APPENDIX E

Summary Statistics for Conventional Parameters Measured at Sites in the Green-Duwamish Watershed in 2001 and 2002

Table E1. Summary statistics for alkalinity concentrations at sites in the Green-Duwamish watershed in 2001 and 2002.

Site Locator	N	Mean (mg/L as $CaCO_3$)	Minimum (mg/L as $CaCO_3$)	Maximum (mg/L as $CaCO_3$)	Standard Deviation (mg/L as $CaCO_3$)	Lower 95% C.I. (mg/L as $CaCO_3$)	Upper 95% C.I. (mg/L as $CaCO_3$)	Median (mg/L as $CaCO_3$)	10th Percentile (mg/L as $CaCO_3$)	25th Percentile (mg/L as $CaCO_3$)	75th Percentile (mg/L as $CaCO_3$)	90th Percentile (mg/L as $CaCO_3$)	Quartile Range (mg/L as $CaCO_3$)	Percent Exceeding Standard[a]
Base Flow														
A310	7	39.7	23.5	56.3	13.6	27.1	52.4	35.9	23.5	25.0	54.2	56.3	29.2	n.a.
E319	11	19.9	15.4	23.0	2.8	17.9	21.8	20.8	16.3	16.8	23.0	23.0	6.2	n.a.
A307	7	79.4	65.4	85.0	6.6	73.3	85.6	79.8	65.4	78.8	83.9	85.0	5.1	n.a.
C317	5	124.0	109.0	142.0	14.1	106.5	141.5	123.0	109.0	112.0	134.0	142.0	22.0	n.a.
A317	8	124.0	77.7	150.0	24.7	103.3	144.6	129.0	77.7	108.5	144.5	150.0	36.0	n.a.
A326	7	77.5	41.8	112.0	32.3	47.6	107.4	73.6	41.8	46.1	111.0	112.0	64.9	n.a.
B317	8	79.4	31.1	98.2	20.7	62.0	96.7	85.6	31.1	77.3	89.9	98.2	12.7	n.a.
A315	5	97.6	68.5	119.0	19.0	74.0	121.2	102.0	68.5	91.5	107.0	119.0	15.5	n.a.
A330	7	66.7	57.2	72.7	6.6	60.6	72.9	70.7	57.2	59.0	72.4	72.7	13.4	n.a.
A320	5	50.5	41.9	58.1	7.3	41.4	59.5	54.1	41.9	43.5	54.7	58.1	11.2	n.a.
Y320	6	59.0	39.6	93.1	19.8	38.2	79.7	57.0	39.6	40.5	66.7	93.1	26.2	n.a.
F321	6	44.8	38.0	48.9	5.3	39.2	50.3	47.3	38.0	38.3	48.8	48.9	10.5	n.a.
0322	8	53.4	41.9	60.4	7.1	47.4	59.4	56.0	41.9	47.0	59.5	60.4	12.5	n.a.
D322	10	61.4	35.2	86.0	20.2	46.9	75.8	59.6	35.9	39.6	80.6	85.9	41.0	n.a.
B322	2	53.4	42.0	64.8	16.1	-91.5	198.3	53.4	42.0	42.0	64.8	64.8	22.8	n.a.
I322B	5	38.1	11.4	51.9	15.6	18.7	57.6	40.8	11.4	40.6	46.0	51.9	5.4	n.a.
S322	3	60.5	58.0	64.2	3.3	52.4	68.5	59.2	58.0	58.0	64.2	64.2	6.1	n.a.
A341	4	44.2	41.0	48.9	3.4	38.8	49.6	43.4	41.0	41.8	46.5	48.9	4.7	n.a.
All	114	64.6	11.4	150.0	32.2	58.7	70.6	57.9	23.0	41.9	83.9	111.0	42.0	n.a.
Storm Flow														
A310	5	35.9	26.1	50.7	11.5	21.7	50.2	29.1	26.1	27.8	46.1	50.7	18.3	n.a.
E319	8	15.0	11.5	18.1	2.1	13.2	16.8	14.7	11.5	13.8	16.8	18.1	3.0	n.a.
A307	10	51.5	26.5	80.2	16.0	40.0	62.9	53.7	30.5	36.2	59.0	73.3	22.8	n.a.
C317	4	38.6	25.9	57.1	14.3	15.8	61.3	35.6	25.9	27.4	49.8	57.1	22.4	n.a.
A317	12	32.2	14.4	54.8	11.9	24.7	39.8	29.8	20.6	24.4	40.2	48.5	15.8	n.a.
A326	5	52.4	30.3	92.1	24.4	22.1	82.7	45.3	30.3	36.9	57.3	92.1	20.4	n.a.
B317	8	26.1	15.7	42.9	8.3	19.2	33.1	26.6	15.7	20.2	28.3	42.9	8.1	n.a.
A315	4	49.1	38.8	62.4	10.1	33.0	65.2	47.7	38.8	41.7	56.6	62.4	14.9	n.a.
A330	5	54.0	38.9	72.1	14.1	36.5	71.5	55.3	38.9	41.2	62.6	72.1	21.4	n.a.
A320	4	47.9	36.4	56.2	8.3	34.6	61.1	49.4	36.4	42.5	53.3	56.2	10.8	n.a.
Y320	9	30.1	14.5	56.9	11.7	21.1	39.0	28.2	14.5	25.7	31.7	56.9	6.1	n.a.
F321	3	28.0	24.1	34.7	5.9	13.4	42.5	25.1	24.1	24.1	34.7	34.7	10.6	n.a.
0322	11	40.3	27.4	56.1	7.7	35.1	45.4	40.3	32.1	36.0	43.3	48.2	7.3	n.a.
D322	5	35.6	29.4	39.4	4.1	30.5	40.7	35.8	29.4	34.1	39.3	39.4	5.1	n.a.
B322	5	72.4	50.1	117.0	26.0	40.0	104.7	65.5	50.1	59.3	69.9	117.0	10.6	n.a.
I322B	7	22.1	9.4	40.4	10.6	12.3	31.8	19.6	9.4	14.6	31.7	40.4	17.1	n.a.
S322	2	51.6	39.3	63.9	17.4	-104.8	208.0	51.6	39.3	39.3	63.9	63.9	24.6	n.a.
A341	4	32.2	30.0	35.2	2.2	28.7	35.7	31.8	30.0	30.9	33.5	35.2	2.7	n.a.
All	111	37.9	9.4	117.0	17.7	34.6	41.2	35.2	17.1	26.4	48.5	59.0	22.1	n.a.

