	<0.008	<0.009	<0.009	<0.003	<0.004	--	<0.005	101
DEC 18...	<0.005	<0.006	<0.008	<0.018	<0.005	<0.008	<0.009	<0.009	<0.003	<0.004	--	<0.005	108
JAN 21...	<0.005	<0.006	<0.008	<0.018	<0.005	<0.008	<0.009	<0.009	<0.003	<0.004	--	<0.005	102
FEB 19...	<0.005	<0.006	<0.008	<0.018	<0.005	<0.008	<0.009	<0.009	<0.003	<0.004	--	<0.005	97.3
MAR 04...	<0.005	<0.006	<0.008	<0.018	<0.005	<0.008	<0.009	<0.009	<0.003	<0.004	--	<0.005	101
18...	E.003	<0.006	<0.008	<0.018	<0.005	<0.008	<0.009	<0.009	<0.003	<0.004	--	<0.005	100
25...	0.020	<0.006	--	--	--	<0.008	--	<0.009	<0.003	<0.004	<0.04	<0.005	--
APR 03...	0.016	<0.006	<0.008	<0.018	<0.005	<0.008	<0.009	--	<0.003	<0.004	<0.04	<0.005	94.7
08...	0.013	<0.006	--	--	--	<0.008	--	<0.009	<0.003	<0.004	<0.04	<0.005	--
15...	0.009	<0.006	<0.008	<0.018	<0.005	<0.008	<0.009	<0.009	<0.003	<0.004	--	<0.005	86.0
22...	0.006	<0.006	--	--	--	<0.008	--	<0.009	<0.003	<0.004	<0.04	<0.005	--
MAY 01...	E.004	<0.006	--	--	--	<0.008	--	<0.009	E.002	<0.004	<0.01	E.003	--
08...	<0.005	<0.006	<0.008	<0.018	<0.005	<0.008	<0.009	<0.009	<0.003	<0.004	--	<0.005	94.4
15...	E.003	<0.006	--	--	--	<0.008	--	<0.009	<0.003	<0.004	<0.01	<0.005	--
20...	<0.005	<0.006	<0.008	<0.018	<0.005	<0.008	<0.009	<0.009	<0.003	<0.004	--	<0.005	97.2
JUN 02...	<0.005	<0.006	<0.008	<0.018	<0.005	<0.008	<0.009	<0.009	<0.003	<0.004	--	<0.005	104
10...	<0.005	<0.006	--	--	--	<0.008	--	<0.009	<0.003	<0.004	<0.01	<0.005	--
16...	<0.005	<0.006	<0.008	<0.018	<0.005	<0.008	<0.009	<0.009	<0.003	<0.004	--	<0.005	79.2
24...	<0.005	<0.006	--	--	--	<0.008	--	<0.009	<0.003	<0.004	<0.01	<0.005	--
JUL 07...	<0.005	<0.006	<0.008	<0.018	<0.005	<0.008	<0.009	<0.009	<0.003	<0.004	--	<0.005	95.5
16...	<0.005	<0.006	--	--	--	<0.008	--	<0.009	<0.003	<0.004	<0.01	<0.005	--
21...	<0.005	<0.006	<0.008	<0.018	<0.005	<0.008	<0.009	<0.009	<0.003	<0.004	--	<0.005	90.4
29...	<0.005	<0.006	--	--	--	<0.008	--	<0.009	<0.003	<0.004	<0.01	<0.005	--
AUG 06...	<0.005	<0.006	<0.008	<0.018	<0.005	<0.008	<0.009	<0.009	<0.003	<0.004	--	<0.005	92.8
12...	<0.005	<0.006	--	--	--	<0.008	--	<0.009	<0.003	<0.004	<0.01	<0.005	--
20...	<0.005	<0.006	<0.008	<0.018	<0.005	<0.008	<0.009	<0.009	<0.003	<0.004	--	<0.005	106
25...	<0.005	<0.006	--	--	--	<0.008	--	<0.009	<0.003	<0.004	<0.01	<0.005	--
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 08...	<0.005	<0.006	--	--	--	<0.008	--	<0.009	<0.003	<0.004	<0.01	<0.005	--
16...	<0.005	<0.006	<0.008	<0.018	<0.005	<0.008	<0.009	<0.009	<0.003	<0.004	--	<0.005	85.3
22...	<0.005	<0.006	--	--	--	<0.008	--	<0.009	<0.003	<0.004	<0.01	<0.005	--

## (National Water-Quality Assessment Station)—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Diazi- non-d10 surrog. Sch2003 wat flt percent recovery (99994)	Diazi- non-d10 surrog. wat flt 0.7u GF percent recovery (91063)	Dicro- tophos, water fltrd, ug/L (38454)	Diel- drin, water, fltrd, ug/L (39381)	Dimeth- enamid ESA, water, fltrd, ug/L (61951)	Dimeth- enamid OA, water, fltrd, ug/L (62482)	Dimeth- oate, water, fltrd 0.7u GF ug/L (82662)	Disulf- oton sulfone water, fltrd, ug/L (61640)	Disulf- oton sulf- oxide, water, fltrd, ug/L (61641)	Disulf- foton, water, fltrd 0.7u GF ug/L (82677)	e-Di- metho- morph, water, fltrd, ug/L (79844)	Endo- sulfan ether, water, fltrd, ug/L (61642)	Endo- sulfan sulfate water, fltrd, ug/L (61590)
OCT													
16...	--	114	<0.08	<0.005	<0.05	<0.05	<0.006	E.01	<0.002	<0.02	<0.02	<0.004	<0.006
NOV													
20...	--	106	<0.08	<0.005	<0.05	<0.05	<0.006	<0.02	<0.002	<0.02	<0.02	<0.004	<0.006
DEC													
18...	--	119	<0.08	<0.005	<0.05	<0.05	<0.006	<0.02	<0.002	<0.02	<0.02	<0.004	<0.006
JAN													
21...	--	109	<0.08	<0.005	<0.05	<0.05	<0.006	<0.02	<0.002	<0.02	<0.02	<0.004	<0.006
FEB													
19...	--	99.1	<0.08	<0.005	<0.05	<0.05	<0.006	<0.02	<0.002	<0.02	<0.02	<0.004	<0.006
MAR													
04...	--	104	<0.08	<0.005	<0.05	<0.05	<0.006	<0.02	<0.002	<0.02	<0.02	<0.004	<0.006
18...	--	92.9	<0.08	<0.005	<0.05	<0.05	<0.006	<0.02	<0.002	<0.02	<0.02	<0.004	<0.006
25...	94.4	--	<0.08	<0.005	<0.05	<0.05	<0.006	--	--	--	--	--	--
APR													
03...	92.0	101	<0.08	<0.005	<0.05	<0.05	--	<0.02	<0.002	<0.02	<0.02	<0.004	<0.006
08...	102	--	<0.08	<0.005	<0.05	<0.05	<0.006	--	--	--	--	--	--
15...	--	102	<0.08	<0.005	<0.05	<0.05	<0.006	<0.02	<0.002	<0.02	<0.02	<0.004	<0.006
22...	101	--	<0.08	<0.005	<0.05	<0.05	<0.006	--	--	--	--	--	--
MAY													
01...	101	--	<0.08	<0.005	<0.05	<0.05	E.005	--	--	--	--	--	--
08...	--	112	<0.08	<0.005	<0.05	<0.05	<0.006	<0.02	<0.002	<0.02	<0.02	<0.004	<0.006
15...	106	--	<0.08	<0.005	<0.05	<0.05	<0.006	--	--	--	--	--	--
20...	--	116	<0.08	<0.005	<0.05	<0.05	<0.006	<0.02	<0.002	<0.02	<0.02	<0.004	<0.006
JUN													
02...	--	117	<0.08	<0.005	<0.05	<0.05	<0.006	<0.02	<0.002	<0.02	<0.02	<0.004	<0.006
10...	87.5	--	<0.08	<0.005	<0.05	<0.05	<0.006	--	--	--	--	--	--
16...	--	132	<0.08	<0.005	<0.05	<0.05	<0.006	<0.02	<0.002	<0.02	<0.02	<0.004	<0.006
24...	98.2	--	<0.08	<0.005	<0.05	<0.05	<0.006	--	--	--	--	--	--
JUL													
07...	--	112	<0.08	<0.005	<0.05	<0.05	<0.006	<0.02	<0.002	<0.02	<0.02	<0.004	<0.006
16...	98.1	--	<0.08	<0.005	<0.05	<0.05	<0.006	--	--	--	--	--	--
21...	--	112	<0.08	<0.005	<0.05	<0.05	<0.006	E.01	<0.002	<0.02	<0.02	<0.004	<0.006
29...	102	--	<0.08	<0.005	<0.05	<0.05	<0.006	--	--	--	--	--	--
AUG													
06...	--	85.2	<0.08	<0.005	<0.05	<0.05	<0.006	<0.02	<0.002	<0.02	<0.02	<0.004	<0.006
12...	95.6	--	<0.08	<0.005	<0.05	<0.05	<0.006	--	--	--	--	--	--
20...	--	96.4	<0.08	<0.005	--	--	<0.006	0.03	E.041	<0.02	<0.02	<0.004	<0.006
25...	90.9	--	<0.08	<0.005	<0.05	<0.05	<0.006	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
08...	85.5	--	<0.08	<0.005	<0.05	<0.05	<0.006	--	--	--	--	--	--
16...	--	106	<0.08	<0.005	<0.05	<0.05	<0.006	E.01	<0.002	<0.02	<0.02	<0.004	<0.006
22...	103	--	<0.08	<0.005	<0.05	<0.05	<0.006	--	--	--	--	--	--

(National Water-Quality Assessment Station)—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	EPTC, water, fltrd 0.7u GF (82668)	Ethal- flur- alin, water, fltrd 0.7u GF (82663)	Ethion monoxon water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)	Etho- prop, water, fltrd 0.7u GF (82672)	Fenami- phos sulfone water, fltrd, ug/L (61645)	Fenami- phos sulf- oxide, water, fltrd, ug/L (61646)	Fenami- phos, water, fltrd, ug/L (61591)	Fen- thion sulf- oxide, water, fltrd, ug/L (61647)	Fen- thion, water, fltrd, ug/L (38801)	Desulf- inyl- fipro- nil amide, wat flt ug/L (62169)	Fipro- nil sulfide water, fltrd, ug/L (62167)	Fipro- nil sulfone water, fltrd, ug/L (62168)
OCT													
16...	<0.002	<0.009	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008	<0.02	<0.009	<0.005	<0.005
NOV													
20...	<0.002	<0.009	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008	<0.02	<0.009	<0.005	<0.005
DEC													
18...	<0.002	<0.009	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008	<0.02	<0.009	<0.005	<0.005
JAN													
21...	<0.002	<0.009	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008	<0.02	<0.009	<0.005	<0.005
FEB													
19...	<0.002	<0.009	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008	<0.02	<0.009	<0.005	<0.005
MAR													
04...	<0.002	<0.009	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008	<0.02	<0.009	<0.005	<0.005
18...	<0.002	<0.009	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008	<0.02	<0.009	<0.005	<0.005
25...	--	--	<0.03	<0.004	--	<0.008	<0.03	<0.03	--	--	<0.009	<0.005	<0.005
APR													
03...	<0.002	<0.009	--	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008	<0.02	<0.009	<0.005	<0.005
08...	--	--	<0.03	<0.004	--	<0.008	<0.03	<0.03	--	--	<0.009	<0.005	<0.005
15...	<0.002	<0.009	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008	<0.02	<0.009	<0.005	<0.005
22...	--	--	<0.03	<0.004	--	<0.008	<0.03	<0.03	--	--	<0.009	<0.005	<0.005
MAY													
01...	--	--	<0.03	<0.004	--	<0.008	<0.03	<0.03	--	--	<0.009	<0.005	<0.005
08...	<0.002	<0.009	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008	<0.02	<0.009	<0.005	<0.005
15...	--	--	<0.03	<0.004	--	<0.008	<0.03	<0.03	--	--	<0.009	<0.005	<0.005
20...	<0.002	<0.009	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008	<0.02	<0.009	<0.005	<0.005
JUN													
02...	0.018	<0.009	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008	<0.02	--	<0.005	--
10...	--	--	<0.03	<0.004	--	<0.008	<0.03	<0.03	--	--	<0.009	<0.005	<0.005
16...	<0.002	<0.009	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008	<0.02	<0.009	<0.005	<0.005
24...	--	--	<0.03	<0.004	--	<0.031	<0.03	<0.03	--	--	<0.031	<0.005	<0.005
JUL													
07...	<0.002	<0.009	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008	<0.02	<0.009	<0.005	<0.005
16...	--	--	<0.03	<0.004	--	<0.008	<0.03	<0.03	--	--	<0.009	<0.005	<0.005
21...	<0.002	<0.009	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008	<0.02	<0.009	<0.005	<0.005
29...	--	--	<0.03	<0.004	--	<0.008	<0.03	<0.03	--	--	<0.009	<0.005	<0.005
AUG													
06...	<0.002	<0.009	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008	<0.02	<0.009	<0.005	<0.005
12...	--	--	<0.03	<0.004	--	<0.008	<0.03	<0.03	--	--	<0.009	<0.005	<0.005
20...	<0.002	<0.009	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008	<0.02	<0.009	<0.005	<0.005
25...	--	--	<0.03	<0.004	--	<0.008	<0.03	<0.03	--	--	<0.009	<0.005	<0.005
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
08...	--	--	<0.03	<0.004	--	<0.008	<0.03	<0.03	--	--	<0.009	<0.005	<0.005
16...	<0.002	<0.009	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008	<0.02	<0.009	<0.005	<0.005
22...	--	--	<0.03	<0.004	--	<0.008	<0.03	<0.03	--	--	<0.009	<0.005	<0.005

