

Appendix A. Data Tables

Table A1. Water-quality and discharge data collected during sampled storms, Fanno Creek, Oregon, June 2002 and May 2003.

[Abbreviations: *E. coli*, *Escherichia coli* bacteria; °C, degrees Celsius; µS/cm, microsiemens per centimeter; mg/L, milligram per liter; FNU, formazin nephelometric unit; ft³/s, cubic foot per second; ft, foot; C/100 mL, colonies per 100 milliliters; E, estimated; <, less than]

Date (mm-dd-yy)	Time	Temperature (°C)	Specific conductance (µS/cm)	Dissolved oxygen (mg/L)	pH	Turbidity (FNU)	Discharge (ft³/s)	Stage (ft)	Total suspended solids (mg/L)	Dissolved ammonium nitrogen (mg/L)	Total Kjeldahl nitrogen (mg/L)	Nitrate + nitrite nitrogen (mg/L)	Total phosphorus (mg/L)	Soluble reactive phosphorus (mg/L)	Dissolved chloride (mg/L)	E. coli (C/100mL)	
Storm 1																	
06-17-02	14:54	16.2	245	8.4	7.6	5.7	7.1	1.86	4	E 0.01	0.31	0.53	0.13	0.08	11.8	180	
	15:20	16.2	245	8.4	7.6	5.9	9.0	1.91	4	< 0.01	0.28	0.52	0.13	0.08	11.7	290	
	15:59	16.2	241	8.5	7.7	8.4	15.3	2.06	4	< 0.01	0.38	0.52	0.16	0.08	11.3	680	
	16:06	16.3	240	8.5	7.7	9.0	15.3	2.06	9	< 0.01	0.34	0.52	0.15	0.08	11.4	680	
	16:09	16.3	240	8.5	7.7	9.0	17.8	2.11	8	< 0.01	0.38	0.51	0.15	0.08	11.3	460	
	16:33	16.2	243	8.5	7.6	9.8	24.2	2.22	17	< 0.01	0.39	0.52	0.17	0.08	11.4	640	
	17:33	16.4	228	8.2	7.6	38.2	47.0	2.55	67	0.07	0.93	0.58	0.31	0.07	10.0	2,300	
	18:33	16.7	199	8.0	7.5	78.4	48.5	2.57	101	0.06	1.0	0.48	0.37	0.07	11.6	4,100	
	19:33	16.4	186	7.9	7.5	104	76.9	2.91	138	0.16	1.4	0.60	0.42	0.06	7.4	E 6,400	
	20:33	16.4	132	8.1	7.4	131	94.9	3.11	175	0.10	1.3	0.47	0.47	0.06	5.9	E 6,300	
	21:33	16.3	139	8.1	7.4	118	89.3	3.05	160	0.07	1.2	0.44	0.43	0.05	5.7	E 6,400	
	22:33	16.3	138	8.1	7.4	113	79.5	2.94	126	0.04	1.1	0.43	0.33	0.06	5.9	E 7,800	
	23:33	16.4	150	7.9	7.4	73.1	75.1	2.89	88	0.03	0.93	0.45	0.31	0.06	7.0	E 10,000	
06-18-02	00:33	16.4	140	7.5	7.3	82.9	72.4	2.86	85	0.08	1.1	0.48	0.30	0.05	6.4	E 8,600	
	01:33	16.2	157	7.7	7.4	68.5	67.2	2.80	84	0.03	0.93	0.47	0.30	0.06	7.9	E 7,700	
	02:33	16.2	147	7.5	7.3	77.8	64.7	2.77	79	< 0.01	0.94	0.48	0.30	0.05	7.6	E 9,200	
	03:33	16.2	149	7.3	7.3	71.0	63.9	2.76	71	0.03	1.1	0.52	0.28	0.06	7.0	E 8,000	
	04:33	16.2	138	7.3	7.3	68.9	60.6	2.72	76	0.02	0.97	0.46	0.27	0.07	6.4	E 10,000	
	05:33	16.1	145	7.4	7.3	71.6	56.5	2.67	75	< 0.01	0.93	0.45	0.27	0.07	7.1	E 10,000	
	06:33	16.1	150	7.4	7.3	65.6	54.0	2.64	72	< 0.01	0.86	0.43	0.25	0.06	7.4	E 9,900	
	Storm 2																
05-04-03	13:25	11.9	162	9.7	7.3	20.8	108	3.24	25	<.01	0.43	0.68	0.11		5.1	420	
	14:25	12.1	139	9.9	7.3	70.9	134	3.53	84	0.02	0.48	0.62	0.19	0.03	4.8	2,300	
	15:25	12.3	110	10.1	7.2	194	127	3.45	196	0.03	1.07	0.41	0.39	0.03	3.1	4,600	
	16:25	12.5	123	9.9	7.2	86.6	94.9	3.09	68	0.03	0.56	0.48	0.19	0.03	3.7	4,700	
	17:25	12.6	138	9.9	7.2	35.7	78.6	2.90	31	0.03	0.41	0.57	0.12	0.03	4.4	2,000	
	18:25	12.6	144	9.9	7.2	28.6	71.6	2.82	21	E 0.01	0.34	0.59	0.11	0.03	4.5	1,400	
	19:25	12.7	145	9.9	7.3	23.2	63.9	2.73	17	E 0.02	0.44	0.61	0.11	0.03	4.6	1,800	
	20:25	12.6	148	9.9	7.3	20.9	59.8	2.67	16	E 0.02	0.32	0.62	0.10	0.03	4.9	1,200	
	23:25	12.4	153	9.6	7.3	19.8	51.6	2.57	13	< 0.01	0.32	0.64	0.09	0.03	5.2	380	
	05-05-03	02:25	12.4	162	9.6	7.3	15.6	47.0	2.51	10	E 0.02	0.27	0.67	0.09	0.04	5.7	400
		05:25	12.4	163	9.4	7.3	13.5	41.0	2.43	10	0.03	0.33	0.69	0.08	0.04	5.4	E 180

Table A1. Water-quality and discharge data collected during sampled storms, Fanno Creek, Oregon, June 2002 and May 2003.—Continued

[Abbreviations: *E. coli*, *Escherichia coli* bacteria; °C, degrees Celsius; µS/cm, microsiemens per centimeter; mg/L, milligram per liter; FNU, formazin nephelometric unit; ft³/s, cubic foot per second; ft, foot; C/100mL, colonies per 100 milliliters; E, estimated; <, less than]