[a] Percentage of collected samples that exceed the applicable water quality standard (see Tables 11 and 12).

N: number of samples; C.I.: confidence interval.

n.a.: not applicable

mg/L: milligram/liter

Table E2. Summary statistics for turbidity levels at sites in the Green-Duwamish watershed in 2001 and 2002.

Site Locator	N	Mean (NTU)	Minimum (NTU)	Maximum (NTU)	Standard Deviation (NTU)	Lower 95% C.I. (NTU)	Upper 95% C.I. (NTU)	Median (NTU)	10th Percentile (NTU)	25th Percentile (NTU)	75th Percentile (NTU)	90th Percentile (NTU)	Quartile Range (NTU)	Percent Exceeding Standard[a]
Base Flow														
A310	7	3.1	2.1	7.5	2.0	1.3	4.9	2.2	2.1	2.2	2.8	7.5	0.6	n.a.
E319	11	2.0	0.6	7.8	2.1	0.6	3.4	1.4	0.7	0.9	3.1	3.2	2.2	n.a.
A307	7	7.5	2.5	25.3	8.4	-0.2	15.3	4.0	2.5	2.6	11.0	25.3	8.4	n.a.
C317	5	20.3	9.4	41.8	12.6	4.6	35.9	15.6	9.4	14.6	19.9	41.8	5.3	n.a.
A317	8	16.8	10.5	20.6	3.8	13.6	20.0	17.9	10.5	13.8	20.0	20.6	6.3	n.a.
A326	7	1.8	1.0	2.7	0.6	1.2	2.4	2.0	1.0	1.0	2.1	2.7	1.1	n.a.
B317	8	15.2	5.4	29.3	8.4	8.1	22.2	13.1	5.4	9.0	21.3	29.3	12.3	n.a.
A315	5	8.0	2.2	15.2	6.2	0.3	15.6	5.2	2.2	3.2	14.0	15.2	10.8	n.a.
A330	7	2.7	1.6	5.2	1.2	1.5	3.8	2.3	1.6	1.8	3.0	5.2	1.2	n.a.
A320	5	1.5	0.6	2.5	0.8	0.5	2.5	1.5	0.6	0.9	2.1	2.5	1.3	n.a.
Y320	6	3.3	0.8	7.7	2.7	0.5	6.1	2.2	0.8	1.6	5.5	7.7	3.9	n.a.
F321	6	1.3	0.5	2.0	0.7	0.6	2.1	1.4	0.5	0.6	2.0	2.0	1.4	n.a.
0322	8	1.7	0.7	3.4	0.9	0.9	2.5	1.5	0.7	1.0	2.3	3.4	1.3	n.a.
D322	10	5.5	1.8	20.7	5.5	1.6	9.4	3.9	2.5	3.1	4.4	13.5	1.3	n.a.
B322	2	3.9	3.0	4.9	1.4	-8.2	16.1	3.9	3.0	3.0	4.9	4.9	1.9	n.a.
I322B	5	5.0	0.5	22.0	9.5	-6.9	16.8	0.7	0.5	0.7	0.9	22.0	0.3	n.a.
S322	3	1.1	0.6	1.8	0.6	-0.5	2.6	0.8	0.6	0.6	1.8	1.8	1.1	n.a.
A341	4	2.3	1.8	3.0	0.5	1.5	3.1	2.2	1.8	1.9	2.7	3.0	0.8	n.a.
All	114	5.9	0.5	41.8	7.4	4.5	7.3	2.6	0.8	1.6	7.4	17.8	5.8	n.a.
Storm Flow														
A310	5	6.4	4.0	12.6	3.6	2.0	10.9	4.9	4.0	4.2	6.5	12.6	2.3	n.a.
E319	9	12.4	1.2	41.8	13.5	2.0	22.8	6.7	1.2	3.6	13.9	41.8	10.3	n.a.
A307	10	52.8	3.8	317.0	94.6	-14.9	120.5	19.4	6.0	11.1	50.6	188.2	39.5	n.a.
C317	4	13.6	8.7	18.6	4.1	7.1	20.1	13.5	8.7	10.7	16.5	18.6	5.8	n.a.
A317	12	22.5	8.0	33.6	8.5	17.1	28.0	24.7	13.3	14.9	30.5	31.6	15.7	n.a.
A326	5	8.5	2.1	19.2	6.7	0.1	16.8	7.1	2.1	4.0	10.0	19.2	6.0	n.a.
B317	8	26.6	7.0	59.7	17.4	12.1	41.2	27.4	7.0	11.5	34.2	59.7	22.7	n.a.
A315	4	13.6	4.7	20.9	7.0	2.5	24.7	14.4	4.7	8.3	18.9	20.9	10.6	n.a.
A330	5	10.9	3.0	21.9	7.2	2.0	19.9	8.5	3.0	7.5	13.8	21.9	6.3	n.a.
A320	4	3.6	0.7	6.5	2.5	-0.3	7.6	3.6	0.7	1.8	5.5	6.5	3.7	n.a.
Y320	9	9.6	3.7	19.0	4.3	6.3	13.0	9.3	3.7	8.2	11.2	19.0	3.0	n.a.
F321	3	5.4	1.0	13.2	6.8	-11.5	22.3	1.9	1.0	1.0	13.2	13.2	12.2	n.a.
0322	11	13.8	1.5	43.3	10.7	6.6	21.1	10.6	7.8	9.4	17.1	18.3	7.7	n.a.
D322	5	13.3	5.8	32.5	11.1	-0.5	27.1	9.9	5.8	5.8	12.3	32.5	6.4	n.a.
B322	5	16.4	5.0	31.2	12.6	0.8	32.0	10.4	5.0	6.7	28.8	31.2	22.1	n.a.
I322B	7	8.2	1.3	17.2	5.5	3.1	13.4	7.4	1.3	3.3	13.6	17.2	10.3	n.a.
S322	2	13.1	2.0	24.3	15.7	-128.3	154.5	13.1	2.0	2.0	24.3	24.3	22.3	n.a.
A341	4	11.8	9.9	14.8	2.1	8.5	15.2	11.4	9.9	10.4	13.3	14.8	2.8	n.a.
All	112	17.1	0.7	317.0	31.0	11.3	22.9	11.1	3.3	6.5	18.8	31.6	12.3	n.a.

