




River and Stream Ambient Monitoring Report for Water Year 1997

August 1999

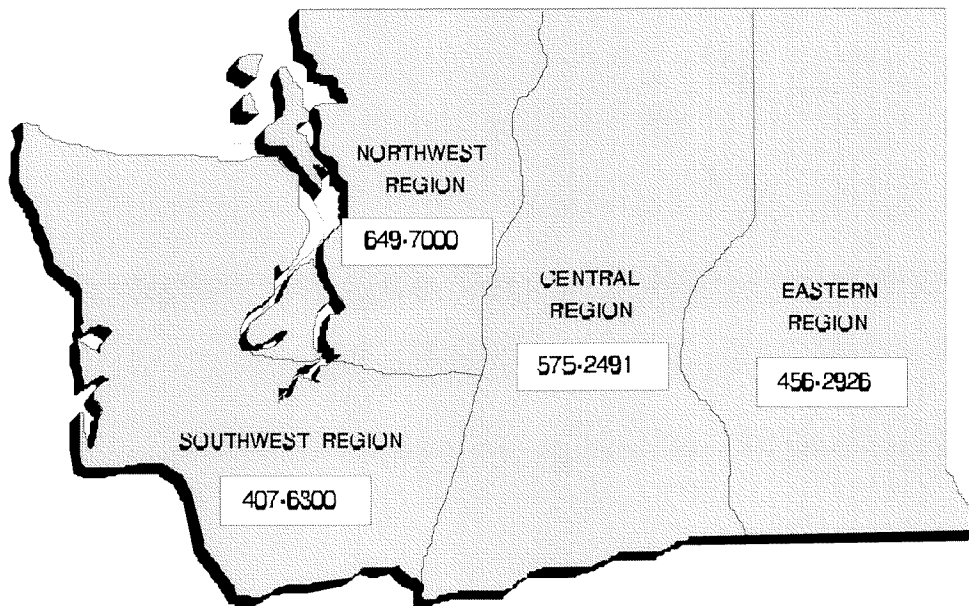
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River and Stream Ambient Monitoring Report for Water Year 1997

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Abstract

The Washington State Department of Ecology collected monthly water quality information at 84 river and stream monitoring stations during water year (WY) 1997 (October 1, 1996 through September 30, 1997). The principal goals of this ongoing monitoring program are to characterize the rivers and streams of Washington State and to track changes in water quality. Water quality for WY 1997 was similar to that measured in previous years based on number of results exceeding water quality criteria. The fecal coliform bacteria geometric mean was by far the most frequently exceeded criterion based on individual samples. The geometric mean criterion was exceeded 159 times and 91 samples exceeded the "10 percent not to exceed" criterion, out of about 1,000 samples collected. Forty-eight of 84 stations had at least one sample that exceeded the geometric mean criterion. Thirty-one stations were west of the Cascades and 16 were stations on streams that drain to Puget Sound. Temperature and pH standards criteria were exceeded 52 and 39 times, respectively, at 35 and 19 stations, mostly in eastern Washington. The dissolved oxygen standards criterion was exceeded 29 times at 17 stations, on both sides of the Cascades. A description of this long-term monitoring program and access to historical data can be found on Ecology's internet web site at <http://www.wa.gov/ecology>.

Introduction

The Washington State Department of Ecology (Ecology) and its predecessor agency has operated a long-term Ambient Water Quality Monitoring Program since 1959. The current program consists of monthly water quality monitoring for conventional parameters at about 80 stations on rivers and streams within Washington State. The principal goals of this program are to characterize stream water quality and to evaluate spatial and temporal changes in water quality (trends). Within Ecology, the data generated by the River and Stream Ambient Monitoring Program are used to determine if designated uses are supported (e.g., Ecology, 1996), to support wasteload allocation models, to develop water quality based permits, to prepare 305(b) and other management reports, and to provide water quality information necessary to prioritize grant awards.

The purpose of this report is to:

- describe the WY 1997 monitoring program,
- discuss data quality, and
- present results.

More detailed analyses and interpretations of ambient monitoring data are reported elsewhere. The Environmental Monitoring & Trends Section (EM&TS) analyzes results at specific stations in response to requests by clients, especially in association with the data analysis phase of the "basin approach" (e.g., Hallock, 1996). The basin approach consists of a five-year cycle of scoping, data collection, data analysis, planning, and implementation of plans in 22 hydrologic Water Quality Management Areas (WQMA) or "basins" statewide (Wrye, 1993). In any given year, each of the above activities will be underway in four groups of WQMAs, one in each Ecology region. Other programs conduct some analyses; for example, Ecology's Water Quality Program applies its own data reduction procedures prior to updating Washington's 305(b) report. Finally, the EM&TS analyzes data from four WQMAs annually to support the scoping phase of the basin approach to water quality management.

EM&TS data were analyzed elsewhere from the following WQMAs in 1996 during the scoping phase: Mid Columbia (Larson et al., 1996), Upper Yakima (Joy et al., 1996), Kitsap (Johnson, et. al, 1996), and Lower Columbia (Ehinger, et. al, 1996). Additional data collection was focused in these WQMAs in WY 1998.

Methods

Sampling Network

The ambient monitoring network in WY 1997 consisted of monthly water collection at two types of stations: (1) core/benchmark and (2) regional or basin stations (Ehinger, 1995). Core and benchmark stations are monitored every year to track water quality changes over time (trends) and to assess inter-annual variability, as well as to collect current water quality information. Core stations are generally located near the mouths of major rivers and below major population centers. Benchmark stations are located upstream from most anthropogenic sources of water quality problems and where major streams enter the state, and are intended to monitor background conditions.

Basin stations are generally monitored for one year only (although they may be re-visited every five years) to collect current water quality information. These stations are selected to support Ecology's approach to water quality management, the waste discharge permitting process, and to allow expanded coverage over an all-core network. Some basin stations are selected to target known problems and may not necessarily reflect ambient conditions.

The locations of ambient stations monitored during WY 1997 are presented in Appendix A and Table 1. Four WQMAs were monitored more intensively (i.e., with additional stations) in WY 1997: Snake, Wenatchee, Nooksack/San Juan, and Western Olympics. Most, but not all, basin stations were located in these WQMAs. Appendix B lists current and historical monitoring locations and the years they were monitored by Ecology and its predecessor agencies. Historical data for these stations are available from Ecology's Environmental Monitoring & Trends Section on request. Also, a description of our long-term monitoring program and access to historical data can be found on Ecology's internet web site at <http://www.wa.gov/ecology/>.

Sample Collection and Analysis

The majority of water samples were collected as single surface grab samples from highway bridges. Twelve water quality constituents were monitored at all stations monthly in WY 1997 (Table 2) and eight metals plus total hardness were monitored bimonthly at selected stations (Table 3). Sample collection and analytical methods are described in detail in earlier annual reports (e.g., Hallock, et al., 1998) in AMS's quality control documents (i.e., Hopkins, 1996 and Ehinger, 1995) and in Manchester Environmental Laboratory's (MEL) User's Manual (Ecology, 1994).

Any long-term monitoring program will experience changes in sampling or analytical procedures that can potentially affect results. Normally, changes will result in improved precision or reduced bias. Most changes will have only a minor affect on a synoptic analysis of the data but even improvements in procedures can mislead the unwary analyst of long-term trends. We made no changes to collection or analytical procedures in WY 1997. All earlier known and suspected

changes to methods and procedures during the history of the River and Stream Ambient Monitoring Program, as well as large-scale environmental changes that may affect trends are documented in Appendix C.

Table 1. Ecology river and stream ambient monitoring stations for WY 1997. Stations in WQMA's scheduled for data collection are shown in bold type. (The Map number refers to Appendix A.)

Map	Station	Station Name	Map	Station	Station Name
1	01A050	Nooksack R @ Brennan	43	26B070	Cowlitz R @ Kelso
2	01A120	Nooksack R @ No Cedarville	44	27B070	Kalama R nr Kalama
3	01A140	Nooksack R above the MF	45	27D090	EF Lewis R nr Dollar Corner
4	01D070	Sumas R nr Huntingdon BC	46	29D070	Rattlesnake Cr nr Mouth
5	01D120	Sumas R nr Nooksack	47	29E070	Gilmer Cr nr Mouth
6	01F070	SF Nooksack @ Potter Rd	48	31A070	Columbia R @ Umatilla
7	01G070	MF Nooksack R	49	32A070	Walla Walla R nr Touchet
8	03A060	Skagit R nr Mount Vernon	50	32B070	Touchet R @ Touchet
9	03B050	Samish R nr Burlington	51	32B140	Touchet R above Dayton
10	04A100	Skagit R @ Marblemount	52	33A050	Snake R nr Pasco
11	05A070	Stillaguamish R nr Silvana	53	34A070	Palouse R @ Hooper
12	05A090	SF Stillaguamish @ Arlington	54	34A170	Palouse R @ Palouse
13	05A110	SF Stilly nr Granite Falls	55	34B110	SF Palouse R @ Pullman
14	05B070	NF Stillaguamish @ Cicero	56	35A150	Snake R @ Interstate Br
15	05B110	NF Stilly nr Darrington	57	35B060	Tucannon R @ Powers
16	07A090	Snohomish R @ Snohomish	58	35B150	Tucannon R nr Marengo
17	07C070	Skykomish R @ Monroe	59	35D070	Asotin Cr @ Asotin
18	07D050	Snoqualmie R nr Monroe	60	35F070	Pataha Ck @ Archer Rd
19	07D130	Snoqualmie R @ Snoqualmie	61	36A070	Columbia R nr Vernita
20	08C070	Cedar R @ Logan St/Renton	62	37A090	Yakima R @ Kiona
21	08C110	Cedar R nr Landsburg	63	37A205	Yakima R @ Knob Hill
22	09A080	Green R @ Tukwila	64	39A090	Yakima R nr Cle Elum
23	09A190	Green R @ Kanaskat	65	41A070	Crab Cr nr Beverly
24	10A070	Puyallup R @ Meridian St	66	45A070	Wenatchee R @ Wenatchee
25	11A070	Nisqually R @ Nisqually	67	45A110	Wenatchee R nr Leavenworth
26	13A060	Deschutes R @ E St Bridge	68	45C070	Chumstick Cr nr Leavenworth
27	16A070	Skokomish R nr Potlatch	69	45D070	Brender Cr nr Cashmere
28	16C090	Duckabush R nr Brinnon	70	45E070	Mission Cr nr Cashmere
29	18B070	Elwha R nr Port Angeles	71	46A070	Entiat R nr Entiat
30	20B070	Hoh R @ DNR Campground	72	48A070	Methow R nr Pateros
31	20D070	Dickey R nr La Push	73	48A140	Methow R @ Twisp
32	22A070	Humptulips R nr Humptulips	74	49A070	Okanogan R @ Malott
33	23A070	Chehalis R @ Porter	75	49A190	Okanogan R @ Oroville
34	23A100	Chehalis R @ Prather Rd	76	49B070	Similkameen R @ Oroville
35	23A130	Chehalis R @ Claquato	77	53A070	Columbia R @ Grand Coulee
36	23A160	Chehalis R @ Dryad	78	54A120	Spokane R @ Riverside State Pk
37	23B070	Newaukum R nr Chehalis	79	55B070	Little Spokane R nr Mouth
38	23D055	Skookumchuck R @ Centralia	80	56A070	Hangman Cr @ Mouth
39	23E070	Black River @ Moon Road Bridge	81	57A150	Spokane R @ Stateline Br
40	23G070	SF Chehalis R @ Curtis	82	60A070	Kettle R nr Barstow
41	24B090	Willapa R nr Willapa	83	61A070	Columbia R @ Northport (USGS)
42	24F070	Naselle R nr Naselle	84	62A150	Pend Oreille R @ Newport

Table 2. Water quality constituents monitored monthly in WY 1997 as part of Ecology's River and Stream Ambient Monitoring Program.

Standard constituents monitored at all stations:		
conductivity	total suspended solids	total phosphorus
dissolved oxygen	turbidity	ammonia
ph	fecal coliform bacteria	nitrate + nitrite
temperature	soluble reactive phosphorus	total nitrogen

Table 3. Metals were sampled bi-monthly at the following stations. (Total hardness was sampled bi-monthly at all metals stations.)

STATION		Dissolved metals ^a and total mercury	Total Recoverable metals ^b
Number	Name		
01A050	Nooksack R @ Brennan	X	
07A090	Snohomish R @ Snohomish	X	X
10A070	Puyallup R @ Meridian St	X	
23A100	Chehalis R @ Prather Road	X	
23A160	Chehalis R @ Dryad	X	X
23E070	Black River @ Moon Road Br	X	
32A070	Walla Walla R nr Touchet	X	
36A070	Columbia R nr Vernita	X	
49B070	Similkameen R @ Oroville	X	X
57A150 ^c	Spokane R @ Stateline Br	X	X
61A070 ^c	Columbia R @ Northport	X	X

^aDissolved metals: cadmium, copper, lead, and nickel, zinc

^bTotal recoverable metals: arsenic, cadmium, chromium, copper, and lead, zinc

^cMetals were sampled on an irregular schedule at these stations

Quality Assurance

MEL's Quality Assurance (QA) Program includes the use of quality control charts, check standards, in-house matrix spikes and laboratory blanks, along with quarterly performance evaluation samples. For a more complete discussion of laboratory quality assurance, see MEL's Quality Assurance Manual (Ecology, 1988) and Laboratory User's Manual (Ecology, 1994).

The quality assurance (QA) program for field sampling consisted of three parts: (1) adherence to a procedures manual for sample/data collection, (2) instrument calibration methods and

schedules, and (3) the collection of a field quality control (QC) sample twice during each sampling run. Our QA program is described in detail in Ehinger (1995).

Three types of field QC samples were collected in order to document data quality and to isolate sources of variability (error) in the data. These were:

- Duplicate (Sequential) Field Samples - These consisted of an additional sample collection made approximately 15-20 minutes after the initial collection at a station. These samples represent the variability due to short-term in-stream processes, sample collection and processing, and laboratory analysis.
- Field Blank - These consisted of the submission and analysis of deionized water. The expected values for all analyses is the reporting limit for that analysis. Significantly higher results would indicate that sample contamination had occurred during field processing or during laboratory analysis.
- Duplicate (Split) Field Samples - These consisted of one sample split into two containers which are processed as individual samples. This eliminates the in-stream variability and isolates the variability to that due to field processing and laboratory analysis.

QC samples were submitted semi-blind to the laboratory (they were identified as QC samples, but sample type--duplicate, blank, or split--and station were not identified).

Ninety-four field QC samples were processed: 6 field blanks, 44 field split samples, and 44 duplicate (sequential) field samples. In addition, the laboratory analyzed some field QC samples in duplicate (*i.e.*, lab split samples). The central tendency of the variance of pairs of split field samples was summarized by calculating the square root of the mean of the sample-pair variances (root mean square - RMS). These figures provide an unbiased (and higher) estimate than other commonly used statistics (mean or median of the standard deviations).

A two-tiered system was used to evaluate data quality of individual results. The first tier consisted of five automated checks, including holding time, variability in field duplicates, and reasonableness of the result. Results exceeding pre-set limits were flagged. The second tier QC evaluation was a manual review of the data flagged in the first tier. Data were then coded from one through nine (one = data meets all QA requirements, nine = data are unusable). Data with quality codes greater than four are generally not distributed outside the agency.

Results and Discussion

The primary purpose of this report is to present the results of Ecology's river and stream monitoring in WY 1997. Appendix D contains results for each station monitored in WY 1997. Appendix E is a quarterly summary of data collected during the past six years for each core station. Raw data are available in computer formats on request and the most recent published WY's data are posted on Ecology's World Wide Web pages (<http://www.wa.gov/ecology>). While a station-by-station data analysis is not within the scope of this report, some general observations are appropriate. This section summarizes general water quality with respect to Washington's water quality standards (Washington Administrative Code, Chapter 173-201A). Basin stations were included in the following analyses, although they are tabulated separately in Appendix F. However, these stations are sometimes selected because of a known water quality problem and results may not necessarily be representative of general water quality conditions in the state. Therefore, the summaries in this report may be slightly biased toward worse water quality than a true statewide average.

Water quality for WY 1997 was similar to that measured in previous years based on number of results exceeding water quality criteria. The fecal coliform bacteria geometric mean was by far the most frequently exceeded criterion based on individual samples. The geometric mean criterion was exceeded 159 times and 91 samples exceeded the "10 percent not to exceed" criterion, out of about 1000 samples collected. Forty-eight of 84 stations had at least one sample that exceeded the geometric mean criterion. Thirty-one stations were west of the Cascades and 16 were stations on streams that drain to Puget Sound. Temperature and pH standards criteria were exceeded 52 and 39 times, respectively, at 35 and 19 stations, mostly in eastern Washington. Dissolved oxygen standards criteria were exceeded 29 times at 17 stations, on both sides of the Cascades (Table 4).

Stations that exceeded the metals criteria are listed in Table 5. Four of the eleven stations monitored exceeded the criterion for at least one metal but 22 of the 24 exceedances occurred at the Spokane River at Stateline Bridge station (57A150).