Date (mm-dd-yy)	Time	Temperature (°C)	Specific conductance (µS/cm)	Dissolved oxygen (mg/L)	pH	Turbidity (FNU)	Discharge (ft ³ /s)	Stage (ft)	Total suspended solids (mg/L)	Dissolved ammonium nitrogen (mg/L)	Total Kjeldahl nitrogen (mg/L)	Nitrate + nitrite nitrogen (mg/L)	Total phosphorus (mg/L)	Soluble reactive phosphorus (mg/L)	Dissolved chloride (mg/L)	<i>E. coli</i> (C/100mL)
Storm 3																
05-07-03	00:29	11.5	186	10.0	7.4	37.7	29.8	2.27	9.0	0.02	0.31	0.74	0.09	0.04	7.1	260
05-08-03	01:29	11.3	179	10.0	7.4	24.9	66.4	2.76	37.2	0.02	0.34	0.77	0.12	0.04	6.8	350
	02:29	11.3	176	9.9	7.4	40.6	91.2	3.05	69.2	0.05	0.55	0.63	0.18	0.03	5.5	640
	03:29	10.9	154	10.1	7.4	59.8	109	3.25	78.0	0.05	0.47	0.58	0.19	0.03	5.0	2,900
	04:29	11.3	158	9.8	7.4	53.0	115	3.31	66.0	0.05	0.50	0.60	0.17	0.03	5.7	1,100
	05:29	11.1	151	9.8	7.3	55.2	118	3.35	73.0	0.05	0.51	0.58	0.19	0.03	4.9	2,000
	06:29	10.8	145	9.9	7.3	52.0	115	3.32	61.0	0.03	0.48	0.59	0.18	0.04	5.9	940
	07:29	10.7	139	9.8	7.3	75.6	108	3.24	72.0	0.03	0.56	0.59	0.20	0.04	4.4	E 1,800
	08:29	10.6	139	9.7	7.3	58.0	98.5	3.13	54.0	0.03	0.49	0.59	0.18	0.04	4.2	1,300
	09:29	10.5	131	9.8	7.2	46.5	89.3	3.03	37.0	0.03	0.43	0.56	0.14	0.03	3.9	1,400
	10:29	10.5	133	9.8	7.2	51.2	83.9	2.97	40.0	0.02	0.43	0.60	0.13	0.03	4.2	E 1,900
	11:29	10.5	134	9.8	7.3	48.9	80.3	2.92	38.0	0.03	0.41	0.58	0.13	0.04	4.2	E 1,800
	12:29	10.8	138	9.8	7.3	37.7	76.0	2.87	27.0	E 0.02	0.39	0.59	0.13	0.04	4.6	1,400
	13:29	11.0	140	9.8	7.3	35.1	69.8	2.80	23.0	E 0.01	0.38	0.58	0.11	0.04	4.6	1,000
	14:29	11.0	140	9.9	7.2	32.8	63.1	2.72	18.0	E 0.01	0.29	0.59	0.10	0.03	4.6	1,100
	15:29	11.0	141	9.9	7.2	29.7	56.5	2.63	17.0	E 0.01	0.34	0.61	0.10	0.03	4.5	900
	16:29	11.2	140	9.9	7.2	29.5	50.8	2.56	16.0	< 0.01	0.36	0.60	0.10	0.03	4.3	920
	17:29	11.3	140	9.9	7.2	31.0	46.2	2.50	16.0	E 0.01	0.31	0.58	0.10	0.03	4.2	960
	18:29	11.4	142	9.9	7.2	29.4	43.3	2.46	18.0	< 0.01	0.32	0.59	0.10	0.03	4.4	540
	19:29	11.4	143	9.8	7.2	29.4	41.0	2.43	15.0	E 0.01	0.34	0.59	0.12	0.03	4.4	800
	20:29	11.4	145	9.8	7.2	28.2	38.8	2.40	15.0	E 0.02	0.31	0.59	0.09	0.04	4.4	720
	21:29	11.4	146	9.8	7.2	26.1	36.6	2.37	13.0	E 0.01	0.33	0.59	0.10	0.03	4.5	680
	22:29	11.4	147	9.8	7.2	25.8	35.2	2.35	12.0	E 0.02	0.29	0.59	0.09	0.04	4.6	520
	23:29	11.4	149	9.7	7.2	21.2	33.8	2.33	7.0	E 0.02	0.30	0.59	0.09	0.04	4.7	640

Table A2. Water-quality data collected during sampled storms, Beaverton Creek at 170th, Oregon, June and December 2002.

[Level is a relative measure of stream depth, taken from a bubbler anchored to the streambed at an arbitrary datum for each deployment. **Abbreviations:** *E. coli*, *Escherichia coli* bacteria; °C, degrees Celsius; μS/cm, microsiemens per centimeter; mg/L, milligram per liter; FNU, formazin nephelometric unit; ft, foot; C/100mL, colonies per 100 milliliters; E, estimated; >, greater than; ND, no data]

Date (mm-dd-yy)	Time	Temperature (°C)	Specific conductance (μS/cm)	Dissolved oxygen (mg/L)	pH	Turbidity (FNU)	Autosampler bubbler level (ft)	Total suspended solids (mg/L)	Dissolved ammonium nitrogen (mg/L)	Total Kjeldahl nitrogen (mg/L)	Nitrate + nitrite nitrogen (mg/L)	Total phosphorus (mg/L)	Soluble reactive phosphorus (mg/L)	Dissolved chloride (mg/L)	<i>E. coli</i> (C/100mL)
Storm 1															
06-28-02	15:57	18.6	216	ND	7.4	14.1	ND	10	0.05	0.51	0.49	0.18	0.09	9.6	740
	16:57	18.5	212	ND	7.5	13.5	ND	12	0.06	0.61	0.48	0.20	0.10	9.9	E 1,700
	17:57	18.2	202	ND	7.5	16.0	ND	19	0.08	0.75	0.51	0.21	0.08	9.4	E 2,600
	18:57	18.0	174	ND	7.4	29.4	ND	34	0.11	0.92	0.57	0.22	0.07	10.5	E 8,200
	19:57	17.8	136	ND	7.3	42.4	ND	57	0.11	0.99	0.62	0.24	0.08	6.5	> 10,000
	20:57	17.9	134	ND	7.3	44.8	ND	65	0.09	0.99	0.59	0.27	0.09	5.9	> 10,000
	21:57	17.9	130	ND	7.2	48.3	ND	73	0.09	1.03	0.53	0.28	0.08	5.7	> 10,000
	22:57	17.8	124	ND	7.2	68.9	ND	71	0.09	1.02	0.55	0.29	0.09	5.5	> 16,000
	23:57	17.6	118	ND	7.1	59.1	ND	71	0.08	1.03	0.55	0.31	0.09	5.2	> 16,000
	00:57	17.5	114	ND	7.1	60.2	ND	90	0.07	1.07	0.55	0.35	0.11	5.1	> 16,000
	01:57	17.1	110	ND	7.1	77.5	ND	97	0.07	1.11	0.54	0.38	0.11	4.9	> 16,000
	02:57	17.1	106	ND	7.0	91.3	ND	134	0.06	1.06	0.56	0.38	0.11	4.5	> 16,000
	03:57	17.0	106	ND	7.0	78.2	ND	136	0.06	1.02	0.57	0.37	0.13	4.5	> 16,000
	04:57	16.9	106	ND	7.0	64.5	ND	121	0.05	0.98	0.57	0.32	0.12	4.5	> 10,000
	05:57	16.8	108	ND	7.0	53.5	ND	90	0.04	0.96	0.56	0.35	0.13	4.6	> 10,000
06-29-02	06:57	16.8	108	ND	6.9	52.1	ND	81	0.04	0.91	0.52	0.31	0.15	4.6	> 10,000
	07:57	16.7	110	ND	6.9	51.0	ND	55	0.04	0.85	0.48	0.30	0.15	4.6	> 10,000
	08:57	16.7	108	ND	6.9	36.2	ND	39	0.03	0.84	0.45	0.29	0.15	4.6	> 16,000
	09:57	16.8	108	ND	6.9	31.7	ND	33	0.03	0.81	0.42	0.28	0.15	4.4	> 10,000
	14:41	18.4	101	ND	6.9	17.9	ND	18	0.03	0.69	0.36	0.23	0.14	3.8	E 8,100
	15:49	18.7	101	ND	6.9	17.0	ND	9	0.03	0.69	0.35	0.24	0.15	3.8	E 12,000
	16:49	18.9	102	ND	6.9	16.5	ND	8	0.03	0.66	0.34	0.22	0.14	3.8	E 6,800
	17:49	19.1	102	ND	6.9	16.2	ND	10	0.02	0.65	0.33	0.21	0.14	3.8	E 6,200
	18:49	19.3	103	ND	6.9	14.5	ND	8	0.03	0.64	0.31	0.20	0.15	3.8	E 6,500
	19:49	19.4	105	ND	6.9	14.4	ND	10	0.03	0.65	0.31	0.21	0.14	3.9	5,900
	20:49	19.3	107	ND	6.9	13.4	ND	10	0.03	0.61	0.30	0.20	0.13	3.9	6,800
	21:49	19.2	110	ND	6.9	15.1	ND	10	0.03	0.62	0.30	0.22	0.14	4.1	4,900
	22:49	19.0	112	ND	6.9	13.4	ND	8	0.04	0.59	0.29	0.20	0.14	4.2	4,500
	23:37	18.8	115	ND	6.9	11.9	ND	6	0.04	0.61	0.29	0.20	0.13	4.3	4,500
	23:42	18.8	115	ND	6.9	13.2	ND	8	0.04	0.62	0.29	0.19	0.13	4.3	E 3,600
06-30-02	23:54	18.8	115	ND	6.9	13.1	ND	10	0.04	0.38	0.30	0.16	0.14	4.3	E 3,300
	00:52	18.6	118	ND	6.9	11.5	ND	6	0.04	0.32	0.29	0.16	0.14	4.4	E 2,500
	00:57	18.6	118	ND	6.9	15.5	ND	8	0.05	0.28	0.29	0.17	0.14	4.3	E 2,200
	01:00	18.6	118	ND	6.9	15.5	ND	9	0.05	E 0.67	0.29	E 0.21	0.14	4.4	E 2,600
	01:07	18.5	119	ND	6.9	11.2	ND	7	0.05	E 0.68	0.29	E 0.21	0.14	4.4	E 1,600