[a] Percentage of collected samples that exceed the applicable water quality standard (see Tables 11 and 12).

N: number of samples; C.I.: confidence interval.

n.a.: not applicable.

NTU: nephelometric turbidity unit

Table E3. Summary statistics for total suspended solids concentrations at sites in the Green-Duwamish watershed in 2001 and 2002.

Site Locator	N	Mean (mg/L)	Minimum (mg/L)	Maximum (mg/L)	Standard Deviation (mg/L)	Lower 95% C.I. (mg/L)	Upper 95% C.I. (mg/L)	Median (mg/L)	10th Percentile (mg/L)	25th Percentile (mg/L)	75th Percentile (mg/L)	90th Percentile (mg/L)	Quartile Range (mg/L)	Percent Exceeding Standard[a]
Base Flow														
A310	7	5.3	1.8	9.8	3.2	2.3	8.3	4.1	1.8	2.3	8.4	9.8	6.2	n.a.
E319	11	3.8	0.5	25.2	7.2	-1.1	8.6	1.5	1.0	1.0	2.6	3.2	1.6	n.a.
A307	7	11.9	2.7	43.5	15.4	-2.4	26.1	4.1	2.7	3.4	21.2	43.5	17.8	n.a.
C317	5	12.9	6.1	36.3	13.1	-3.4	29.2	7.4	6.1	6.2	8.6	36.3	2.4	n.a.
A317	8	8.5	4.2	13.4	3.3	5.7	11.3	8.0	4.2	6.1	11.1	13.4	5.1	n.a.
A326	7	2.0	0.5	3.6	1.1	1.0	3.1	2.0	0.9	1.0	3.2	3.6	2.2	n.a.
B317	8	12.8	3.7	37.2	12.0	2.8	22.8	6.6	3.7	4.9	19.1	37.2	14.2	n.a.
A315	5	6.8	1.7	15.4	6.3	-1.0	14.6	2.9	1.7	2.3	11.5	15.4	9.2	n.a.
A330	7	5.2	2.6	11.5	3.2	2.3	8.1	4.6	2.6	2.8	6.6	11.5	3.8	n.a.
A320	5	2.6	1.3	3.7	1.2	1.2	4.1	3.2	1.3	1.4	3.5	3.7	2.0	n.a.
Y320	6	4.1	0.8	8.2	3.1	0.9	7.4	3.8	0.8	2.0	7.2	8.2	5.2	n.a.
F321	6	1.0	0.5	1.8	0.5	0.5	1.5	1.1	0.6	0.8	1.2	1.8	0.4	n.a.
0322	8	2.8	1.2	6.5	1.8	1.2	4.3	2.0	1.2	1.5	3.7	6.5	2.2	n.a.
D322	10	11.3	3.0	62.2	17.9	-1.6	24.1	6.1	3.1	4.8	6.6	35.2	1.8	n.a.
B322	2	4.2	3.9	4.5	0.4	0.4	8.0	4.2	3.9	3.9	4.5	4.5	0.6	n.a.
I322B	5	7.2	0.6	32.8	14.3	-10.6	25.0	1.1	0.7	0.8	2.0	32.8	1.2	n.a.
S322	3	0.6	0.5	0.7	0.1	0.3	0.9	0.7	0.7	0.7	1.1	1.1	0.4	n.a.
A341	4	4.6	3.8	6.8	1.5	2.2	6.9	3.9	3.8	3.8	5.4	6.8	1.6	n.a.