Table 4. Spatial distribution of results exceeding water quality criteria for temperature, dissolved oxygen, pH, and fecal coliform bacteria (FC) in WY 1997 (counts include basin stations).

Region	No. of Stations or Samples ^a	Parameter				
		Temp	Oxygen	pH	FC ^b	FC ^c
BY STATION						
Ecology Region						
Central	17	8	3	8	3	6
Eastern	20	18	6	8	9	11
Northwest	23	2	2	0	10	12
Southwest	24	7	6	3	14	19
East of Cascades	37	26	9	16	12	17
West of Cascades	47	9	8	3	24	31
Puget Sound Basin	34	2	2	0	13	16
All stations	84	35	17	19	36	48
BY SAMPLE						
Ecology Region						
Central	204	12	3	14	8	17
Eastern	240	30	11	22	25	36
Northwest	276	2	5	0	31	53
Southwest	288	8	10	3	27	53
East of Cascades	444	42	14	36	33	53
West of Cascades	564	10	15	3	58	106
Puget Sound Basin	408	2	5	0	37	64
All stations	1008	52	29	39	91	159

^a Number of samples assumes 12 samples per station. Actual number may be less due to equipment malfunction, loss of sample, lack of access, etc.

^b Based on individual results greater than the “10 percent not to exceed” criteria. See text.

^c Based on individual results greater than the “geometric mean” criteria. See text.

Table 5. Exceedances of metals criteria recorded during WY 1997.

Cadmium

Station	Date	Cd concentration	Chronic Criterion	Acute Criterion
57A150	March 4, 1997	0.420	0.347	0.751
57A150	April 8, 1997	0.440	0.347	0.751
57A150	May 6, 1997	0.326	0.313	0.646
57A150	June 3, 1997	0.337	0.265	0.507

Zinc

Station	Date	Zn concentration	Chronic Criterion	Acute Criterion
57A150	Oct 8 1996	50.2	27.85	30.50
57A150	Dec 3, 1996	81.6	26.73	29.27
57A150	Feb 4, 1997	105.0	31.19	34.16
57A150	March 4, 1997	124.0	30.08	32.95
57A150	April 8, 1997	119.0	30.08	32.95
57A150	May 6, 1997	74.5	26.73	29.27
57A150	June 3, 1997	78.9	22.12	24.23
57A150	July 8, 1997	40.4	23.29	25.50
57A150	Aug 5, 1997	45.3	25.59	28.02
57A150	Sept 9, 1997	39.4	25.59	28.02

Lead

Station	Date	Pb concentration	Chronic Criterion	Acute Criterion
57A150	Feb 4, 1997	0.914	0.517	13.258
57A150	March 4, 1997	1.340	0.492	12.637
57A150	April 8, 1997	1.410	0.492	12.637
57A150	May 6, 1997	2.500	0.421	10.792
57A150	June 3, 1997	1.650	0.327	8.381
57A150	July 8, 1997	0.377	0.350	8.977

Mercury

Station	Date	Hg concentration	Chronic Criterion	Acute Criterion
01A050	Oct 22, 1996	0.022	0.012	2.1
32A070	Feb 3, 1997	0.038	0.012	2.1
57A150	July 8, 1997	2.200	0.012	2.1
61A070	March 5, 1997	2.000	0.012	2.1
61A070	July 9, 1997	5.2	0.012	2.1

Quality Assurance

Because the variability of many parameters increases with increasing mean concentration, the RMS values of some variables are presented according to concentration ranges (of the mean of the sample pair) (Table 6). The true value of lab variability should be equal to or less than that of the field splits, while the true variability of the field splits should be equal to or less than that of the sequential samples. In practice, the estimates of the variability are strongly influenced by extreme values (which are related to mean value of the sample pair), especially when sample size is small. The analysis is further complicated because all concentration data are truncated at the reporting limit, effectively producing a variance of zero between any two samples which are below this limit. This skews the variability estimate downward for the lowest concentration ranges.

The expected results of the analyses of the blank samples were 'below reporting limits' for all concentrations and turbidity, and less than 3 μS (micro Siemens) for specific conductivity. Temperature, dissolved oxygen, and pH were not measured on blanks and a blank fecal coliform bacteria sample was submitted only once during WY1997. All soluble reactive phosphorus, fecal coliform, and suspended solids concentration results were reported as 'less than the reporting limits' (Table 7). Total persulfate nitrogen was detected in three samples, total phosphorus in one sample, ammonia in four samples, and nitrate+nitrite in two of the six blanks submitted for each analysis. Turbidity values above the reporting limit were reported in two of six blanks. Mean conductivity of blank samples was 2.5 μS (standard error=0.5 μS).

The results of the metals monitoring QA plan are in Table 8. Because of the limited extent of metals monitoring in WY 1997, only four quality assurance samples were collected. These included two replicate samples and two blank (deionized water) samples that were processed in the field and submitted to the laboratory blind. The results of the replicate analyses showed good agreement between repeated measures. The results of the blank samples demonstrate a degree of contamination, although at concentrations well below regulatory standards.

The remaining elements of the laboratory QA program were assessed by laboratory staff through a manual review of laboratory quality control charts, check standards, in-house matrix spikes, and laboratory blanks. The results were within acceptable ranges as defined by MEL's Quality Assurance Manual (Ecology, 1988).

Table 6. Root mean square of the standard deviation of sequential samples, field splits, and laboratory splits. n = number of sample pairs.

Variable	Range	sequential samples		field splits		lab splits	
		RMS	sample size, n	RMS	sample size, n	RMS	sample size, n
Temperature (C)	all	0.1	40	NA	-	NA	-
pH	all	0.1	41	0.1	36	NA	-
Dissolved oxygen	all	0.1	41	0.1	40	NA	-
Specific conductivity (mS)	all	4.8	40	2.5	35	NA	-
Turbidity (NTU)	≤10	0.8	36	0.7	36	0.1	228
	>10	26.8	7	3.3	6	1.9	65
Suspended solids (mg L ⁻¹)	≤10	1.9	26	NA	-	0.6	119
	>10	12.9	17			5.5	85
Total phosphorus (μg L ⁻¹)	≤50	7.8	15	2.8	48	3.0	152
	>50	16.0	6	13.1	20	30.3	94
Soluble reactive P (μg L ⁻¹)	≤50	1.4	41	2.4	39	1.0	271
	>50	2.1	2	6.4	1	3.4	32
Total Nitrogen (μg L ⁻¹)	≤500	52.2	27	46.2	26	3.7	152
	>500	33.9	16	24.2	15	14.4	96
NO ₃ /NO ₂ -N (μg L ⁻¹)	≤500	22.0	29	23.6	28	2.9	171
	>500	17.4	13	23.9	13	15.6	77
NH ₃ -N (μg L ⁻¹)	≤20	1.9	33	2.2	32	1.2	197
	>20	8.0	10	7.0	9	3.7	51
Fecal coliform (# 100 mL ⁻¹)	≤50	3.0	32	NA	-	2.9	149
	>50	41.5	8			65.3	20

Table 7. Results of blind blank (deionized water) sample submission.

Variable	reporting limit	# above reporting limit (conc)	sample size, <i>n</i>
Specific conductivity (μS)	NA	mean= 2.5 sd= 0.5	6
Turbidity (NTU)	0.5	2 (0.7, 1.2)	6
Suspended solids (mg L^{-1})	1.0	0	6
Total phosphorus ($\mu\text{g L}^{-1}$)	10	1 (38)	6
Soluble reactive P ($\mu\text{g L}^{-1}$)	5	0	6
Total Nitrogen ($\mu\text{g L}^{-1}$)	10	3 (13, 49, 64)	6
$\text{NO}_3/\text{NO}_2\text{-N}$ ($\mu\text{g L}^{-1}$)	10	2 (49, 52)	6
$\text{NH}_3\text{-N}$ ($\mu\text{g L}^{-1}$)	10	4 (12, 14, 22, 26)	6
Fecal coliform (# 100 mL^{-1})	1	0	1

Table 8. Results of replicate field samples and blank samples. bdl-below detection limit.

Variable	Standard Deviation of Replicate Samples	Results of Blank Samples
Hardness	0.2, 0.0	22.9, bdl
<u>Dissolved metals</u>		
Cadmium	0.0, 0.0*	bdl, bdl, bdl
Copper	0.0, 0.0	bdl, bdl, bdl
Lead	0.0, 0.0*	bdl, bdl, 0.038
Nickel	0.0, 0.0	0.012, 0.85, bdl
Zinc	0.8, 0.0	bdl, 0.053, 1.3
Mercury	0.0*, 0.0*	bdl, bdl, bdl
<u>Total Recoverable Metals</u>		
Arsenic	0.0, 0.0*	bdl
Cadmium	0.0, 0.0*	bdl
Chromium	0.0*, 0.0*	bdl
Copper	0.1, 0.2	0.025
Lead	0.1, 0.0*	bdl
Nickel	0.1, 0.1	0.42
Zinc	0.6, 1.1	1.7

*-measured values were both below dection limit

Summary

Overall, a typical number of water quality standards criteria were exceeded in WY 1997. Results exceeding temperature and pH standards criteria were most common in eastern Washington. Results exceeding fecal coliform bacteria criteria occurred statewide but were more common in western Washington. Only a few results, from both sides of the mountains, were below the oxygen criterion.

Individual stations worthy of note and not discussed in earlier reports include the following:

- ◇ Wenatchee River (45A070) - pH was chronically high, exceeding the upper criterion four times. The criterion was exceeded in November, March, April, and September--not just during low-flow, productive summer months.
- ◇ Brender Creek near Cashmere (45D070) - The fecal coliform bacteria "10 percent not to exceed" criterion was exceeded 50 percent of the time at this station, though no single result was extremely high (the maximum was 800 colonies/100 mL in January 1997).
- ◇ Pataha Creek (35F070) - Pataha Creek exhibited a variety of problems including high temperatures, pH, and fecal bacteria (the highest being an astounding 7,600 organisms/100 mL in June 1997, the highest recorded in WY 1997). This stream should be a candidate for riparian and watershed work.

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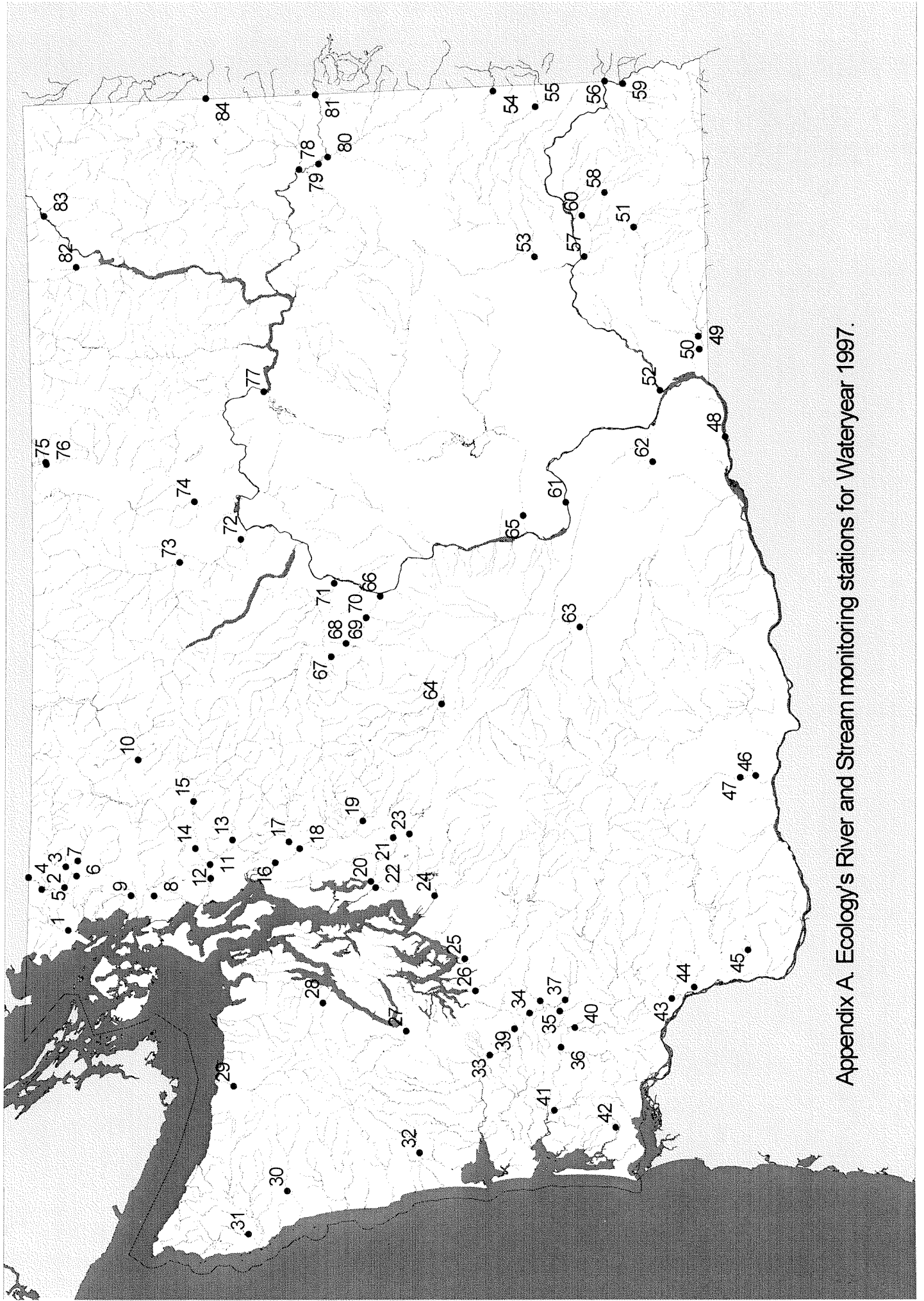
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Appendix A

Ecology's River and Stream Monitoring
Stations for Water Year 1997



Appendix A. Ecology's River and Stream monitoring stations for Wateryear 1997.

Appendix B

Station Description and Period of Record for Ecology's
River and Stream Ambient Monitoring Program.

Appendix C

Historical Changes in Sampling and Laboratory Procedures,
and Environmental Changes Potentially Affecting Water Quality Over Large Areas

This appendix is intended to record changes in methods and procedures used by the Environmental Monitoring & Trends Section to collect and analyze river and stream water quality data. Other environmental changes that may potentially affect water quality over a large area are also recorded here. Many of the changes listed below are anecdotal and may or may not have affected data quality. Comments prior to October, 1989, are based on interviews with individuals involved with the earlier program. Comments after that date have usually been recorded as the changes occurred.

GENERAL

Jun to Sep 1985: Laboratory moved from SWRO to Manchester.

Oct 1988: Implemented QA/QC program (Source: Memo from Hallock, D, October 17, 1988)

Prior to WY91: Samples were sent to contract labs from time to time. These occurrences are not all recorded here. Records are confusing and only available from bench sheets archived by Manchester Environmental Laboratory.

1994: The use of Polyacrilamide (PAM) to control erosion from rill irrigation is becoming widespread in eastern Washington. Water quality affects are unknown.

1996: Began monitoring discharge at some stations ourselves (mostly basin stations), rather than contracting with USGS.

1997: Contracts for about 80% of the 1.045 million acres in Washington in the Conservation Reserve Program are scheduled to expire. (See <http://pnwsteep.wsu.edu>)

NUTRIENTS

General: Prior to 1980, samples were analyzed by USGS labs.

1966-1969: One gallon of sample was collected in glass jars and held at room temperature for indefinite periods without preservative.

1970-1973: Unknown methods; may have been preserved with HgCl. Filtered in field.

1973: Lab moved from Tacoma to Salt Lake City.

1973-1974: Chilled, no preservative. Held as long as one week. Filtered in field; kept in brown poly bottle.

1972-1974?: For a short time, TP and NO₃ may have been added by filters (probably 72-74).
Source: Joe Rinnella, USGS.

9/30/78: Lab moved to Arvada, CO.

~1978: Chilled. Brown poly bottle (the brown poly bottle may have been introduced later). 30 day holding time for NO₂+NO₃ implemented (status of other nutrients is unknown). (Source of methods prior to 1979: pers. comm. Joe Rinnella, USGS, and Skinner, Earl L. "Chronology of Water Resources Division activities that may have affected water quality values of selected constituents in Watstore, 1970-86. Provisional Report Feb 1989.)

1979: For a while, the USGS lab reported nutrient results to the nearest 0.01 units. Therefore, values below 0.005 would be reported as 0.00. USGS decided to change all Watstore data = 0 to 0.01K back to 1973 for NO₂+NO₃. Decision on other nutrients is unknown but they may also have been changed. Most of the null data in our database have been converted to 0.01K (K-below the detection limit) but a few null values remain in the older data.

6/1/80 to 1986: Nutrients analyzed by Pat Crawford at SWRO.

1980: USGS requires NO₂+NO₃ be preserved with HgCl. Status of other nutrients is unknown.
Ecology requirements are unknown.