Table A2. Water-quality data collected during sampled storms, Beaverton Creek at 170th, Oregon, June and December 2002.—Continued

[Level is a relative measure of stream depth, taken from a bubbler anchored to the streambed at an arbitrary datum for each deployment. **Abbreviations:** *E. coli*, *Escherichia coli* bacteria; °C, degrees Celsius; µS/cm, microsiemens per centimeter; mg/L, milligram per liter; FNU, formazin nephelometric unit; ft, foot; C/100mL, colonies per 100 milliliters; E, estimated; >, greater than; ND, no data]

Date (mm-dd-yy)	Time	Temperature (°C)	Specific conductance (µS/cm)	Dissolved oxygen (mg/L)	pH	Turbidity (FNU)	Autosampler bubbler level (ft)	Total suspended solids (mg/L)	Dissolved ammonium nitrogen (mg/L)	Total Kjeldahl nitrogen (mg/L)	Nitrate + nitrite nitrogen (mg/L)	Total phosphorus (mg/L)	Soluble reactive phosphorus (mg/L)	Dissolved chloride (mg/L)	<i>E. coli</i> (C/100mL)
Storm 2															
12-10-02	15:16	7.8	103	9.1	6.9	55.5	0.21	79	0.08	0.77	0.54	0.28	0.08	6.3	E 1,100
	16:16	7.8	99	8.9	6.9	63.8	0.25	85	0.08	0.75	0.54	0.30	0.09	5.8	E 1,000
	17:16	7.7	101	8.7	6.9	56.6	0.28	74	0.07	0.74	0.55	0.26	0.09	6.5	E 1,300
	18:16	7.7	102	8.5	6.8	47.6	0.28	54	0.07	0.62	0.55	0.24	0.10	6.6	E 1,100
	20:16	7.5	101	8.2	6.8	42.4	0.24	40	0.05	0.61	0.51	0.21	0.10	6.2	E 900
	21:16	7.5	100	8.1	6.8	34.7	0.23	30	0.05	0.53	0.50	0.20	0.10	6.1	E 1,200
	23:16	7.4	101	7.8	6.8	30.8	0.16	21	0.04	0.53	0.49	0.19	0.09	6.0	E 1,000
	01:16	7.3	104	7.5	6.8	25.7	0.08	15	0.04	0.47	0.50	0.18	0.09	6.1	E 1,100
	05:16	7.2	114	7.2	6.8	22.0	-0.09	10	0.05	0.47	0.52	0.16	0.09	6.4	E 1,000
	07:16	7.2	118	7.4	6.8	20.9	-0.14	8	0.05	0.49	0.54	0.16	0.08	6.6	E 940
12-11-02	10:16	7.4	123	8.8	6.9	26.8	0.05	24	0.08	0.55	0.49	0.17	0.06	7.8	E 1,100
	12:16	7.7	99	9.7	6.9	52.2	0.28	72	0.07	0.64	0.42	0.24	0.08	6.5	E 830
	13:41	7.8	91	9.4	6.8	81.9	0.49	166	0.05	0.82	0.49	0.33	0.06	5.5	E 1,000
	15:41	8.0	82	9.0	6.8	74.5	0.73	158	0.04	0.85	0.44	0.35	0.07	4.9	E 1,000
	17:41	8.2	78	8.7	6.7	70.6	0.83	116	0.04	0.67	0.42	0.28	0.08	4.5	E 1,500
	19:41	8.3	78	8.4	6.7	48.2	0.66	100	0.04	0.81	0.42	0.28	0.08	4.5	1,000
	21:41	8.4	80	8.1	6.7	36.4	0.73	60	0.03	0.58	0.44	0.24	0.09	4.6	1,900
	22:41	8.5	82	8.0	6.7	42.3	0.65	48	0.03	0.52	0.45	0.22	0.09	4.6	1,400
	23:41	8.5	83	7.8	6.7	32.7	0.65	40	0.03	0.47	0.47	0.19	0.10	4.7	E 950
	01:41	8.7	87	7.5	6.7	27.5	0.51	29	0.03	0.48	0.49	0.21	0.10	5.0	E 750
12-12-02	05:41	8.9	96	6.9	6.7	25.8	0.31	19	0.04	0.45	0.55	0.18	0.09	5.5	870
	07:41	8.8	101	6.7	6.7	23.7	0.22	12	0.04	0.45	0.57	0.16	0.10	5.6	900
	09:41	8.8	104	6.5	6.7	21.6	0.13	11	0.04	0.45	0.57	0.16	0.09	5.7	E 430
	11:41	8.9	108	6.5	6.7	18.7	0.04	11	0.04	0.42	0.57	0.14	0.10	5.8	670

Table A3. Water-quality and discharge data collected during sampled storms, Chicken Creek at Scholls-Sherwood Highway, Oregon, June 2002 and May 2003.

[Abbreviations: FNU, formazin nephelometric unit; *E. coli*, *Escherichia coli* bacteria; °C, degrees Celsius; µS/cm, microsiemens per centimeter; ft³/s, cubic foot per second; ft, foot; mg/L, milligram per liter; C/100mL, colonies per 100 milliliters; E, estimated]