All	114	6.4	0.5	62.2	9.2	4.7	8.1	3.7	1.0	1.8	6.6	13.0	4.8	n.a.
Storm Flow														
A310	5	12.2	3.6	34.6	12.7	-3.6	27.9	7.3	3.6	7.1	8.2	34.6	1.1	n.a.
E319	8	29.5	0.6	147.0	49.7	-12.1	71.0	7.7	0.6	2.6	33.8	147.0	31.1	n.a.
A307	10	92.5	6.9	627.0	190.0	-43.4	228.4	23.6	7.5	12.4	76.0	357.8	63.6	n.a.
C317	4	8.6	4.6	14.2	4.1	2.0	15.1	7.7	4.6	5.7	11.4	14.2	5.7	n.a.
A317	12	27.3	6.2	51.3	15.3	17.6	37.1	27.0	8.0	13.4	42.0	44.6	28.6	n.a.
A326	5	8.4	0.8	22.7	8.7	-2.4	19.1	7.2	0.8	2.4	8.8	22.7	6.4	n.a.
B317	8	34.7	6.8	106.0	31.7	8.2	61.2	31.5	6.8	11.6	39.3	106.0	27.7	n.a.
A315	4	18.3	3.4	32.4	12.0	-0.8	37.4	18.6	3.4	9.8	26.7	32.4	16.9	n.a.
A330	5	24.8	5.3	50.2	18.5	1.8	47.8	17.0	5.3	13.8	37.7	50.2	23.9	n.a.
A320	4	8.6	2.0	17.3	6.6	-2.0	19.1	7.5	2.0	3.7	13.4	17.3	9.8	n.a.
Y320	9	7.9	3.1	16.3	4.3	4.6	11.1	6.3	3.1	5.4	8.4	16.3	3.0	n.a.
F321	3	15.0	1.6	38.4	20.4	-35.6	65.5	4.8	1.6	1.6	38.4	38.4	36.8	n.a.
0322	11	27.7	2.3	136.5	37.1	2.8	52.7	14.0	9.7	13.1	27.5	33.4	14.3	n.a.
D322	5	21.5	5.9	66.6	25.6	-10.4	53.3	11.0	5.9	6.4	17.4	66.6	11.0	n.a.
B322	5	20.0	3.2	53.5	19.8	-4.6	44.6	18.0	3.2	7.4	18.0	53.5	10.6	n.a.
I322B	7	9.1	0.5	17.6	6.7	2.9	15.2	9.8	1.0	1.1	14.6	17.6	13.5	n.a.
S322	2	16.4	0.5	32.3	22.5	-185.7	218.5	16.7	1.0	1.0	32.3	32.3	31.3	n.a.
A341	4	18.3	16.0	24.6	4.2	11.7	25.0	16.4	16.0	16.1	20.5	24.6	4.4	n.a.
All	111	26.4	0.5	627.0	62.6	14.7	38.2	14.0	3.2	6.8	27.5	44.5	20.7	n.a.

[a] Percentage of collected samples that exceed the applicable water quality standard (see Tables 11 and 12).

N: number of samples; C.I.: confidence interval.

n.a.: not applicable.

mg/L: milligram/liter

Table E4. Summary statistics for dissolved organic carbon concentrations at sites in the Green-Duwamish watershed in 2001 and 2002.