Aug 1985: High phosphate values, presumably a result of lab error. (Coded '9-do not use' in our database). Source: Trends in PS, 1988, Tetra Tech, App. B.

1986 to Apr 1987: Analyzed by various people, mostly Helen Bates, Steve Twiss, and Wayne Kraft at Manchester.

June, 1985: Switched from Technicon to Rapid Flow Analysis (Alpkem) autoanalyzers

Apr 1987 to present: Analyzed by various people, mostly Dave Thomson at Manchester.

Jan 1987 to Jul 1987: NO₃, NH₃, and TP analyzed by contract lab,

Mar 1990: Began using MFS cellulose acetate filters for field filtration of nutrients. Previously use Millipore, type HA (cellulose nitrate?).

17 Sep 90-12 Oct 90: All nutrient samples were contracted out.

Oct 1990: Dissolved ammonia (P608) and dissolved nitrate+nitrite (P631) were added to the Marine network. Totals (P610 and P630) were dropped.

Feb 1991: All nutrients went to contract lab.

Mar 1991: All nutrients went to contract lab.

~1993: Began collecting nutrients in acid-washed poly-bottle passenger rather than in the stainless-steel bucket used for oxygen determinations.

Jul 1994: The phosphorus content in detergents is restricted statewide (SSB 5320). Phosphorus use had been limited in Spokane County 1? year earlier.

TOTAL SUSPENDED SOLIDS

General: Filters were usually used, but sometimes Gooch crucibles were used.

Feb 1978: Began collecting as passenger to oxygen sampler (was previously collected as aliquot of oxygen sampler). (Source: memo from Bill Yake, Jan 30, 1978)

Mid-1985 Amount filtered change from 250? to 500 ml.

17 Sep 90-12 Oct 90: Suspended sediment samples were contracted out.

Apr 1991: Began collecting 1000 ml of sample.

CONDUCTIVITY

Feb 1978: Began calibrating twice monthly using 40, 70, 140, and 200 $\mu\text{mho/cm}$ standards.
(Source: memo from Bill Yake, Jan 30, 1978)

Oct 1991: All meters were re-calibrated Oct 11, 1991. One conductivity meter was not calibrated above 500 $\mu\text{mhos/cm}$ (and could not be calibrated). This meter had last been calibrated about 1 year earlier. Most meters read higher than the 100 $\mu\text{mhos/cm}$ standard.

Oct 1994: Switched from Beckman model Type RB-5 (which could not be field calibrated) to Orion Model 126 meter which is calibrated daily.

FECAL COLIFORM BACTERIA

General: For some period in the early 1980s, some samples may have been analyzed by field personnel

Oct 7, 1975 to Nov 1981: fecal data from eastern Washington may be questionable during this period.

1980 to Mar 1988: No changes; analyzed by Nancy Jensen.

Mar 1988: Switched to new filter with slightly better recovery.

TURBIDITY

1970s: EPA specified a 2100A turbidimeter. Formerly, turbidity units were FTU

Sept 1993: Lab began using a new turbidimeter, Hach model "Ratio X/R."

FIELD PH

Oct 7, 1975 to Nov 1981: pH data from eastern Washington are questionable during this period.

Feb 1978: Began calibrating meter twice monthly. Previous procedures unknown. (Source: memo from Bill Yake, Jan 30, 1978)

1986: Changed to Beckman digital pH meter with gel probe.

Dec 91: Changed to Orion model 250A meter with "spare water" liquid probe (uses 1M KCl, rather than 4M). Calibrate daily and check calibration thrice daily.

TEMPERATURE

Feb 1978: Switched from thermometer in bucket to thermistor in river. (Source: memo from Bill Yake, Jan 30, 1978)

Spring 1994: Switched to YSI 300 meter (accuracy +/- 0.4C)

OXYGEN

Oct 1, 1977 Began measuring barometric pressure to calculate percent saturation. Previous saturation calculations were presumably based on elevation.

March 1989: Began applying correction factor to results of Winkler analyses based on titration with sodium biodate to correct sodium thiosulfate normality to 0.025. Previously, thiosulfate was standardized upon preparation, but not during use.

BAROMETRIC PRESSURE

___ 1995: Began calibrating barometer prior to each run using an on-site mercury barometer rather than pressure as reported by the Olympia airport.

CHLOROPHYLL

15 Mar 90: Switched to fluorometric method (from spectrophotometric). New method has lower detection limit (0.02 µg/L) but less accuracy. (Source: Memo from Despina Strong, April 12, 1990)

HARDNESS

7/1/91: Began using 125 ml bottle with HNO₃ as preservative. (Previously, aliquot from unpreserved general chemistry bottle was used.)

METALS

May, 1994: Implemented low-level dissolved metals monitoring at selected stations.

Appendix D

Water Year 1997 Raw Data for Ecology's River and Stream Ambient Monitoring Program

Data listed in this appendix are available in electronic format by contacting

Central Region: Bill Ehinger (360 407-6682; wehi461@ecy.wa.gov)
Eastern Region: Dave Hallock (360 407-6681; daha461@ecy.wa.gov)
Northwest Region: Brad Hopkins (360 407-6686; bhop461@ecy.wa.gov)
Southwest Region: Rob Plotnikoff (360 407-6687; rplo461@ecy.wa.gov)

Ambient monitoring data from the most recent complete water year are available over the Internet on Ecology's web pages (<http://www.wa.gov/ecology/>)

The first two digits of each station number is the Water Resource Inventory Area (WRIA) number. This number can be used to identify which Water Quality Management Areas (WQMA) each station is in, according to the table, below:

WQMA	WRIAs	WQMA	WRIAs
Cedar/Green	8-9	Nooksack/San Juan	1-2
Columbia Gorge	27-29	Okanogan	48-53
Eastern Olympics	13-14, 16-19	Puyallup/Nisqually	10-12
Esquatzel/Crab Creek	36, 42-43	Skagit/Stillaguamish	3-5
Horseheaven/Klickitat	30-31	Spokane	54-57
Island/Snohomish	6-7	Upper and Lower Snake	32-35
Kitsap	15	Upper Columbia/Pend Oreille	58-62
Lower Columbia	24-26	Upper Yakima	38-39
Lower Yakima	37	Wenatchee	40, 44-47
Mid Columbia	41	Western Olympics	20-23

Station No.: 01A050
 Water Body No.: WA-01-1010
 Nooksack R @ BRENNAN
 Water Class: A
 River Mile: 3.40
 Latitude: 48 49 10.0
 Longitude: 122 34 43.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Hardnes (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100mL)
96/10/22	1405	6.2	7470.0	63	11.7	93.2	7.5	400.0	0.511	0.010 U	0.292	0.005 U	48	200.0	330
96/11/19	1505	0.5	3320.0	99	12.9	90.3	7.7	21.0	0.602	0.023	0.021	0.006		13.0	60
96/12/16	1410	4.3	4110.0	112	12.2	91.4	7.2	34.0	1.140	0.070	0.060	0.013	52	17.0	63 S
97/02/18	1410	4.9	6910.0	75	11.9	92.1	7.4	86.0	0.681	0.011	0.153	0.121	37	50.0	27
97/03/18	1335	5.6	5200.0	84	11.5	90.5	7.4	81.0	0.960	0.084	0.118	0.011		33.0	880 J
97/04/22	1330	7.2	6400.0	76	11.2	92.3	7.7	161.0	0.611	0.045	0.177	0.012	43	65.0	170
97/05/20	1340	8.0	6200.0	66	10.7	89.9	7.7	91.0	0.235	0.021	0.110	0.006		40.0	54
97/06/17	1315	9.6	6340.0	61	10.7	94.2	8.0	104.0	0.156 J	0.010 UJ	0.013 J	0.005 U	34	55.0	77
97/07/22	1420	12.8	4200.0	70	8.9	83.1	7.7	69.0	0.216	0.010 U	0.090	0.005 U		50.0	31
97/08/19	1400	15.3	2250.0	84	10.0	99.1	7.7	12.0	0.142	0.010 U	0.031	0.005 U	42	13.0	49
97/09/22	1315	15.3	2280.0	93	9.9	97.9	7.9	22.0	0.374	0.010 U	0.044	0.006		15.0	73

01A050 Nooksack R @ Brennan continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Zinc Dissol. (ug/L)
96/10/22	1405	0.316	0.0220	0.010 U	1.310	0.049	3.180	0.810 J
96/11/19	1505	0.477						
96/12/16	1410	0.942	0.0020	0.012	0.762	0.030 U	2.770	1.700
97/02/18	1410	0.529	0.0050	0.030 U	0.889	0.030 U	2.510	0.910
97/03/18	1335	0.627						
97/04/22	1330	0.430	0.0020 U	0.020 U	0.962	0.032	2.490	3.800
97/05/20	1340	0.010 U						
97/06/17	1315	0.146 J	0.0020 U	0.020 U	0.502	0.020 U	1.290	0.340
97/07/22	1420	0.208						
97/08/19	1400	0.124	0.0020 U	0.020 U	0.270	0.020 U	1.070	3.570
97/09/22	1315	0.368						

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 01A120
 Water Body No.: WA-01-1020
 Nooksack R @ NO CEDARVILLE
 Water Class: A
 River Mile: 30.80
 Latitude: 48 50 30.0
 Longitude: 122 17 35.0

Date	Time	Temp (deg C)	Flow (CFS)	Conductivity (umhos/25c/mg/L)	Oxygen (mg/L)	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbidity (NTU)	Fecal Colif. (#/100mL)	NO2+NO3 Nitrog. (mg/L)
96/10/22	1140	5.9	5280.0	55	11.7	93.0	7.4	215.0	0.383	0.010 U	0.168	0.005 U	160.0	71	0.270
96/11/19	1210	1.3	3250.0	82	12.9	93.0	7.9	12.0	0.325	0.010 U	0.012	0.005 U	9.7	20	0.289
96/12/16	1155	4.0	3800.0	85	12.6	94.1	7.4	19.0	0.475	0.015	0.035	0.005 U	15.0	19	0.410
97/01/21	1150	4.1	12000.0	53	12.4	95.1	7.1	424.0	0.385	0.010 U	0.238	0.005 U	130.0	7	0.265
97/02/18	1145	4.2	7100.0	59	12.2	92.8	7.4	46.0	0.339	0.010 U	0.081	0.006	29.0	8 S	0.287
97/03/18	1125	5.0	10500.0	58	12.0	93.4	7.2	159.0	0.422	0.010 U	0.166	0.005 U	70.0	20	0.282
97/04/22	1100	5.0	6200.0	62	12.0	94.9	7.7	59.0	0.325	0.033	0.123	0.005 U	40.0	5	0.225
97/05/20	1120	6.4	6240.0	56	11.2	90.8	7.5	55.0	0.112	0.011	0.070	0.005 U	32.0	16	0.030
97/06/17	1055	8.8	6740.0	29	11.2	97.1	7.6	167.0	0.086 J	0.010 UJ	0.026 J	0.005 U	85.0	67	0.040 J
97/07/22	1220	10.7	4090.0	60	10.5	93.8	7.8	30.0	0.779	0.010 U	0.056	0.011	6.9	310 J	0.626
97/08/19	1115	11.6	2270.0	70	11.3	103.5	7.6	15.0	0.017	0.010 U	0.023	0.005 U	14.0	2	0.011
97/09/22	1105	13.2	2200.0	78	10.6	100.6	7.3	11.0	0.176	0.010 U	0.037	0.005 U	13.0	9	0.156

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 01A140

Water Body No.:

NOOKSACK R ABOVE THE MF

Water Class: A

Latitude: 48 50 18.0

River Mile: 40.80

Longitude: 122 09 13.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen (mg/L)	Oxygen Satur- (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100ml)	NO2+NO3 Nitrog. (mg/L)
96/10/22	1030	5.6		63	11.8	93.6	7.4	97.0	0.306	0.010 U	0.086	0.005 U	65.0	54	0.228
96/11/19	1140	1.0		88	12.9	92.5	7.8	8.0	0.246	0.010 U	0.010	0.005 U	4.4	15	0.227
96/12/16	1100	3.9		96	12.8	95.9	7.5	4.0	0.372	0.010 U	0.023	0.005 U	2.6	3	0.363
97/01/21	1045	3.8		62	12.4	94.9	7.4	201.0	0.320	0.010 U	0.122	0.005 U	90.0	4	0.251
97/02/18	1050	4.1		71	12.3	93.7	7.4	21.0	0.303	0.010 U	0.055	0.005 U	11.0	2	0.263
97/03/18	1030	4.6		68	12.2	94.6	7.4	92.0	0.387	0.010 U	0.085	0.005 U	21.0	14	0.262
97/04/22	1000	5.0		69	12.1	95.0	7.5	44.0	0.261	0.034	0.101	0.005 U	28.0	2	0.237
97/05/20	1020	5.8		60	11.5	92.4	7.5	49.0	0.140	0.012	0.072	0.005 U	32.0	32	0.024
97/06/17	1000	7.6		50	11.3	95.6	7.6	278.0	0.086 J	0.010 UJ	0.040 J	0.005 U	90.0	120	0.051 J
97/07/22	1050	9.0		59	10.7	92.5	7.8	46.0	0.085	0.010 U	0.066	0.005 U	45.0	11	0.074
97/08/19	1020	10.2		66	11.6	103.4	7.7	27.0	0.025	0.010 U	0.033	0.005 U	21.0	11	0.010 U
97/09/22	1015	11.0		77	10.9	99.2	7.6	12.0	0.176	0.010 U	0.032	0.005 U	13.0	6	0.106

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 01D070
 Water Body No.: WA-01-2010
 SUMAS R NR HUNTINGDON BC
 Water Class: A
 River Mile: 11.90
 Latitude: 49 00 09.0
 Longitude: 122 13 50.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c)	Oxygen (mg/L)	Oxygen Satur- (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100ml)	N02+N03 Nitrog. (mg/L)
96/10/22	1250	7.2	130.0	283	8.6	70.3	7.3	110.0	2.820	0.284	0.169	0.070	65.0	4800 J	1.920
96/12/16	1255	4.8	300.0	267	8.3	63.0	7.4	23.0	3.940	0.404	0.207	0.096	21.0	960 S	3.350
97/01/21	1250	5.0	920.0	168	8.3	64.9	7.4	168.0	3.070	0.394	0.200	0.139	130.0	1300 S	2.330
97/02/18	1245	6.7	310.0	257	6.5	52.5	7.4	20.0	5.110	0.091	0.359	0.005 U	16.0	800	2.990
97/03/18	1225	5.9	390.0	192	9.0	71.3	7.4	87.0	3.380	0.149	0.226	0.077	55.0	1000	2.620
97/04/22	1200	10.0	220.0	250	8.0	70.4	7.6	16.0	3.850	0.098	0.250	0.074	13.0	220	3.300
97/05/20	1230	12.3	90.0	285	7.3	67.7	7.7	8.0	3.680	0.133	0.161	0.066	7.9	1500	3.100
97/06/17	1200	14.0	135.0	288	7.6	73.9	7.8	12.0	2.900 J	0.072 J	0.048 J	0.044	9.5	6500	2.780 J
97/07/22	1315	14.6	75.0	295	8.7	84.6	7.8	7.0	2.940	0.055	0.092	0.031	7.8	280	2.840
97/08/19	1215	14.8	45.0	298	9.0	88.2	7.6	6.0	2.990	0.122	0.073	0.029	7.3	3300	2.940
97/09/22	1205	14.5	50.0	277	8.2	79.8	7.8	6.0	3.340	0.048	0.084	0.034	6.3	150	3.390

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 01D120
 Water Body No.:
 SUMAS R NR NOOKSACK
 Water Class: A
 River Mile: 23.00
 Latitude: 48 56 35.0
 Longitude: 122 18 31.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen (mg/L)	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100ml)	N02+N03 Nitrog. (mg/L)
96/10/22	1210	7.8	100.0	192	10.2	84.6	7.6	500.0	1.150	0.010 U	0.049	0.005 U	160.0	1300 J	0.823
96/11/19	1305	0.0	60.0	226	12.1	84.0	8.0	120.0	1.200	0.011	0.041	0.023	13.0	130	0.957
96/12/16	1220	4.2	110.0	228	10.5	78.6	7.6	40.0	2.010	0.455	0.142	0.078	11.0	1300	1.300
97/01/21	1225	5.3	290.0	156	9.9	78.1	7.8	531.0	1.260	0.035	0.043	0.014	180.0	110 S	1.140
97/02/18	1215	6.1	115.0	198	10.0	79.7	7.6	56.0	1.330	0.012	0.127	0.015	30.0	57	1.090
97/03/18	1150	6.4	190.0	143	10.9	87.6	7.7	779.0	0.922	0.028	0.106	0.005 U	230.0	83 S	0.612
97/04/22	1130	8.6	80.0	222	10.0	85.1	7.9	61.0	1.110	0.048	0.132	0.015	9.6	100	0.859
97/05/20	1150	10.6	20.0	282	9.3	83.2	8.0	15.0	1.030	0.044	0.072	0.015	5.0	930	0.345
97/06/17	1125	13.8	35.0	266	8.8	85.3	7.8	214.0	0.868 J	0.014 J	0.022 J	0.010	110.0	4100	0.620 J
97/07/22	1245	16.6	25.0	291	8.8	89.2	8.4								
97/08/19	1145	15.8	15.0	313	9.5	95.0	8.0	11.0	0.822	0.032	0.040	0.009	4.0	55	0.712
97/09/22	1135	14.7	18.0	295	9.8	95.9	7.8	42.0	0.844	0.046	0.083	0.013	16.0	440	0.700