Date (mm-dd-yy)	Time	Temperature (°C)	Specific conductance (µS/cm)	Dissolved oxygen (mg/L)	pH	Turbidity (FNU)	Discharge (ft³/s)	Stage (ft)	Total suspended solids (mg/L)	Dissolved ammonium nitrogen (mg/L)	Total Kjeldahl nitrogen (mg/L)	Nitrate + nitrite nitrogen (mg/L)	Total phosphorus (mg/L)	Soluble reactive phosphorus (mg/L)	Dissolved chloride (mg/L)	E. coli (C/100mL)
Storm 1																
06-17-02	19:50	15.7	146	6.9	7.1	15.4	12.2	1.19	15	E 0.01	0.29	0.40	0.13	0.03	3.5	220
	19:53	15.7	146	6.9	7.1	15.5	12.2	1.19	15	E 0.02	0.33	0.40	0.14	0.04	3.5	E 400
	19:55	15.7	147	6.9	7.1	15.6	12.2	1.19	15	E 0.02	0.34	0.40	0.14	0.04	3.6	E 320
	20:50	15.7	144	6.7	7.1	17.2	12.2	1.19	15	E 0.01	0.40	0.40	0.14	0.04	3.5	460
	21:50	15.6	141	6.5	7.1	16.6	12.2	1.19	15	< 0.01	0.42	0.40	0.14	0.03	3.4	980
	22:24	15.6	141	6.6	7.1	15.8	12.2	1.19	16	< 0.01	0.34	0.40	0.14	0.04	3.4	980
	22:26	15.6	141	6.6	7.1	15.7	12.2	1.19	14	< 0.01	0.37	0.40	0.14	0.03	3.4	E 1,300
	22:30	15.6	142	6.6	7.1	15.6	12.2	1.19	14	E 0.01	0.39	0.40	0.14	0.03	3.4	900
	22:32	15.6	142	6.6	7.1	15.5	12.2	1.19	14	E 0.01	0.31	0.40	0.13	0.05	3.5	840
	22:36	15.6	142	6.6	7.1	15.4	12.2	1.19	12	E 0.01	0.34	0.40	0.13	0.04	3.4	880
	22:40	15.6	142	6.6	7.1	15.3	11.6	1.18	13	E 0.01	0.38	0.41	0.15	0.04	3.5	900
	22:42	15.6	142	6.6	7.1	15.3	11.6	1.18	11	E 0.01	0.33	0.41	0.14	0.03	3.5	1,100
	23:11	15.5	141	6.7	7.1	14.8	11.6	1.18	12	E 0.02	0.38	0.41	0.14	0.04	3.5	660
	23:14	15.5	141	6.7	7.1	14.8	11.6	1.18	13	E 0.02	0.34	0.41	0.15	0.04	3.4	860
	23:18	15.5	141	6.7	7.1	14.9	11.6	1.18	15	E 0.02	0.35	0.41	0.15	0.04	3.5	840
	23:30	15.5	141	6.7	7.1	14.9	11.0	1.17	11	E 0.02	0.30	0.41	0.13	0.04	3.5	900
	23:32	15.5	140	6.7	7.1	14.9	11.0	1.17	14	E 0.02	0.32	0.41	0.14	0.04	3.5	740
	23:34	15.5	140	6.7	7.1	14.9	11.0	1.17	14	E 0.02	0.32	0.42	0.13	0.04	3.5	820
	23:36	15.5	140	6.7	7.1	14.9	11.0	1.17	16	E 0.02	0.34	0.42	0.14	0.04	3.5	680
	23:38	15.5	140	6.7	7.1	14.9	11.0	1.17	14	E 0.02	0.32	0.42	0.13	0.03	3.5	680
06-18-02	00:01	15.5	139	6.8	7.1	15.0	11.0	1.17	10	E 0.02	0.37	0.42	0.13	0.03	3.5	740
	00:25	15.4	139	6.8	7.1	14.5	10.5	1.16	14	E 0.02	0.35	0.42	0.13	0.03	3.5	760
	00:27	15.4	139	6.8	7.1	14.5	10.5	1.16	10	0.02	0.34	0.43	0.13	0.04	3.4	900
	00:29	15.4	139	6.8	7.1	14.5	10.5	1.16	10	0.02	0.33	0.43	0.13	0.04	3.4	940
Storm 2																
05-08-03	00:35	11.0	85	9.4	7.0	31.9	20.7	1.42	28	0.02	0.20	0.78	0.10	0.02	2.7	E 64
	01:35	10.9	84	9.5	7.0	17.5	22.2	1.45	13	0.02	0.23	0.78	0.08	0.02	2.7	180
	02:35	10.9	85	9.3	7.0	18.0	22.2	1.45	10	0.03	0.21	0.79	0.08	0.03	2.7	300
	03:35	10.8	86	9.4	7.0	13.8	23.2	1.47	11	0.03	0.21	0.76	0.08	0.03	2.7	120

[**Abbreviations:** FNU, formazin nephelometric unit; *E. coli*, *Escherichia coli* bacteria; °C, degrees Celsius; µS/cm, microsiemens per centimeter; ft³/s, cubic foot per second; ft, foot; mg/L, milligram per liter; C/100mL, colonies per 100 milliliters; E, estimated]

Date (mm-dd-yy)	Time	Temperature (°C)	Specific conductance (µS/cm)	Dissolved oxygen (mg/L)	pH	Turbidity (FNU)	Discharge (ft³/s)	Stage (ft)	Total suspended solids (mg/L)	Dissolved ammonium nitrogen (mg/L)	Total Kjeldahl nitrogen (mg/L)	Nitrate + nitrite nitrogen (mg/L)	Total phosphorus (mg/L)	Soluble reactive phosphorus (mg/L)	Dissolved chloride (mg/L)	E. coli (C/100mL)
Storm 3																
05-17-03	18:00	10.9	95	9.9	7.0	31.2	22.7	1.46	30	0.03	0.28	0.52	0.12	0.03	2.7	600
	19:00	10.8	94	10.0	7.0	29.2	26.8	1.54	27	0.04	0.35	0.51	0.12	0.03	2.7	E 700
	20:00	10.7	88	10.2	7.0	38.2	28.9	1.58	29	0.03	0.34	0.50	0.13	0.02	2.6	950
	21:00	10.7	93	10.2	7.0	31.3	27.8	1.56	31	0.04	0.37	0.50	0.14	0.02	2.7	3,900
	22:00	10.4	88	9.8	7.0	49.1	25.7	1.52	26	0.03	0.36	0.47	0.13	0.02	2.6	3,800
	23:00	10.2	89	10.0	6.9	31.5	23.7	1.48	22	0.03	0.34	0.49	0.13	0.03	2.7	2,200
	00:00	10.1	92	9.8	6.9	23.0	21.2	1.43	14	0.03	0.28	0.51	0.09	0.02	2.7	1,900
05-18-03	01:00	9.9	92	9.8	6.9	20.1	19.8	1.40	11	0.03	0.28	0.53	0.09	0.03	2.7	1,600
	05:00	9.2	90	10.1	6.9	19.3	17.0	1.34	9	0.03	0.23	0.55	0.08	0.02	2.6	1,200
	06:00	9.1	90	10.1	6.9	17.7	17.0	1.34	9	0.03	0.24	0.54	0.08	0.02	2.5	1,200
	11:00	9.3	92	10.4	6.9	17.1	16.5	1.33	7	0.03	0.22	0.53	0.08	0.02	2.5	940
	12:00	9.6	92	10.6	6.9	16.8	16.1	1.32	9	0.03	0.26	0.54	0.09	0.02	2.5	1,000
	13:00	10.2	92	10.4	6.9	15.3	16.1	1.32	7	0.03	0.27	0.54	0.09	0.02	2.5	740
	16:00	11.8	94	10.6	7.0	13.4	15.6	1.31	5	0.03	0.26	0.56	0.08	0.02	2.6	E 360
17:00	12.0	95	10.4	7.0	12.4	15.6	1.31	5	0.03	0.24	0.56	0.08	0.02	2.6	540	

Level is a relative measure of stream depth, taken from a bubbler anchored to the streambed at an arbitrary datum for each deployment. **Abbreviations:** FNU, formazin nephelometric unit; *E. coli*, *Escherichia coli* bacteria; °C, degrees Celsius; µS/cm, microsiemens per centimeter; mg/L, milligram per liter; ft, foot; ft³/s, cubic foot per second; C/100mL, colonies per 100 milliliters; E, estimated; >, greater than; ND, no data]