Site Locator	N	Mean (mg/L)	Minimum (mg/L)	Maximum (mg/L)	Standard Deviation (mg/L)	Lower 95% C.I. (mg/L)	Upper 95% C.I. (mg/L)	Median (mg/L)	10th Percentile (mg/L)	25th Percentile (mg/L)	75th Percentile (mg/L)	90th Percentile (mg/L)	Quartile Range (mg/L)	Percent Exceeding Standard[a]
Base Flow														
A310	7	2.5	2.0	3.2	0.3	2.2	2.9	2.5	2.0	2.4	2.6	3.2	0.2	n.a.
E319	14	2.0	1.6	2.8	0.3	1.8	2.2	2.0	1.6	1.7	2.2	2.3	0.5	n.a.
A307	7	3.7	2.5	7.0	1.5	2.3	5.2	3.3	2.5	2.7	3.8	7.0	1.1	n.a.
C317	5	7.7	6.5	8.5	0.9	6.5	8.8	8.0	6.5	6.8	8.5	8.5	1.7	n.a.
A317	8	7.6	5.6	9.2	1.1	6.7	8.5	7.5	5.6	7.1	8.3	9.2	1.3	n.a.
A326	7	6.3	3.9	8.9	1.7	4.8	7.9	5.9	3.9	5.3	7.7	8.9	2.4	n.a.
B317	9	7.5	4.6	10.3	1.8	6.1	8.9	7.7	4.6	6.2	8.6	10.3	2.4	n.a.
A315	5	8.4	6.1	10.2	1.7	6.2	10.5	9.1	6.1	7.1	9.3	10.2	2.2	n.a.
A330	7	3.0	1.9	4.1	0.8	2.3	3.7	2.7	1.9	2.4	3.8	4.1	1.4	n.a.
A320	5	3.5	3.1	4.6	0.7	2.7	4.3	3.2	3.0	3.1	3.7	4.6	0.6	n.a.
Y320	6	8.6	5.1	12.6	3.4	5.0	12.1	7.9	5.1	5.6	12.3	12.6	6.7	n.a.
F321	6	1.9	1.2	3.2	0.7	1.1	2.7	1.6	1.2	1.4	2.3	3.2	1.0	n.a.
0322	8	4.2	3.4	4.8	0.5	3.8	4.6	4.3	3.4	3.9	4.5	4.8	0.7	n.a.
D322	10	6.5	4.1	12.6	2.8	4.5	8.4	5.7	4.1	4.8	5.9	11.5	1.1	n.a.
B322	2	6.1	4.6	7.6	2.2	-13.4	25.5	6.1	4.6	4.6	7.6	7.6	3.1	n.a.
I322B	5	4.3	3.1	5.8	1.1	2.9	5.6	3.9	3.0	3.7	4.9	5.8	1.2	n.a.
S322	3	3.2	3.1	3.4	0.2	2.9	3.6	3.2	3.1	3.1	3.4	3.4	0.3	n.a.
A341	4	1.8	1.7	2.0	0.1	1.6	2.1	1.8	1.7	1.7	2.0	2.0	0.2	n.a.
All	118	4.9	1.2	12.6	2.7	4.4	5.4	4.2	1.9	2.6	6.8	8.9	4.2	n.a.
Storm Flow														
A310	6	3.2	2.6	3.7	0.4	2.8	3.6	3.3	2.5	3.2	3.4	3.7	0.3	n.a.
E319	11	2.5	1.7	3.7	0.6	2.1	2.9	2.5	2.0	2.0	2.9	3.0	1.0	n.a.
A307	10	6.6	4.3	8.4	1.3	5.6	7.5	6.7	4.7	5.6	7.8	8.1	2.2	n.a.
C317	4	7.2	4.3	9.3	2.3	3.5	10.8	7.5	4.3	5.3	9.0	9.3	3.7	n.a.
A317	12	6.9	4.4	11.0	2.1	5.6	8.3	6.0	4.9	5.7	8.8	9.9	3.1	n.a.
A326	5	6.8	5.8	7.7	0.9	5.6	8.0	7.0	5.8	5.9	7.7	7.7	1.8	n.a.
B317	8	7.5	4.3	13.0	3.1	4.9	10.0	6.6	4.3	5.1	9.5	13.0	4.4	n.a.
A315	4	8.5	7.4	9.7	1.0	7.0	10.0	8.5	7.4	7.9	9.2	9.7	1.3	n.a.
A330	5	5.2	3.2	6.1	1.2	3.7	6.6	5.5	3.2	5.3	5.9	6.1	0.6	n.a.
A320	4	5.2	4.2	6.2	0.8	3.9	6.5	5.3	4.2	4.7	5.8	6.2	1.1	n.a.
Y320	9	7.4	5.6	8.5	1.0	6.6	8.2	7.6	5.6	7.5	8.1	8.5	0.6	n.a.
F321	2	6.3	5.6	6.9	0.9	-2.0	14.5	6.3	5.6	5.6	6.9	6.9	1.3	n.a.
0322	11	9.8	5.0	13.6	3.0	7.8	11.9	10.6	5.8	7.6	12.3	13.6	4.7	n.a.
D322	5	13.7	9.4	16.9	3.1	9.9	17.5	12.8	9.4	12.7	16.4	16.9	3.7	n.a.
B322	4	29.5	18.4	54.9	17.2	2.2	56.8	22.4	18.4	19.1	39.8	54.9	20.7	n.a.
I322B	7	4.8	3.3	6.4	1.3	3.6	6.0	5.1	3.3	3.4	6.0	6.4	2.6	n.a.
S322	3	5.6	3.4	8.3	2.5	-0.5	11.8	5.2	3.4	3.4	8.3	8.3	4.9	n.a.
A341	4	3.4	2.5	4.4	0.9	2.0	4.7	3.3	2.5	2.7	4.0	4.4	1.3	n.a.
All	114	7.3	1.7	54.9	5.9	6.2	8.4	5.9	2.5	4.3	8.3	12.3	4.0	n.a.