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 01F070 SF NOOKSACK @ POTTER RD Water Class: A Latitude: 48 47 21.0
 Water Body No.: River Mile: 19.00 Longitude: 122 12 51.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100ml)	NO2+NO3 Nitrog. (mg/L)
96/10/22	1005	5.5	4607.0	48	11.8	93.1	7.4	327.0	0.540	0.010	0.189	0.005 U	230.0	46	0.345
96/11/19	1105	1.5	1526.0	74	12.5	91.1	7.8	11.0	0.441	0.010 U	0.019	0.005 U	11.0	27	0.384
96/12/16	1030	4.0	1390.0	72	12.5	93.7	7.2	20.0	0.515	0.016	0.041	0.005 U	21.0	35 S	0.479
97/01/21	1025	3.9	4161.0	46	12.3	94.2	7.3	187.0	0.338	0.010 U	0.100	0.005 U	100.0	19	0.258
97/02/18	1010	3.8	2612.0	49	12.4	93.5	7.3	65.0	0.370	0.010 U	0.091	0.005 U	55.0	15	0.298
97/03/18	0950	4.6	2500.0	47	12.2	94.4	7.7	150.0	0.384	0.010 U	0.147	0.005 U	50.0	28	0.284
97/04/22	0930	4.4	1841.0	53	12.0	92.4	7.5	57.0	0.267	0.032	0.089	0.005 U	34.0	7	0.226
97/05/20	0950	6.4	1671.0	49	11.3	91.9	7.4	25.0	0.088	0.029	0.048	0.005 U	20.0	7	0.029
97/06/17	0930	9.5	1438.0	51	10.8	95.4	7.6	130.0	0.043 J	0.010 UJ	0.065 J	0.005 U	45.0	45	0.041 J
97/07/22	1020	12.7	576.0	70	9.7	91.0	8.0	7.0	0.095	0.010 U	0.024	0.005 U	4.8	12	0.082
97/08/19	0950	15.1	200.0	97	9.4	93.1	7.6	3.0	0.109	0.010 U	0.018	0.005 U	1.2	3	0.056
97/09/22	0950	13.5	319.0	84	10.0	96.0	7.4	6.0	0.335	0.010 U	0.034	0.005 U	3.9	12	0.252

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 01G070 MF NOOKSACK R Water Class: AA Latitude: 48 47 06.0
 Water Body No.: Water Mile: 4.90 Longitude: 122 06 45.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen (%)	Oxygen Satur- (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100mL)	N02+N03 Nitrog. (mg/L)
96/10/22	1055	5.1		41	12.1	95.5	7.6	21.0	0.263	0.010	0.021	0.005	12.0	4	0.167
96/11/19	0000	0.0													
96/12/16	1120	2.9		66	13.6	100.1	7.6	2.0	0.233	0.010	0.024	0.005	1.5	1	0.219
97/01/21	1110	3.4		39	12.8	97.6	7.4	14.0	0.147	0.010	0.012	0.005	7.6	1	0.119
97/02/18	1115	3.2		41	12.9	96.1	7.5	7.0	0.232	0.010	0.029	0.005	4.0	2	0.182
97/03/18	1055	3.2		33	12.9	97.1	7.5	69.0	0.314	0.010	0.081	0.005	27.0	7	0.165
97/04/22	1025	3.3		44	12.7	96.1	7.7	5.0	0.183	0.030	0.052	0.005	2.7	1	0.148
97/05/20	1045	4.6		42	12.2	94.8	7.6	4.0	0.134	0.010	0.035	0.005	4.0	1	0.077
97/06/17	1025	7.0		28	11.8	99.1	7.6	71.0	0.028	0.010	0.049	0.005	45.0	12	0.010
97/07/22	1115	7.6		45	11.3	95.2	7.7	44.0	0.067	0.010	0.059	0.005	28.0	4	0.047
97/08/19	1045	7.7		52	11.8	100.0	7.5	42.0	0.051	0.010	0.052	0.005	31.0	2	0.034
97/09/22	1035	10.5		56	11.4	103.4	7.4	34.0	0.189	0.010	0.047	0.005	9.8	3	0.088

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 03A060 SKAGIT R NR MOUNT VERNON Water Class: A Latitude: 48 26 42.0
 Water Body No.: WA-03-1010 River Mile: 15.90 Longitude: 122 20 03.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L)	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100ml)	NO2+NO3 Nitrog. (mg/L)
96/10/23	0805	7.5	21000.0	41	11.2	92.3	48.0	0.211	0.010 U	0.046	0.005 U	25.0	73	0.157
96/11/20	0825	4.3	16200.0	55	12.1	92.0	10.0	0.158	0.010 U	0.010 U	0.005 U	4.1	8	0.145
96/12/17	0825	5.3	13900.0	61	12.5	96.7	11.0	0.227	0.014	0.027	0.005 U	5.3	3	0.207
97/01/22	0805	5.1	29600.0	47	12.3	96.0	53.0	0.210	0.010 U	0.044	0.005 U	22.0	4	0.170
97/02/19	0750	4.0	25600.0	52	12.6	95.7	26.0	0.241	0.010 U	0.078	0.005 U	14.0	40	0.204
97/03/19	0735	4.2	38400.0	39	12.6	95.6	389.0	0.480	0.023	0.275 J	0.005 U	230.0	32	0.185
97/04/23	0725	6.5	24700.0	52	11.6	93.7	27.0	0.213	0.038	0.068	0.005 U	13.0	3	0.155
97/05/21	0740	6.6	28400.0	40	11.6	93.9	32.0	0.088	0.011	0.045	0.005 U	13.0	11	0.010 U
97/06/18	0735	8.0	57800.0	32	11.7	97.7	246.0	0.198 J	0.010 UJ	0.052 J	0.006	100.0	130	0.095 J
97/07/23	0735	10.6	26200.0	39	10.4	92.0	31.0	0.067	0.010 U	0.038	0.005 U	17.0	14	0.054
97/08/20	0720	13.0	13300.0	42	10.3	97.3	23.0	0.042	0.013	0.028	0.005 U	12.0	3	0.021
97/09/23	0730	12.6	11300.0	44	10.4	96.4	14.0	0.079	0.010 U	0.028	0.005 U	6.6	15	0.064

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 03B050
 Water Body No.: WA-03-2010
 SAMISH R NR BURLINGTON
 Water Class: A
 River Mile: 10.40
 Latitude: 48 32 46.0
 Longitude: 122 20 13.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen Oxygen (%)	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100ml)	NO2+NO3 Nitrog. (mg/L)
96/10/23	0725	8.0	230.0	71	10.9	90.9	7.1	8.0	0.801	0.010 U	0.069 J	0.005 U	7.7	180	0.606
96/11/20	0750	3.0	350.0	70	12.7	93.3	7.6	6.0	1.080	0.010 U	0.014	0.006	5.6	170	0.918
96/12/17	0725	3.7	370.0	65	12.9	95.6	7.3	10.0	0.898	0.023	0.038	0.005 U	7.1	31	0.829
97/01/22	0720	5.1	850.0	52	12.0	93.6	7.2	48.0	0.928	0.013	0.047	0.005 U	20.0	43 S	0.854
97/02/19	0715	5.0	1000.0	52	11.9	92.9	7.2	20.0	0.935	0.010 U	0.084	0.008	14.0	250	0.792
97/03/19	0700	7.3	1200.0	40	11.6	95.2	6.9	93.0	0.873	0.040	0.131	0.005 U	50.0	230	0.562
97/04/23	0655	9.1	220.0	67	10.6	91.2	7.0	11.0	0.736	0.038	0.080	0.008	9.4	84	0.541
97/05/21	0705	9.7	115.0	80	10.4	90.6	7.2	7.0	0.764	0.026	0.050	0.005 U	4.5	400	0.194
97/06/18	0700	12.2	100.0	84	10.1	93.0	7.1	3.0	0.627 J	0.010 UJ	0.043 J	0.009	4.4	420	0.586 J
97/07/23	0700	12.3	75.0	89	9.7	89.2	7.6	5.0	0.635	0.010 U	0.014	0.005 U	2.6	190	0.587
97/08/20	0650	12.6	40.0	105	9.4	88.1	7.5	3.0	0.717	0.016	0.022	0.005 U	2.2	130	0.689
97/09/23	0700	11.8	55.0	99	9.7	88.5	7.1	4.0	0.737	0.040	0.036	0.005 U	2.8	230	0.664

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 04A100 SKAGIT R @ MARBLEMOUNT Water Class: AA Latitude: 48 31 35.0
 Water Body No.: WA-04-1090 River Mile: 78.20 Longitude: 121 25 40.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100ml)	NO2+NO3 Nitrog. (mg/L)
96/10/22	0830	6.7	6020.0	35	11.5	93.7	7.8	7.0	0.135	0.010 U	0.010 U	0.005 U	4.2	4	0.073
96/11/19	0850	5.4	5540.0	53	11.4	92.4	7.9	1.0 U	0.073	0.010 U	0.010 U	0.005 U	0.5	1	0.059
96/12/16	0845	5.3	3690.0	58	12.2	94.6	7.4	1.0 U	0.082	0.010 U	0.012	0.005 U	0.5	1 U	0.070
97/01/21	0845	3.1	9900.0	43	12.7	95.4	7.2	11.0	0.073	0.010 U	0.010 U	0.005 U	1.8	3	0.072
97/02/18	0835	2.9	7710.0	52	12.7	93.5	7.1	1.0 U	0.133	0.010 U	0.025	0.005 U	0.5 U	1	0.105
97/03/18	0810	2.8	8780.0	58	12.7	93.6	7.5	1.0 U	0.145	0.010 U	0.027	0.005 U	0.5 U	1 U	0.116
97/04/22	0755	3.9	9500.0	52	12.4	94.1	7.2	2.0	0.145	0.033	0.032	0.005 U	0.9	1 U	0.134
97/05/20	0815	5.7	10400.0	38	11.7	93.8	7.2	3.0	0.089	0.010 U	0.029	0.005 U	2.4	1	0.028
97/06/17	0805	6.9	23300.0	36	12.1	100.3	7.2	32.0	0.028 J	0.010 UJ	0.061 J	0.005 U	9.2	30	0.041 J
97/07/22	0830	8.1	11800.0	42	11.0	92.9	7.6	2.0	0.059	0.010 U	0.019	0.005 U	2.3	6	0.041
97/08/19	0820	9.3	5280.0	39	11.3	98.4	7.2	7.0	0.040	0.010 U	0.019	0.005 U	3.1	1 U	0.037
97/09/22	0810	10.6	2590.0	37	10.9	98.0	7.3	1.0 U	0.099	0.010 U	0.025	0.005 U	0.8	1	0.055

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 05A070

Water Body No.: WA-05-1010

STILLAGUAMISH R NR SILVANA

Water Class: A

River Mile: 11.10

Latitude: 48 11 50.0

Longitude: 122 12 34.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen (mg/L)	Oxygen Satur- (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100mL)	NO2+NO3 Nitrog. (mg/L)
96/10/23	0855	6.9	7740.0	36	11.4	93.0	7.4	68.0	0.457	0.010 U	0.072	0.005 U	45.0	32	0.393
96/12/17	0905	3.2	3050.0	57	12.9	94.1	7.5	10.0	0.515	0.071	0.026	0.005 U	8.3	9	0.477
97/01/22	0845	4.5	8130.0	37	12.3	94.5	7.3	74.0	0.351	0.010 U	0.039	0.005 U	40.0	9	0.314
97/02/19	0840	4.0	9760.0	36	12.4	94.1	7.6	57.0	0.398	0.010 U	0.087	0.007	40.0	38 S	0.317
97/03/19	0815	3.5	38000.0	20	13.5	100.5	7.4	1670.0	0.397	0.015	0.321 J	0.005 U	650.0	52	0.158
97/04/23	0820	6.8	5800.0	39	11.4	92.9	7.0	41.0	0.219	0.030	0.099	0.005	28.0	6	0.157
97/05/21	0815	7.4	3860.0	38	11.2	92.4	7.4	12.0	0.144	0.012	0.045	0.005 U	8.3	12	0.057
97/06/18	0820	9.3	6560.0	25	10.9	93.9	7.4	148.0	0.219 J	0.010 UJ	0.025 J	0.006	100.0	250 J	0.130 J
97/07/23	0815	14.2	1800.0	55	9.1	87.3	7.5	14.0	0.167	0.010 U	0.033	0.005 U	14.0	29	0.146
97/08/20	0800	17.7	880.0	82	8.3	86.6	7.4	7.0	0.129	0.011	0.019	0.005 U	2.0	26	0.068
97/09/23	0805	13.2	1670.0	55	9.9	93.1	7.6	8.0	0.316	0.010 U	0.032	0.005 U	9.2	44	0.295

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 05A090
 Water Body No.: WA-05-1040
 SF STILLAGUAMISH @ ARLINGTON
 Water Class: A
 River Mile: 18.20
 Latitude: 48 12 03.0
 Longitude: 122 07 04.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen	Oxygen Satur- (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100mL)	N02+N03 Nitrog.
96/10/21	1425	5.9	1500.0	43	11.8	93.3	7.3	11.0	0.452	0.010 U	0.013	0.005 U	13.0	18	0.397
96/11/18	1450	4.7	930.0	45	12.2	95.2	7.9	10.0	0.436	0.010 U	0.016	0.005 U	13.0	8	0.375
96/12/15	1435	4.5	1580.0	46	12.7	96.8	7.2	7.0	0.470	0.010 U	0.024	0.005 U	8.0	12	0.425
97/01/20	1430	4.1	16750.0	22	12.8	98.3	7.0	163.0	0.335	0.010 U	0.120	0.005 U	70.0	28 S	0.225
97/02/17	1430	4.2	9320.0	27	12.8	97.2	7.2	235.0	0.340	0.010 U	0.235	0.005 U	160.0	29 S	0.251
97/03/17	1350	4.0	5910.0	41	12.8	97.0	7.3	75.0	0.329	0.010 U	0.092	0.005 U	60.0	7	0.244
97/04/21	1420	5.7	6920.0	27	12.5	98.8	7.3	51.0	0.187	0.028	0.092	0.007	45.0	2	0.150
97/05/19	1400	9.9		30	11.0	97.4	7.4	6.0	0.129	0.011	0.031	0.005 U	5.3	2	0.024
97/06/16	1420	12.1		29	10.8	99.9	7.6	7.0 J	0.054 J	0.010 UJ	0.057 J	0.005 U	4.9	17	0.054 J
97/07/21	1420	15.3		42	9.4	92.9	7.6	4.0	0.141	0.010 U	0.020	0.005 U	2.9	16	0.104
97/08/18	1425	19.2		66	10.0	107.2	7.9	2.0	0.207	0.010 U	0.025	0.005 U	0.9	5	0.129
97/09/21	1335	14.8		40	10.3	101.4	7.5	5.0	0.323	0.021	0.043	0.006	7.1	14	0.263

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 05A110 SF STILLY NR GRANITE FALLS Water Class: AA Latitude: 48 06 12.0
 Water Body No.: WA-05-1050 River Mile: 34.60 Longitude: 121 57 07.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L)	Oxygen	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100ml)	NO2+NO3 Nitrog. (mg/L)
96/10/21	1310	5.2		37	12.4	97.3	7.1	17.0	0.239	0.010 U	0.014	0.005 U	18.0	9	0.217
96/11/18	1320	3.6		38	12.8	98.1	7.9	21.0	0.206	0.010 U	0.021	0.005 U	21.0	9	0.176
96/12/15	1305	3.9		38	13.1	99.4	7.3	10.0	0.202	0.010 U	0.026	0.005 U	12.0	4	0.173
97/01/20	1300	3.4		23	13.1	100.0	6.9	95.0	0.141	0.013	0.059	0.005 U	60.0	1 U	0.098
97/02/17	1320	3.4		21	13.3	100.2	7.1	148.0	0.220	0.010 U	0.164	0.005 U	120.0	8	0.149
97/03/17	1245	3.2		23	13.2	98.9	7.3	177.0	0.245	0.010 U	0.177	0.005 U	160.0	14	0.165
97/04/21	1300	4.3		24	12.8	98.7	7.2	67.0	0.166	0.032	0.100	0.005 U	44.0	2	0.138
97/05/19	1245	6.7		24	11.8	97.8	7.2	8.0	0.224	0.010 U	0.035	0.005 U	5.6	1 U	0.021
97/06/16	1315	9.0		22	11.3	98.4	7.2	9.0	0.047 J	0.010 UJ	0.046 J	0.005 U	6.0	11	0.055 J
97/07/21	1305	13.0		32	9.5	90.4	7.5	13.0	0.050	0.010 U	0.026	0.005 U	6.0	11	0.032
97/08/18	1305	16.9		52	9.7	100.4	7.7	2.0	0.047	0.010 U	0.013	0.005 U	1.0	7	0.010 U
97/09/21	1220	13.2		34	11.0	105.5	7.4	9.0	0.200	0.010 U	0.050	0.005	8.8	16	0.181