Date (mm-dd-yy)	Time	Temperature (°C)	Specific conductance (µS/cm)	Dissolved oxygen (mg/L)	pH	Turbidity (FNU)	Autosampler bubbler level (ft)	Discharge (ft³/s)	Total suspended solids (mg/L)	Dissolved ammonium nitrogen (mg/L)	Total Kjeldahl nitrogen (mg/L)	Nitrate + nitrite nitrogen (mg/L)	Total phosphorus (mg/L)	SRP (mg/L)	Dissolved chloride (mg/L)	E. coli (C/100mL)
Storm 1																
06-28-02	17:12	18.3	234	6.5	7.6	15	ND	13.3	17	E 0.01	0.52	0.77	0.26	0.17	11.7	E 1,300
	17:22	18.3	236	6.5	7.6	16	ND	13.3	20	E 0.02	0.49	0.75	0.26	0.17	11.7	E 1,600
	17:27	18.2	238	6.5	7.5	16	ND	13.9	20	E 0.02	0.53	0.74	0.26	0.17	11.7	E 1,700
	18:17	18.2	240	6.4	7.5	22	ND	15.7	31	E 0.02	0.55	0.63	0.29	0.16	12.4	E 2,300
	19:17	18.1	240	6.5	7.5	28	ND	20.6	41	0.03	0.66	0.54	0.31	0.15	13.0	E 2,400
	20:17	18.0	238	6.4	7.5	37	ND	23.6	52	0.03	0.70	0.50	0.31	0.14	12.3	E 2,400
	21:17	17.9	214	6.5	7.5	48	ND	30.9	64	0.02	0.82	0.44	0.33	0.14	9.8	E 5,100
	22:17	17.8	194	6.7	7.5	51	ND	41.1	72	0.04	0.86	0.46	0.33	0.14	8.2	> 6,000
	23:17	17.8	186	6.7	7.4	53	ND	54.1	76	0.04	0.76	0.45	0.34	0.14	8.1	> 8,000
	00:17	17.8	184	6.7	7.4	55	ND	69.3	82	0.09	0.92	0.78	0.42	0.19	8.4	> 10,000
06-29-02	01:17	17.8	172	6.7	7.4	61	ND	86.6	96	0.07	0.94	0.56	0.37	0.16	7.5	> 10,000
	02:17	17.7	164	6.7	7.4	66	ND	107	103	0.04	0.91	0.42	0.36	0.14	8.3	> 10,000
	03:17	17.7	154	6.7	7.3	67	ND	128	96	0.04	0.91	0.41	0.34	0.12	6.9	> 10,000
	04:17	17.7	156	6.8	7.3	65	ND	153	95	0.04	0.87	0.41	0.35	0.12	7.3	> 10,000
	05:17	17.6	146	6.7	7.3	67	ND	172	94	0.04	0.91	0.39	0.33	0.12	7.0	> 10,000
	06:17	17.6	132	6.6	7.2	70	ND	180	96	0.04	0.92	0.40	0.33	0.11	6.1	> 10,000
	07:17	17.5	128	6.6	7.2	78	ND	181	95	0.04	0.91	0.40	0.33	0.12	5.8	> 7,500
	15:55	18.0	136	6.4	7.1	45	ND	130	61	0.04	0.76	0.54	0.27	0.13	7.4	4,600
	16:55	18.1	138	6.4	7.1	42	ND	124	49	0.04	0.86	0.50	0.26	0.13	7.4	4,400
	17:55	18.2	138	6.4	7.1	41	ND	118	48	0.03	0.73	0.43	0.24	0.12	7.4	5,400
06-30-02	18:55	18.3	138	6.4	7.2	38	ND	112	43	0.03	0.73	0.40	0.25	0.13	7.3	3,900
	19:55	18.4	138	6.4	7.2	39	ND	107	53	0.03	0.74	0.38	0.25	0.13	7.3	4,800
	20:55	18.6	138	6.4	7.2	35	ND	103	39	0.03	0.65	0.37	0.25	0.13	7.3	4,700
	21:55	19.6	138	6.4	7.2	31	ND	98.9	37	0.03	0.61	0.35	0.23	0.13	7.2	4,600
	22:55	18.7	138	6.3	7.2	29	ND	94.0	33	0.03	0.65	0.34	0.22	0.13	7.1	3,400
	23:55	18.7	138	6.3	7.2	28	ND	65.1	31	0.03	0.55	0.34	0.22	0.13	7.1	3,300
	00:55	18.6	138	6.3	7.2	27	ND	85.1	33	0.03	0.64	0.33	0.22	0.14	7.3	2,200
	01:55	18.5	140	6.3	7.2	26	ND	80.1	29	0.04	0.58	0.33	0.21	0.14	7.2	2,400
	02:55	18.5	140	6.3	7.2	25	ND	75.9	30	0.03	0.55	0.32	0.21	0.14	7.2	1,600
	03:55	18.4	140	6.3	7.2	22	ND	71.8	29	0.07	0.80	0.33	0.26	0.17	7.3	2,200
04:55	18.3	142	6.3	7.2	22	ND	67.9	21	0.03	0.59	0.31	0.21	0.13	7.3	E 2,100	
05:55	18.3	142	6.3	7.2	23	ND	64.0	25	0.04	0.60	0.31	0.21	0.13	7.4	E 2,200	

Table A4. Water-quality and discharge data collected during sampled storms, Rock Creek at Woll Pond Way, Oregon, June and December 2002, and September 2003.—Continued

[Level is a relative measure of stream depth, taken from a bubbler anchored to the streambed at an arbitrary datum for each deployment. **Abbreviations:** FNU, formazin nephelometric unit; *E. coli*, *Escherichia coli* bacteria; °C, degrees Celsius; µS/cm, microsiemens per centimeter; mg/L, milligram per liter; ft, foot; ft³/s, cubic foot per second; C/100mL, colonies per 100 milliliters; E, estimated; >, greater than; ND, no data]

Date (mm-dd-yy)	Time	Temperature (°C)	Specific conductance (µS/cm)	Dissolved oxygen (mg/L)	pH	Turbidity (FNU)	Autosampler bubbler level (ft)	Discharge (ft ³ /s)	Total suspended solids (mg/L)	Dissolved ammonium nitrogen (mg/L)	Total Kjeldahl nitrogen (mg/L)	Nitrate + nitrite nitrogen (mg/L)	Total phosphorus (mg/L)	SRP (mg/L)	Dissolved chloride (mg/L)	<i>E. coli</i> (C/100mL)
Storm 2																
12-10-02	14:56	6.3	167	10.5	7.3	78	0.57	151	106	0.10	1.0	0.49	0.32	0.08	11.6	E 700
	15:56	6.6	155	10.3	7.3	81	0.67	180	99	0.10	0.86	0.49	0.31	0.08	12.2	2,200
	16:56	6.8	134	10.4	7.3	77	0.69	184	98	0.10	0.87	0.47	0.31	0.10	9.7	E 1,600
	17:56	6.9	129	10.4	7.2	71	0.67	180	90	0.09	0.82	0.46	0.29	0.08	9.3	E 1,600
	18:56	6.9	131	10.3	7.2	69	0.64	175	77	0.09	0.77	0.49	0.30	0.09	9.8	E 1,900
	19:56	6.9	129	10.4	7.2	60	0.59	171	66	0.09	0.73	0.47	0.26	0.09	10.0	E 700
	20:56	6.9	131	10.3	7.2	54	0.55	168	62	0.08	0.71	0.49	0.25	0.10	9.9	E 1,500
	21:56	6.9	134	10.3	7.2	48	0.48	164	55	0.08	0.70	0.49	0.23	0.09	10.1	E 900
	22:56	6.9	133	10.3	7.2	47	0.41	161	51	0.07	0.66	0.47	0.24	0.09	10.4	E 1,100
	23:56	7.0	132	10.4	7.2	46	0.32	156	49	0.07	0.66	0.47	0.21	0.09	11.6	E 1,400
12-11-02	11:15	6.9	139	10.5	7.1	36	0.28	93	36	0.05	0.54	0.41	0.20	0.08	12.8	E 900
	12:15	6.9	140	10.7	7.1	50	0.84	106	59	0.05	0.62	0.40	0.22	0.08	12.9	E 700
	13:15	7.1	132	10.7	7.1	59	1.33	143	73	0.06	0.67	0.41	0.24	0.09	11.7	E 1,800
	14:15	7.2	124	10.7	7.1	62	1.69	197	96	0.06	0.65	0.40	0.26	0.09	10.7	2,100
	15:16	7.3	115	10.8	7.1	66	1.89	241	88	0.05	0.65	0.37	0.26	0.09	9.7	1,600
	17:16	7.4	100	10.7	7.0	71	2.07	287	93	0.05	0.65	0.37	0.25	0.09	8.0	1,400
	19:16	7.6	105	10.5	7.0	72	2.06	287	82	0.04	0.68	0.39	0.27	0.09	8.9	E 950
	21:16	7.7	108	10.5	7.0	67	1.98	275	73	0.04	0.69	0.43	0.27	0.09	9.5	1,600
	23:16	7.8	109	10.5	7.0	66	1.81	260	73	0.04	0.69	0.47	0.25	0.08	9.5	1,600
	02:16	8.0	109	10.2	6.9	55	1.50	337	58	0.04	0.63	0.45	0.22	0.09	9.5	1,000
12-12-02	03:16	8.0	109	10.2	6.9	53	1.38	355	56	0.04	0.60	0.44	0.22	0.08	9.4	E 950
	05:16	8.1	109	10.1	6.9	47	1.07	372	43	0.04	0.55	0.46	0.22	0.08	9.3	1,300
	07:16	8.2	109	10.1	6.9	44	0.73	370	39	0.03	0.55	0.47	0.19	0.08	9.0	E 550
	09:16	8.3	112	10.1	6.9	36	0.41	363	34	0.03	0.44	0.48	0.17	0.08	9.3	1200
	11:16	8.3	116	10.0	6.9	31	0.11	344	25	0.03	0.46	0.48	0.17	0.09	9.9	E 700
	13:16	8.4	119	10.0	6.9	27	-0.18	317	21	0.03	0.44	0.49	0.16	0.08	10.5	E 450