[a] Percentage of collected samples that exceed the applicable water quality standard (see Tables 11 and 12).

N: number of samples; C.I.: confidence interval.

n.a.: not applicable.

mg/L: milligram/liter

Table E5. Summary statistics for total organic carbon concentrations at sites in the Green-Duwamish watershed in 2001 and 2002.

Site Locator	N	Mean (mg/L)	Minimum (mg/L)	Maximum (mg/L)	Standard Deviation (mg/L)	Lower 95% C.I. (mg/L)	Upper 95% C.I. (mg/L)	Median (mg/L)	10th Percentile (mg/L)	25th Percentile (mg/L)	75th Percentile (mg/L)	90th Percentile (mg/L)	Quartile Range (mg/L)	Percent Exceeding Standard[a]
Base Flow														
A310	7	3.0	2.3	3.6	0.4	2.6	3.4	3.0	2.3	2.7	3.3	3.6	0.7	n.a.
E319	14	2.3	1.8	2.9	0.4	2.0	2.5	2.2	1.8	1.9	2.6	2.7	0.6	n.a.
A307	7	5.6	3.6	12.1	3.0	2.9	8.4	4.7	3.6	4.0	5.9	12.1	1.9	n.a.
C317	5	8.1	6.8	9.8	1.2	6.6	9.6	7.7	6.8	7.4	8.9	9.8	1.5	n.a.
A317	8	8.7	6.9	10.5	1.0	7.8	9.5	8.6	6.9	8.1	9.1	10.5	1.0	n.a.
A326	7	6.8	5.0	8.4	1.2	5.7	7.9	6.5	5.0	6.0	8.1	8.4	2.1	n.a.
B317	9	9.0	5.4	14.4	2.9	6.8	11.2	8.2	5.3	6.9	11.2	14.4	4.3	n.a.
A315	5	9.2	7.6	11.0	1.5	7.3	11.1	9.9	7.6	7.7	9.9	11.0	2.2	n.a.
A330	7	3.3	2.2	4.1	0.7	2.7	3.9	3.5	2.2	2.9	4.0	4.1	1.1	n.a.
A320	5	3.5	2.9	4.0	0.5	2.9	4.1	3.8	2.9	3.2	3.8	4.0	0.6	n.a.
Y320	6	9.0	5.9	13.1	3.1	5.8	12.2	8.5	5.9	6.4	11.6	13.1	5.2	n.a.
F321	6	2.2	1.4	3.4	0.9	1.3	3.1	1.8	1.4	1.7	3.2	3.4	1.5	n.a.
0322	8	4.8	4.2	5.4	0.4	4.5	5.1	4.7	4.2	4.5	5.1	5.3	0.6	n.a.
D322	10	8.1	5.9	15.8	3.3	5.7	10.5	6.8	6.0	6.2	7.5	14.2	1.3	n.a.
B322	2	6.1	5.5	6.8	0.9	-2.3	14.6	6.1	5.4	5.4	6.8	6.8	1.3	n.a.
I322B	5	6.0	3.4	9.7	2.7	2.6	9.3	4.9	3.4	4.1	7.8	9.7	3.8	n.a.
S322	3	3.7	3.4	3.8	0.2	3.2	4.2	3.8	3.4	3.4	3.8	3.8	0.4	n.a.
A341	4	2.5	2.2	2.9	0.3	2.0	3.0	2.4	2.2	2.2	2.7	2.9	0.5	n.a.
All	118	5.7	1.4	15.8	3.1	5.1	6.2	5.0	2.2	3.0	7.6	10.0	4.5	n.a.
Storm Flow														
A310	6	3.8	3.2	4.4	0.5	3.3	4.3	3.6	3.2	3.4	4.3	4.4	0.9	n.a.
E319	11	3.7	1.9	8.4	2.0	2.4	5.1	2.6	2.3	2.3	4.6	6.6	2.2	n.a.
A307	10	10.4	6.1	17.8	3.9	7.6	13.2	9.4	6.2	8.8	11.2	17.1	2.5	n.a.
C317	4	8.1	5.5	9.9	1.9	5.1	11.0	8.4	5.5	6.8	9.4	9.9	2.6	n.a.
A317	12	9.4	7.1	14.3	1.9	8.2	10.6	9.1	7.7	8.1	10.2	10.7	2.1	n.a.
A326	5	8.5	7.4	9.7	1.1	7.2	9.8	8.9	7.3	7.4	9.1	9.7	1.7	n.a.
B317	8	11.7	6.7	22.7	5.3	7.3	16.1	9.6	6.7	8.7	13.9	22.7	5.2	n.a.
A315	4	9.7	9.2	10.2	0.4	9.0	10.4	9.7	9.2	9.4	10.0	10.2	0.6	n.a.
A330	5	6.1	3.6	8.0	1.7	4.0	8.2	6.6	3.6	5.3	6.9	8.0	1.6	n.a.
A320	4	6.1	4.5	7.1	1.1	4.4	7.9	6.4	4.5	5.4	6.8	7.1	1.4	n.a.
Y320	9	8.2	6.8	8.9	0.7	7.6	8.7	8.2	6.8	7.9	8.5	8.9	0.6	n.a.
F321	2	6.7	6.0	7.4	1.0	-2.5	15.9	6.7	5.9	5.9	7.4	7.4	1.5	n.a.
0322	11	11.6	6.9	14.4	2.6	9.8	13.3	11.9	7.2	10.5	13.9	14.0	3.4	n.a.
D322	5	14.8	10.8	17.5	2.6	11.6	18.1	15.5	10.8	13.8	16.6	17.5	2.8	n.a.
B322	4	37.6	17.7	81.4	29.5	-9.4	84.5	25.5	17.7	20.9	54.2	81.4	33.3	n.a.
I322B	7	5.8	3.3	6.5	1.2	4.7	6.9	6.4	3.3	5.3	6.5	6.5	1.2	n.a.
S322	3	7.6	4.0	12.6	4.5	-3.7	18.8	6.0	4.0	4.0	12.6	12.6	8.6	n.a.
A341	4	5.8	4.1	7.4	1.4	3.6	8.0	5.9	4.1	4.8	6.8	7.4	2.0	n.a.
All	114	9.4	1.9	81.4	8.1	7.9	10.9	8.1	3.4	6.1	10.2	14.4	4.1	n.a.