## (National Water-Quality Assessment Station)—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Fipronil, water, fltrd, ug/L (62166)	Flufenacet ESA, water, fltrd, ug/L (61952)	Flufenacet OA, water, fltrd, ug/L (62483)	Flumetralin, water, fltrd, ug/L (61592)	Fonofos oxon, water, fltrd, ug/L (61649)	Fonofos water, fltrd, ug/L (04095)	Glufosinate, water, fltrd 0.7u GF ug/L (62721)	Glyphosate, water, fltrd 0.7u GF ug/L (62722)	Hexazinone, water, fltrd, ug/L (04025)	Iprodione, water, fltrd, ug/L (61593)	Isofenphos, water, fltrd, ug/L (61594)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (82666)
OCT													
16...	<0.007	<0.05	<0.05	<0.004	<0.002	<0.003	<0.1	<0.1	<0.013	<1	<0.003	<0.004	<0.035
NOV													
20...	<0.007	<0.05	<0.05	<0.004	<0.002	<0.003	<0.1	<0.1	<0.013	<1	<0.003	<0.004	<0.035
DEC													
18...	<0.007	<0.05	<0.05	<0.004	<0.002	<0.003	<0.1	<0.1	E.005	<1	<0.003	<0.004	<0.035
JAN													
21...	<0.007	<0.05	<0.05	<0.004	<0.002	<0.003	<0.1	<0.1	<0.013	<1	<0.003	<0.004	<0.035
FEB													
19...	<0.007	<0.05	<0.05	<0.004	<0.002	<0.003	<0.1	<0.1	<0.013	<1	<0.003	<0.004	<0.035
MAR													
04...	<0.007	<0.05	<0.05	<0.004	<0.002	<0.003	<0.1	<0.1	<0.013	<1	<0.003	<0.004	<0.035
18...	<0.007	<0.05	<0.05	<0.004	<0.002	<0.003	<0.1	<0.1	<0.013	<1	<0.003	<0.004	<0.035
25...	<0.007	<0.05	<0.05	--	<0.002	<0.003	--	--	--	<1	<0.003	--	--
APR													
03...	<0.007	<0.05	<0.05	<0.004	--	<0.003	<0.1	<0.1	<0.013	--	--	<0.004	<0.035
08...	<0.007	<0.05	<0.05	--	<0.002	<0.003	--	--	--	<1	<0.003	--	--
15...	<0.007	<0.05	<0.05	<0.004	<0.002	<0.003	<0.1	0.2	0.019	<1	<0.003	<0.004	<0.035
22...	<0.007	<0.05	<0.05	--	<0.002	<0.003	--	--	--	<1	<0.003	--	--
MAY													
01...	<0.007	<0.05	<0.05	--	<0.002	<0.003	--	--	--	<1	<0.003	--	--
08...	<0.007	<0.05	<0.05	<0.004	<0.002	<0.003	<0.1	0.2	E.006	<1	<0.003	<0.004	<0.035
15...	<0.007	<0.05	<0.05	--	<0.002	<0.003	--	--	<0.013	<1	<0.003	--	--
20...	<0.007	<0.05	<0.05	<0.004	<0.002	<0.003	<0.1	<0.1	<0.013	<1	<0.003	<0.004	<0.035
JUN													
02...	<0.007	<0.05	<0.05	<0.004	<0.002	<0.003	<0.1	0.9	<0.013	<1	<0.003	<0.004	<0.035
10...	<0.007	<0.05	<0.05	--	<0.002	<0.003	--	--	<0.013	<1	<0.003	--	--
16...	<0.007	<0.05	<0.05	<0.004	<0.002	<0.003	<0.1	0.2	<0.013	<1	<0.003	<0.004	<0.035
24...	<0.007	<0.05	<0.05	--	<0.002	<0.003	--	--	E.009	<1	<0.003	--	--
JUL													
07...	<0.007	<0.05	<0.05	<0.004	<0.002	<0.003	<0.1	0.2	<0.013	<1	<0.003	<0.004	<0.035
16...	<0.007	<0.05	<0.05	--	<0.002	<0.003	--	--	<0.013	<1	<0.003	--	--
21...	<0.007	<0.05	<0.05	<0.004	<0.002	<0.003	<0.1	0.4	<0.013	<1	<0.003	<0.004	<0.035
29...	<0.007	<0.05	<0.05	--	<0.002	<0.003	--	--	<0.013	<1	<0.003	--	--
AUG													
06...	<0.007	<0.05	<0.05	<0.004	<0.002	<0.003	<0.1	0.6	<0.013	<1	<0.003	<0.004	<0.035
12...	<0.007	<0.05	<0.05	--	<0.002	<0.003	--	--	<0.013	<1	<0.003	--	--
20...	<0.007	--	--	<0.004	<0.002	<0.003	<0.1	0.1	<0.013	<1	<0.003	<0.004	<0.035
25...	<0.007	<0.05	<0.05	--	<0.002	<0.003	--	--	<0.013	<1	<0.003	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
08...	<0.007	<0.05	<0.05	--	<0.002	<0.003	--	--	<0.013	<1	<0.003	--	--
16...	<0.007	<0.05	<0.05	<0.004	<0.002	<0.003	<0.1	<0.1	<0.013	<1	<0.003	<0.004	<0.035
22...	<0.007	<0.05	<0.05	--	<0.002	<0.003	--	--	<0.013	<1	<0.003	--	--

(National Water-Quality Assessment Station)—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Malaoxon, water, fltrd, ug/L (61652)	Malathion, water, fltrd, ug/L (39532)	Metolaxyl, water, fltrd, ug/L (61596)	Methiathion, water, fltrd, ug/L (61598)	c-Permethric acid methyl ester, wat flt (79842)	Methyl para-oxon, water, fltrd, ug/L (61664)	Methyl para-thion, water, fltrd 0.7u GF ug/L (82667)	t-Permethric acid methyl ester, wat flt ug/L (79843)	Metolachlor ESA, water, fltrd 0.7u GF ug/L (61043)	Metolachlor OA, water, fltrd 0.7u GF ug/L (61044)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)	Molinate, water, fltrd 0.7u GF ug/L (82671)
OCT													
16...	<0.008	<0.027	<0.005	<0.006	<0.04	<0.03	<0.006	<0.03	<0.05	<0.05	<0.013	<0.006	<0.002
NOV													
20...	<0.008	<0.027	<0.005	<0.006	<0.04	<0.03	<0.006	<0.03	<0.05	<0.05	<0.013	<0.006	<0.002
DEC													
18...	<0.008	<0.027	<0.005	<0.006	<0.04	<0.03	<0.006	<0.03	<0.05	<0.05	<0.013	<0.006	<0.002
JAN													
21...	<0.008	<0.027	<0.005	<0.006	<0.04	<0.03	<0.200	<0.03	<0.05	<0.05	<0.013	<0.006	<0.002
FEB													
19...	<0.008	<0.027	<0.005	<0.006	<0.04	<0.03	<0.006	<0.03	<0.05	<0.05	<0.013	<0.006	<0.002
MAR													
04...	<0.008	<0.027	<0.005	<0.006	<0.04	<0.03	<0.006	<0.03	<0.05	<0.05	<0.013	<0.006	<0.002
18...	<0.008	<0.027	<0.005	<0.006	<0.04	<0.03	<0.006	<0.03	<0.05	<0.05	<0.013	<0.006	<0.002
25...	<0.008	<0.027	<0.005	<0.006	--	<0.03	<0.006	--	<0.05	<0.05	<0.013	<0.006	--
APR													
03...	--	<0.027	--	--	<0.04	--	<0.006	<0.03	<0.05	<0.05	<0.013	<0.006	<0.002
08...	<0.008	<0.027	<0.005	<0.006	--	<0.03	<0.006	--	<0.05	<0.05	<0.013	<0.006	--
15...	<0.008	<0.027	<0.005	<0.006	<0.04	<0.03	<0.006	<0.03	<0.05	<0.05	<0.013	<0.006	<0.002
22...	<0.008	<0.027	<0.005	0.008	--	<0.03	<0.006	--	<0.05	<0.05	<0.013	<0.006	--
MAY													
01...	<0.008	<0.027	<0.005	0.013	--	<0.03	<0.006	--	<0.05	<0.05	<0.013	<0.006	--
08...	<0.008	<0.027	<0.005	0.007	<0.04	<0.03	<0.006	<0.03	<0.05	<0.05	<0.013	<0.006	<0.002
15...	<0.008	<0.027	<0.005	<0.006	--	<0.03	<0.006	--	<0.05	<0.05	<0.013	<0.006	--
20...	<0.008	<0.027	<0.005	E.004	<0.04	<0.03	<0.006	<0.03	<0.05	<0.05	<0.013	<0.006	<0.002
JUN													
02...	<0.008	<0.027	<0.005	<0.006	<0.04	<0.03	<0.006	<0.03	<0.05	<0.05	<0.013	<0.006	<0.002
10...	<0.008	<0.027	<0.005	<0.006	--	<0.03	<0.006	--	<0.05	<0.05	<0.013	<0.006	--
16...	<0.008	<0.027	<0.005	<0.006	<0.04	<0.03	<0.006	<0.03	<0.05	<0.05	<0.013	<0.006	<0.002
24...	<0.008	E.026	<0.005	<0.006	--	<0.03	<0.006	--	<0.05	<0.05	<0.013	<0.006	--
JUL													
07...	<0.008	<0.027	<0.005	<0.006	<0.04	<0.03	<0.006	<0.03	<0.05	<0.05	<0.013	<0.006	<0.002
16...	<0.008	<0.027	<0.005	<0.006	--	<0.03	<0.006	--	<0.05	<0.05	<0.013	0.012	--
21...	<0.008	<0.027	<0.005	<0.006	<0.04	<0.03	<0.006	<0.03	<0.05	<0.05	<0.013	<0.006	<0.002
29...	<0.008	E.006	<0.005	<0.006	--	<0.03	<0.006	--	<0.05	<0.05	<0.013	<0.006	--
AUG													
06...	<0.008	<0.027	<0.005	<0.006	<0.04	<0.03	<0.006	<0.03	<0.05	<0.05	<0.013	<0.006	<0.002
12...	<0.008	<0.027	<0.005	<0.006	--	<0.03	<0.006	--	<0.05	<0.05	<0.013	<0.006	--
20...	<0.008	<0.027	<0.005	<0.006	<0.04	<0.03	<0.006	<0.03	--	--	<0.013	<0.006	<0.002
25...	<0.008	<0.027	<0.005	<0.006	--	<0.03	<0.006	--	<0.05	<0.05	<0.013	<0.006	--
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
08...	<0.008	<0.027	<0.005	<0.006	--	<0.03	<0.006	--	<0.05	<0.05	<0.013	<0.006	--
16...	<0.008	<0.027	<0.005	<0.006	<0.04	<0.03	<0.006	<0.03	<0.05	<0.05	<0.013	<0.006	<0.002
22...	<0.008	<0.027	<0.005	<0.006	--	<0.03	<0.006	--	<0.05	<0.05	<0.013	<0.006	--

## (National Water-Quality Assessment Station)—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Myclo- butanil water, fltrd, ug/L (61599)	Naprop- amide, water, fltrd 0.7u GF (82684)	O-Et-O- Me-S-Pr phos- phoro- thioate wat flt ug/L (61660)	Oxy- fluor- fen, water, fltrd, ug/L (61600)	p,p'- DDE, water, fltrd, ug/L (34653)	Para- oxon, water, fltrd, ug/L (61663)	Para- thion, water, fltrd, ug/L (39542)	Peb- ulate, water, fltrd 0.7u GF (82669)	Pendi- meth- alin, water, fltrd 0.7u GF (82683)	Phorate oxon, water, fltrd, ug/L (61666)	Phorate water fltrd 0.7u GF (82664)	Phosmet oxon, water, fltrd, ug/L (61668)	Phosmet water, fltrd, ug/L (61601)
OCT													
16...	<0.008	<0.007	<0.008	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022	<0.10	<0.011	<0.06	<0.008
NOV													
20...	<0.008	<0.007	<0.008	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022	<0.10	<0.011	<0.06	<0.008
DEC													
18...	<0.008	<0.007	<0.008	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022	<0.10	<0.011	<0.06	<0.008
JAN													
21...	<0.008	<0.007	<0.008	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022	<0.10	<0.011	<0.06	<0.008
FEB													
19...	<0.008	<0.007	<0.008	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022	<0.10	<0.011	<0.06	<0.008
MAR													
04...	<0.008	<0.007	<0.008	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022	<0.10	<0.011	<0.06	<0.008
18...	<0.008	<0.007	<0.008	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022	<0.10	<0.011	<0.06	<0.008
25...	<0.008	--	--	--	--	--	--	--	<0.022	<0.10	<0.011	<0.06	<0.008
APR													
03...	<0.008	<0.007	<0.008	<0.007	<0.005	<0.008	<0.010	<0.004	<0.022	--	<0.011	--	<0.008
08...	<0.008	--	--	--	--	--	--	--	<0.022	<0.10	<0.011	<0.06	<0.008
15...	<0.008	<0.007	<0.008	<0.007	<0.005	<0.008	<0.010	<0.004	<0.022	<0.10	<0.011	<0.06	<0.008
22...	<0.008	--	--	--	--	--	--	--	<0.022	<0.10	<0.011	<0.06	<0.008
MAY													
01...	E.007	--	--	--	--	--	--	--	<0.022	<0.10	<0.011	<0.06	<0.008
08...	<0.008	<0.007	<0.008	<0.007	<0.005	<0.008	<0.010	<0.004	<0.022	<0.10	<0.011	<0.06	<0.008
15...	E.005	--	--	--	--	--	--	--	<0.022	<0.10	<0.011	<0.06	<0.008
20...	E.005	<0.007	<0.008	<0.007	<0.005	<0.008	<0.010	<0.004	<0.022	<0.10	<0.011	<0.06	<0.008
JUN													
02...	<0.008	<0.007	<0.008	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022	<0.10	<0.011	<0.06	<0.008
10...	<0.008	--	--	--	--	--	--	--	<0.022	<0.10	<0.011	<0.06	<0.008
16...	0.192	<0.007	<0.008	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022	<0.10	<0.011	<0.06	<0.008
24...	<0.008	--	--	--	--	--	--	--	<0.022	<0.10	<0.011	<0.06	<0.008
JUL													
07...	<0.008	<0.007	<0.008	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022	<0.10	<0.011	<0.06	<0.008
16...	E.007	--	--	--	--	--	--	--	<0.022	<0.10	<0.011	<0.06	<0.008
21...	<0.008	<0.007	<0.008	<0.007	<0.005	<0.008	<0.010	<0.004	<0.022	<0.10	<0.011	<0.06	<0.008
29...	E.006	--	--	--	--	--	--	--	<0.022	<0.10	<0.011	<0.06	<0.008
AUG													
06...	<0.008	<0.007	<0.008	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022	<0.10	<0.011	<0.06	<0.008
12...	E.004	--	--	--	--	--	--	--	<0.022	<0.10	<0.011	<0.06	<0.008
20...	<0.008	<0.007	<0.008	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022	<0.10	<0.011	<0.06	<0.008
25...	E.005	--	--	--	--	--	--	--	<0.022	<0.10	<0.011	<0.06	<0.008
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
08...	<0.008	--	--	--	--	--	--	--	<0.022	<0.10	<0.011	<0.06	<0.008
16...	<0.008	<0.007	<0.008	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022	<0.10	<0.011	<0.06	<0.008
22...	<0.008	--	--	--	--	--	--	--	<0.022	<0.10	<0.011	<0.06	<0.008