Table A4. Water-quality and discharge data collected during sampled storms, Rock Creek at Woll Pond Way, Oregon, June and December 2002, and September 2003.—Continued

[Level is a relative measure of stream depth, taken from a bubbler anchored to the streambed at an arbitrary datum for each deployment. **Abbreviations:** FNU, formazin nephelometric unit; *E. coli*, *Escherichia coli* bacteria; °C, degrees Celsius; µS/cm, microsiemens per centimeter; mg/L, milligram per liter; ft, foot; ft³/s, cubic foot per second; C/100mL, colonies per 100 milliliters; E, estimated; >, greater than; ND, no data]

Date (mm-dd-yy)	Time	Temperature (°C)	Specific conductance (µS/cm)	Dissolved oxygen (mg/L)	pH	Turbidity (FNU)	Autosampler bubbler level (ft)	Discharge (ft ³ /s)	Total suspended solids (mg/L)	Dissolved ammonium nitrogen (mg/L)	Total Kjeldahl nitrogen (mg/L)	Nitrate + nitrite nitrogen (mg/L)	Total phosphorus (mg/L)	SRP (mg/L)	Dissolved chloride (mg/L)	<i>E. coli</i> (C/100mL)
Storm 3																
09-07-03	02:05	19.2	290	5.8	7.6	26	ND	5.24	4.0	0.03	0.37	0.50	0.25	0.19	23.1	E 100
	03:05	19.0	289	5.8	7.6	20	ND	5.24	5.0	0.03	0.32	0.50	0.23	0.19	22.8	E 100
	05:05	18.7	287	5.8	7.6	28	ND	5.24	5.0	0.02	0.36	0.55	0.24	0.19	21.9	> 120
	08:05	18.5	284	5.9	7.6	33	ND	5.76	4.0	0.02	0.32	0.69	0.23	0.19	20.8	E 84
	11:05	18.7	282	6.2	7.6	32	ND	5.68	4.0	0.03	0.36	0.58	0.25	0.20	20.1	E 120
	13:05	18.9	281	6.3	7.6	33	ND	5.54	4.0	0.03	0.31	0.55	0.23	0.20	19.9	E 84
	16:05	19.1	281	6.2	7.6	30	ND	5.81	5.0	0.03	0.26	0.55	0.23	0.19	19.3	E 67
	17:05	19.1	280	6.1	7.6	36	ND	6.03	3.0	0.03	0.32	0.55	0.25	0.20	19.1	> 100
	18:05	19.0	277	6.2	7.6	43	ND	6.16	21.0	0.02	0.41	0.56	0.27	0.20	18.6	1100
	19:05	18.9	277	6.1	7.6	44	ND	6.25	8.0	E 0.02	0.36	0.55	0.25	0.20	18.3	620
	20:05	18.8	274	6.0	7.6	45	ND	6.41	8.0	0.07	0.56	0.55	0.26	0.20	17.6	550
	21:05	18.7	243	5.9	7.6	56	ND	6.55	13.0	0.10	0.61	0.51	0.25	0.19	15.5	650
	22:05	18.5	262	5.9	7.6	59	ND	6.83	16.0	0.04	0.52	0.50	0.28	0.20	16.8	620
09-08-03	23:05	18.3	262	5.8	7.6	54	ND	7.20	12.0	0.05	0.50	0.52	0.25	0.20	16.2	630
	00:05	18.0	250	6.0	7.6	60	ND	8.10	9.0	0.05	0.53	0.54	0.25	0.19	15.2	780
	18:30	17.8	246	6.2	7.6	79	ND	25.4	13.0	0.05	0.60	0.49	0.21	0.14	14.0	E 600
	19:30	17.7	243	6.0	7.4	79	ND	24.8	12.0	0.05	0.62	0.55	0.18	0.13	14.0	E 1,000
	20:30	17.6	239	5.7	7.4	73	ND	23.9	15.5	0.06	0.84	0.61	0.20	0.14	14.1	E 1,000
	21:30	17.6	236	5.6	7.4	71	ND	23.2	18.5	0.07	0.84	0.67	0.21	0.13	14.1	E 2,200
	22:30	17.5	233	5.4	7.4	81	ND	22.5	24.5	0.07	0.92	0.72	0.22	0.13	14.1	E 1,400
	23:30	17.5	229	5.3	7.3	77	ND	21.8	25.0	0.08	0.95	0.75	0.21	0.12	13.7	> 3,600
	00:30	17.5	222	5.4	7.3	79	ND	22.6	24.5	0.08	0.90	0.65	0.22	0.12	13.5	E 1,600
	01:30	17.5	222	5.6	7.3	81	ND	25.8	24.0	0.07	0.85	0.57	0.21	0.12	14.1	E 2,000
	02:30	17.5	216	5.7	7.3	82	ND	30.1	21.0	0.07	0.86	0.55	0.20	0.12	13.7	E 2,400
	03:30	17.4	208	5.7	7.3	78	ND	31.1	20.0	0.07	1.10	0.54	0.23	0.12	13.1	E 2,000
	04:30	17.2	206	5.8	7.3	82	ND	31.1	22.0	0.06	1.10	0.55	0.21	0.13	12.8	E 600
09-09-03	05:30	17.0	219	6.0	7.3	83	ND	29.6	33.0	0.06	0.86	0.57	0.25	0.14	12.0	E 1,000
	06:30	16.6	210	6.2	7.4	90	ND	28.0	60.0	0.06	0.90	0.45	0.27	0.13	10.2	E 2,800
	07:30	16.5	209	6.0	7.3	85	ND	27.2	70.0	0.05	1.00	0.46	0.30	0.13	10.3	E 3,600
	08:30	16.4	191	6.2	7.3	106	ND	29.3	110.0	0.05	1.10	0.42	0.37	0.12	9.2	8,400
	09:30	16.4	183	6.4	7.3	99	ND	34.2	113.0	0.06	1.10	0.40	0.33	0.12	9.4	5,600
	10:30	16.3	162	6.6	7.2	99	ND	42.8	109.0	0.09	1.20	0.39	0.34	0.12	8.1	12,000
	11:30	16.4	155	6.6	7.2	99	ND	53.1	112.0	0.10	0.98	0.50	0.35	0.13	8.0	12,000
	12:30	16.4	143	6.8	7.2	103	ND	70.7	112.0	0.09	0.92	0.45	0.33	0.13	7.3	11,000

Table A5. Water-quality and discharge data collected during sampled storms, Dairy Creek at Highway 8, Oregon, October and November 2003.