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 05B070 NF STILLAGUAMISH @ CICERO Water Class: A Latitude: 48 16 05.0
 Water Body No.: WA-05-1020 River Mile: 9.50 Longitude: 122 00 44.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen (mg/L)	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100mL)	NO2+NO3 Nitrog. (mg/L)
96/10/21	1400	5.6	1520.0	50	11.9	93.6	7.2	13.0	0.442	0.010 U	0.013	0.007	13.0	17	0.402
96/11/18	1410	4.4		52	12.2	94.6	7.9	11.0	0.358	0.010 U	0.021	0.005 U	8.8	2	0.294
96/12/15	1400	4.7	1640.0	54	12.4	95.2	7.2	17.0	0.399	0.017	0.036	0.022	12.0	5	0.332
97/01/20	1355	4.0	10100.0	26	12.6	96.7	7.0	259.0	0.273	0.010 U	0.174	0.005 U	120.0	13	0.184
97/02/17	1400	4.0	4620.0	30	12.5	94.8	7.1	136.0	0.268	0.010 U	0.133	0.009	85.0	10	0.207
97/03/17	1330	4.2	3190.0	35	12.5	95.2	7.2	117.0	0.311	0.010 U	0.133	0.005 U	60.0	5	0.230
97/04/21	1350	5.8		33	12.1	95.9	7.1	126.0	0.188	0.037	0.158	0.008	75.0	9	0.111
97/05/19	1335	8.5		34	11.2	96.2	7.2	18.0	0.100	0.013	0.047	0.005 U	14.0	1 U	0.012
97/06/16	1400	11.1	2570.0	38	10.9	98.8	7.3	29.0	0.034 J	0.010 UJ	0.048 J	0.005 U	14.0	8	0.044 J
97/07/21	1355	12.9	1340.0	52	9.7	91.2	7.4	36.0	0.116	0.010 U	0.046	0.005 U	30.0	26	0.107
97/08/18	1355	15.7	443.0	77	11.5	115.1	8.5	6.0	0.050	0.010 U	0.026	0.005 U	4.8	6	0.010
97/09/21	1310	13.9	1710.0	50	10.5	101.6	7.3	16.0	0.312	0.010 U	0.049	0.007	17.0	21	0.272

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 05B110 NF STILLAGUAMISH NR DARRINGTON Water Class: A Latitude: 48 16 48.0
 Water Body No.: WA-05-1020 River Mile: 30.00 Longitude: 121 42 04.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c/mg/L)	Oxygen	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100ml)	NO2+NO3 Nitrog. (mg/L)
96/10/22	0720	5.6	5670.0	24	11.8	93.8	7.6	96.0	0.364	0.010 U	0.103	0.005 U	50.0	17	0.246
96/11/19	0725	3.4	495.0	46	11.9	91.8	7.7	2.0	0.268	0.010 U	0.010 U	0.005 U	1.4	3	0.228
96/12/16	0735	4.2	495.0	46	12.2	92.8	7.1	2.0	0.308	0.018	0.019	0.005 U	1.8	2	0.283
97/01/21	0740	3.3	2750.0	28	12.6	95.5	7.1	44.0	0.193	0.010 U	0.032	0.005 U	18.0	1	0.154
97/02/18	0730	3.2	1960.0	29	12.5	93.2	6.8	10.0	0.224	0.010 U	0.043	0.005 U	6.4	3	0.184
97/03/18	0710	3.2	1320.0	30	12.4	92.9	6.8	4.0	0.236	0.010 U	0.028	0.005 U	2.8	4	0.190
97/04/22	0645	3.5	1495.0	30	12.2	91.9	7.0	18.0	0.189	0.029	0.049	0.005 U	11.0	8	0.174
97/05/20	0710	5.7	995.0	28	11.4	91.8	7.5	3.0	0.132	0.010 U	0.032	0.005 U	2.9	7	0.044
97/06/17	0700	8.2	1125.0	21	10.9	93.6	6.6	8.0	0.039 J	0.010 UJ	0.048 J	0.013	2.5	83	0.029 J
97/07/22	0715	10.3	325.0	37	9.7	86.7	7.1	1.0	0.107	0.010 U	0.019	0.005 U	0.5 U	27	0.096
97/08/19	0710	11.3	100.0	55	9.8	89.8	7.2	1.0	0.111	0.010 U	0.018	0.005 U	0.5 U	7	0.098
97/09/22	0700	10.5	300.0	41	10.4	93.7	7.0	1.0	0.268	0.010 U	0.033	0.005 U	1.1	1 U	0.230

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 07A090 SNOHOMISH R @ SNOHOMISH Water Class: A Latitude: 47 54 38.0
 Water Body No.: WA-07-1020 River Mile: 12.70 Longitude: 122 05 52.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc-tivity (umhos/25c/mg/L)	Oxygen	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Hardnes (mg/L)	Turbid-ity (NTU)	Fecal Colif. (#/100ml)
96/10/21	1210	6.7	9150.0	38	11.3	90.7	7.1	25.0	0.530	0.010 U	0.025	0.005 U	16	6.4	250 J
96/11/18	1205	4.8	12200.0	39	12.0	93.7	7.6	9.0	0.472	0.028	0.025	0.006		7.8	80
96/12/15	1150	4.8	8700.0	45	12.2	93.7	7.0	7.0	0.561	0.042	0.028	0.006	20	6.4	68
97/01/20	1145	4.2	23900.0	29	12.4	95.3	6.9	35.0	0.428	0.022	0.042	0.005 U		22.0	60 S
97/02/17	1145	4.9	21500.0	30	12.0	92.7	7.1	26.0	0.390	0.010 U	0.058	0.005 U	13	15.0	49 S
97/03/17	1150	4.6	14100.0	36	12.2	93.5	7.1	16.0	0.497	0.019	0.037	0.005 U		15.0	96
97/04/21	1200	5.1	32300.0	23	12.6	97.5	7.1	62.0	0.286	0.033	0.114	0.005 U	11	39.0	160
97/05/19	1200	7.5	20400.0	24	11.2	93.4	7.2	17.0	0.116	0.016	0.045	0.005 U		10.0	15
97/06/16	1215	8.0	17200.0	29	11.1	93.2	7.1	20.0	0.030 J	0.010 UJ	0.048 J	0.005 U	11	8.8	36
97/07/21	1210	13.6	10200.0	30	9.3	88.5	7.0	8.0	0.129	0.010 U	0.025	0.005 U		4.2	22
97/08/18	1215	17.2	3100.0	46	9.2	94.4	7.4	2.0	0.143	0.010 U	0.017	0.005 U	20	1.6	53
97/09/21	1130	13.7	6300.0	34	10.0	95.5	7.2	9.0	0.351	0.014	0.044	0.006		5.5	96

07A090 Snohomish R @ Snohomish continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol. (ug/L)	Nickle Dissol. (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
96/10/21	1210	0.416	1.20	2.0 J	0.3	33.9 J	0.10 U	0.0020	0.010 U	0.654	0.037	0.380	1.200 J	0.800
96/11/18	1205	0.365												
96/12/15	1150	0.460	0.40 U	1.1	0.2	6.1 J	0.10 U	0.0010	0.010 U	0.480	0.030 U	0.350	0.870	0.690
97/01/20	1145	0.313												
97/02/17	1145	0.306	0.46	1.7	0.3	23.0 J	0.10 U	0.0020	0.030 U	0.774	0.030 U	0.290	1.300	0.750
97/03/17	1150	0.381												
97/04/21	1200	0.194	1.30	3.4	0.7	3.6	0.10 U	0.0020 U	0.020 U	0.825	0.020 U	0.460	0.610	1.030
97/05/19	1200	0.042												
97/06/16	1215	0.043 J	0.52	1.5	1.5	8.6 J	0.10 U	0.0020	0.020 U	0.490	0.026	0.220	0.620	0.620
97/07/21	1210	0.102												
97/08/18	1215	0.106	0.20 U	0.6	0.7	4.3	0.10 U	0.0020 U	0.020 U	0.430	0.020	0.270	1.200	0.850
97/09/21	1130	0.284												

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 07C070
 Water Body No.: WA-07-1160

SKYKOMISH R @ MONROE

Water Class: A
 River Mile: 25.60
 Latitude: 47 51 08.0
 Longitude: 121 57 29.0

Date	Time	Temp (deg C)	Flow (cfs)	Conduc- tivity (umhos/25c(mg/L))	Oxygen (mg/L)	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100mL)	NO2+NO3 Nitrog. (mg/L)
96/10/21	1120	6.9	5340.0	33	11.6	93.8	7.2	6.0	0.331	0.012	0.010	0.005	4.0	17	0.290
96/11/18	1130	4.3	6650.0	31	12.3	94.7	7.7	4.0	0.237	0.010	0.010	0.005	4.4	5	0.205
96/12/15	1105	4.5	5020.0	35	12.7	96.9	7.0	4.0	0.286	0.010	0.018	0.005	4.6	2	0.263
97/01/20	1115	3.7	12400.0	24	13.0	98.6	6.8	18.0	0.201	0.010	0.017	0.005	14.0	8	0.172
97/02/17	1055	4.1	11400.0	26	12.5	94.7	7.2	8.0	0.232	0.010	0.045	0.005	8.8	3	0.203
97/03/17	1100	4.1	6480.0	29	12.5	94.7	7.2	9.0	0.299	0.010	0.028	0.005	8.0	13	0.249
97/04/21	1105	5.2	18100.0	22	12.7	98.6	7.2	35.0	0.218	0.035	0.071	0.005	28.0	11	0.168
97/05/19	1120	6.1	13300.0	21	11.9	96.0	7.3	12.0	0.077	0.013	0.040	0.005	9.1	4	0.029
97/06/16	1115	8.1	11070.0	18	11.6	97.6	7.1	11.0	0.076	0.010	0.044	0.005	6.9	18	0.076
97/07/21	1130	11.7	6340.0	22	10.2	93.1	7.3	4.0	0.058	0.010	0.020	0.005	2.5	10	0.039
97/08/18	1115	14.8	1720.0	34	10.2	99.6	7.4	2.0	0.055	0.010	0.015	0.005	1.0	8	0.030
97/09/21	1055	13.2	3650.0	28	10.4	98.3	7.2	4.0	0.204	0.010	0.036	0.005	3.5	16	0.182

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 07D050
 Water Body No.: WA-07-1060

SNOQUALMIE R NR MONROE

Water Class: A
 River Mile: 2.70
 Latitude: 47 48 14.0
 Longitude: 122 00 06.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc-tivity (umhos/25c(mg/L))	Oxygen (mg/L)	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid-ity (NTU)	Fecal Colif. (#/100ml)	N02+N03 Nitrog. (mg/L)
96/10/21	1035	6.5	3320.0	39	11.4	91.1	7.1	11.0	0.561	0.016	0.022	0.005 U	8.1	790 J	0.456
96/11/18	1050	4.9	4680.0	42	11.8	92.3	7.6	14.0	0.585	0.038	0.028	0.008	9.7	240	0.459
96/12/15	1025	5.0	3030.0	50	12.0	92.7	6.9	9.0	0.632	0.058	0.036	0.007	7.5	200	0.496
97/01/20	1035	4.5	9180.0	30	12.3	95.3	6.8	35.0	0.423	0.017	0.030	0.005 U	20.0	80 S	0.323
97/02/17	1020	5.2	8890.0	30	12.0	93.5	6.8	35.0	0.450	0.010 U	0.077	0.005 U	20.0	100 S	0.338
97/03/17	1030	4.8	6380.0	37	11.9	91.9	7.2	31.0	0.559	0.023	0.048	0.005 U	24.0	96	0.416
97/04/21	1045	5.5	12400.0	21	12.7	99.3	7.1	81.0	0.248	0.031	0.094	0.005 U	45.0	140	0.156
97/05/19	1040	8.8	6500.0	26	10.9	93.8	7.0	16.0	0.167	0.012	0.046	0.005 U	7.9	39	0.059
97/06/16	1045	11.0	5300.0	26	10.8	97.2	6.9	10.0	0.085 J	0.010 UJ	0.046 J	0.005 U	5.7	33	0.086 J
97/07/21	1040	15.0	3400.0	36	9.0	88.4	7.2	11.0	0.196	0.010 U	0.026	0.005 U	5.0	20	0.146
97/08/18	1045	17.7	1260.0	55	9.3	96.4	7.3	3.0	0.218	0.010 U	0.021	0.005 U	2.2	66	0.152
97/09/21	1020	13.0	2340.0	34	9.9	93.1	7.1	13.0	0.384	0.010 U	0.035	0.005	8.1	120 J	0.300

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 07D130 SNOQUALMIE R @ SNOQUALMIE Water Class: A Latitude: 47 31 40.0
 Water Body No.: WA-07-1100 River Mile: 42.30 Longitude: 121 48 40.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc-tivity (umhos/25c(mg/L))	Oxygen (mg/L)	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid-ity (NTU)	Fecal Colif. (#/100ml)	NO2+NO3 Nitrog. (mg/L)
96/10/21	0925	5.6	2195.0	30	11.7	92.7	7.5	5.0	0.332	0.010 U	0.010 U	0.005 U	4.3	11	0.323
96/11/18	0950	3.7	2760.0	31	12.2	93.8	7.8	8.0	0.297	0.010 U	0.010 U	0.005 U	7.2	4	0.267
96/12/15	0935	4.5	2040.0	37	12.5	96.6	7.1	5.0	0.349	0.010 U	0.020	0.005 U	4.3	1	0.329
97/01/20	0940	3.7	5630.0	23	12.6	96.8	6.7	24.0	0.223	0.011	0.021	0.005 U	17.0	5	0.191
97/02/17	0920	3.9	5550.0	23	12.3	94.1	7.0	16.0	0.286	0.010 U	0.047	0.005 U	9.7	1 U	0.249
97/03/17	0940	4.0	3600.0	30	12.3	94.3	7.3	26.0	0.366	0.010 U	0.043	0.005 U	29.0	5	0.316
97/04/21	0945	3.9	8340.0	20	12.5	95.0	7.5	36.0	0.192	0.030	0.068	0.005 U	18.0	9	0.140
97/05/19	0945	5.8	5420.0	19	11.8	95.4	7.5	10.0	0.112	0.010 U	0.037	0.005 U	5.9	4	0.025
97/06/16	0950	8.5	4880.0	17	11.2	96.3	7.5	11.0	0.049 J	0.010 UJ	0.043 J	0.005 U	6.6	13	0.050 J
97/07/21	0940	12.7	2930.0	25	9.3	88.1	7.1	4.0	0.101	0.010 U	0.021	0.005 U	2.7	20	0.091
97/08/18	0940	13.7	739.0	45	9.4	90.8	7.1	2.0	0.196	0.010 U	0.019	0.005 U	0.9	16	0.152
97/09/21	0925	11.5	1750.0	30	10.3	94.9	7.5	3.0	0.235	0.010 U	0.039	0.005 U	2.9	38	0.223

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 08C070
 Water Body No.: WA-08-1140
 CEDAR R @ LOGAN ST/RENTON
 Water Class: A
 River Mile: 1.00
 Latitude: 47 29 09.0
 Longitude: 122 12 28.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100mL)	NO2+NO3 Nitrog. (mg/L)
96/10/23	1020	8.6	309.0	71	10.1	86.5	14.0	0.530	0.030	0.025	0.008	3.7	250	0.413
96/11/20	1020	5.1	1230.0	48	11.9	92.4	8.0	0.359	0.011	0.021	0.007	4.0	25	0.285
96/12/17	1035	4.8	844.0	58	12.5	95.1	5.0	0.467	0.018	0.029	0.005	2.1	6	0.439
97/01/22	1015	4.7	1720.0	46	12.2	94.1	16.0	0.404	0.010	0.013	0.005	7.4	22	0.355
97/02/19	1010	5.0	1390.0	48	12.1	94.0	20.0	0.397	0.010	0.076	0.006	7.4	58	0.336
97/03/19	0950	6.3	2550.0	41	11.8	94.3	84.0	0.511	0.010	0.118	0.005	40.0	200	0.336
97/04/23	0945	7.6	1500.0	47	11.3	93.8	13.0	0.266	0.032	0.071	0.005	3.4	40	0.187
97/05/21	0950	9.7	1180.0	44	10.9	95.0	8.0	0.148	0.015	0.046	0.005	2.0	31	0.045
97/06/18	1015	11.1	659.0	56	11.5	103.4	7.0	0.216	0.010	0.056	0.006	3.1	150	0.202
97/07/23	0940	11.7	605.0	57	10.3	93.5	4.0	0.191	0.010	0.042	0.005	1.3	21	0.158
97/08/20	0925	15.3	182.0	79	10.5	104.2	3.0	0.200	0.010	0.018	0.005	1.6	130	0.170
97/09/23	0930	13.2	286.0	72	11.0	103.7	6.0	0.276	0.010	0.024	0.005	1.6	170	0.254