(National Water-Quality Assessment Station)—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Phoste- bupirim water, fltrd, ug/L (61602)	Pro- fenofos water, fltrd, ug/L (61603)	Prome- ton, water, fltrd, ug/L (04037)	Prome- tryn, water, fltrd, ug/L (04036)	Pron- amide, water, fltrd 0.7u GF ug/L (82676)	Propa- chlor, water, fltrd, ug/L (04024)	Pro- panil, water, fltrd 0.7u GF ug/L (82679)	Propar- gite, water, fltrd 0.7u GF ug/L (82685)	Propet- amphos, water, fltrd, ug/L (61604)	Sima- zine, water, fltrd, ug/L (04035)	Sulfo- tepp, water, fltrd, ug/L (61605)	Sulpro- fos, water, fltrd, ug/L (38716)	Tebu- pirim- phos oxon, water, fltrd, ug/L (61669)
OCT 16...	<0.005	<0.006	M	<0.005	<0.004	<0.010	<0.011	<0.02	<0.004	E.005	<0.003	<0.02	<0.006
NOV 20...	<0.005	<0.006	<0.01	<0.005	<0.004	<0.010	<0.011	<0.02	<0.004	0.005	<0.003	<0.02	<0.006
DEC 18...	<0.005	<0.006	<0.01	<0.005	<0.004	<0.010	<0.011	<0.02	<0.004	<0.005	<0.003	<0.02	<0.006
JAN 21...	<0.005	<0.006	<0.01	<0.005	<0.004	<0.010	<0.011	<0.02	<0.004	<0.005	<0.003	<0.02	<0.006
FEB 19...	<0.005	<0.006	<0.01	<0.005	<0.004	<0.010	<0.011	<0.02	<0.004	0.008	<0.003	<0.02	<0.006
MAR 04...	<0.005	<0.006	<0.01	<0.005	<0.004	<0.010	<0.011	<0.02	<0.004	<0.005	<0.003	<0.02	<0.006
18...	<0.005	<0.006	<0.01	<0.005	<0.004	<0.010	<0.011	<0.02	<0.004	<0.010	<0.003	<0.02	<0.006
25...	--	--	<0.01	<0.005	<0.004	--	--	--	--	E.002	--	--	--
APR 03...	<0.005	<0.006	<0.01	--	<0.004	<0.010	<0.011	<0.02	<0.004	0.007	<0.003	<0.02	<0.006
08...	--	--	<0.01	<0.005	<0.004	--	--	--	--	E.004	--	--	--
15...	<0.005	<0.006	<0.01	<0.005	<0.004	<0.010	<0.011	<0.02	<0.004	0.009	<0.003	<0.02	<0.006
22...	--	--	<0.01	<0.005	<0.004	--	--	--	--	<0.005	--	--	--
MAY 01...	--	--	<0.01	<0.005	<0.004	--	--	--	--	<0.008	--	--	--
08...	<0.005	<0.006	<0.01	<0.005	<0.004	<0.010	<0.011	<0.02	<0.004	<0.005	<0.003	<0.02	<0.006
15...	--	--	<0.01	<0.005	<0.004	--	--	--	--	<0.005	--	--	--
20...	<0.005	<0.006	<0.01	<0.005	<0.004	<0.010	<0.011	<0.02	<0.004	<0.005	<0.003	<0.02	<0.006
JUN 02...	<0.005	<0.006	<0.01	<0.005	<0.004	<0.010	<0.011	<0.02	<0.004	<0.005	<0.003	<0.02	<0.006
10...	--	--	<0.01	<0.005	<0.004	--	--	--	--	<0.005	--	--	--
16...	<0.005	<0.006	<0.01	<0.005	<0.004	<0.010	<0.011	<0.02	<0.004	<0.005	<0.003	<0.02	<0.006
24...	--	--	<0.01	<0.005	<0.004	--	--	--	--	<0.005	--	--	--
JUL 07...	<0.005	<0.006	<0.01	<0.005	<0.004	<0.010	<0.011	<0.02	<0.004	<0.005	<0.003	<0.02	<0.006
16...	--	--	<0.01	<0.005	<0.004	--	--	--	--	E.003	--	--	--
21...	<0.005	<0.006	<0.01	<0.005	<0.004	<0.010	<0.011	<0.02	<0.004	<0.005	<0.003	<0.02	<0.006
29...	--	--	<0.01	<0.005	<0.004	--	--	--	--	E.005	--	--	--
AUG 06...	<0.005	<0.006	<0.01	<0.005	<0.004	<0.010	<0.011	<0.02	<0.004	<0.005	<0.003	<0.02	<0.006
12...	--	--	<0.01	<0.005	<0.004	--	--	--	--	E.004	--	--	--
20...	<0.005	<0.006	<0.01	<0.005	<0.004	<0.010	<0.011	<0.02	<0.004	<0.005	<0.003	<0.02	<0.006
25...	--	--	<0.01	<0.005	<0.004	--	--	--	--	E.003	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 08...	--	--	<0.01	<0.005	<0.004	--	--	--	--	<0.005	--	--	--
16...	<0.005	<0.006	<0.01	<0.005	<0.004	<0.010	<0.011	<0.02	<0.004	<0.005	<0.003	<0.02	<0.006
22...	--	--	<0.01	<0.005	<0.004	--	--	--	--	E.003	--	--	--

## (National Water-Quality Assessment Station)—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Tebu- thiuron water flrd 0.7u GF (82670)	Teflu- thrin metab- olite R119365 wat flt ug/L (61671)	Teflu- thrin metab- olite R152913 wat flt ug/L (61672)	Teflu- thrin, water, flrd, ug/L (61606)	Tem- phos, water, flrd, ug/L (61607)	Terba- cil, water, flrd 0.7u GF (82665)	Ter- bufos oxon sulfone water, flrd, ug/L (61674)	Terbu- fos, water, flrd 0.7u GF (82675)	Ter- buthyl- azine, water, flrd, ug/L (04022)	Thio- bencarb water flrd 0.7u GF (82681)	trans- Propi- cona- zole, water, flrd, ug/L (79847)	Tri- allate, water, flrd 0.7u GF (82678)	Tribu- phos, water, flrd, ug/L (61610)
OCT													
16...	<0.02	<0.02	<0.01	<0.008	<0.3	<0.034	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004
NOV													
20...	<0.02	<0.02	<0.01	<0.008	<0.3	<0.034	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004
DEC													
18...	<0.02	<0.02	<0.01	<0.008	<0.3	<0.034	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004
JAN													
21...	<0.02	<0.02	<0.01	<0.008	<0.3	<0.034	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004
FEB													
19...	<0.02	<0.02	<0.01	<0.008	<0.3	<0.034	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004
MAR													
04...	<0.02	<0.02	<0.01	<0.008	<0.3	<0.034	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004
18...	<0.02	<0.02	<0.01	<0.008	<0.3	<0.034	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004
25...	<0.02	--	--	--	--	--	<0.07	<0.02	<0.01	--	--	--	--
APR													
03...	<0.02	--	--	<0.008	<0.3	<0.034	--	<0.02	--	<0.005	<0.01	<0.002	<0.004
08...	<0.02	--	--	--	--	--	<0.07	<0.02	<0.01	--	--	--	--
15...	<0.02	--	--	<0.008	<0.3	<0.034	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004
22...	<0.02	--	--	--	--	--	<0.07	<0.02	<0.01	--	--	--	--
MAY													
01...	<0.02	--	--	--	--	--	<0.07	<0.02	<0.01	--	--	--	--
08...	<0.02	--	--	<0.008	<0.3	<0.034	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004
15...	<0.02	--	--	--	--	--	<0.07	<0.02	<0.01	--	--	--	--
20...	<0.02	--	--	<0.008	<0.3	E.015	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004
JUN													
02...	<0.02	--	--	<0.008	<0.3	<0.034	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004
10...	<0.02	--	--	--	--	--	<0.07	<0.02	<0.01	--	--	--	--
16...	<0.02	--	--	<0.008	<0.3	<0.034	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004
24...	<0.02	--	--	--	--	--	<0.07	<0.02	<0.01	--	--	--	--
JUL													
07...	<0.02	--	--	<0.008	<0.3	<0.034	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004
16...	<0.02	--	--	--	--	--	<0.07	<0.02	<0.01	--	--	--	--
21...	<0.02	--	--	<0.008	<0.3	<0.034	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004
29...	<0.02	--	--	--	--	--	<0.07	<0.02	<0.01	--	--	--	--
AUG													
06...	<0.02	--	--	<0.008	<0.3	<0.034	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004
12...	<0.02	--	--	--	--	--	<0.07	<0.02	<0.01	--	--	--	--
20...	<0.02	--	--	<0.008	<0.3	<0.034	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004
25...	<0.02	--	--	--	--	--	<0.07	<0.02	<0.01	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
08...	<0.02	--	--	--	--	--	<0.07	<0.02	<0.01	--	--	--	--
16...	<0.02	--	--	<0.008	<0.3	<0.034	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004
22...	<0.02	--	--	--	--	--	<0.07	<0.02	<0.01	--	--	--	--

(National Water-Quality Assessment Station)—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Tri-fluor-alin, fltrd 0.7u GF (82661)	z-Di-metho-morph, water, fltrd, ug/L (79845)	Di-chlor-vo-s, water fltrd, ug/L (38775)	Suspnd. sedi-ment, sieve diametr percent <.063mm (70331)	Sus-pended sedi-ment concen-tration mg/L (80154)	Sus-pended sedi-ment load, tons/d (80155)
OCT 16...	E.004	<0.05	<0.01	88	96	13
NOV 20...	<0.009	<0.05	<0.01	80	96	5.2
DEC 18...	<0.009	<0.05	<0.01	85	116	6.3
JAN 21...	<0.009	<0.05	<0.01	69	141	7.6
FEB 19...	<0.009	<0.05	<0.01	56	88	5.3
MAR 04...	<0.009	<0.05	<0.01	58	33	1.8
18...	<0.009	<0.05	<0.01	60	36	1.7
25...	<0.009	--	<0.01	64	42	2.0
APR 03...	<0.009	<0.05	<0.01	69	56	3.6
08...	<0.009	--	<0.01	77	28	2.7
15...	<0.009	<0.05	<0.01	65	271	29
22...	<0.009	--	<0.01	63	200	21
MAY 01...	E.003	--	<0.01	67	156	19
08...	0.020	<0.05	<0.01	56	213	25
15...	0.013	--	<0.01	76	103	12
20...	E.007	<0.05	<0.01	74	71	8.6
JUN 02...	0.026	<0.05	<0.01	80	63	8.5
10...	E.009	--	<0.01	66	52	7.2
16...	<0.010	<0.05	<0.01	67	28	3.9
24...	E.007	--	<0.01	71	25	3.6
JUL 07...	E.007	<0.05	<0.01	58	32	5.0
16...	E.005	--	<0.01	59	23	3.2
21...	E.006	<0.05	<0.01	68	27	4.3
29...	E.004	--	<0.01	66	26	3.6
AUG 06...	<0.009	<0.05	<0.01	78	42	6.1
12...	<0.009	--	<0.01	77	51	7.4
20...	<0.009	<0.05	<0.01	71	76	11
25...	<0.009	--	<0.01	70	102	15
25...	--	--	--	--	94	13
SEP 08...	<0.009	--	<0.01	69	152	21
16...	<0.009	<0.05	<0.01	68	228	29
22...	E.006	--	<0.01	65	240	29

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instan-taneous dis-charge, cfs (00061)	Tur-bidity, water, unfltrd field, NTU (61028)	Tur-bidity, NTU (00076)	Dis-solved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conduc-tance, wat unf uS/cm 25 degC (00095)	Temper-ature, water, deg C (00010)	Biomass peri-phyton, ashfree drymass g/m2 (49954)	Peri-phyton biomass ash weight, g/m2 (00572)	Peri-phyton biomass dry weight, g/m2 (00573)	Biomass chloro-phyll ratio, peri-phyton, number (70950)	Pheo-phytin a, peri-phyton, mg/m2 (62359)
APR 08...	1050	36	--	73	10.0	8.0	406	11.8	--	--	--	--	--
AUG 25...	1440	53	16	--	8.3	8.1	354	19.9	--	--	--	--	--
SEP 08...	1200	52	--	--	--	--	--	--	136.5	3,200	3,364	2,720	43

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Pheo-phytin a, phyto-plank-ton, ug/L (62360)	Clos-tridium perfri-ngens, mCP MF, col/ 100 mL (90915)	Coli-phage, E coli, C13host MF, plaques /100 mL (90903)	Coli-phage, E coli, FAMP, MF, plaques /100 mL (90904)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Chloro-phyll a peri-phyton, chromo-fluoro, mg/m2 (70957)	Chloro-phyll a phyto-plank-ton, fluoro, ug/L (70953)
APR 08...	--	90	24	<1	170	--	--
AUG 25...	3.5	--	--	--	--	--	1.8
SEP 08...	--	--	--	--	--	50.1	--

## 12508990 YAKIMA RIVER AT MABTON, WA

LOCATION.--Lat 46°13'53", long 119°59'54", in SW ¼ SW ¼ sec.30, T.9 N., R.23 E., Yakima County, Hydrologic Unit 17030003, on right bank at highway bridge, at east boundary of Yakama Nation Reservation, 1.1 mi north of Mabton, and at mile 59.8.

DRAINAGE AREA.--5,359 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1970 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 643 ft above NGVD of 1929, from topographic map. Prior to Oct. 1, 1976, at datum 10 ft higher.

REMARKS.--Records fair. Flow affected by storage in five reservoirs, by diversions upstream from station for irrigation upstream and downstream from station of about 424,000 acres, and by return flow. Water temperatures March 1981 to February 1982.

AVERAGE DISCHARGE.--33 years (water years 1971-2003), 3,390 ft<sup>3</sup>/s, 2,456,000 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49,500 ft<sup>3</sup>/s Feb. 10, 1996, gage height, 28.18 ft present datum, from high-water mark; minimum daily discharge, 320 ft<sup>3</sup>/s Mar. 25, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, unknown Feb. 2, gage height, unknown; minimum discharge, 1,020 ft<sup>3</sup>/s July 25.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,560	1,870	1,740	2,220	e12,900	3,480	5,960	3,770	6,120	1,240	1,110	1,190
2	1,500	1,850	1,740	2,220	e17,400	3,330	6,930	3,820	5,650	1,270	1,110	1,120
3	1,450	1,860	1,730	2,960	e15,200	3,210	6,260	4,110	4,880	1,380	1,170	1,130
4	1,480	1,860	1,740	3,110	e11,200	3,120	5,460	4,330	4,120	1,410	1,330	1,130
5	1,500	1,880	1,740	3,670	e9,700	2,990	4,890	4,290	3,820	1,390	1,430	1,100
6	1,450	1,890	1,730	3,630	e8,400	2,870	4,600	3,950	3,970	1,450	1,590	1,100
7	1,430	1,880	1,700	3,360	e7,400	3,070	4,400	3,450	4,820	1,480	1,760	1,130
8	1,410	1,910	1,680	3,130	6,460	3,140	3,990	3,070	5,980	1,410	1,750	1,220
9	1,440	1,950	1,680	2,980	5,870	3,050	3,610	2,730	6,730	1,350	1,670	1,300
10	1,440	1,870	1,680	2,800	5,460	3,070	3,640	2,460	5,880	1,330	1,520	1,350
11	1,410	1,820	1,690	2,630	5,140	3,160	3,750	2,340	4,940	1,250	1,410	1,280
12	1,520	1,800	1,750	2,590	4,810	3,590	3,850	2,320	3,970	1,160	1,350	1,250
13	1,520	1,830	1,770	2,660	4,420	4,640	4,160	2,340	3,270	1,230	1,310	1,310
14	1,520	1,890	1,840	2,670	4,220	6,710	5,030	2,210	2,880	1,320	1,290	1,270
15	1,510	1,900	2,040	2,600	4,050	7,960	5,380	2,350	2,810	1,280	1,270	1,280
16	1,490	1,880	2,310	2,540	4,000	8,370	5,130	2,540	2,540	1,170	1,230	1,300
17	1,840	1,840	2,700	2,480	3,990	8,100	4,690	2,490	2,110	1,120	1,260	1,260
18	1,760	1,850	2,510	2,410	3,920	7,110	4,190	2,390	2,000	1,120	1,300	1,220
19	1,650	1,870	2,260	2,370	3,810	6,380	3,700	2,280	1,900	1,160	1,240	1,210
20	1,630	1,860	2,130	2,330	3,670	5,850	3,300	2,010	1,910	1,170	1,130	1,200
21	1,770	1,890	2,030	2,310	3,480	5,470	3,170	1,890	1,760	1,190	1,120	1,200
22	2,040	1,900	2,000	2,340	3,730	5,290	3,040	1,820	1,670	1,200	1,150	1,210
23	2,060	1,870	1,940	2,480	5,010	5,750	2,970	1,800	1,560	1,160	1,310	1,200
24	2,010	1,830	1,900	2,830	4,850	6,020	3,150	2,040	1,500	1,080	1,370	1,180
25	1,990	1,800	1,890	2,790	4,290	5,520	3,690	3,330	1,460	1,090	1,350	1,170
26	1,970	1,790	1,890	2,970	3,940	5,140	4,190	5,620	1,460	1,160	1,270	1,130
27	1,960	1,780	1,910	4,400	3,820	4,900	4,250	5,850	1,410	1,180	1,180	1,090
28	1,960	1,770	2,020	6,350	3,660	4,610	3,920	5,200	1,330	1,160	1,250	1,110
29	1,960	1,750	2,110	5,800	---	4,390	3,590	5,050	1,280	1,130	1,360	1,150
30	1,920	1,740	2,090	5,300	---	4,200	3,610	5,480	1,220	1,100	1,280	1,150
31	1,910	---	2,140	6,170	---	4,440	---	5,970	---	1,090	1,220	---
TOTAL	52,060	55,480	60,080	99,100	174,800	148,930	128,500	103,300	94,950	38,230	41,090	35,940
MEAN	1,679	1,849	1,938	3,197	6,243	4,804	4,283	3,332	3,165	1,233	1,325	1,198
MAX	2,060	1,950	2,700	6,350	17,400	8,370	6,930	5,970	6,730	1,480	1,760	1,350
MIN	1,410	1,740	1,680	2,220	3,480	2,870	2,970	1,800	1,220	1,080	1,110	1,090
AC-FT	103,300	110,000	119,200	196,600	346,700	295,400	254,900	204,900	188,300	75,830	81,500	71,290