[Abbreviations: FNU, formazin nephelometric unit; *E. coli*, *Escherichia coli* bacteria; °C, degrees Celsius; µS/cm, microsiemens per centimeter; mg/L, milligram per liter; ft³/s, cubic foot per second; ft, foot; C/100mL, colonies per 100 milliliters; E, estimated; <, less than]

Date (mm-dd-yy)	Time	Temperature (°C)	Specific conductance (µS/cm)	Dissolved oxygen (mg/L)	pH	Turbidity (FNU)	Discharge (ft ³ /s)	Stage (ft)	Total suspended solids (mg/L)	Dissolved ammonium nitrogen (mg/L)	Total Kjeldahl nitrogen (mg/L)	Nitrate + nitrite nitrogen (mg/L)	Total phosphorus (mg/L)	Soluble reactive phosphorus (mg/L)	Dissolved chloride (mg/L)	<i>E. coli</i> (C/100mL)
Storm 1																
10-09-03	01:25	14.2	140	7.4	7.6	5.8	39.1	3.2	7	0.03	0.41	0.45	0.14	0.07	5.14	E 45
	02:25	14.1	140	7.5	7.6	7.5	39.1	3.2	7	0.03	0.36	0.45	0.14	0.07	5.12	E 95
	03:25	14.0	140	7.5	7.6	5.7	39.1	3.2	5	0.03	0.39	0.45	0.14	0.07	5.11	E 65
	04:25	13.9	139	7.5	7.6	6.1	38.8	3.2	8	0.03	0.36	0.45	0.13	0.07	5.19	E 40
	05:25	13.9	139	7.6	7.6	6.7	38.8	3.2	7	0.03	0.38	0.46	0.14	0.07	5.16	E 85
	06:25	13.8	139	7.6	7.6	6.5	38.8	3.2	8	0.03	0.37	0.46	0.14	0.07	4.89	E 60
	07:25	13.7	141	7.6	7.6	6.4	38.7	3.2	9	0.03	0.38	0.48	0.14	0.07	5.14	E 60
	08:25	13.6	140	7.6	7.6	6.5	39.1	3.2	7	0.03	0.38	0.52	0.14	0.07	5.10	E 85
Storm 2																
11-19-03	00:45	8.9	122	3.2	7.3	27.3	74.1	4.0	8	0.03	0.37	0.23	0.09	0.04	5.33	140
	01:45	9.0	122	3.1	7.3	10.0	73.0	4.0	8	0.02	0.34	0.23	0.09	0.04	5.34	160
	02:45	9.0	122	3.1	7.3	9.0	72.5	4.0	8	0.02	0.37	0.23	0.10	0.04	5.29	230
	03:45	9.0	122	3.0	7.3	9.0	72.5	4.0	6	E 0.02	0.37	0.23	0.09	0.04	5.29	160
	04:45	9.1	122	2.9	7.3	8.8	74.6	4.0	8	0.02	0.36	0.23	0.09	0.04	5.23	170
	05:45	9.1	122	2.9	7.3	9.1	76.7	4.1	9	E 0.02	0.38	0.23	0.10	0.04	5.26	320
	06:45	9.1	122	2.8	7.3	9.8	75.6	4.1	10	E 0.01	0.38	0.24	0.10	0.04	5.20	E 400
	07:45	9.1	120	2.8	7.3	11.5	76.1	4.1	11	E 0.01	0.38	0.24	0.11	0.05	5.01	340
	08:45	9.0	117	2.7	7.3	14.2	79.3	4.1	12	E 0.01	0.36	0.26	0.11	0.04	5.00	330
	09:45	8.9	124	2.6	7.3	10.8	84.8	4.2	12	E 0.01	0.34	0.26	0.11	0.04	5.35	220
	10:45	8.9	125	2.6	7.3	13.4	90.6	4.3	11	E 0.01	0.38	0.26	0.11	0.05	5.38	280
	11:45	8.8	126	2.5	7.3	15.0	94.2	4.4	10	E 0.01	0.37	0.27	0.12	0.05	5.45	520
	12:45	8.7	126	2.5	7.3	14.9	99.1	4.5	16	E 0.01	0.41	0.37	0.14	0.07	5.19	E 380
	13:45	8.7	123	2.4	7.3	19.5	106.0	4.6	19	E 0.01	0.41	0.44	0.17	0.09	5.03	900
	14:45	8.8	125	2.3	7.3	21.4	113.3	4.7	27	E 0.01	0.48	0.40	0.19	0.09	5.16	750
	15:45	8.7	124	2.3	7.3	26.9	113.3	4.7	31	E 0.02	0.48	0.41	0.19	0.09	5.11	950
11-20-03	16:26	8.6	123	2.7	7.3	30.1	120.1	4.8	29	< 0.01	0.47	0.43	0.21	0.10	5.46	E 520
	17:26	8.6	123	5.9	7.3	21.6	121.7	4.8	25	< 0.01	0.51	0.46	0.23	E 0.10	5.48	780
	18:26	8.6	124	5.4	7.3	23.9	121.4	4.8	20	< 0.01	0.53	0.50	0.22	0.10	5.69	760
	19:26	8.6	125	6.0	7.4	23.4	121.2	4.8	21	< 0.01	0.53	0.52	0.21	0.10	5.63	720
	20:26	8.5	124	5.9	7.4	21.8	120.3	4.8	22	E 0.01	0.45	0.48	0.20	0.09	5.67	640
	21:26	8.5	123	5.6	7.3	20.1	117.7	4.8	16	< 0.01	0.44	0.47	0.16	0.08	5.68	480
	22:26	8.4	123	6.0	7.3	17.0	115.6	4.7	15	< 0.01	0.41	0.46	0.16	0.08	5.60	E 360
	00:26	8.3	123	6.0	7.3	15.0	112.7	4.7	13	< 0.01	0.43	0.44	0.14	0.07	5.59	250
	02:26	8.2	126	6.0	7.3	14.5	112.7	4.7	11	< 0.01	0.44	0.45	0.14	0.06	5.78	290
	04:26	8.1	132	6.5	7.3	18.4	116.6	4.7	16	E 0.01	0.40	0.49	0.14	0.06	6.02	270
	06:26	8.0	132	5.4	7.3	16.3	125.6	4.9	14	E 0.01	0.44	0.49	0.15	0.06	6.21	200
	08:26	7.9	132	4.9	7.3	15.7	138.3	5.0	12	E 0.01	0.37	0.53	0.15	0.05	6.22	180
	10:26	7.9	133	4.6	7.3	15.6	152.6	5.2	15	E 0.01	0.34	0.64	0.14	0.05	6.04	160
	11:26	7.9	135	4.3	7.3	15.1	158.7	5.3	13	E 0.02	0.48	0.70	0.14	0.05	6.42	190

Table A6. Water-quality and discharge data collected during sampled storm, Gales Creek at Old Highway 47, Oregon, November 2003.

[Abbreviations: FNU, formazin nephelometric unit; *E. coli*, *Escherichia coli* bacteria; °C, degrees Celsius; µS/cm, microsiemens per centimeter; mg/L, milligram per liter; ft³/s, cubic foot per second; ft, foot; C/100mL, colonies per 100 milliliters; E, estimated; <, less than]