[a] Percentage of collected samples that exceed the applicable water quality standard (see Tables 11 and 12).

N: number of samples; C.I.: confidence interval.

n.a.: not applicable.

mg/L: milligram/liter

Table E6. Summary statistics for biochemical oxygen demand concentrations at sites in the Green-Duwamish watershed in 2001 and 20

Site Locator	N	Mean (mg/L)	Minimum (mg/L)	Maximum (mg/L)	Standard Deviation (mg/L)	Lower 95% C.I. (mg/L)	Upper 95% C.I. (mg/L)	Median (mg/L)	10th Percentile (mg/L)	25th Percentile (mg/L)	75th Percentile (mg/L)	90th Percentile (mg/L)	Quartile Range (mg/L)	Percent Exceeding Standard[a]
Base Flow														
A310														
E319	3	4.7	2.0	10.0	4.6	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
A307														
C317														
A317														
A326														
B317	1	4.0	4.0	4.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
A315														
A330														
A320														
Y320														
F321	1	2.0	2.0	2.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
0322														
D322														
B322														
I322B														
S322														
A341														
All	5	4.0	2.0	10.0	3.5	-0.3	8.3	2.0	2.0	2.0	4.0	10.0	2.0	n.a.
Storm Flow														
A310	1	2.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
E319	2	6.0	2.0	10.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
A307	1	10.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C317														
A317	1	10.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
A326	1	2.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
B317														
A315	1	2.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
A330	1	2.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
A320	1	2.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Y320	1	10.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
F321														
0322	1	2.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
D322														
B322	1	43.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
I322B														
S322	1	10.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
A341														
All	13	8.2	2.0	43.0	11.2	1.5	15.0	2.0	2.0	2.0	10.0	10.0	8.0	n.a.

[a] Percentage of collected samples that exceed the applicable water quality standard (see Tables 11 and 12).

N: number of samples; C.I.: confidence interval.

n.a.: not applicable.

mg/L: milligram/liter

Table E7. Summary statistics for hardness concentrations at sites in the Green-Duwamish watershed in 2001 and 2002.