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 2003, BY WATER YEAR (WY)

MEAN	1,866	2,446	3,611	4,017	4,760	4,993	4,787	4,915	4,293	1,891	1,516	1,698
MAX	2,532	5,144	12,030	9,554	17,760	16,580	13,350	14,110	12,610	5,320	2,155	2,309
(WY)	(1973)	(1991)	(1976)	(1974)	(1996)	(1972)	(1972)	(1997)	(1972)	(1974)	(1976)	(1978)
MIN	856	1,333	1,427	1,214	1,019	543	607	936	1,014	658	755	814
(WY)	(1980)	(1988)	(1994)	(1979)	(1977)	(1977)	(1977)	(1977)	(1994)	(1994)	(1979)	(1979)

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 1971 - 2003

ANNUAL TOTAL	1,132,930											
ANNUAL MEAN	3,104											
HIGHEST ANNUAL MEAN										3,390		
LOWEST ANNUAL MEAN										6,566		1972
HIGHEST DAILY MEAN	13,200									1,215		1977
LOWEST DAILY MEAN	1,270				Apr 16		17,400	Feb 2	44,000			Feb 10, 1996
ANNUAL SEVEN-DAY MINIMUM	1,350				Aug 15		1,080	Jul 24	320			Mar 25, 1977
ANNUAL RUNOFF (AC-FT)	2,247,000				Aug 13		1,120	Jul 28	344			Mar 23, 1977
10 PERCENT EXCEEDS	5,940						2,048,000		2,456,000			
50 PERCENT EXCEEDS	2,130						5,460		7,160			
90 PERCENT EXCEEDS	1,450						1,970		2,200			
							1,190		1,260			

e Estimated

## YAKIMA RIVER BASIN

## 12510500 YAKIMA RIVER AT KIONA, WA

LOCATION.--Lat 46°15'13", long 119°28'37", in SE ¼ NE ¼ sec.19, T.9 N., R.27 E., Benton County, Hydrologic Unit 17030003, on left bank just upstream from abandoned highway bridge pier at Kiona, 0.1 mi upstream from highway bridge, 3.6 mi downstream from Corral Canyon Creek, 5.0 mi downstream from intake of Kiona Canal, and at mile 29.9.

DRAINAGE AREA.--5,615 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August to December 1895 (gage heights only, fragmentary), August 1896 to March 1915, February 1933 to current year. Monthly discharge only 1887 to 1933, published in WSP 1316 and are available at the Pasco, Washington, field office.

REVISED RECORDS.--WSP 214: 1905. WSP 1122: 1934(M). WSP 1216: 1949-50. WSP 1286: 1907(M), 1909, 1936. WSP 1933: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 454.41 ft above NGVD of 1929. Prior to Mar. 31, 1915, nonrecording gages at approximately same site and datum. Feb. 6, 1933, to July 26, 1934, nonrecording gage at present site and datum.

REMARKS.--Records fair. Diversion upstream from station for irrigation of about 424,000 acres. Flow affected by diversions and by Keechelus, Kachess, Cle Elum, Bumping, and Rimrock Lakes. The Kiona Canal bypasses station with a mean flow of approximately 23 ft<sup>3</sup>/s for irrigation of about 1,100 acres downstream from station. Diversion by the Kennewick Canal, which bypasses station, began in August 1956, and diverts about 96,000 acre-ft per year. Bureau of Reclamation satellite telemeter at station.

AVERAGE DISCHARGE.--70 years (water years 1934-2003), 3,530 ft<sup>3</sup>/s, 2,557,000 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 67,000 ft<sup>3</sup>/s Dec. 23, 1933, gage height, 21.57 ft, from high-water marks; minimum discharge observed, 105 ft<sup>3</sup>/s Sept. 11, 1906.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18,600 ft<sup>3</sup>/s Feb. 2, gage height, 13.08 ft; minimum discharge, 799 ft<sup>3</sup>/s July 11.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,930	2,150	1,800	2,400	11,400	3,680	5,400	3,780	6,430	986	1,140	1,530
2	1,940	2,100	1,750	2,410	17,500	3,530	6,870	3,850	6,160	1,010	1,180	1,400
3	1,780	2,070	1,820	2,840	16,400	3,390	6,710	4,090	5,430	1,060	1,310	1,350
4	1,780	2,070	1,810	3,950	12,400	3,290	5,950	4,410	4,500	1,200	1,750	1,410
5	1,860	2,070	1,830	4,250	10,500	3,240	5,250	4,460	3,980	1,210	2,010	1,440
6	1,820	2,090	1,810	4,390	9,120	3,110	4,790	4,160	3,930	1,210	2,190	1,440
7	1,770	2,100	1,780	4,090	8,130	3,150	4,600	3,620	4,530	1,280	2,600	1,520
8	1,730	2,110	1,740	3,680	7,190	3,250	4,310	3,160	5,840	1,290	2,800	1,730
9	1,670	2,150	1,740	3,450	6,560	3,230	3,830	2,840	6,750	1,150	2,560	2,140
10	1,730	2,110	1,760	3,210	6,100	3,170	3,650	2,490	6,380	1,090	2,310	2,310
11	1,710	1,990	1,750	2,950	5,760	3,270	3,730	2,300	5,470	959	2,080	2,260
12	1,730	1,950	1,780	2,840	5,430	3,490	3,810	2,250	4,340	827	1,870	2,070
13	1,870	1,960	1,840	2,870	4,910	4,340	3,940	2,340	3,480	840	1,870	2,060
14	1,870	2,000	1,890	2,920	4,560	6,350	4,740	2,210	2,950	1,060	1,750	2,090
15	1,760	2,040	2,030	2,860	4,340	7,900	5,520	2,280	2,830	1,110	1,690	1,990
16	2,050	2,010	2,370	2,750	4,240	8,300	5,480	2,470	2,660	1,000	1,660	2,000
17	2,290	1,970	2,940	2,650	4,180	8,310	5,020	2,570	2,160	903	1,640	2,050
18	2,510	1,950	2,970	2,560	4,140	7,430	4,480	2,460	1,820	838	1,800	1,820
19	2,240	1,980	2,610	2,490	4,030	6,750	3,920	2,390	1,750	875	1,770	e1,780
20	2,090	1,960	2,320	2,440	3,930	6,240	3,490	2,100	1,760	937	1,510	e1,750
21	2,150	1,960	2,190	2,400	3,790	5,870	3,240	1,880	1,700	1,030	1,360	1,720
22	2,340	2,010	2,130	2,420	3,730	5,680	3,150	1,780	1,530	1,080	1,380	1,720
23	2,600	1,990	2,100	2,510	4,830	5,850	2,950	1,730	1,410	1,090	1,600	1,700
24	2,480	1,910	2,000	2,900	5,420	6,340	3,010	1,800	1,270	1,030	1,910	1,610
25	2,390	1,910	1,970	2,990	4,760	5,890	3,250	2,500	1,190	916	1,940	1,560
26	2,350	1,880	1,990	3,100	4,190	5,620	4,000	5,350	1,170	1,050	1,790	1,490
27	2,300	1,840	2,020	4,060	3,980	5,220	4,310	6,380	1,140	1,160	e1,520	1,440
28	2,300	1,840	2,050	6,910	3,860	4,910	4,180	5,810	1,060	1,240	1,470	1,390
29	2,280	1,830	2,230	6,680	---	4,650	3,790	5,280	1,000	1,180	1,680	1,400
30	2,260	1,820	2,230	6,000	---	4,450	3,630	5,630	990	1,170	1,760	1,690
31	2,210	---	2,280	6,070	---	4,450	---	6,100	---	1,130	1,500	---
TOTAL	63,790	59,820	63,530	108,040	185,380	154,350	131,000	104,470	95,610	32,911	55,400	51,860
MEAN	2,058	1,994	2,049	3,485	6,621	4,979	4,367	3,370	3,187	1,062	1,787	1,729
MAX	2,600	2,150	2,970	6,910	17,500	8,310	6,870	6,380	6,750	1,290	2,800	2,310
MIN	1,670	1,820	1,740	2,400	3,730	3,110	2,950	1,730	990	827	1,140	1,350
AC-FT	126,500	118,700	126,000	214,300	367,700	306,200	259,800	207,200	189,600	65,280	109,900	102,900

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 2003, BY WATER YEAR (WY)

MEAN	2,253	2,858	3,984	3,987	4,550	4,654	4,705	5,260	4,862	1,937	1,578	1,826
MAX	4,252	6,293	17,330	14,100	17,570	16,750	13,190	13,930	16,470	5,398	2,333	2,549
(WY)	(1950)	(1960)	(1934)	(1934)	(1996)	(1972)	(1956)	(1997)	(1948)	(1954)	(1976)	(1978)
MIN	1,021	1,462	1,546	1,335	1,163	486	493	902	869	598	751	784
(WY)	(1980)	(1988)	(1936)	(1937)	(1977)	(1977)	(1977)	(1977)	(1994)	(1994)	(1979)	(1979)

## SUMMARY STATISTICS

## FOR 2002 CALENDAR YEAR

## FOR 2003 WATER YEAR

## WATER YEARS 1934 - 2003

ANNUAL TOTAL	1,160,712	1,106,161		
ANNUAL MEAN	3,180	3,031		3,530
HIGHEST ANNUAL MEAN				7,055
LOWEST ANNUAL MEAN				1,293
HIGHEST DAILY MEAN	13,300	Apr 16	17,500	Feb 2
LOWEST DAILY MEAN	893	Aug 15	827	Jul 12
ANNUAL SEVEN-DAY MINIMUM	1,110	Aug 14	940	Jul 12
ANNUAL RUNOFF (AC-FT)	2,302,000		2,194,000	2,557,000
10 PERCENT EXCEEDS	6,020		5,780	7,200
50 PERCENT EXCEEDS	2,320		2,260	2,410
90 PERCENT EXCEEDS	1,360		1,230	1,360

e Estimated

## 12510500 YAKIMA RIVER AT KIONA, WA

## National Water-Quality Assessment Station

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1953-94, 1999 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: December 1952 to September 1969 (composite samples), October 1969 to September 1977, July 1999 to June 2000, February to current year.

WATER TEMPERATURE: December 1952 to September 1980, March 1981 to February 1982, July 1999 to June 2000, October 2000 to current year.

SUSPENDED SEDIMENT: June 1977 to October 1980.

INSTRUMENTATION.--Water-quality monitor since July 1999. Electronic data logger, with 15-minute logging interval. Bureau of Reclamation satellite telemeter at station.

REMARKS.--Specific conductance records excellent except those for Oct. 8-15, Feb. 4-20, 27-28, Mar. 1-5, 9-18, 23-31, Apr. 1-2, 18-20, May 16-25, June 13-17, which are good; Mar. 19, Apr. 21-23, May 26-27, which are fair; and Apr. 24-May 2, May 28-June 3, which are poor. Water temperature records excellent except those for Oct. 10-21, Mar. 14-19, Mar. 31-Apr. 2, Apr. 11-May 21, May 28-June 17, July 5-8, which are good. Interruptions in the record were due to malfunction of the instrument.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum observed, 674 microsiemens Dec. 3, 1970; minimum recorded, 82 microsiemens June 17, 2002.

WATER TEMPERATURE: Maximum 30.8°C July 9, 2001; minimum, 0.0°C on several days during winter months most years.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 299 microsiemens Sept. 27-30, but may have been higher during periods of missing record; minimum recorded, 120 microsiemens June 3, but may have been lower during periods of missing records.

WATER TEMPERATURE: Maximum, 28.9°C July 19, but may have been higher during periods of missing record; minimum recorded, 3.1°C Feb. 26.

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS  
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
				MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	264	259	262	263	---	---	263	---	---	---	---	---	---		
2	265	260	262	264	---	---	263	---	---	---	---	---	---		
3	271	265	267	265	---	---	263	---	---	---	---	---	---		
4	275	269	271	270	---	---	263	---	---	---	---	---	---		
5	280	271	275	267	---	---	261	---	---	---	---	---	---		
6	279	270	275	265	---	---	265	---	---	---	---	---	---		
7	282	272	277	264	---	---	267	---	---	---	---	---	---		
8	283	272	279	266	---	---	266	---	---	---	---	---	---		
9	288	278	283	267	---	---	264	---	---	---	---	---	---		
10	289	282	287	266	---	---	264	---	---	---	---	---	---		
11	289	278	285	263	---	---	264	---	---	---	---	---	---		
12	287	277	282	270	---	---	265	---	---	---	---	---	---		
13	280	272	277	271	---	---	264	---	---	---	---	---	---		
14	277	267	272	269	---	---	262	---	---	---	---	---	---		
15	272	260	268	268	---	---	259	---	---	---	---	---	---		
16	270	261	265	263	---	---	257	---	---	---	---	---	---		
17	270	263	267	264	---	---	248	231	239	---	---	---	---		
18	273	263	268	260	---	---	231	222	225	---	---	---	---		
19	263	---	---	261	---	---	237	224	228	---	---	---	---		
20	281	---	---	261	256	259	---	---	---	---	---	---	---		
21	286	---	---	259	256	258	---	---	---	---	---	---	---		
22	285	---	---	259	257	258	---	---	---	---	---	---	---		
23	282	---	---	258	254	256	---	---	---	257	243	253	---		
24	271	---	---	256	253	255	---	---	---	259	231	252	---		
25	264	---	---	256	253	255	---	---	---	254	232	243	---		
26	266	---	---	258	254	256	---	---	---	271	243	255	---		
27	263	---	---	259	257	258	---	---	---	286	270	277	---		
28	262	---	---	260	---	---	---	---	---	297	225	265	---		
29	262	---	---	260	---	---	---	---	---	229	207	220	---		
30	262	---	---	260	---	---	---	---	---	214	203	209	---		
31	262	---	---	---	---	---	---	---	---	213	188	197	---		
MONTH	289	259	273	271	253	257	267	222	231	297	188	241	---		