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 08C110 CEDAR R NR LANDSBURG Water Class: AA Latitude: 47 23 28.0
 Water Body No.: WA-08-1150 River Mile: 25.10 Longitude: 121 55 08.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen Satur- (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100mL)	N02+N03 Nitrog. (mg/L)
96/10/21	0835	7.7	380.0	54	11.1	93.4	1.0	0.235	0.010	0.010	0.005	0.5	3	0.233
96/11/18	0900	5.7	1190.0	36	11.8	96.2	3.0	0.182	0.010	0.010	0.005	1.2	1	0.164
96/12/15	0845	5.8	850.0	42	12.2	98.1	1.0	0.213	0.010	0.016	0.005	1.2	1	0.193
97/01/20	0850	3.9	1710.0	40	12.4	96.9	3.0	0.194	0.010	0.014	0.005	2.1	1	0.169
97/02/17	0830	4.5	1370.0	37	12.2	95.5	3.0	0.252	0.010	0.047	0.005	1.6	1	0.218
97/03/17	0855	4.3	1340.0	36	12.2	94.9	2.0	0.284	0.010	0.023	0.005	1.2	1	0.261
97/04/21	0855	6.5	740.0	48	11.5	94.0	3.0	0.283	0.034	0.038	0.006	1.1	1	0.268
97/05/19	0845	9.2	1780.0	32	10.6	93.8	6.0	0.122	0.013	0.035	0.005	1.8	1	0.059
97/06/16	0900	10.0	724.0	43	10.8	96.9	1.0	0.094	0.010	0.041	0.005	0.7	4	0.099
97/07/21	0850	10.8	693.0	47	10.0	91.4	2.0	0.182	0.010	0.023	0.005	0.7	4	0.127
97/08/18	0855	11.2	419.0	56	10.5	96.7	1.0	0.195	0.010	0.017	0.005	0.7	1	0.167
97/09/21	0835	11.0	309.0	60	10.8	99.1	1.0	0.226	0.010	0.029	0.006	0.5	3	0.225

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 09A080

GREEN R @ TUKWILA

Water Class: A Latitude: 47 27 52.0

Water Body No.:

River Mile: 12.40

Longitude: 122 14 49.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen (mg/L)	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100ml)	NO2+NO3 Nitrog. (mg/L)
96/10/23	1050	8.7	641.0	87	9.9	84.7	7.4	20.0	0.625	0.012	0.068	0.015	8.8	320	0.480
96/12/17	1105	5.2	1620.0	76	11.8	90.8	7.5	10.0	0.772	0.039	0.049	0.017	4.2	170	0.648
97/01/22	1040	4.8	3660.0	55	11.9	92.0	7.4	60.0	0.650	0.026	0.064	0.020	27.0	190 S	0.485
97/02/19	1040	5.0	4670.0	47	11.9	92.3	7.5	73.0	0.400	0.010 U	0.159	0.015	37.0	160 S	0.285
97/03/19	1030	6.2	6280.0	44	11.8	94.0	7.3	215.0	0.671	0.025	0.201	0.024	100.0	300	0.322
97/04/23	1015	6.8	4310.0	47	11.2	91.2	7.5	40.0	0.392	0.052	0.125	0.016	21.0	84	0.249
97/05/21	1015	9.3	2460.0	58	10.4	89.8	7.3	16.0	0.203	0.017	0.057	0.007	9.3	31	0.031
97/06/18	1040	11.9	1350.0	74	9.6	87.9	7.6	23.0	0.474 J	0.028 J	0.070 J	0.014	14.0	490	0.351 J
97/07/23	1005	15.6	729.0	108	8.4	83.0	7.4	10.0	0.392	0.010 U	0.044	0.011	4.3	100	0.331
97/08/20	0950	16.2	309.0	142	8.1	81.9	7.3	8.0	0.479	0.028	0.054	0.016	3.7	170	0.386
97/09/23	1005	16.1	515.0	116	8.8	88.3	7.4	16.0	0.585	0.036	0.063	0.016	6.4	80	0.435

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 09A190 GREEN R @ KANASKAT Water Class: AA Latitude: 47 19 10.0
 Water Body No.: WA-09-1030 River Mile: 57.60 Longitude: 121 53 33.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen (mg/L)	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100mL)	N02+N03 Nitrog. (mg/L)
96/10/21	0755	7.0	431.0	50	11.2	93.2	7.8	4.0	0.276	0.010 U	0.012	0.005 U	2.4	15	0.250
96/11/18	0815	4.2	1760.0	43	12.4	98.0	7.6	3.0	0.165	0.010 U	0.013	0.005 U	3.5	7	0.138
96/12/15	0800	4.5	876.0	43	12.7	99.4	7.3	2.0	0.256	0.010 U	0.028	0.005 U	1.6	7	0.234
97/01/20	0800	3.8	1740.0	33	12.5	97.7	7.3	12.0	0.177	0.010 U	0.017	0.005	4.3	2	0.162
97/02/17	0745	4.0	5670.0	28	12.8	99.6	7.1	48.0	0.215	0.010 U	0.137	0.009	55.0	5	0.154
97/03/17	0820	4.0	1330.0	36	12.5	97.2	7.7	5.0	0.256	0.010 U	0.034	0.005 U	4.0	2	0.227
97/04/21	0810	5.2	3720.0	29	12.2	97.2	7.0	26.0	0.174	0.035	0.120	0.011	25.0	12	0.124
97/05/19	0800	7.8	2920.0	33	11.5	99.0	7.8	7.0	0.042	0.013	0.053	0.007	9.8	7	0.010 U
97/06/16	0820	9.6	740.0	39	10.8	96.1	6.8	1.0	0.010 UJ	0.010 UJ	0.049 J	0.006	0.9	5	0.010 UJ
97/07/21	0815	11.7	393.0	42	9.7	91.1	7.5	2.0	0.133	0.012	0.026	0.005 U	0.8	5	0.074
97/08/18	0810	13.2	150.0	48	10.0	96.9	7.6	1.0	0.113	0.010 U	0.020	0.005 U	0.8	13	0.071
97/09/21	0755	13.1	195.0	48	10.0	96.9	7.7	2.0	0.171	0.010 U	0.043	0.005 U	1.6	22	0.122

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 10A070 PUYALLUP R @ MERIDIAN ST Water Class: A Latitude: 47 12 10.0
 Water Body No.: WA-10-1020 River Mile: 8.30 Longitude: 122 17 33.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c)	Oxygen (mg/L)	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Hardnes (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100ml)
96/10/23	1145	7.5	3270.0	60	10.8	89.9	7.6	95.0	0.291	0.010 U	0.082	0.007	26	28.0	41
96/11/20	1115	3.5	2830.0	71	12.2	91.0	7.7	9.0	0.536	0.023	0.045	0.017		6.2	180
96/12/17	1205	4.5	3150.0	68	12.3	93.3	7.4	12.0	0.592	0.039	0.060	0.011	28	6.2	34
97/01/22	1125	5.1	5380.0	57	12.3	95.9	7.3	23.0	0.559	0.029	0.028	0.014		6.7	100
97/02/19	1140	4.6	7270.0	54	12.3	94.5	7.4	76.0	0.418	0.013	0.176	0.019	22	26.0	910
97/03/19	1115	6.6	9870.0	46	11.7	94.2	7.3	386.0	0.597	0.038	0.376	0.027		150.0	970
97/04/23	1110	7.8	6140.0	54	11.2	93.4	7.5	40.0	0.257	0.032	0.178	0.014	24	14.0	210
97/05/21	1105	9.1	5050.0	50	10.8	93.0	7.4	116.0	0.201	0.019	0.139	0.005 U		40.0	20
97/06/18	1140	11.0	6350.0	42	10.7	96.0	7.6	136.0	0.149 J	0.010 UJ	0.125 J	0.015	21	80.0	350 J
97/07/23	1055	13.1	3380.0	51	9.6	90.1	7.4	46.0	0.194	0.010 U	0.103	0.010		55.0	85
97/08/20	1045	14.2	1970.0	58	9.7	93.9	7.4	70.0	0.160	0.016	0.096	0.015	27	70.0	57
97/09/23	1105	15.3	1240.0	74	9.9	97.8	7.4	60.0	0.254	0.019	0.088	0.016		28.0	65 J

10A070 Puyallup R @ Meridian St continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Zinc Dissol. (ug/L)
96/10/23	1145	0.214	0.0010 U	0.010 U	0.794	0.031	0.370	2.200 J
96/11/20	1115	0.407						
96/12/17	1205	0.471	0.0030	0.018	0.770	0.037	0.410	1.100
97/01/22	1125	0.420						
97/02/19	1140	0.252	0.0030	0.030 U	0.715	0.030 U	0.320	0.860
97/03/19	1115	0.230						
97/04/23	1110	0.141	0.0020 U	0.020 U	0.781	0.150	0.357	0.820
97/05/21	1105	0.010 U						
97/06/18	1140	0.082 J	0.0020	0.020 U	0.716	0.020 U	0.310	0.210
97/07/23	1055	0.146						
97/08/20	1045	0.120	0.0030	0.020 U	0.514	0.020 U	0.300	0.750
97/09/23	1105	0.196						

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 11A070
 Water Body No.: WA-11-1010
 NISQUALLY R @ NISQUALLY
 Water Class: A
 River Mile: 3.40
 Latitude: 47 03 43.0
 Longitude: 122 41 42.0

Date	Time	Temp (deg C)	Flow (cfs)	Conduc-tivity (umhos/25c(mg/L))	Oxygen	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid-ity (NTU)	Fecal Colif. (#/100ml)	NO2+NO3 Nitrog. (mg/L)
96/10/23	1340	9.1	1350.0	64	10.7	92.4	8.1	27.0	0.512	0.010 U	0.061	0.005 U	39.0	16	0.309
96/11/20	1300	5.0	1650.0	61	12.2	94.4	7.8	8.0	0.363	0.010 U	0.035	0.010	12.0	12	0.267
96/12/17	1415	5.4	2640.0	59	12.2	94.5	7.3	10.0	0.517	0.011	0.049	0.007	10.0	3	0.394
97/01/22	1220	5.0	3260.0	54	12.1	94.0	7.2	16.0	0.597	0.010 U	0.035	0.012	16.0	10	0.426
97/02/19	1435	5.5	2760.0	55	12.1	94.7	7.6	11.0	0.456	0.010 U	0.123	0.014	9.7	41	0.337
97/03/19	1230	6.3	2290.0	41	12.0	95.9	7.3	238.0	0.472	0.013	0.231	0.006	120.0	27	0.190
97/04/23	1255	8.2	6100.0	53	10.1	85.0	8.2	41.0	0.254	0.033	0.183	0.007	20.0	18	0.139
97/05/21	1200	8.8	2230.0	55	12.3	105.1	7.6	7.0 J	0.188	0.015	0.051	0.005 U	2.6	9	0.010 U
97/06/18	1400	12.0	1450.0	60	12.7	116.3	8.2	9.0	0.196 J	0.010 UJ	0.065 J	0.009	4.0	9	0.116 J
97/07/23	1235	13.1	1290.0	56	9.9	93.0	7.7	5.0	0.194	0.010 U	0.045	0.005	3.1	6	0.141
97/08/20	1215	14.5	1030.0	57	9.7	94.4	7.5	7.0	0.177	0.010 U	0.025	0.005 U	10.0	16	0.122
97/09/23	1330	17.4	1210.0	55	10.1	104.5	8.1	25.0	0.221	0.010 U	0.062	0.005 U	50.0	16	0.166

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 13A060
 Water Body No.: WA-13-1010
 DESCUTES R @ E ST BRIDGE
 Water Class: A
 River Mile: 0.60
 Latitude: 47 00 43.0
 Longitude: 122 54 07.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc-tivity (umhos/25c(mg/L))	Oxygen (mg/L)	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid-ity (NTU)	Fecal Colif. (#/100ml)	NO2+NO3 Nitrog. (mg/L)
96/10/29	1525	9.2	250.0	92	10.4	89.6	7.0	6.0	0.672	0.010 U	0.023	0.012	3.1	25	0.579
96/11/25	1525	6.2	1140.0	63	11.4	90.3	7.0	88.0	0.965	0.010 U	0.073	0.014	60.0	140 S	0.584
96/12/16	1605	6.1	771.0	77	11.4	89.3	7.0	9.0	0.702	0.010 U	0.051	0.014	7.5	7 S	0.576
97/01/28	1555	5.2	809.0	82	11.5	88.9	7.0	14.0	0.870	0.019	0.054	0.009	8.7	17 S	0.748
97/02/26	1535	7.6	634.0	90	10.7	89.1	7.2	6.0	0.868	0.010 U	0.117	0.005 U	4.2	7	0.745
97/03/26	1535	10.3	638.0	79	10.3	91.5	7.0	12.0	0.848	0.010 U	0.051	0.013	7.1	17	0.718
97/04/30	1625	9.9	469.0	85	10.3	90.2	7.2	5.0	0.715	0.022	0.072	0.008	4.7	18	0.566
97/05/28	1525	13.3	255.0	109	11.0	104.3	7.7	4.0	0.674	0.020	0.055	0.005 U	1.9	110	0.534
97/06/24	1630	14.6	226.0	107	11.0	107.2	7.5	4.0	0.715	0.018	0.027	0.007	1.8	16	0.577
97/07/30	1555	16.4	155.0	118	9.7	98.4	7.6	19.0	0.783	0.010 U	0.059	0.005	18.0	25	0.715
97/08/27	1500	13.9	170.0	112	10.0	96.3	7.5	4.0	0.857	0.020	0.039	0.009	2.3	170 J	0.767
97/09/30	1355	13.0	185.0	100	9.5	90.1	7.3	5.0	0.673	0.010 U	0.048	0.013	2.5	560	0.586

Remarks: U, K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 16A070 SKOKOMISH R NR POTLATCH Water Class: AA Latitude: 47 18 36.0
 Water Body No.: WA-16-1010 River Mile: 5.30 Longitude: 123 10 33.0

Date	Time	Temp (deg C)	Flow (cfs)	Conduc- tivity (umhos/25c(mg/L))	Oxygen (mg/L)	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100mL)	NO2+NO3 Nitrog. (mg/L)
96/10/29	1005	8.0	862.0	61	10.5	87.6	7.5	5.0	0.110	0.010 U	0.010 U	0.005 U	4.4	6	0.099
96/11/25	0950	6.3	1150.0	64	11.1	89.4	7.4	9.0	0.128	0.010 U	0.014	0.007	6.0	7 S	0.115
96/12/16	1045	6.1	1390.0	52	11.5	89.9	7.3	9.0	0.138	0.010 U	0.036	0.005	7.1	3	0.123
97/01/28	1140	4.8	1860.0	52	11.8	90.2	6.5	22.0	0.133	0.011	0.041	0.005 U	16.0	9	0.091
97/02/26	1040	6.3	1020.0	60	11.2	90.0	7.6	4.0	0.065	0.010 U	0.068	0.005 U	3.1	1 U	0.076
97/03/26	1045	7.3	1870.0	50	11.4	94.0	7.5	17.0	0.133	0.010 U	0.046	0.005 U	13.0	1 U	0.112
97/04/30	1050	6.7		53	11.2	91.2	7.6	10.0	0.101	0.020	0.056	0.005 U	8.8	12	0.097
97/05/28	1040	8.6	840.0	63	10.8	91.6	7.5	2.0	0.010 U	0.019	0.030	0.005 U	1.2	43	0.020
97/06/24	1005	10.3	693.0	82	10.2	89.7	6.4	2.0	0.046	0.011	0.016	0.005 U	1.1	6	0.027
97/07/30	1115	10.6	417.0	70	9.9	87.9	7.6	3.0	0.059	0.010 U	0.026	0.005 U	1.5	27	0.035
97/08/27	1000	10.4	686.0	62	10.0	88.5	7.4	8.0	0.052	0.010 U	0.026	0.005 U	3.7	140	0.040
97/09/30	0945	9.6	1310.0	57	10.1	88.9	7.6	6.0	0.098	0.010 U	0.032	0.005 U	9.5	7	0.074