Site Locator	N	Mean (mg/L as $CaCO_3$)	Minimum (mg/L as $CaCO_3$)	Maximum (mg/L as $CaCO_3$)	Standard Deviation (mg/L as $CaCO_3$)	Lower 95% C.I. (mg/L as $CaCO_3$)	Upper 95% C.I. (mg/L as $CaCO_3$)	Median (mg/L as $CaCO_3$)	10th Percentile (mg/L as $CaCO_3$)	25th Percentile (mg/L as $CaCO_3$)	75th Percentile (mg/L as $CaCO_3$)	90th Percentile (mg/L as $CaCO_3$)	Quartile Range (mg/L as $CaCO_3$)	Percent Exceeding Standard[a]
Base Flow														
A310	12	35.8	21.0	53.2	10.9	28.9	42.8	35.3	21.4	26.6	44.5	51.8	17.9	n.a.
E319	16	17.3	12.9	20.7	2.7	15.8	18.7	17.6	13.0	15.4	19.6	20.3	4.3	n.a.
A307	13	108.0	88.5	115.7	6.4	104.1	111.9	109.0	105.7	107.0	111.0	112.0	4.0	n.a.
C317	5	106.0	96.2	119.0	9.5	94.2	117.7	104.0	96.2	98.7	112.0	119.0	13.3	n.a.
A317	14	107.4	72.5	127.0	15.0	98.7	116.0	110.0	93.5	95.0	120.0	122.0	25.0	n.a.
A326	7	85.3	46.6	121.0	35.4	52.5	118.0	84.9	46.6	50.8	121.0	121.0	70.2	n.a.
B317	14	82.0	38.3	98.4	18.7	71.2	92.8	87.9	44.4	78.4	94.4	96.7	16.0	n.a.
A315	5	92.0	70.3	111.0	15.3	73.1	111.0	95.1	70.3	85.1	98.6	111.0	13.5	n.a.
A330	7	75.0	66.2	80.0	5.3	70.1	79.9	77.7	66.2	70.5	79.8	80.0	9.3	n.a.
A320	5	53.3	45.2	60.3	7.2	44.5	62.2	57.5	45.2	46.0	57.7	60.3	11.7	n.a.
Y320	10	67.5	42.2	90.6	14.2	57.4	77.7	65.9	50.9	61.4	69.4	89.9	8.0	n.a.
F321	6	46.9	39.8	52.0	5.4	41.2	52.5	49.1	39.8	40.4	50.7	52.0	10.3	n.a.
0322	13	57.1	47.2	65.9	6.5	53.2	61.0	57.6	49.0	52.2	63.2	64.8	11.0	n.a.
D322	16	82.5	46.4	125.0	31.1	65.9	99.0	72.1	47.1	52.5	114.6	123.3	62.1	n.a.
B322	2	55.2	45.5	64.9	13.7	-68.0	178.4	55.2	45.5	45.5	64.9	64.9	19.4	n.a.
I322B	10	48.7	18.9	62.0	12.0	40.1	57.3	50.0	30.5	48.3	54.1	61.5	5.8	n.a.
S322	5	43.2	41.7	45.2	1.3	41.6	44.8	43.0	41.7	42.7	43.2	45.2	0.5	n.a.
A341	8	47.1	44.1	52.3	3.3	44.3	49.8	45.8	44.1	45.0	49.3	52.3	4.4	n.a.
All	168	67.5	12.9	127.0	31.7	62.7	72.4	61.5	20.9	45.4	95.0	112.0	49.7	n.a.
Storm Flow														
A310	8	35.1	26.8	48.3	9.9	26.9	43.4	28.5	26.8	28.1	46.4	48.3	18.2	n.a.
E319	13	15.1	12.6	22.7	2.8	13.5	16.8	14.7	12.7	12.9	15.1	17.6	2.2	n.a.
A307	12	77.6	51.7	112.7	16.9	66.9	88.4	78.6	59.6	62.6	86.8	93.0	24.2	n.a.
C317	4	40.0	27.4	58.5	13.9	17.9	62.1	37.0	27.4	29.5	50.5	58.5	21.0	n.a.
A317	15	36.4	20.7	62.2	11.4	30.1	42.7	33.7	25.0	28.7	41.9	55.7	13.2	n.a.
A326	5	61.3	35.4	106.0	27.5	27.1	95.4	57.8	35.4	42.8	64.3	106.0	21.5	n.a.
B317	9	31.5	20.3	44.3	7.8	25.5	37.5	31.5	20.3	26.8	36.8	44.3	10.0	n.a.
A315	4	50.6	41.1	64.7	10.5	33.8	67.3	48.3	41.1	42.7	58.5	64.7	15.8	n.a.
A330	5	63.6	51.0	77.8	10.7	50.3	76.9	65.5	51.0	55.2	68.6	77.8	13.4	n.a.
A320	4	51.3	40.3	59.4	8.2	38.3	64.4	52.8	40.3	45.4	57.3	59.4	11.8	n.a.
Y320	12	35.8	22.8	63.2	9.7	29.6	42.0	34.7	27.5	32.0	37.3	38.6	5.2	n.a.
F321	3	34.2	30.1	37.4	3.7	24.9	43.5	35.2	30.1	30.1	37.4	37.4	7.3	n.a.
0322	16	47.5	38.3	60.5	6.6	44.0	51.0	45.7	39.1	42.9	50.5	58.3	7.6	n.a.
D322	9	44.1	36.8	50.4	5.5	39.9	48.4	45.9	36.8	37.6	48.7	50.4	11.1	n.a.
B322	5	64.8	43.7	89.8	16.8	44.0	85.7	62.1	43.7	59.3	69.2	89.8	9.9	n.a.
I322B	11	32.6	10.1	50.4	12.1	24.5	40.7	32.1	22.0	22.6	44.7	47.4	22.1	n.a.
S322	3	39.8	36.4	45.8	5.2	26.8	52.8	37.2	36.4	36.4	45.8	45.8	9.4	n.a.
A341	4	44.7	35.9	65.4	13.9	22.6	66.8	38.7	35.9	37.2	52.2	65.4	15.0	n.a.
All	142	43.0	10.1	112.7	19.2	39.8	46.1	39.1	20.8	31.5	51.5	65.3	20.0	n.a.

[a] Percentage of collected samples that exceed the applicable water quality standard (see Tables 11 and 12).

N: number of samples; C.I.: confidence interval.

n.a.: not applicable.

mg/L: milligram/liter