Date (mm-dd-yy)	Time	Temperature (°C)	Specific conductance (µS/cm)	Dissolved oxygen (mg/L)	pH	Turbidity (FNU)	Discharge (ft³/s)	Stage (ft)	Total suspended solids (mg/L)	Dissolved ammonium nitrogen (mg/L)	Total Kjeldahl nitrogen (mg/L)	Nitrate + nitrite nitrogen (mg/L)	Total phosphorus (mg/L)	Soluble reactive phosphorus (mg/L)	Dissolved chloride (mg/L)	E. coli (C/100mL)
Storm 1																
11-17-03	15:04	7.9	99	11.3	7.5	24.3	180.40	3.30	24	<0.01	0.31	0.47	0.06	0.02	5.09	560
	16:04	7.9	99	11.3	7.5	18.1	180.91	3.31	46	<0.01	0.29	0.47	0.07	0.02	5.05	600
	17:04	8.0	99	11.3	7.5	18.3	179.51	3.29	45	<0.01	0.33	0.49	0.08	0.02	5.11	220
	18:04	8.1	99	11.3	7.5	13.8	176.61	3.25	41	<0.01	0.28	0.50	0.06	0.02	5.03	240
	19:04	8.2	99	11.3	7.5	17.5	173.71	3.21	38	<0.01	0.28	0.50	0.06	0.01	5.15	280
	20:04	8.2	98	11.3	7.5	14.1	170.91	3.17	34	<0.01	0.28	0.50	0.06	0.01	5.21	420
	21:04	8.3	97	11.3	7.5	13.9	168.01	3.13	26	E 0.01	0.27	0.51	0.05	0.02	5.21	210
	22:04	8.4	97	11.2	7.5	11.3	165.91	3.10	18	<0.01	0.21	0.51	E 0.05	0.02	5.18	190
	23:04	8.5	98	11.2	7.5	10.8	163.90	3.07	20	<0.01	0.22	0.51	E 0.04	0.02	5.20	190
	00:04	8.6	97	11.1	7.5	10.7	163.20	3.06	20	<0.01	0.24	0.51	E 0.05	0.02	5.22	200
	03:04	8.7	98	11.0	7.5	12.0	161.10	3.03	15	<0.01	0.21	0.51	E 0.04	0.01	5.15	120
	04:04	8.7	98	11.0	7.5	10.8	161.10	3.03	16	<0.01	0.2	0.52	E 0.05	0.02	4.96	110
11-18-03	05:04	8.8	98	10.9	7.5	11.3	162.50	3.05	16	<0.01	0.22	0.57	E 0.05	0.02	5.12	110
	06:04	8.8	98	10.9	7.5	12.4	163.39	3.06	15	<0.01	0.2	0.54	E 0.04	0.02	5.12	180
	07:04	8.8	98	10.9	7.5	12.3	163.90	3.07	18	<0.01	0.2	0.54	E 0.04	0.01	5.20	200
	08:04	8.9	98	10.9	7.5	9.0	164.89	3.08	18	<0.01	0.21	0.56	E 0.04	0.02	5.18	150
	11:04	9.1	99	10.9	7.5	9.8	168.20	3.13	14	<0.01	0.2	0.6	E 0.04	0.02	5.15	E 130
	12:10	9.3	100	10.9	7.5	37.5	168.90	3.14	12	<0.01	0.18	0.63	E 0.04	0.02	4.87	120
	13:10	9.3	101	10.8	7.5	15.7	168.90	3.14	14	E 0.01	0.19	0.67	E 0.05	0.02	4.70	140
	14:10	9.4	101	10.8	7.5	11.7	169.60	3.15	15	<0.01	0.19	0.71	E 0.04	0.02	4.90	140
	15:10	9.5	101	10.8	7.5	10.4	170.40	3.16	14	<0.01	0.2	0.65	E 0.05	0.02	4.84	100
	18:10	9.7	100	10.8	7.5	18.8	170.40	3.16	18	<0.01	0.17	0.66	0.05	0.02	4.75	120
	20:10	9.9	98	10.8	7.5	10.6	168.20	3.13	17	<0.01	0.18	0.66	E 0.04	0.02	4.63	E 95
	11-19-03	03:10	10.3	96	10.5	7.5	8.1	162.50	3.05	10	<0.01	0.17	0.56	E 0.04	0.02	4.12
04:10		10.3	95	10.4	7.5	15.8	162.27	3.05	14	<0.01	0.18	0.60	E 0.05	0.02	4.15	E 1,200
05:10		10.3	95	10.4	7.5	40.0	163.20	3.06	13	E 0.01	0.17	0.54	E 0.04	0.02	4.09	290
06:10		10.2	95	10.4	7.5	1150.5	164.43	3.08	9	<0.01	0.17	0.57	0.05	0.02	4.15	100
07:10		10.2	95	10.4	7.5	9.4	165.87	3.10	15	<0.01	0.18	0.55	0.05	0.02	4.25	160
08:10		10.1	95	10.4	7.5	13.7	167.27	3.12	17	<0.01	0.18	0.52	0.05	0.02	4.64	560
09:10		10.0	95	10.4	7.5	15.0	170.60	3.16	14	<0.01	0.17	0.52	E 0.04	0.02	4.18	530
10:10		9.9	94	10.4	7.5	16.5	174.90	3.22	15	<0.01	0.17	0.51	E 0.05	0.02	4.02	400
14:35		9.4	94	10.6	7.4	34.1	214.53	3.77	53	<0.01	0.23	0.54	0.08	0.02	4.61	E 100
15:35		9.2	93	10.7	7.5	26.3	226.73	3.93	53	<0.01	0.24	0.55	0.09	0.02	4.45	E 200

Table A6. Water quality and discharge data collected during sampled storm, Gales Creek at Old Highway 47, Oregon, November 2003.—Continued

[Abbreviations: FNU, formazin nephelometric unit; *E. coli*, *Escherichia coli* bacteria; °C, degrees Celsius; µS/cm, microsiemens per centimeter; mg/L, milligram per liter; ft³/s, cubic foot per second; ft, foot; C/100mL, colonies per 100 milliliters; E, estimated; <, less than]

Date (mm-dd-yy)	Time	Temperature (°C)	Specific conductance (µS/cm)	Dissolved oxygen (mg/L)	pH	Turbidity (FNU)	Discharge (ft ³ /s)	Stage (ft)	Total suspended solids (mg/L)	Dissolved ammonium nitrogen (mg/L)	Total Kjeldahl nitrogen (mg/L)	Nitrate + nitrite nitrogen (mg/L)	Total phosphorus (mg/L)	Soluble reactive phosphorus (mg/L)	Dissolved chloride (mg/L)	<i>E. coli</i> (C/100mL)
Storm 1—Continued																
11-19-03	16:35	9.0	92	10.8	7.5	23.6	236.23	4.06	60	¹ 0.04	0.23	0.54	0.09	¹ 0.06	4.45	E 380
	17:35	8.8	91	10.9	7.4	28.3	242.30	4.14	126	< 0.01	0.34	0.55	0.17	0.02	4.32	420
	18:35	8.6	90	11.0	7.5	31.6	244.80	4.17	90	< 0.01	0.32	0.57	0.10	0.02	4.25	440
	19:35	8.5	89	11.0	7.4	31.1	243.30	4.15	62	< 0.01	0.30	0.57	0.11	0.02	4.20	E 360
	20:35	8.4	89	11.1	7.5	31.8	241.00	4.12	62	< 0.01	0.33	0.57	0.09	0.02	4.15	E 360
	21:35	8.2	88	11.1	7.4	31.3	240.30	4.11	64	< 0.01	0.35	0.57	0.10	0.02	4.09	E 380
	22:35	8.0	88	11.2	7.4	29.4	238.53	4.09	76	< 0.01	0.33	0.58	0.09	0.02	4.16	E 140
	23:35	7.9	88	11.2	7.5	28.1	236.23	4.06	56	< 0.01	0.30	0.58	0.10	0.02	4.16	E 190
	00:35	7.7	88	11.3	7.5	27.3	233.97	4.03	53	< 0.01	0.25	0.60	0.08	0.02	4.24	E 90
	01:35	7.5	88	11.3	7.5	24.1	231.00	4.03	38	< 0.01	0.27	0.61	0.08	0.02	4.30	E 110
11-20-03	02:35	7.4	88	11.4	7.5	26.0	227.70	3.94	47	< 0.01	0.27	0.63	0.08	0.02	4.31	E 100
	04:35	7.1	89	11.5	7.5	21.1	220.53	3.85	32	< 0.01	0.24	0.64	0.06	0.02	4.39	E 90
	08:35	6.8	89	11.7	7.5	16.7	207.93	3.68	24	< 0.01	0.25	0.64	0.06	0.02	4.43	160

¹ Outlier value not used in regressions.