## 12510500 YAKIMA RIVER AT KIONA, WA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS  
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	15.6	13.2	14.3	6.0	4.6	5.2	3.8	3.7	3.7	5.2	4.8	5.0
2	15.2	13.0	14.1	5.1	3.7	4.4	3.7	3.5	3.6	6.0	5.0	5.4
3	14.9	13.8	14.3	4.7	3.2	3.9	4.0	3.6	3.8	6.2	5.6	6.0
4	15.6	14.3	14.9	4.7	3.2	3.9	4.2	3.8	4.0	6.6	6.0	6.2
5	16.6	14.5	15.5	5.1	3.7	4.3	4.8	4.2	4.5	6.1	5.5	5.8
6	17.2	14.9	15.9	5.2	4.0	4.6	5.1	4.8	5.0	5.6	4.7	5.1
7	17.6	15.2	16.2	6.3	4.8	5.5	5.4	4.9	5.1	4.7	3.8	4.2
8	17.1	15.0	16.0	7.2	6.3	6.8	5.8	5.4	5.6	4.0	3.8	3.9
9	17.0	14.8	15.8	8.3	7.0	7.7	6.1	5.7	5.9	4.1	3.8	3.9
10	16.1	14.4	15.2	9.4	7.9	8.6	6.1	5.5	5.8	3.9	3.8	3.9
11	15.0	13.2	14.0	9.6	8.2	8.9	6.1	5.3	5.7	4.3	3.8	4.0
12	14.1	12.2	13.1	9.5	9.0	9.2	6.1	5.7	6.0	4.3	3.9	4.1
13	13.5	11.6	12.5	9.7	8.9	9.3	6.8	6.1	6.5	4.7	4.2	4.5
14	13.3	11.2	12.2	10.0	8.8	9.3	7.3	6.6	6.8	5.2	4.6	4.8
15	13.2	11.0	12.1	9.0	8.4	8.7	7.2	6.5	6.9	5.0	4.7	4.9
16	13.0	10.9	12.2	8.4	7.6	8.1	8.1	7.0	7.5	5.4	5.0	5.2
17	13.0	11.1	12.2	8.4	7.5	7.9	7.0	5.9	6.5	5.5	5.3	5.4
18	13.1	11.3	12.3	8.2	7.3	7.7	6.2	5.1	5.7	5.3	4.8	5.1
19	13.7	11.8	12.7	9.4	7.8	8.6	5.1	4.2	4.4	4.9	4.7	4.8
20	13.8	12.7	13.2	9.7	8.6	9.2	4.6	4.1	4.4	4.8	4.5	4.7
21	14.1	12.6	13.3	9.5	8.6	9.2	4.6	4.3	4.4	4.6	4.3	4.5
22	13.9	12.3	13.1	9.6	9.3	9.5	4.8	3.8	4.3	4.6	4.3	4.4
23	13.0	11.8	12.4	10.2	9.2	9.7	4.8	4.4	4.6	5.5	4.1	4.8
24	12.0	10.6	11.3	9.2	7.8	8.6	4.4	3.9	4.2	5.5	4.9	5.2
25	10.9	9.6	10.2	7.8	6.8	7.3	3.9	3.7	3.8	5.5	5.0	5.2
26	10.0	8.6	9.3	6.8	6.0	6.4	4.4	3.8	4.2	7.4	5.3	6.4
27	9.0	8.0	8.4	6.0	4.9	5.4	5.1	4.4	4.8	7.0	6.2	6.6
28	9.1	7.3	8.2	4.9	4.3	4.6	5.4	5.0	5.2	6.9	5.5	6.5
29	8.6	6.3	7.8	4.4	4.2	4.3	5.1	4.3	4.7	5.5	4.6	5.0
30	6.4	5.2	5.8	4.2	3.8	4.0	5.2	4.6	5.0	5.4	5.1	5.2
31	6.6	5.1	5.7	---	---	---	6.0	5.1	5.4	6.5	5.3	6.0
MONTH	17.6	5.1	12.4	10.2	3.2	7.0	8.1	3.5	5.1	7.4	3.8	5.1
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.6	5.0	6.0	6.4	4.7	5.5	12.3	11.2	11.8	16.6	14.2	15.3
2	5.3	4.3	4.6	6.4	5.8	6.1	12.0	9.8	11.1	16.8	14.3	15.5
3	5.1	4.2	4.6	7.6	6.0	6.7	9.8	8.1	8.9	16.2	14.8	15.4
4	5.3	4.4	4.8	8.1	6.2	7.0	9.8	7.6	8.7	15.3	14.4	14.8
5	4.7	4.0	4.4	7.8	6.9	7.2	8.8	7.7	8.4	14.6	12.9	13.9
6	4.4	3.4	3.9	8.6	6.8	7.5	9.6	8.0	8.7	14.4	12.5	13.4
7	4.3	3.2	3.8	8.1	7.0	7.5	10.1	8.3	9.2	13.6	11.9	12.9
8	4.2	3.2	3.7	7.8	7.0	7.4	12.3	9.7	10.9	15.3	12.8	14.0
9	4.4	3.3	3.9	9.4	7.2	8.2	13.6	11.4	12.4	16.3	13.3	14.6
10	4.6	3.4	4.0	9.9	8.1	9.0	14.6	12.3	13.4	16.7	13.6	15.2
11	5.1	3.7	4.4	10.4	8.9	9.6	14.9	13.1	14.0	16.8	14.4	15.6
12	5.2	4.0	4.7	10.2	9.5	9.8	14.6	12.9	13.7	17.7	15.0	16.2
13	4.9	4.4	4.7	10.5	9.6	10	14.4	13.0	13.7	18.6	15.0	16.9
14	5.4	4.9	5.1	10.6	9.1	9.8	13.8	12.5	13.2	19.0	16.3	17.7
15	5.6	5.2	5.4	9.5	8.6	9.0	13.3	11.8	12.6	18.2	16.0	17.0
16	6.8	5.6	6.1	9.2	7.9	8.5	13.3	11.1	12.1	17.1	14.5	15.8
17	7.0	6.0	6.6	9.3	7.3	8.3	12.6	11.3	12.0	15.9	13.7	14.8
18	7.8	6.7	7.2	9.4	7.3	8.4	13.1	10.9	12.0	16.0	12.7	14.4
19	7.6	6.5	7.0	9.0	7.6	8.5	13.3	11.1	12.1	16.9	13.5	15.2
20	7.8	6.8	7.2	9.7	7.8	8.8	14.0	11.8	12.9	16.2	14.4	15.4
21	8.4	6.8	7.5	9.9	8.4	9.2	15.3	13.1	14.1	17.8	14.8	16.3
22	8.7	7.2	7.8	9.9	9.4	9.7	15.4	13.6	14.4	18.8	16.1	17.4
23	7.9	6.2	7.2	10.4	8.6	9.5	16.4	13.3	14.8	21.3	16.9	19.0
24	6.2	4.6	5.2	9.9	8.3	9.2	15.4	13.1	14.4	22.3	18.8	20.4
25	4.6	3.5	4.0	9.0	8.0	8.7	14.9	12.1	13.4	20.7	19.0	19.7
26	4.1	3.1	3.6	9.7	8.1	8.9	13.4	12.3	12.7	19.2	17.3	18.3
27	4.9	3.5	4.1	10.1	8.3	9.2	13.8	11.4	12.6	17.6	15.4	16.6
28	5.2	4.1	4.6	10.2	8.6	9.5	14.4	12.1	13.1	18.8	15.8	17.2
29	---	---	---	11.3	9.5	10.4	15.3	13.4	14.2	19.8	16.9	18.3
30	---	---	---	11.6	10.6	11.1	16.0	13.8	14.8	19.2	17.0	17.9
31	---	---	---	12.2	11.3	11.7	---	---	---	18.3	16.2	17.3
MONTH	8.7	3.1	5.2	12.2	4.7	8.7	16.4	7.6	12.3	22.3	11.9	16.2



## YAKIMA RIVER BASIN

## 12510500 YAKIMA RIVER AT KIONA, WA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED  
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	18.0	15.2	16.7	24.9	21.1	22.9	---	---	---	---	---	---
2	18.8	15.8	17.3	24.4	20.0	22.1	---	---	---	---	---	---
3	23.2	16.2	17.6	24.9	20.1	22.4	---	---	---	---	---	---
4	19.2	16.7	18.0	25.1	20.9	22.9	25.1	---	---	---	---	---
5	20.1	17.6	18.9	25.8	21.5	23.5	24.7	22.5	23.4	---	---	---
6	21.1	18.6	19.8	26.6	21.8	24.1	24.4	21.4	22.9	---	---	---
7	21.3	19.5	20.4	---	22.5	---	24.2	21.7	22.9	---	---	---
8	21.5	19.3	20.5	25.7	---	---	24.8	21.9	23.4	---	---	---
9	20.6	18.2	19.5	26.4	21.7	23.9	---	---	---	---	---	---
10	20.5	17.7	19.1	27.1	21.8	24.4	---	---	---	---	---	---
11	20.3	17.7	19.0	28.6	23.0	25.6	---	---	---	---	---	---
12	20.6	18.1	19.3	27.7	23.2	25.0	---	---	---	---	---	---
13	20.7	18.8	19.7	25.7	22.3	23.5	---	---	---	---	---	---
14	21.5	18.4	19.9	26.2	21.4	23.7	---	---	---	---	---	---
15	22.4	18.7	20.5	27.3	22.7	24.8	---	---	---	---	---	---
16	23.1	19.2	21.2	27.0	22.8	24.8	---	---	---	---	---	---
17	23.7	19.8	21.8	27.3	22.5	24.8	---	---	---	---	---	---
18	22.4	20.7	21.5	28.0	22.3	25.0	---	---	---	17.4	---	---
19	22.9	20.1	21.4	28.9	23.6	26.1	---	---	---	18.4	15.7	17.0
20	21.3	19.1	20.0	---	24.0	---	---	---	---	18.5	16.1	17.3
21	20.4	17.9	19.1	---	---	---	---	---	---	18.4	16.1	17.3
22	20.3	16.7	18.6	---	---	---	---	---	---	18.7	16.2	17.5
23	21.0	17.3	19.1	---	---	---	---	---	---	19.0	16.6	17.8
24	22.8	18.1	20.3	---	---	---	---	---	---	19.6	17.1	18.3
25	23.9	19.2	21.5	---	---	---	---	---	---	19.8	17.5	18.6
26	25.1	20.4	22.7	---	---	---	---	---	---	20.8	18.1	19.3
27	26.5	21.7	23.9	---	---	---	---	---	---	20.7	18.2	19.4
28	27.4	22.4	24.9	---	---	---	---	---	---	20.7	18.1	19.4
29	25.4	23.1	24.3	---	---	---	---	---	---	19.7	18.2	18.9
30	25.7	21.6	23.5	---	---	---	---	---	---	19.4	17.6	18.4
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	27.4	15.2	20.3	28.9	20.0	24.1	25.1	21.4	23.1	20.8	15.7	18.3
YEAR	28.9	3.1	11.5									

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfiltered, uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Chloride, water, fltrd, mg/L (00940)
OCT													
15...	1140	1,810	757	12.1	113	8.4	263	12.1	11.9	106	127	1	5.56
NOV													
19...	1120	1,960	761	12.4	108	8.1	263	15.0	9.1	112	135	0.0	6.34
DEC													
17...	1130	3,010	744	11.7	99	8.0	243	6.0	6.9	98	118	0.0	5.51
JAN													
22...	1150	2,430	756	12.3	97	7.9	250	--	4.9	104	126	0.0	5.47
FEB													
20...	1120	3,920	758	11.4	96	7.7	201	--	7.8	82	100	0.0	4.20
MAR													
05...	1120	3,230	747	11.8	102	7.8	206	13.0	8.0	--	--	--	--
19...	1130	6,740	759	11.8	100	7.8	135	12.9	8.1	58	70	0.0	3.02
APR													
16...	1030	5,530	759	11.2	103	7.4	144	12.4	11.4	62	75	0.0	3.18
MAY													
02...	1030	3,830	752	10.7	108	7.9	169	13.6	15.1	--	--	--	--
09...	0940	2,850	757	11.0	107	7.8	182	16.5	13.6	--	--	--	--
21...	1000	1,900	762	10.2	102	8.2	217	23.7	15.2	88	107	0.0	5.06
JUN													
03...	1110	5,490	751	9.4	98	7.6	123	21.7	16.5	--	--	--	--
17...	1110	2,180	748	9.6	109	8.1	178	25.8	20.6	71	86	0.0	4.44
JUL													
08...	1130	1,350	749	9.9	119	8.4	244	24.7	23.6	--	--	--	--
22...	1310	1,060	749	10.4	133	8.6	270	28.0	26.9	109	126	3	6.09
AUG													
05...	1020	1,960	746	8.2	98	8.2	264	24.0	23.1	--	--	--	--
21...	1120	1,320	747	10.1	120	8.3	277	27.9	22.8	111	132	1	6.21
SEP													
17...	0950	2,120	753	10.0	102	8.2	278	11.4	15.5	114	138	0.0	6.38

## 12510500 YAKIMA RIVER AT KIONA, WA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Sulfate water, fltrd, mg/L (00945)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Partic- ulate nitro- gen, susp, water, mg/L (49570)	Phos- phorus, water, unfltrd mg/L (00665)	Total nitro- gen, water, unfltrd mg/L (00600)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inor- ganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)
OCT 15...	14.1	0.17	<0.04	1.11	0.011	0.08	0.03	0.113	1.3	0.2	<0.1	0.2	1.8
NOV 19...	13.1	0.22	<0.04	1.33	0.015	0.09	0.07	0.124	1.6	0.5	<0.1	0.5	1.5
DEC 17...	12.4	0.40	0.08	1.29	0.020	0.10	0.16	0.180	1.7	1.1	<0.1	1.1	1.7
JAN 22...	12.7	0.15	E.03	1.38	0.011	0.11	<0.02	0.144	1.5	<0.1	<0.1	<0.1	1.5
FEB 20...	10.0	0.23	E.03	0.92	E.006	0.07	0.08	0.121	1.2	0.7	<0.1	0.7	2.0
MAR 05...	--	0.17	<0.04	0.94	E.005	0.07	--	0.106	1.1	--	--	--	--
19...	5.1	E.32	<0.04	E.40	<0.008	E.05	E.13	E.122	--	E1.1	<0.1	E1.1	E3.6
APR 16...	6.5	0.24	<0.04	0.29	E.004	0.03	0.12	0.085	0.52	0.9	<0.1	0.9	4.9
MAY 02...	--	0.81	<0.04	0.37	<0.008	0.06	--	0.100	1.2	--	--	--	--
09...	--	0.21	<0.04	0.45	<0.008	0.05	--	0.085	0.66	--	--	--	--
21...	10.5	0.31	<0.04	0.74	0.011	0.08	0.06	0.114	1.0	0.4	<0.1	0.4	2.0
JUN 03...	--	0.37	<0.04	0.42	E.007	0.04	--	0.128	0.79	--	--	--	--
17...	8.5	0.23	<0.04	0.59	E.007	0.04	0.08	0.077	0.82	0.5	<0.1	0.5	1.8
JUL 08...	--	0.31	<0.04	0.96	0.021	0.06	--	0.101	1.3	--	--	--	--
22...	13.8	0.36	<0.04	0.83	0.027	0.10	0.06	0.141	1.2	0.3	<0.1	0.3	2.5
AUG 05...	--	0.34	<0.04	1.01	0.021	0.10	--	0.152	1.4	--	--	--	--
21...	14.0	0.26	<0.04	0.94	0.018	0.10	0.03	0.143	1.2	0.1	<0.1	0.1	2.2
SEP 17...	14.2	0.24	<0.04	1.13	E.006	0.10	0.04	0.122	1.4	0.3	<0.1	0.3	2.0