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 16C090 DUCKABUSH R NR BRINNON Water Class: AA Latitude: 47 41 03.0
 Water Body No.: WA-16-3010 River Mile: 4.50 Longitude: 123 00 37.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen (mg/L)	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100mL)	NO2+NO3 Nitrog. (mg/L)
96/10/29	0900	5.7	341.0	59	12.0	95.5	7.8	2.0	0.047	0.010 U	0.010 U	0.005 U	1.6	2	0.029
96/11/25	0830	4.3	216.0	79	12.4	94.4	7.5	3.0	0.043	0.010 U	0.010 U	0.005 U	0.7	1 S	0.045
96/12/16	0920	4.2	282.0	72	12.8	96.1	6.9	1.0 U	0.037	0.010 U	0.016	0.005 U	6.7	1 U	0.045
97/01/28	1015	3.1	440.0	66	12.8	94.5	6.9	1.0	0.016	0.010 U	0.019	0.005 U	2.0	1	0.034
97/02/26	0930	4.2	264.0	77	12.4	95.3	7.7	1.0	0.067	0.010 U	0.056	0.005 U	1.3	3	0.067
97/04/30	0950	4.4	514.0	61	12.0	93.1	7.7	2.0	0.070	0.018	0.029	0.005 U	1.3	3	0.062
97/05/28	0915	5.6	691.0	54	11.7	93.0	7.6	3.0	0.010 U	0.027	0.022	0.005 U	2.2	5	0.010 U
97/06/24	0850	7.6	448.0	74	11.1	92.3	6.3	2.0	0.094	0.010 U	0.010 U	0.005 U	1.7	2	0.072
97/07/30	1000	9.6	229.0	67	10.7	93.6	7.8	1.0	0.032	0.010 U	0.018	0.005 U	0.7	2	0.010 U
97/08/27	0840	9.6	348.0	57	10.8	94.7	7.6	41.0	0.064	0.010 U	0.054	0.005 U	65.0	96	0.027
97/09/30	0835	8.4	355.0	63	11.1	95.8	7.8	1.0	0.061	0.010 U	0.019	0.005 U	1.3	4	0.032

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 18B070 ELWHA R NR PORT ANGELES Water Class: AA Latitude: 48 03 56.0
 Water Body No.: WA-18-2010 River Mile: 8.10 Longitude: 123 34 35.0

Date	Time	Temp (deg C)	Flow (cfs)	Conduc-tivity (umhos/25c(mg/L))	Oxygen	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid-ity (NTU)	Fecal Colif. (#/100ml)	NO2+NO3 Nitrog. (mg/L)
96/10/28	1550	7.3	2330.0	87	11.6	97.4	6.8	4.0	0.023	0.010 U	0.010 U	0.005 U	3.7	3	0.010 U
96/11/24	1630	4.8	667.0	89	12.1	94.6	7.7	6.0	0.016	0.010 U	0.013	0.005 U	2.7	1 U	0.014
96/12/15	1550	3.7	1150.0	89	12.9	96.3	7.3	3.0	0.044	0.010 U	0.026	0.005 U	4.5	1	0.037
97/01/27	1525	2.5	1860.0	75	12.7	93.1	7.3	10.0	0.020	0.010 U	0.025	0.005 U	13.0	1 U	0.031
97/02/25	1705	4.4	1270.0	92	12.6	96.3	7.0	4.0	0.072	0.010 U	0.055	0.005 U	5.4	1 U	0.061
97/03/25	1510	5.6	2500.0	68	12.3	97.7	7.0	32.0	0.113	0.010 U	0.059	0.005 U	36.0	1 U	0.085
97/04/29	1615	6.0	2340.0	76	12.4	99.3	7.0	7.0	0.058	0.018	0.033	0.005 U	7.7	1 U	0.056
97/05/27	1640	7.4	2840.0	73	11.7	96.8	7.8	4.0	0.010 U	0.021	0.024	0.005 U	5.5	1	0.010 U
97/06/23	1700	9.3	2150.0	71	11.1	96.2	7.2	3.0	0.010 J	0.011 J	0.016 J	0.005 U	5.6	1	0.010 UJ
97/07/29	1605	11.9	1360.0	75	10.3	95.4	7.6	2.0	0.015	0.010 U	0.023	0.005 U	2.0	1 U	0.010 U
97/08/26	1520	12.6	1010.0	82	10.4	98.3	7.5	1.0	0.020	0.010 U	0.023	0.005 U	1.1	4	0.010 U
97/09/29	1440	10.1	1370.0	70	11.0	98.6	7.0	8.0	0.066	0.010 U	0.026	0.005 U	13.0	3	0.014

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 208070
 Water Body No.: WA-20-2010

HOH R @ DNR CAMPGROUND

Water Class: AA
 River Mile: 16.50
 Latitude: 47 48 25.0
 Longitude: 124 14 59.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen Satur. (%)	Oxygen (mg/L)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100ml)	NO2+NO3 Nitrog. (mg/L)
96/10/28	1305	8.0	4340.0	59	93.6	11.0	7.3	68.0	0.198	0.010 U	0.035	0.005 U	26.0	72	0.117
96/11/24	1405	5.8	1550.0	91	94.0	11.7	7.2	6.0	0.124	0.010 U	0.013	0.005 U	5.6	5	0.111
96/12/15	1330	4.9	2530.0	69	95.2	12.4	6.9	6.0	0.145	0.010 U	0.021	0.005 U	7.4	3	0.138
97/01/27	1250	3.4	2060.0	65	92.0	12.3	7.2	10.0	0.097	0.017	0.024	0.005 U	9.4	1	0.107
97/02/25	1350	5.8	2000.0	71	93.3	11.8	7.2	4.0	0.093	0.010 U	0.057	0.005 U	5.3	1 U	0.091
97/03/25	1235	7.6	2865.0	65	97.5	11.7	7.1	28.0	0.157	0.010 U	0.036	0.005 U	20.0	1 U	0.138
97/04/29	1320	7.4	3480.0	64	95.3	11.5	7.4	16.0	0.105	0.020	0.037	0.005 U	11.0	2	0.089
97/05/27	1325	8.6	2000.0	76	94.5	11.1	7.5	4.0	0.010 U	0.013	0.020	0.005 U	3.0	2	0.010 U
97/06/23	1415	9.7	2780.0	70	93.4	10.7	7.5	12.0	0.118 J	0.010 UJ	0.019 J	0.005 U	12.0	7	0.084 J
97/07/29	1250	11.8	1700.0	69	96.8	10.5	7.5	5.0	0.023	0.010 U	0.023	0.005 U	6.7	11	0.010 U
97/08/26	1245	9.9	1560.0	60	94.1	10.6	7.4	47.0	0.078	0.010 U	0.053	0.005 U	55.0	95	0.041
97/09/29	1145	9.1	1510.0	61	95.2	10.9	7.4	28.0	0.141	0.010 U	0.034	0.005 U	29.0	21	0.090

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 20D070

DICKEY R NR LA PUSH

Water Class: AA

Latitude: 47 58 07.0

Water Body No.:

River Mile: 6.10

Longitude: 124 32 56.0

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Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100ml)	N02+N03 Nitrog. (mg/L)
96/10/28	1410	9.1		35	10.3	89.6	7.4	126.0	0.555	0.032	0.111	0.005 U	65.0	280	0.297
96/11/24	1500	5.2		48	11.6	91.0	6.7	23.0	0.297	0.010 U	0.020	0.005 U	13.0	48	0.183
96/12/15	1425	4.9		38	12.0	91.9	6.9	18.0	0.290	0.010 U	0.020	0.005 U	2.9	10	0.213
97/01/27	1340	2.1		39	12.4	89.3	7.2	10.0	0.239	0.014	0.026	0.005 U	3.3	2 J	0.170
97/02/25	1540	6.0		43	11.7	92.5	7.3	2.0	0.193	0.010 U	0.058	0.005 U	1.9	1	0.131
97/03/25	1350	8.6		37	11.1	94.3	6.4	4.0	0.221	0.010 U	0.012	0.005 U	3.4	7	0.156
97/04/29	1425	9.6		38	10.6	91.9	7.6	4.0	0.205	0.024	0.027	0.005 U	3.0	3	0.121
97/05/27	1455	14.4		65	9.6	92.5	7.6	1.0	0.050	0.012	0.027	0.005 U	1.1	4	0.010 U
97/06/23	1520	14.0		45	9.6	91.7	7.6	7.0	0.227 J	0.011 J	0.020 J	0.005 U	4.2	150 J	0.067 J
97/07/29	1405	18.7	70.0	63	9.6	101.6	7.5	1.0	0.116	0.010 U	0.028	0.005 U	1.0	31	0.010 U
97/08/26	1345	15.0	215.0	66	9.1	90.0	7.4	5.0	0.244	0.010 U	0.037	0.005 U	4.5	770 J	0.096
97/09/29	1310	12.7		41	9.7	91.5	7.2	9.0 J	0.460	0.010 U	0.031	0.005 U	14.0	18	0.294

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Remarks: U, K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 22A070
 Water Body No.: WA-22-1010
 HUMPTULIPS R NR HUMPTULIPS
 Water Class: A
 River Mile: 23.60
 Latitude: 47 13 48.0
 Longitude: 123 57 38.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c/mg/L)	Oxygen	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100ml)	NO2+NO3 Nitrog. (mg/L)
96/10/28	1020	8.6	1300.0	50	10.8	92.9	7.4	5.0	0.275	0.010 U	0.010 U	0.005 U	5.0	22	0.274
96/11/24	1220	6.3	840.0	61	11.7	94.5	7.1	3.0	0.238	0.010	0.016	0.005 U	2.7	9	0.190
96/12/15	1030	5.0	1600.0	47	12.2	93.5	6.8	10.0	0.249	0.010 U	0.032	0.005 U	9.7	5	0.222
97/01/27	1020	3.4	1280.0	44	12.2	90.9	7.1	4.0	0.190	0.010 U	0.024	0.005 U	7.0	25	0.182
97/02/25	1040	5.6	1090.0	47	12.2	95.4	7.3	2.0	0.255	0.010 U	0.061	0.005 U	2.4	1 U	0.233
97/03/25	0920	7.6	1390.0	43	11.6	96.1	7.1	14.0	0.211	0.010 U	0.042	0.005 U	16.0	2	0.194
97/04/29	0925	7.1	1850.0	41	11.5	94.2	7.5	34.0	0.173	0.019	0.056	0.006	31.0	16	0.137
97/05/27	1025	11.5	480.0	55	10.5	95.2	7.6	1.0	0.017	0.014	0.023	0.005 U	1.0	28	0.010 U
97/06/23	1145	11.5	664.0	52	10.3	93.4	7.6	2.0	0.044 J	0.012 J	0.011 J	0.005 U	2.0	10	0.038 J
97/07/29	0955	13.4	345.0	58	10.0	95.0	7.6	1.0	0.079	0.010 U	0.028	0.005 U	0.8	13	0.046
97/08/26	0920	13.7	326.0	60	9.5	91.5	7.5	1.0	0.065	0.010 U	0.023	0.005 U	0.9	45	0.023
97/09/29	0950	9.8	1360.0	45	10.7	94.6	7.6	16.0	0.228	0.010 U	0.057	0.005 U	22.0	20	0.175

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 23A070

Water Body No.: WA-23-1010

CHEHALIS R @ PORTER

Water Class: A

River Mile: 33.30

Latitude: 46 56 17.0

Longitude: 123 18 45.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc-tivity (umhos/25c(mg/L))	Oxygen	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid-ity (NTU)	Fecal Colif. (#/100ml)	NO2+NO3 Nitrog. (mg/L)
96/10/28	0845	8.3	2360.0	80	10.2	86.4	6.7	7.0	1.050	0.010 U	0.041	0.012	6.0	60	0.894
96/11/24	1035	4.8	5145.0	91	11.4	88.1		16.0	1.150	0.027	0.046	0.017	10.0	490 X	0.803
96/12/15	0845	5.2	13125.0	59	11.3	86.7	6.8	18.0	0.985	0.020	0.065	0.020	14.0	57	0.804
97/01/27	0835	2.5	7315.0	63	11.7	84.6	7.5	11.0	1.030	0.033	0.042	0.011	10.0	64 J	0.825
97/02/25	0905	5.6	6980.0	68	11.0	85.7	7.9	10.0	0.927	0.010 U	0.104	0.010	6.6	82	0.744
97/03/25	0705	8.9	9460.0	60	10.2	86.9	7.0	23.0	0.889	0.014	0.061	0.012	15.0	49	0.714
97/04/29	0725	10.1	4810.0	72	10.0	87.7	7.3	8.0	0.706	0.029	0.085	0.019	5.5	89 S	0.567
97/05/27	0810	14.1	1520.0	99	9.3	89.1	7.4	7.0	0.621	0.023	0.059	0.013	2.9	11	0.446
97/06/23	0945	14.9	1600.0	132	8.9	86.6	6.9	9.0	0.716 J	0.020 J	0.039 J	0.015	3.7	33	0.533 J
97/07/29	0750	18.7	640.0	91	8.0	84.4	7.3	4.0	0.633	0.013	0.045	0.006	1.9	13	0.488
97/08/26	0735	17.9	450.0	101	8.2	86.1	7.4	4.0	0.847	0.028	0.053	0.023	2.0	37	0.733
97/09/29	0750	13.9	1940.0	80	9.1	87.7	7.5	10.0	0.590	0.010 U	0.065	0.018	5.7	64	0.400

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 23A100 CHEHALIS R @ PRATHER RD Water Class: A Latitude: 46 46 31.4
 Water Body No.: WA-23-1010 River Mile: 59.90 Longitude: 123 02 03.3

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen (mg/L)	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Hardnes (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100ml)
96/10/29	1315	8.1	2300.0	87	10.7	90.1	7.4	6.0	0.887	0.011	0.034	0.009	28	5.7	65
96/11/25	1335	6.2	8900.0	74	10.9	86.8	6.8	90.0	1.310	0.033	0.062	0.015		50.0	490 S
96/12/16	1300	5.3	6930.0	70	11.2	86.1	7.0	14.0	0.959	0.014	0.052	0.013	24	11.0	31
97/01/28	1355	3.1	4610.0	68	12.1	88.7	6.7	11.0	0.926	0.044	0.036	0.011		11.0	140
97/02/26	1310	6.1	3310.0	71	11.1	89.2	7.0	8.0	0.870	0.030	0.109	0.006		6.7	180
97/03/26	1400	10.2	4000.0	67	10.0	88.7	7.0	14.0	0.815	0.020	0.063	0.009	24	9.9	3
97/04/30	1415	10.3	3160.0	68	10.5	93.1	7.4	5.0	0.571	0.035	0.075	0.012		5.6	49
97/05/28	1245	14.5	1090.0	99	9.6	93.4	7.4	3.0	0.455	0.043	0.062	0.018		2.4	19 S
97/06/24	1350	16.4	1120.0	75	10.3	104.2	7.4	3.0	0.564	0.031	0.039	0.018	29	3.4	38
97/07/30	1350	19.7	445.0	86	9.8	106.1	7.7	2.0	0.480	0.010 U	0.060	0.022		1.5	14
97/08/27	1200	17.0	456.0	91	7.6	78.0	7.3	3.0	0.731	0.123	0.081	0.053	35	2.2	180 J
97/09/30	1200	13.6	1090.0	82	9.0	86.7	7.0	3.0	0.651	0.027	0.060	0.018		4.0	48

23A100 Chehalis R @ Prather Rd continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol. (ug/L)	Nickle Dissol. (ug/L)	Zinc Dissol. (ug/L)
96/10/29	1315	0.763	0.0010 U	0.020 U	1.170	0.083	0.760	3.300
96/11/25	1335	0.708						
96/12/16	1300	0.807	0.0020	0.033	0.652	0.030 U	0.520	2.100
97/01/28	1355	0.762						
97/02/26	1310	0.704	0.0010	0.054	0.500	0.023	0.380	0.710
97/03/26	1400	0.662						
97/04/30	1415	0.419	0.0020 U	0.020 U	0.880	0.034	0.540	1.850
97/05/28	1245	0.284						
97/06/24	1350	0.335	0.0020 U	0.020 U	1.400	0.061	0.901	2.660
97/07/30	1350	0.329						
97/08/27	1200	0.478	0.0020 U	0.020 U	1.800	0.091	0.574	2.390
97/09/30	1200	0.514						

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 23A130 CHEHALIS R @ CLAUQUATO Water Class: A Latitude: 46 38 01.0
 Water Body No.: River Mile: 77.70 Longitude: 123 00 59.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen (mg/L)	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100mL)	NO2+NO3 Nitrog. (mg/L)
96/10/30	0820	6.8		66	11.0	89.1	7.6	5.0	0.707	0.010 U	0.023	0.005 U	4.1	78	0.605
96/11/25	0825	5.1		57	11.4	87.7	7.6	102.0	1.310	0.014	0.095	0.011	45.0	330 S	0.866
96/12/17	0815	4.9		58	11.6	88.3	7.0	26.0	0.880	0.010 U	0.052	0.010	11.0	28	0.779
97/01/29	0800	4.7		59	12.0	91.8	6.6	11.0	0.810	0.032	0.043	0.007	7.5	100	0.646
97/02/24	0720	4.8		57	11.6	88.1	6.7	11.0	0.735	0.010 U	0.106	0.010 UJ	6.0	28	0.624
97/03/24	0710	7.7		52	10.5	86.4	6.6	46.0	0.760	0.020	0.082	0.005 U	19.0	27	0.622
97/04/28	0915	9.4		60	10.2	88.7	6.5	11.0	0.520	0.039	0.082	0.016	6.9	58	0.352
97/05/26	0810	11.6		72	9.5	86.6	7.5	4.0	0.199	0.019	0.044	0.005 U	2.6	61	0.113
97/06/25	1720	16.9		72	9.2	94.6	7.9	4.0	0.313	0.019	0.020	0.009	2.5	19	0.121
97/07/28	0835	20.1		80	7.5	81.8	7.1	5.0	0.290	0.024	0.412	0.014	2.3	33	0.134
97/08/25	0820	18.5		87	7.8	82.7	6.9	4.0	0.256	0.033	0.034	0.005 U	2.7	28	0.108
97/09/28	0810	12.0		61	9.9	90.8	7.0	13.0	0.619	0.010 U	0.052	0.005 U	9.7	730 J	0.519