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	1,4- Naphth- oquin- one, water, fltrd, ug/L (61611)	1-Naph- thol, water, fltrd 0.7u GF ug/L (49295)	2-(4-t- Butyl- phenoxy )cyclo- hexanol wat flt ug/L (61637)	2,5-Di- chloro- aniline water, fltrd, ug/L (61614)	2,6-Di- ethyl- aniline water fltrd 0.7u GF ug/L (82660)	2-[(2- Et-6-Me -Ph)- -amino] propan- 1-ol, ug/L (61615)	2Amino- N-iso- propyl- benz- amide, wat flt ug/L (61617)	2Chloro -2,6-' diethyl acet- anilide wat flt ug/L (61618)	CIAT, water, fltrd, ug/L (04040)	2-Ethyl -6- methyl- aniline water, fltrd, ug/L (61620)	3-(Tri- fluoro- methyl) aniline water, fltrd, ug/L (61630)	3,4-Di- chloro- aniline water fltrd, ug/L (61625)	3,5-Di- chloro- aniline water, fltrd, ug/L (61627)
OCT 15...	<0.05	<0.09	<0.01	<0.03	<0.006	<0.1	<0.005	<0.005	E.011	<0.004	<0.01	<0.004	<0.005
NOV 19...	<0.05	<0.09	<0.01	<0.03	<0.006	<0.1	<0.005	<0.005	E.008	<0.004	<0.01	<0.004	<0.005
DEC 17...	<0.05	<0.09	<0.01	<0.03	<0.006	<0.1	<0.005	<0.005	E.007	<0.004	<0.01	<0.004	<0.005
JAN 22...	<0.05	<0.09	<0.01	<0.03	<0.006	<0.1	<0.005	<0.005	E.009	<0.004	<0.01	<0.004	<0.005
FEB 20...	<0.05	<0.09	<0.01	<0.03	<0.006	<0.1	<0.005	<0.005	E.006	<0.004	<0.01	<0.004	<0.005
MAR 05...	<0.05	<0.09	<0.01	<0.03	<0.006	<0.1	<0.005	<0.005	E.005	<0.004	<0.01	<0.004	<0.005
19...	<0.05	<0.09	<0.01	<0.03	<0.006	<0.1	<0.005	<0.005	E.003	<0.004	<0.01	<0.004	<0.005
APR 16...	<0.05	<0.09	<0.01	<0.03	<0.006	--	<0.005	<0.005	E.003	<0.004	<0.01	<0.004	<0.005
MAY 02...	<0.05	<0.09	<0.01	<0.03	<0.006	<0.1	<0.005	<0.005	E.005	<0.004	<0.01	<0.004	<0.005
09...	<0.05	<0.09	<0.01	<0.03	<0.006	<0.1	<0.005	<0.005	<0.006	<0.004	<0.01	<0.004	<0.005
21...	<0.05	<0.09	<0.01	<0.03	<0.006	<0.1	<0.005	<0.005	<0.006	<0.004	<0.01	<0.004	<0.005
JUN 03...	<0.05	--	<0.01	<0.03	<0.006	<0.1	<0.005	<0.005	<0.006	<0.004	<0.01	<0.004	<0.005
17...	<0.05	<0.09	<0.01	<0.03	<0.006	<0.1	<0.005	<0.005	<0.006	<0.004	<0.01	<0.004	<0.005
JUL 08...	<0.05	--	<0.01	<0.03	<0.006	<0.1	<0.005	<0.005	E.006	<0.004	<0.01	<0.004	<0.005
22...	<0.05	<0.09	<0.01	<0.03	<0.006	<0.1	<0.005	<0.005	E.007	<0.004	<0.01	<0.004	<0.005
AUG 05...	<0.05	--	<0.01	<0.03	<0.006	<0.1	<0.005	<0.005	E.005	<0.004	<0.01	<0.004	<0.005
21...	<0.05	<0.09	<0.01	<0.03	<0.006	<0.1	<0.005	<0.005	E.006	<0.004	<0.01	<0.004	<0.005
SEP 17...	<0.05	--	<0.01	<0.03	<0.006	<0.1	<0.005	<0.005	E.007	<0.004	<0.01	<0.004	<0.005

## 12510500 YAKIMA RIVER AT KIONA, WA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	3-Phen- oxy- benzyl alcohol water, fltrd, ug/L (61629)	4- (MeOH)- pendi- meth- alin, wat flt ug/L (61665)	4,4-Di' chloro- benzo- pheno- one, wat flt ug/L (61631)	4Chloro 2methyl phenol, water, fltrd, ug/L (61633)	4Chloro phenyl- methyl sulfone water, fltrd, ug/L (61634)	Aceto- chlor ESA, water, fltrd 0.7u GF ug/L (61029)	Aceto- chlor OA, water, fltrd 0.7u GF ug/L (61030)	Aceto- chlor, water, fltrd, ug/L (49260)	Ala- chlor ESA, water, fltrd 0.7u GF ug/L (50009)	Ala- chlor OA, water, fltrd 0.7u GF ug/L (61031)	Ala- chlor, water, fltrd, ug/L (46342)	alpha- Endo- sulfan, water, fltrd, ug/L (34362)	alpha- HCH, water, fltrd, ug/L (34253)
OCT 15...	<0.05	<0.1	<0.003	<0.006	<0.03	<0.05	<0.05	<0.006	0.05	<0.05	<0.004	<0.005	<0.005
NOV 19...	<0.05	<0.1	<0.003	<0.006	<0.03	--	--	<0.006	--	--	<0.004	<0.005	<0.005
DEC 17...	<0.05	<0.1	<0.003	<0.006	<0.03	--	--	<0.006	--	--	<0.004	<0.005	<0.005
JAN 22...	<0.05	<0.1	<0.003	<0.006	<0.03	--	--	<0.006	--	--	<0.004	<0.005	<0.005
FEB 20...	<0.05	<0.1	<0.003	<0.006	<0.03	--	--	<0.006	--	--	<0.004	<0.005	<0.005
MAR 05...	<0.05	<0.1	<0.003	<0.006	<0.03	--	--	<0.006	--	--	<0.004	<0.005	<0.005
MAR 19...	<0.05	<0.1	<0.003	<0.006	<0.03	--	--	<0.006	--	--	<0.004	<0.005	<0.005
APR 16...	--	--	<0.003	<0.006	<0.03	--	--	<0.006	--	--	<0.004	<0.005	<0.005
MAY 02...	<0.05	<0.1	<0.003	<0.006	<0.03	--	--	<0.006	--	--	<0.004	<0.005	<0.005
MAY 09...	<0.05	<0.1	<0.003	<0.006	<0.03	--	--	<0.006	--	--	<0.004	<0.005	<0.005
MAY 21...	<0.05	<0.1	<0.003	<0.006	<0.03	--	--	<0.006	--	--	<0.004	<0.005	<0.005
JUN 03...	<0.05	<0.1	<0.003	<0.006	<0.03	--	--	<0.006	--	--	<0.004	<0.005	<0.005
JUN 17...	<0.05	<0.1	<0.003	<0.006	<0.03	--	--	<0.006	--	--	<0.004	<0.005	<0.005
JUL 08...	<0.05	<0.1	<0.003	<0.006	<0.03	--	--	<0.006	--	--	<0.004	<0.005	<0.005
JUL 22...	--	--	<0.003	<0.006	<0.03	--	--	<0.006	--	--	<0.004	<0.005	<0.005
AUG 05...	--	--	<0.003	<0.006	<0.03	--	--	<0.006	--	--	<0.004	<0.005	<0.005
AUG 21...	--	--	<0.003	<0.006	<0.03	--	--	<0.006	--	--	<0.004	<0.005	<0.005
SEP 17...	--	--	<0.003	<0.006	<0.03	--	--	<0.006	--	--	<0.004	<0.005	<0.005

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	alpha- HCH-d6, sur2002 /9002, wat unf percent recovery (99224)	alpha- HCH-d6, surrog, wat flt 0.7u GF percent recovery (91065)	Amino- methyl- phos- phonic acid, wat flt ug/L (62649)	Atra- zine, water, fltrd, ug/L (39632)	Azin- phos- methyl oxon, water, fltrd, ug/L (61635)	Azin- phos- methyl, water, fltrd 0.7u GF ug/L (82686)	Ben- flur- alin, water, fltrd 0.7u GF ug/L (82673)	beta- Endo- sulfan, water, fltrd, ug/L (34357)	Bifen- thrin, water, fltrd, ug/L (61580)	Butyl- ate, water, fltrd, ug/L (04028)	Car- baryl, water, fltrd 0.7u GF ug/L (82680)	Carbo- furan, water, fltrd 0.7u GF ug/L (82674)	Chlor- pyrifos oxon, water, fltrd, ug/L (61636)
OCT 15...	103	92.2	<0.1	0.010	<0.02	E.014	<0.010	<0.01	<0.005	<0.002	E.009	<0.020	<0.06
NOV 19...	103	90.6	--	0.007	<0.02	<0.050	<0.010	<0.01	<0.005	<0.002	<0.041	<0.020	<0.06
DEC 17...	96.5	95.8	--	0.011	<0.02	<0.050	<0.010	<0.01	<0.005	<0.002	E.004	<0.020	<0.06
JAN 22...	109	93.9	--	<0.010	<0.02	<0.050	<0.010	<0.01	<0.005	<0.002	<0.041	<0.020	<0.06
FEB 20...	97.2	84.2	--	0.017	<0.02	<0.050	<0.010	<0.01	<0.005	<0.002	<0.041	<0.020	<0.06
MAR 05...	92.0	97.1	--	0.007	<0.02	<0.050	<0.010	<0.01	<0.005	<0.002	<0.041	<0.020	<0.06
MAR 19...	95.3	87.3	--	<0.010	<0.02	<0.050	<0.010	<0.01	<0.005	<0.002	<0.041	<0.020	<0.06
APR 16...	85.0	97.3	--	0.007	<0.02	<0.050	<0.010	<0.01	<0.005	<0.002	<0.041	<0.020	<0.06
MAY 02...	89.3	103	--	0.007	<0.02	<0.050	<0.010	<0.01	<0.005	<0.002	E.014	<0.020	<0.06
MAY 09...	104	98.1	--	<0.007	<0.02	<0.050	<0.010	<0.01	<0.005	<0.002	E.006	<0.020	<0.06
MAY 21...	87.7	91.9	--	0.009	<0.02	E.010	<0.010	<0.01	<0.005	<0.002	E.004	<0.020	<0.06
JUN 03...	95.5	97.3	--	<0.007	<0.03	<0.050	<0.010	<0.01	<0.005	<0.002	<0.041	<0.020	<0.06
JUN 17...	95.6	102	--	<0.007	<0.02	<0.050	<0.010	<0.01	<0.005	<0.002	<0.041	<0.020	<0.06
JUL 08...	97.2	89.5	--	0.012	<0.02	<0.050	<0.010	<0.01	<0.005	<0.002	<0.041	<0.020	<0.06
JUL 22...	84.3	95.6	--	0.015	<0.03	E.092	<0.010	<0.01	<0.005	<0.002	<0.041	<0.020	<0.06
AUG 05...	94.4	81.7	--	0.012	<0.02	E.029	<0.010	<0.01	<0.005	<0.002	<0.041	<0.020	<0.06
AUG 21...	94.5	97.2	--	0.011	<0.02	<0.050	<0.010	<0.01	<0.005	<0.002	<0.041	<0.020	<0.06
SEP 17...	93.8	91.2	--	0.010	<0.02	<0.050	<0.010	<0.01	<0.005	<0.002	<0.041	<0.020	<0.06

## 12510500 YAKIMA RIVER AT KIONA, WA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Chloro- pyrifos water, fltrd, ug/L (38933)	cis- Per- methrin water fltrd 0.7u GF (82687)	cis- Propi- conazole, water, fltrd, ug/L (79846)	Cyana- zine, water, fltrd, ug/L (04041)	Cyclo- ate, water, fltrd, ug/L (04031)	Cyflu- thrin, water, fltrd, ug/L (61585)	lambda- Cyhalo- thrin, water, fltrd, ug/L (61595)	Cyper- methrin water, fltrd, ug/L (61586)	DCPA, water fltrd 0.7u GF (82682)	Desulf- inyl fipronil, water, fltrd, ug/L (62170)	Diazi- non, water, fltrd, ug/L (39572)	Diazi- non-d10 sur2002 /9002, wat unf percent recovery (99223)	Diazi- non-d10 surrog. wat flt 0.7u GF percent recovery (91063)
OCT 15...	E.004	<0.006	<0.008	<0.018	<0.005	<0.008	<0.009	<0.009	<0.003	<0.004	<0.005	93.0	122
NOV 19...	<0.005	<0.006	<0.008	<0.018	<0.005	<0.008	<0.009	<0.009	<0.003	<0.004	<0.005	106	101
DEC 17...	<0.005	<0.006	<0.008	<0.018	<0.005	<0.008	<0.009	<0.009	<0.003	<0.004	<0.005	111	117
JAN 22...	<0.005	<0.006	<0.008	<0.018	<0.005	<0.008	<0.009	<0.009	<0.003	<0.004	<0.005	97.4	104
FEB 20...	<0.005	<0.006	<0.008	<0.018	<0.005	<0.008	<0.009	<0.009	<0.003	<0.004	<0.005	98.1	94.0
MAR 05...	<0.005	<0.006	<0.008	<0.018	<0.005	<0.008	<0.009	<0.009	<0.003	<0.004	<0.005	107	107
MAR 19...	0.009	<0.006	<0.008	<0.018	<0.005	<0.008	<0.009	<0.009	<0.003	<0.004	<0.005	102	98.2
APR 16...	0.006	<0.006	<0.008	<0.018	<0.005	<0.008	<0.009	<0.009	<0.003	<0.004	<0.005	87.0	103
MAY 02...	<0.005	<0.006	<0.008	<0.018	<0.005	<0.008	<0.009	<0.009	<0.003	<0.004	<0.005	85.9	104
MAY 09...	<0.005	<0.006	<0.008	<0.018	<0.005	<0.008	<0.009	<0.009	<0.003	<0.004	<0.005	104	107
MAY 21...	<0.005	<0.006	<0.008	<0.018	<0.005	<0.008	<0.009	<0.009	<0.003	<0.004	<0.005	91.7	114
JUN 03...	<0.005	<0.006	<0.008	<0.018	<0.005	<0.008	<0.009	<0.009	<0.003	<0.004	<0.005	100	114
JUN 17...	<0.005	<0.006	<0.008	<0.018	<0.005	<0.008	<0.009	<0.009	<0.003	<0.004	<0.005	71.8	121
JUL 08...	<0.005	<0.006	<0.008	<0.018	<0.005	<0.008	<0.009	<0.009	<0.003	<0.004	<0.005	99.1	111
JUL 22...	<0.005	<0.006	<0.008	<0.018	<0.005	<0.008	<0.009	<0.009	<0.003	<0.004	<0.005	83.8	111
AUG 05...	<0.005	<0.006	<0.008	<0.018	<0.005	<0.008	<0.009	<0.009	<0.003	<0.004	<0.005	104	90.5
AUG 21...	<0.005	<0.006	<0.008	<0.018	<0.005	<0.008	<0.009	<0.009	<0.003	<0.004	<0.005	104	103
SEP 17...	E.004	<0.006	<0.008	<0.018	<0.005	<0.008	<0.009	<0.009	<0.003	<0.004	<0.005	88.6	105

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Dicro- tophos, water fltrd, ug/L (38454)	Diel- drin, water, fltrd, ug/L (39381)	Dimeth- enamid ESA, water, fltrd, ug/L (61951)	Dimeth- enamid OA, water, fltrd, ug/L (62482)	Dimeth- oate, water, fltrd 0.7u GF (82662)	Disulf- oton sulfone water, fltrd, ug/L (61640)	Disulf- oton sulf- oxide, water, fltrd, ug/L (61641)	Disulf- oton, water, fltrd 0.7u GF (82677)	e-Di- metho- morph, water, fltrd, ug/L (79844)	Endo- sulfan ether, water, fltrd, ug/L (61642)	Endo- sulfan sulfate water, fltrd, ug/L (61590)	EPTC, water, fltrd 0.7u GF (82668)	Ethal- flur- alin, water, fltrd 0.7u GF (82663)
OCT 15...	<0.08	<0.005	<0.05	<0.05	<0.006	<0.02	<0.002	<0.02	<0.02	<0.004	<0.006	<0.002	<0.009
NOV 19...	<0.08	<0.005	--	--	<0.006	<0.02	<0.002	<0.02	<0.02	<0.004	<0.006	<0.002	<0.009
DEC 17...	<0.08	<0.005	--	--	<0.006	<0.02	<0.002	<0.02	<0.02	<0.004	<0.006	<0.002	<0.009
JAN 22...	<0.08	<0.005	--	--	<0.006	<0.02	<0.002	<0.02	<0.02	<0.004	<0.006	<0.002	<0.009
FEB 20...	<0.08	<0.005	--	--	<0.006	<0.02	<0.002	<0.02	<0.02	<0.004	<0.006	<0.002	<0.009
MAR 05...	<0.08	<0.005	--	--	<0.006	<0.02	<0.002	<0.02	<0.02	<0.004	<0.006	<0.002	<0.009
MAR 19...	<0.08	<0.005	--	--	<0.006	<0.02	<0.002	<0.02	<0.02	<0.004	<0.006	<0.002	<0.009
APR 16...	<0.08	<0.005	--	--	<0.006	<0.02	<0.002	<0.02	<0.02	<0.004	<0.006	<0.002	<0.009
MAY 02...	<0.08	<0.005	--	--	E.007	<0.02	<0.002	<0.02	<0.02	<0.004	<0.006	<0.002	<0.009
MAY 09...	<0.08	<0.005	--	--	<0.006	<0.02	<0.002	<0.02	<0.02	<0.004	<0.006	<0.002	<0.009
MAY 21...	<0.08	<0.005	--	--	<0.006	<0.02	<0.002	<0.02	<0.02	<0.004	<0.006	0.012	<0.009
JUN 03...	<0.08	<0.005	--	--	<0.006	<0.02	<0.002	<0.02	<0.02	<0.004	<0.006	<0.002	<0.009
JUN 17...	<0.08	<0.005	--	--	<0.006	<0.02	<0.002	<0.02	<0.02	<0.004	<0.006	<0.002	<0.009
JUL 08...	<0.08	<0.005	--	--	<0.006	<0.02	<0.002	<0.02	<0.02	<0.004	<0.006	<0.002	<0.009
JUL 22...	<0.08	<0.005	--	--	<0.006	<0.02	<0.002	<0.02	<0.02	<0.004	<0.006	<0.002	<0.009
AUG 05...	<0.08	<0.005	--	--	<0.006	E.01	<0.002	<0.02	<0.02	<0.004	<0.006	<0.002	<0.009
AUG 21...	<0.08	<0.005	--	--	<0.006	E.01	E.011	<0.02	<0.02	<0.004	<0.006	<0.002	<0.009
SEP 17...	<0.08	<0.005	--	--	<0.006	E.01	<0.002	<0.02	<0.02	<0.004	<0.006	<0.002	<0.009

## YAKIMA RIVER BASIN

12510500 YAKIMA RIVER AT KIONA, WA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Ethion monoxon water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)	Etho-prop, water, fltrd, 0.7u GF (82672)	Fenami-phos sulfone water, fltrd, ug/L (61645)	Fenami-phos sulf-oxide, water, fltrd, ug/L (61646)	Fenami-phos, water, fltrd, ug/L (61591)	Fen-thion sulf-oxide, water, fltrd, ug/L (61647)	Fen-thion, water, fltrd, ug/L (38801)	Desulf-inyl-fipro-nil amide, wat flt ug/L (62169)	Fipro-nil sulfide water, fltrd, ug/L (62167)	Fipro-nil sulfone water, fltrd, ug/L (62168)	Fipro-nil, water, fltrd, ug/L (62166)	Flufen-acet ESA, water, fltrd, ug/L (61952)
OCT 15...	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008	<0.02	<0.009	<0.005	<0.005	<0.007	<0.05
NOV 19...	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008	<0.02	<0.009	<0.005	<0.005	<0.007	--
DEC 17...	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008	<0.02	<0.009	<0.005	<0.005	<0.007	--
JAN 22...	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008	<0.02	<0.009	<0.005	<0.005	<0.007	--
FEB 20...	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008	<0.02	<0.009	<0.005	<0.005	<0.007	--
MAR 05...	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008	<0.02	<0.009	<0.005	<0.005	<0.007	--
19...	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008	<0.02	<0.009	<0.005	<0.005	<0.007	--
APR 16...	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008	<0.02	<0.009	<0.005	<0.005	<0.007	--
MAY 02...	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008	<0.02	<0.009	<0.005	<0.005	<0.007	--
09...	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008	<0.02	<0.009	<0.005	<0.005	<0.007	--
21...	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008	<0.02	<0.009	<0.005	<0.005	<0.007	--
JUN 03...	<0.03	<0.004	<0.005	<0.008	--	<0.03	<0.008	<0.02	<0.009	<0.005	<0.005	<0.007	--
17...	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008	<0.02	<0.009	<0.005	<0.005	<0.007	--
JUL 08...	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008	<0.02	<0.009	<0.005	<0.005	<0.007	--
22...	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008	<0.02	<0.009	<0.005	<0.005	<0.007	--
AUG 05...	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008	<0.02	<0.009	<0.005	<0.005	<0.007	--
21...	<0.03	<0.004	<0.005	<0.008	<0.03	<0.03	<0.008	<0.02	<0.009	<0.005	<0.005	<0.007	--
SEP 17...	<0.03	<0.004	0.012	<0.008	<0.03	<0.03	<0.008	<0.02	<0.009	<0.005	<0.005	<0.007	--

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Flufe-nacet OA, water, fltrd, ug/L (62483)	Flume-tralin, water, fltrd, ug/L (61592)	Fonofos oxon, water, fltrd, ug/L (61649)	Fonofos water, fltrd, ug/L (04095)	Glufos-inate, water, fltrd, 0.7u GF (62721)	Glypho-sate, water, fltrd, 0.7u GF (62722)	Hexa-zinone, water, fltrd, ug/L (04025)	Ipro-dione, water, fltrd, ug/L (61593)	Isofen-phos, water, fltrd, ug/L (61594)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd, 0.7u GF (82666)	Malaoxon, water, fltrd, ug/L (61652)	Malathion, water, fltrd, ug/L (39532)
OCT 15...	<0.05	<0.004	<0.002	<0.003	<0.1	<0.1	<0.013	<1	<0.003	<0.004	<0.035	<0.008	<0.027
NOV 19...	--	<0.004	<0.002	<0.003	--	--	<0.013	<1	<0.003	<0.004	<0.035	<0.008	<0.027
DEC 17...	--	<0.004	<0.002	<0.003	--	--	<0.013	<1	<0.003	<0.004	<0.035	<0.008	<0.027
JAN 22...	--	<0.004	<0.002	<0.003	--	--	<0.013	<1	<0.003	<0.004	<0.035	<0.008	<0.027
FEB 20...	--	<0.004	<0.002	<0.003	--	--	<0.013	<1	<0.003	<0.004	<0.035	<0.008	<0.027
MAR 05...	--	<0.004	<0.002	<0.003	--	--	<0.013	<1	<0.003	<0.004	<0.035	<0.008	<0.027
19...	--	<0.004	<0.002	<0.003	--	--	<0.013	<1	<0.003	<0.004	<0.035	<0.008	<0.027
APR 16...	--	<0.004	<0.002	<0.003	--	--	<0.013	<1	<0.003	<0.004	<0.035	<0.008	<0.027
MAY 02...	--	<0.004	<0.002	<0.003	--	--	<0.013	<1	<0.003	<0.004	<0.035	<0.008	<0.027
09...	--	<0.004	<0.002	<0.003	--	--	<0.013	<1	<0.003	<0.004	<0.035	<0.008	<0.027
21...	--	<0.004	<0.002	<0.003	--	--	<0.013	<1	<0.003	<0.004	<0.035	<0.008	<0.027
JUN 03...	--	<0.004	<0.002	<0.003	--	--	<0.013	<1	<0.003	<0.004	<0.035	<0.008	<0.027
17...	--	<0.004	<0.002	<0.003	--	--	<0.013	<1	<0.003	<0.004	<0.035	<0.008	E.017
JUL 08...	--	<0.004	<0.002	<0.003	--	--	<0.013	<1	<0.003	<0.004	<0.035	<0.008	E.012
22...	--	<0.004	<0.002	<0.003	--	--	<0.013	<1	<0.003	<0.004	<0.035	<0.008	<0.027
AUG 05...	--	<0.004	<0.002	<0.003	--	--	<0.013	<1	<0.003	<0.004	<0.035	<0.008	E.009
21...	--	<0.004	<0.002	<0.003	--	--	E.005	<1	<0.003	<0.004	<0.035	<0.008	<0.027
SEP 17...	--	<0.004	<0.002	<0.003	--	--	<0.013	<1	<0.003	<0.004	<0.035	<0.008	<0.027

## 12510500 YAKIMA RIVER AT KIONA, WA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Meta-laxyl, water, fltrd, ug/L (61596)	Methi-althion water, fltrd, ug/L (61598)	c-Per-methric acid methyl ester, wat flt ug/L (79842)	Methyl para-oxon, water, fltrd, ug/L (61664)	Methyl para-thion, water, fltrd 0.7u GF ug/L (82667)	t-Per-methric acid methyl ester, wat flt ug/L (79843)	Metola-chlor ESA, water, fltrd 0.7u GF ug/L (61043)	Metola-chlor OA, water, fltrd 0.7u GF ug/L (61044)	Metola-chlor, water, fltrd, ug/L (39415)	Metri-buzin, water, fltrd, ug/L (82630)	Moli-nate, water, fltrd 0.7u GF ug/L (82671)	Myclo-butanil water, fltrd, ug/L (61599)	Naprop-amide, water, fltrd 0.7u GF ug/L (82684)
OCT 15...	<0.005	<0.006	<0.04	<0.03	<0.006	<0.03	<0.05	<0.05	<0.013	<0.006	<0.002	<0.008	<0.007
NOV 19...	<0.005	<0.006	<0.04	<0.03	<0.006	<0.03	--	--	<0.013	<0.006	<0.002	<0.008	<0.007
DEC 17...	<0.005	<0.006	<0.04	<0.03	<0.006	<0.03	--	--	<0.013	<0.006	<0.002	<0.008	<0.007
JAN 22...	<0.005	<0.006	<0.04	<0.03	<0.006	<0.03	--	--	<0.013	<0.006	<0.002	<0.008	<0.007
FEB 20...	<0.005	<0.006	<0.04	<0.03	<0.006	<0.03	--	--	<0.013	<0.006	<0.002	<0.008	<0.007
MAR 05...	<0.005	<0.006	<0.04	<0.03	<0.006	<0.03	--	--	<0.013	<0.006	<0.002	<0.008	<0.007
APR 19...	<0.005	<0.006	<0.04	<0.03	<0.006	<0.03	--	--	<0.013	<0.006	<0.002	<0.008	<0.007
MAY 16...	<0.005	E.005	<0.04	<0.03	<0.006	<0.03	--	--	<0.013	<0.006	<0.002	<0.008	<0.007
MAY 02...	E.004	0.015	<0.04	<0.03	<0.006	<0.03	--	--	<0.013	<0.006	<0.002	E.005	<0.007
MAY 09...	<0.005	<0.006	<0.04	<0.03	<0.006	<0.03	--	--	<0.013	<0.006	<0.002	<0.008	<0.007
MAY 21...	<0.005	E.004	<0.04	<0.03	<0.006	<0.03	--	--	<0.013	<0.006	<0.002	<0.008	<0.007
JUN 03...	<0.005	<0.006	<0.04	<0.03	<0.006	<0.03	--	--	<0.013	<0.006	<0.002	<0.008	<0.007
JUN 17...	<0.005	<0.006	<0.04	<0.03	<0.006	<0.03	--	--	<0.013	<0.006	<0.002	<0.008	<0.007
JUL 08...	<0.005	<0.006	<0.04	<0.03	<0.006	<0.03	--	--	<0.013	<0.006	<0.002	<0.008	<0.007
JUL 22...	<0.005	<0.006	<0.04	<0.03	<0.006	<0.03	--	--	<0.013	<0.006	<0.002	<0.008	<0.007
AUG 05...	<0.005	<0.006	<0.04	<0.03	<0.006	<0.03	--	--	E.007	<0.006	<0.002	<0.008	<0.007
SEP 21...	<0.005	<0.006	<0.04	<0.03	<0.006	<0.03	--	--	<0.013	<0.006	<0.002	<0.008	<0.007
SEP 17...	<0.005	<0.006	<0.04	<0.03	<0.006	<0.03	--	--	<0.013	<0.006	<0.002	<0.008	<0.007

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	O-Et-O-Me-S-Pr-phos-phorothioate wat flt ug/L (61660)	Oxy-fluor-fen, water, fltrd, ug/L (61600)	p,p'-DDE, water, fltrd, ug/L (34653)	Para-oxon, water, fltrd, ug/L (61663)	Para-thion, water, fltrd, ug/L (39542)	Peb-ulate, water, fltrd 0.7u GF ug/L (82669)	Pendi-methalin, water, fltrd 0.7u GF ug/L (82683)	Phorate oxon, water, fltrd, ug/L (61666)	Phorate water fltrd 0.7u GF ug/L (82664)	Phosmet oxon, water, fltrd, ug/L (61668)	Phosmet water, fltrd, ug/L (61601)	Phoste-bupirim water, fltrd, ug/L (61602)	Pro-fenofos water, fltrd, ug/L (61603)
OCT 15...	<0.008	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022	<0.10	<0.011	<0.06	<0.008	<0.005	<0.006
NOV 19...	<0.008	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022	<0.10	<0.011	<0.06	<0.008	<0.005	<0.006
DEC 17...	<0.008	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022	<0.10	<0.011	<0.06	<0.008	<0.005	<0.006
JAN 22...	<0.008	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022	<0.10	<0.011	<0.06	<0.008	<0.005	<0.006
FEB 20...	<0.008	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022	<0.10	<0.011	<0.06	<0.008	<0.005	<0.006
MAR 05...	<0.008	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022	<0.10	<0.011	<0.06	<0.008	<0.005	<0.006
MAR 19...	<0.008	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022	<0.10	<0.011	<0.06	<0.008	<0.005	<0.006
APR 16...	<0.008	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022	<0.10	<0.011	<0.06	<0.008	<0.005	<0.006
MAY 02...	<0.008	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022	<0.10	<0.011	<0.06	<0.008	<0.005	<0.006
MAY 09...	<0.008	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022	<0.10	<0.011	<0.06	<0.008	<0.005	<0.006
MAY 21...	<0.008	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022	<0.10	<0.011	<0.06	<0.008	<0.005	<0.006
JUN 03...	<0.008	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022	<0.10	<0.011	<0.06	<0.008	<0.005	<0.006
JUN 17...	<0.008	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022	<0.10	<0.011	<0.06	<0.008	<0.005	<0.006
JUL 08...	<0.008	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022	<0.10	<0.011	<0.06	<0.008	<0.005	<0.006
JUL 22...	<0.008	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022	<0.10	<0.011	<0.06	<0.008	<0.005	<0.006
AUG 05...	<0.008	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022	<0.10	<0.011	<0.06	<0.008	<0.005	<0.006
SEP 21...	<0.008	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022	<0.10	<0.011	<0.06	<0.008	<0.005	<0.006
SEP 17...	<0.008	<0.007	<0.003	<0.008	<0.010	<0.004	<0.022	<0.10	<0.011	<0.06	<0.008	<0.005	<0.006

## YAKIMA RIVER BASIN

12510500 YAKIMA RIVER AT KIONA, WA—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Prometon, water, fltrd, ug/L (04037)	Prometryn, water, fltrd, ug/L (04036)	Pronamide, water, fltrd, 0.7u GF ug/L (82676)	Propachlor, water, fltrd, ug/L (04024)	Propanil, water, fltrd, 0.7u GF ug/L (82679)	Propargite, water, fltrd, 0.7u GF ug/L (82685)	Propetamphos, water, fltrd, ug/L (61604)	Simazine, water, fltrd, ug/L (04035)	Sulfotepp, water, fltrd, ug/L (61605)	Sulprofos, water, fltrd, ug/L (38716)	Tebupirimphos oxon, water, fltrd, ug/L (61669)	Tebu-thiuron water fltrd, 0.7u GF ug/L (82670)	Teflu-thrin metabolite R119365 wat flt ug/L (61671)
OCT 15...	M	<0.005	<0.004	<0.010	<0.011	<0.02	<0.004	0.006	<0.003	<0.02	<0.006	<0.02	<0.02
NOV 19...	<0.01	<0.005	<0.004	<0.010	<0.011	<0.02	<0.004	<0.010	<0.003	<0.02	<0.006	<0.02	<0.02
DEC 17...	<0.01	<0.005	<0.004	<0.010	<0.011	<0.02	<0.004	0.008	<0.003	<0.02	<0.006	<0.02	<0.02
JAN 22...	<0.01	<0.005	<0.004	<0.010	<0.011	<0.02	<0.004	<0.010	<0.003	<0.02	<0.006	<0.02	<0.02
FEB 20...	<0.01	<0.005	<0.004	<0.010	<0.011	<0.02	<0.004	0.011	<0.003	<0.02	<0.006	<0.02	<0.02
MAR 05...	<0.01	<0.005	<0.004	<0.010	<0.011	<0.02	<0.004	<0.005	<0.003	<0.02	<0.006	<0.02	<0.02
19...	E.01	<0.005	<0.004	<0.010	<0.011	<0.02	<0.004	<0.005	<0.003	<0.02	<0.006	<0.02	<0.02
APR 16...	<0.01	<0.005	<0.004	<0.010	<0.011	<0.02	<0.004	0.006	<0.003	<0.02	<0.006	<0.02	--
MAY 02...	<0.01	<0.005	<0.004	<0.010	<0.011	<0.02	<0.004	<0.005	<0.003	<0.02	<0.006	<0.02	--
09...	<0.01	<0.005	<0.004	<0.010	<0.011	<0.02	<0.004	<0.005	<0.003	<0.02	<0.006	<0.02	--
21...	<0.01	<0.005	<0.004	<0.010	<0.011	<0.02	<0.004	<0.005	<0.003	<0.02	<0.006	<0.02	--
JUN 03...	<0.01	<0.005	<0.004	<0.010	<0.011	<0.02	<0.004	<0.005	<0.003	<0.02	<0.006	<0.02	--
17...	<0.01	<0.005	<0.004	<0.010	<0.011	<0.02	<0.004	<0.005	<0.003	<0.02	<0.006	<0.02	--
JUL 08...	<0.01	<0.005	<0.004	<0.010	<0.011	<0.02	<0.004	<0.005	<0.003	<0.02	<0.006	<0.02	--
22...	<0.01	<0.005	<0.004	<0.010	<0.011	<0.02	<0.004	<0.005	<0.003	<0.02	<0.006	<0.02	--
AUG 05...	<0.01	<0.005	<0.004	<0.010	<0.011	<0.02	<0.004	<0.005	<0.003	<0.02	<0.006	<0.02	--
21...	<0.01	<0.005	<0.004	<0.010	<0.011	<0.02	<0.004	<0.005	<0.003	<0.02	<0.006	<0.02	--
SEP 17...	<0.01	<0.005	<0.004	<0.010	<0.011	<0.02	<0.004	0.007	<0.003	<0.02	<0.006	<0.02	--

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Teflu-thrin metabolite R152913 wat flt ug/L (61672)	Teflu-thrin, water, fltrd, ug/L (61606)	Temephos, water, fltrd, ug/L (61607)	Terbacil, water, fltrd, 0.7u GF ug/L (82665)	Terbufos oxon sulfone water, fltrd, ug/L (61674)	Terbufos, water, fltrd, 0.7u GF ug/L (82675)	Terbuthylazine, water, fltrd, ug/L (04022)	Thio-bencarb water fltrd, 0.7u GF ug/L (82681)	trans-Propiconazole, water, fltrd, ug/L (79847)	Tri-allate, water, fltrd, 0.7u GF ug/L (82678)	Tribu-phos, water, fltrd, ug/L (61610)	Tri-fluralin, water, fltrd, 0.7u GF ug/L (82661)	z-Di-metho-morph, water, fltrd, ug/L (79845)
OCT 15...	<0.01	<0.008	<0.3	E.057	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004	E.003	<0.05
NOV 19...	<0.01	<0.008	<0.3	<0.034	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004	<0.009	<0.05
DEC 17...	<0.01	<0.008	<0.3	<0.034	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004	<0.009	<0.05
JAN 22...	<0.01	<0.008	<0.3	<0.034	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004	<0.009	<0.05
FEB 20...	<0.01	<0.008	<0.3	<0.034	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004	<0.009	<0.05
MAR 05...	<0.01	<0.008	<0.3	<0.034	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004	<0.009	<0.05
19...	<0.01	<0.008	<0.3	<0.034	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004	<0.009	<0.05
APR 16...	--	<0.008	<0.3	<0.034	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004	<0.009	<0.05
MAY 02...	--	<0.008	<0.4	E.043	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004	<0.009	<0.05
09...	--	<0.008	<0.3	E.022	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004	<0.009	<0.05
21...	--	<0.008	<0.3	E.031	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004	<0.009	<0.05
JUN 03...	--	<0.008	--	<0.034	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004	<0.009	<0.05
17...	--	<0.008	<0.3	<0.034	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004	<0.009	<0.05
JUL 08...	--	<0.008	<0.3	E.034	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004	<0.009	<0.05
22...	--	<0.008	<0.3	E.062	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004	<0.009	<0.05
AUG 05...	--	<0.008	<0.3	E.013	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004	<0.009	<0.05
21...	--	<0.008	<0.3	<0.034	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004	<0.009	<0.05
SEP 17...	--	<0.008	<0.3	E.050	<0.07	<0.02	<0.01	<0.005	<0.01	<0.002	<0.004	<0.009	<0.05

12510500 YAKIMA RIVER AT KIONA, WA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Di-chlor- vos, water fltrd, ug/L (38775)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment load, tons/d (80155)
OCT 15...	<0.01	--	1	4.9
NOV 19...	<0.01	--	9	48
DEC 17...	<0.01	85	32	260
JAN 22...	<0.01	--	10	66
FEB 20...	<0.01	77	19	201
MAR 05...	<0.01	88	16	140
MAR 19...	<0.01	74	53	964
APR 16...	<0.01	65	18	269
MAY 02...	<0.01	77	22	228
MAY 09...	<0.01	78	14	108
MAY 21...	<0.01	--	10	51
JUN 03...	<0.01	87	59	875
JUN 17...	<0.01	84	20	118
JUL 08...	<0.01	82	12	44
JUL 22...	<0.01	73	14	40
AUG 05...	<0.01	84	13	69
AUG 21...	<0.01	71	12	43
SEP 17...	<0.01	--	9	52

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Aceto- chlor ESA, water, fltrd 0.7u GF ug/L (61029)	Aceto- chlor OA, water, fltrd 0.7u GF ug/L (61030)	Ala- chlor ESA, water, fltrd 0.7u GF ug/L (50009)	Ala- chlor OA, water, fltrd 0.7u GF ug/L (61031)	Amino- methyl- phos- phonic acid, wat flt ug/L (62649)	Dimeth- enamid ESA, water, fltrd, ug/L (61951)	Dimeth- enamid OA, water, fltrd, ug/L (62482)	Flufen- acet ESA, water, fltrd, ug/L (61952)	Flufen- acet OA, water, fltrd, ug/L (62483)	Glufos- inate, water, fltrd 0.7u GF ug/L (62721)	Glypho- sate, water, fltrd 0.7u GF ug/L (62722)	Metola- chlor ESA, water, fltrd 0.7u GF ug/L (61043)
OCT 15...	1140	<0.05	<0.05	0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.1	<0.1	<0.05

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Metola- chlor OA, water, fltrd 0.7u GF ug/L (61044)
OCT 15...	<0.05

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Biomass peri- phyton, ashfree drymass g/m2 (49954)	Peri- phyton biomass ash weight, g/m2 (00572)	Peri- phyton biomass dry weight, g/m2 (00573)	Biomass chloro- phyll ratio, peri- phyton, number (70950)	Pheo- phytin a, peri- phyton, mg/m2 (62359)	Chloro- phyll a peri- phyton, chromo- fluoro, mg/m2 (70957)
OCT 09...	1600	55.300	1,600	1,638	251	120	220
NOV 07...	1300	60.700	440	499.1	--	110	E450



## ESQUATZEL COULEE BASIN

## 12513000 ESQUATZEL COULEE AT CONNELL, WA

LOCATION.--Lat 46°39'49", long 118°51'44", in SW ¼ SE ¼ sec.25, T.14 N., R.31 E., Franklin County, Hydrologic Unit 17020016, on right bank, at Clark Street Bridge in Connell, and 7.8 mi downstream from Hatton Coulee.

DRAINAGE AREA.--234 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--October 1952 to current year. Records published for period August 1959 to September 1964 include effluent from sewage treatment plant 0.8 mi downstream; records adjusted to exclude effluent October 1964 to June 1967.

REVISED RECORDS.--WSP 1933: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 820 ft above NGVD of 1929, from topographic map. Prior to Aug. 7, 1959, at site 0.4 mi downstream at different datum, Aug. 7, 1959, to July 8, 1967, at site 0.9 mi downstream at different datum, July 9, 1967, to Oct. 28, 1981, at site 0.7 mi downstream at different datum, and Oct. 29, 1981, to Sept. 30, 1984 at datum 10 ft lower.

REMARKS.--Records poor. Records for Aug. 13-17, 20-22, Sept. 6,7 missing due to equipment malfunction, and discharge could not be estimated. No diversion upstream from station. Most flow for October, and April through September is return and waste from water imported for irrigation, entering about 3 mi upstream on the right bank. U.S. Geological Survey satellite telemeter at gage.

AVERAGE DISCHARGE.--33 years (water years 1953-85), 1.73 ft<sup>3</sup>/s, 1,253 acre-ft/yr, adjusted for effluent from sewage treatment plant 1959-64. Average discharge is not computed after the 1985 water year because of ground-water withdrawals and return flows from irrigation occurring during the summer months upstream from the gage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,560 ft<sup>3</sup>/s Feb. 21, 1956, gage height, 12.68 ft, site and datum then in use; no flow at times during most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 28 ft<sup>3</sup>/s Sept. 9, gage height, 12.72 ft; no flow Oct. 26-Mar. 28.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	0.00	0.00	0.00	0.00	0.00	2.3	3.2	3.6	8.9	5.1	8.7
2	1.2	0.00	0.00	0.00	0.00	0.00	2.9	2.9	1.4	1.9	4.5	6.6
3	3.2	0.00	0.00	0.00	0.00	0.00	5.8	3.6	2.8	3.6	11	5.9
4	15	0.00	0.00	0.00	0.00	0.00	3.6	6.4	2.6	2.7	12	7.4
5	15	0.00	0.00	0.00	0.00	0.00	3.4	4.8	1.6	5.1	5.8	e4.5
6	16	0.00	0.00	0.00	0.00	0.00	2.8	6.3	2.2	5.2	5.5	---
7	17	0.00	0.00	0.00	0.00	0.00	4.7	4.6	1.3	6.7	9.4	---
8	12	0.00	0.00	0.00	0.00	0.00	6.5	2.9	0.89	6.6	5.9	e15
9	8.4	0.00	0.00	0.00	0.00	0.00	2.1	2.9	1.0	9.5	5.0	24
10	6.7	0.00	0.00	0.00	0.00	0.00	7.8	2.4	0.95	4.7	6.4	14
11	5.3	0.00	0.00	0.00	0.00	0.00	10	3.0	2.3	6.9	5.5	8.1
12	11	0.00	0.00	0.00	0.00	0.00	4.2	3.5	0.96	5.4	6.9	6.3
13	15	0.00	0.00	0.00	0.00	0.00	9.0	2.5	3.0	5.6	---	7.0
14	15	0.00	0.00	0.00	0.00	0.00	3.9	1.2	5.4	3.8	---	6.3
15	9.3	0.00	0.00	0.00	0.00	0.00	7.4	0.93	4.4	4.3	---	7.5
16	9.3	0.00	0.00	0.00	0.00	0.00	7.7	1.4	5.1	4.5	---	8.8
17	9.1	0.00	0.00	0.00	0.00	0.00	4.9	1.8	2.4	3.4	---	6.0
18	9.2	0.00	0.00	0.00	0.00	0.00	2.1	3.2	2.8	7.4	e5.4	4.6
19	7.8	0.00	0.00	0.00	0.00	0.00	5.3	4.5	2.2	5.6	e6.3	e13
20	4.7	0.00	0.00	0.00	0.00	0.00	4.1	3.3	5.2	2.8	---	5.9
21	8.8	0.00	0.00	0.00	0.00	0.00	4.6	3.0	9.4	6.2	---	3.6
22	15	0.00	0.00	0.00	0.00	0.00	4.8	3.0	9.9	5.4	---	2.3
23	14	0.00	0.00	0.00	0.00	0.00	3.2	3.6	9.3	6.3	9.4	1.1
24	3.5	0.00	0.00	0.00	0.00	0.00	2.8	3.5	5.4	5.1	8.9	2.6
25	0.93	0.00	0.00	0.00	0.00	0.00	5.2	5.5	0.96	6.1	8.7	3.0
26	0.00	0.00	0.00	0.00	0.00	0.00	3.9	6.5	2.3	2.7	7.2	4.7
27	0.00	0.00	0.00	0.00	0.00	0.00	5.1	2.5	2.0	2.0	6.2	6.0
28	0.00	0.00	0.00	0.00	0.00	0.00	4.7	1.2	2.7	2.7	2.1	3.3
29	0.00	0.00	0.00	0.00	---	1.3	3.6	0.55	3.6	7.5	5.1	7.1
30	0.00	0.00	0.00	0.00	---	2.2	4.4	3.1	7.8	3.8	4.6	8.7
31	0.00	---	0.00	0.00	---	2.1	---	6.6	---	7.1	9.3	---
TOTAL	236.63	0.00	0.00	0.00	0.00	5.60	142.8	104.38	105.46	159.5	156.2	202.0
MEAN	7.63	0.000	0.000	0.000	0.000	0.18	4.76	3.37	3.52	5.15	6.79	7.21
MAX	17	0.00	0.00	0.00	0.00	2.2	10	6.6	9.9	9.5	12	24
MIN	0.00	0.00	0.00	0.00	0.00	0.00	2.1	0.55	0.89	1.9	2.1	1.1
AC-FT	469	0.00	0.00	0.00	0.00	11	283	207	209	316	310	401
CAL YR	2002	TOTAL 1,651.37	MEAN 4.52	MAX 22	MIN 0.00	AC-FT 3,280						
WTR YR	2003	TOTAL 1,112.57	MEAN 3.13	MAX 24	MIN 0.00	AC-FT 2,210						

e Estimated