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 23A160 CHEHALIS R @ DRYAD Water Class: A Latitude: 46 37 54.0
 Water Body No.: WA-23-1100 River Mile: 101.70 Longitude: 123 14 51.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen Satur- (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Hardnes (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100ml)
96/10/30	0925	6.0	550.0	60	11.6	92.7	2.0	0.650	0.010 U	0.011	0.005 U	20	2.2	29
96/11/25	0935	5.3	2800.0	52	12.2	94.7	51.0	1.060	0.014	0.053	0.008		22.0	43
96/12/17	0935	4.4	1200.0	54	12.6	95.0	6.0	0.710	0.010 U	0.042	0.005 U	21	3.0	18
97/01/29	0930	4.7	1050.0	53	12.5	96.0	3.0	0.599	0.018	0.038	0.005 U		2.7	5
97/02/24	1100	4.3	1000.0	54	12.6	94.9	2.0	0.651	0.010 U	0.115	0.010 U		1.9	3
97/03/24	0840	5.9	1500.0	49	12.0	94.8	9.0	0.668	0.010 U	0.031 J	0.005 U	19	4.5	10
97/04/28	1025	8.2	900.0	54	11.4	96.8	3.0	0.468	0.029	0.059	0.005 U		3.4	13
97/05/26	0910	10.5	250.0	63	10.5	93.8	1.0	0.165	0.018	0.035	0.005 U		1.1	47
97/06/25	1910	15.4	225.0	62	10.2	102.0	2.0	0.234	0.016	0.011	0.005 U	21	1.4	14
97/07/28	0930	16.7	100.0	68	8.6	87.9	3.0	0.274	0.011	0.039	0.010		1.7	51
97/08/25	0930	15.8	70.0	72	8.7	87.8	2.0	0.177	0.013	0.027	0.005 U	26	1.7	92
97/09/28	0920	11.2	700.0	56	10.5	95.0	4.0	0.575	0.010 U	0.038	0.005 U		2.4	320 J

23A160 Chehalis R @ Dryad continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom- ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol. (ug/L)	Nickle Dissol. (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
96/10/30	0925	0.625	0.40 U	0.9 J	0.1 U	8.7 J	0.10 U	0.0020	0.020 U	0.687	0.039	0.220	1.500	0.200 U
96/11/25	0935	0.780												
96/12/17	0935	0.684	0.40 U	0.8	0.1 U	3.2 J	0.10 U	0.0010 U	0.010 U	0.370	0.030 U	0.290	1.200	0.200 U
97/01/29	0930	0.504												
97/02/24	1100	0.588	0.40 U	0.4	0.1 U	6.0 J	0.10 U	0.0010 U	0.030	0.280	0.020 U	0.160	0.400 U	0.200 U
97/03/24	0840	0.612												
97/04/28	1025	0.361	0.20 U	0.8	0.1 U	1.0 U	0.10 U	0.0020 U	0.020 U	0.430	0.020 U	0.280	0.770	0.100
97/05/26	0910	0.087												
97/06/25	1910	0.094	0.50 U	0.9	0.1 U	3.7 J	0.10 U	0.0030	0.020 U	0.691	0.020 U	0.250	0.440	0.160
97/07/28	0930	0.122												
97/08/25	0930	0.068	0.20 U	0.9	0.1 U	1.0 U	0.10 U	0.0020 U	0.020 U	0.988	0.114	0.360	2.110	0.200 U
97/09/28	0920	0.511												

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 23B070
 Water Body No.: WA-23-1070
 NEWAUKUM R NR CHEHALIS
 Water Class: A
 River Mile: 4.50
 Latitude: 46 37 13.0
 Longitude: 122 56 38.0

Date	Time	Temp (deg C)	Flow (cfs)	Conduc- tivity (umhos/25c(mg/L))	Oxygen	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100mL)	NO2+NO3 Nitrog. (mg/L)
96/10/29	1120	8.2		55	10.6	89.4	7.5	33.0	1.120	0.010 U	0.051	0.007	25.0	540	0.867
96/11/25	1130	6.7		51	10.8	86.9	7.1	42.0	1.240	0.010 U	0.043	0.015	27.0	150 S	0.878
96/12/16	1450	5.3		53	12.0	92.4	6.7	20.0	1.020	0.027	0.053	0.011	11.0	36 S	0.887
97/01/28	1450	3.1		47	12.2	89.5	6.8	22.0	0.913	0.021	0.041	0.007	15.0	130	0.743
97/02/26	1415	6.4		55	11.6	93.9	7.1	11.0	0.837	0.010 U	0.098	0.005 U	6.8	31	0.724
97/03/26	1200	10.2		52	10.6	94.1	7.3	20.0	0.767	0.010 U	0.052	0.006	8.0	21	0.681
97/04/30	1245	8.8		50	10.8	92.7	7.6	15.0	0.573	0.024	0.079	0.009	9.2	150 J	0.378
97/05/28	1405	15.0		68	9.8	96.6	7.6	4.0	0.236	0.020	0.042	0.005 U	2.6	150	0.128
97/06/24	1200	14.7		64	10.0	98.0	7.6	6.0	0.432	0.015	0.026	0.006	4.9	160	0.216
97/07/30	1440	20.1		77	8.9	97.3	7.7	4.0	0.268	0.010 U	0.035	0.005 U	2.5	66	0.141
97/08/27	1400	16.7		77	9.2	94.3	7.6	21.0	0.318	0.013	0.036	0.005 U	7.1	380	0.217
97/09/30	1230	14.7		76	9.3	91.7	7.2	4.0	0.362	0.010 U	0.049	0.008	2.8	32	0.243

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 23D055 SKOOKUMCHUCK R @ CENTRALIA Water Class: A Latitude: 46 43 50.0
 Water Body No.: WA-23- River Mile: 2.30 Longitude: 122 57 13.0

Date	Time	Temp (deg C)	Flow (cfs)	Conduc- tivity (umhos/25c(mg/L))	Oxygen (mg/L)	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100mL)	NO2+NO3 Nitrog. (mg/L)
96/10/29	1150	8.9	185.0	186	10.0	85.8	7.2	8.0	0.750	0.014	0.048	0.013	11.0	150	0.563
96/11/25	1215	6.4	722.0	142	10.2	81.5	6.5	35.0	1.520	0.012	0.062	0.020	32.0	960 S	0.997
96/12/16	1520	5.3	910.0	110	11.0	84.7	6.9	7.0	0.907	0.011	0.061	0.011	10.0	17	0.711
97/01/28	1515	4.1	594.0	90	11.6	87.4	6.7	8.0	0.850	0.026	0.040	0.007	17.0	22	0.700
97/02/26	1450	6.1	517.0	86	11.1	89.2	7.1	5.0	0.743	0.010 U	0.137	0.005 U	9.5	26	0.604
97/03/26	1230	9.3	475.0	91	10.4	90.4	7.0	7.0	0.716	0.011	0.054	0.010	11.0	9	0.572
97/04/30	1320	9.4	467.0	103	10.1	87.9	7.4	6.0	0.586	0.026	0.073	0.008	7.3	33	0.423
97/05/28	1445	14.8	169.0	183	9.6	94.3	7.5	3.0	0.411	0.029	0.048	0.005 U	3.8	55	0.261
97/06/24	1250	14.2	194.0	89	9.8	95.0	7.5	4.0	0.558	0.020	0.032	0.011	5.6	92	0.350
97/07/30	1510	16.4	360.0	67	9.8	99.6	7.6	3.0	0.386	0.010 U	0.037	0.005	2.6	16	0.285
97/08/27	1420	13.9	195.0	68	9.8	94.7	7.6	3.0	0.400	0.010	0.035	0.005 U	3.6	110	0.343
97/09/30	1300	13.3	210.0	120	9.2	88.1	7.3	3.0	0.350	0.010 U	0.047	0.007	3.4	150	0.266

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 23E070
 Water Body No.: WA-23-1019
 BLACK RIVER @ MOON ROAD BRIDGE
 Water Class: A
 River Mile: 7.10
 Latitude: 46 50 21.1
 Longitude: 123 08 17.0

Date	Time	Temp (deg C)	Conduc- tivity (umhos/25c(mg/L))	Oxygen	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Hardnes (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100mL)	NO2+NO3 Nitrog. (mg/L)
96/10/29	1415	8.1	74	6.6	55.4	7.2	1.0	0.903	0.010 U	0.066	0.032	29	2.0	14	0.444
96/11/25	1430	6.6	64	9.9	79.2	6.9	5.0	0.969	0.010 U	0.049	0.024		5.3	84 S	0.609
96/12/16	1215	4.7	59	8.7	65.8	6.7	3.0	0.767	0.013	0.061	0.020	23	2.0	7	0.558
97/01/28	1325	2.7	64	9.8	71.0	6.7	2.0	1.050	0.042	0.050	0.019		4.9	11 S	0.767
97/02/26	1225	6.3	66	9.1	73.3	7.2	3.0	0.921	0.026	0.120	0.013		2.2	9	0.680
97/03/26	1435	10.7	54	8.2	73.5	7.0	4.0	0.771	0.010 U	0.051	0.009		2.1	4	0.537
97/04/30	1510	10.6	68	8.9	79.3	7.2	3.0	0.851	0.053	0.082	0.023	29	3.1	310 J	0.554
97/05/28	1205	13.3	84	8.3	78.6	7.3	2.0	0.810	0.025	0.074	0.013		2.2	44	0.622
97/06/24	1505	16.2	84	9.9	99.6	7.5	1.0	0.966	0.019	0.035	0.016	35	1.8	15	0.717
97/07/30	1315	17.7	94	8.6	89.3	7.5	2.0	0.785	0.010 U	0.042	0.009		1.1	7	0.638
97/08/27	1120	15.8	93	7.6	75.9	7.3	1.0	0.816	0.020	0.037	0.010	41	0.8	39	0.721
97/09/30	1130	13.4	87	3.3	31.6	7.0	1.0	0.611	0.014	0.085	0.037		1.0	230	0.245

23E070 Black River @ Moon Road Bridge continued: more parameters.

Date	Time	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol. (ug/L)	Nickle Dissol. (ug/L)	Zinc Dissol. (ug/L)
96/10/29	1415	0.0040	0.020 U	1.830	0.070	0.490	2.500
96/11/25	1430						
96/12/16	1215	0.0030	0.038	0.671	0.036	0.380	2.300
97/01/28	1325						
97/02/26	1225	0.0020	0.020 U	0.490	0.020 U	0.280	0.920
97/03/26	1435						
97/04/30	1510	0.0020 U	0.020 U	0.620	0.034	0.410	1.110
97/05/28	1205						
97/06/24	1505	0.0030	0.020 U	0.533	0.034	0.350	0.840
97/07/30	1315						
97/08/27	1120	0.0020 U	0.020 U	0.390	0.034	0.310	1.300
97/09/30	1130						

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 23G070 SF CHEHALIS R @ CURTIS Water Class: A Latitude: 46 34 25.0
 Water Body No.: River Mile: 3.00 Longitude: 123 07 08.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen (mg/L)	Oxygen Satur- (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100mL)	NO2+NO3 Nitrog. (mg/L)
96/10/30	0855	6.1	250.0	72	11.2	89.5	7.3	2.0	0.846	0.023	0.027	0.005 U	3.1	360	0.755
96/11/25	0905	5.4	1550.0	58	11.4	88.5	7.2	80.0	1.670	0.016	0.079	0.016	40.0	160 S	1.260
96/12/17	0855	4.6	780.0	63	11.9	90.0	7.0	17.0	1.010	0.010 U	0.043	0.006	8.4	23	0.926
97/01/29	0845	4.7	700.0	58	12.5	95.8	7.1	11.0	0.910	0.054	0.040	0.013	7.4	270	0.670
97/02/24	1015	4.6	580.0	60	12.0	90.8	7.0	7.0	0.810	0.010 U	0.101	0.010 U	6.0	51	0.709
97/03/24	0755	6.5	790.0	54	11.0	88.0	7.1	28.0	0.813	0.016	0.051 J	0.005 U	13.0	64	0.712
97/04/28	0950	8.6	400.0	62	10.3	88.0	7.3	6.0	0.550	0.024	0.075	0.007	4.0	220 J	0.457
97/05/26	0835	10.8	190.0	74	10.1	90.7	7.5	1.0	0.216	0.018	0.042	0.005 U	2.0	56	0.174
97/06/25	1800	16.7	110.0	79	10.3	105.7	7.7	1.0	0.220	0.015	0.015	0.005 U	1.8	24	0.108
97/07/28	0900	17.5	50.0	87	7.9	82.0	7.5	4.0	0.278	0.016	0.040	0.011	2.0	83	0.147
97/08/25	0850	16.6	28.0	92	8.0	81.8	7.3	2.0	0.160	0.015	0.030	0.005 U	1.9	540	0.062
97/09/28	0845	11.8	320.0	64	9.8	89.7	7.1	7.0	0.822	0.010 U	0.049	0.005 U	6.0	430	0.772

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 248090
 Water Body No.: WA-24-2020

WILLAPA R NR WILLAPA

Water Class: A
 River Mile: 17.70
 Latitude: 46 39 00.0
 Longitude: 123 39 10.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc-tivity (umhos/25c(mg/L))	Oxygen	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. ortho P (mg/L)	Turbid-ity (NTU)	Fecal Colif. (#/100mL)	NO2+NO3 Nitrog. (mg/L)
96/10/30	1050	6.9	442.0	60	11.5	93.2	7.4	2.0	0.837	0.010 U	0.019	0.005 U	2.2	40	0.801
96/11/25	1030	6.3	1265.0	52	11.4	90.0	7.0	24.0	1.170	0.010 U	0.038	0.006	10.0	160	0.866
96/12/17	1050	5.1	927.0	55	12.1	92.3	6.8	7.0	0.994	0.010 U	0.042	0.005 U	3.9	27	0.921
97/01/29	1055	5.9	727.0	51	11.7	91.9	7.0	6.0	0.872	0.019	0.037	0.005 U	3.2	20	0.787
97/02/24	1255	5.9	740.0	52	12.4	96.7	7.3	5.0	0.890	0.010 U	0.105	0.010 U	3.0	4	0.817
97/03/24	0945	7.0	1062.0	45	11.3	91.0	7.2	26.0	0.907	0.019	0.066	0.005 U	12.0	24	0.875
97/04/28	1155	9.0	657.0	50	10.9	93.5	7.4	5.0	0.629	0.024	0.057	0.005 U	3.7	78	0.576
97/05/26	1005	11.8	178.0	59	10.5	95.8	7.6	2.0	0.300	0.031	0.040	0.005 U	1.4	110	0.217
97/06/25	1050	15.6	146.0	62	9.1	90.5	7.1	3.0	0.385	0.027	0.015	0.005 U	2.0	140	0.232
97/07/28	1020	17.1	68.0	64	8.3	84.8	7.5	2.0	0.352	0.012	0.039	0.008	1.7	71	0.217
97/08/25	1040	16.8	48.0	69	8.5	86.8	7.4	3.0	0.348	0.026	0.038	0.005 U	1.7	370	0.243
97/09/28	1015	12.0	485.0	57	9.8	89.5	7.4	6.0	0.848	0.010 U	0.046	0.005 U	4.1	340 J	0.773

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 24F070
 Water Body No.: WA-24-3010

NASELLE R NR NASELLE

Water Class: A
 River Mile: 17.40
 Latitude: 46 22 23.0
 Longitude: 123 44 44.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100mL)	NO2+NO3 Nitrog. (mg/L)
96/10/30	1215	7.6	472.0	49	11.7	96.9	7.5	3.0	0.618	0.010 U	0.011	0.005 U	1.8	34	0.605
96/11/25	1150	6.8	731.0	46	11.7	93.6	7.3	5.0	0.625	0.010 U	0.022	0.007	3.1	19	0.557
96/12/17	1215	5.0	514.0	48	12.5	95.4	7.0	4.0	0.573	0.010 U	0.037	0.005 U	2.0	10	0.577
97/01/29	1230	5.8	464.0	45	12.3	96.6	7.0	2.0	0.566	0.014	0.031	0.005 U	1.6	5	0.497
97/02/24	1420	6.1	440.0	46	12.2	95.9	7.3	1.0	0.528	0.010 U	0.086	0.010 U	1.1	2	0.481
97/03/24	1110	6.6	650.0	39	12.0	95.9	7.2	11.0	0.572	0.010 U	0.045	0.005 U	7.9	2	0.545
97/04/28	1310	8.4	531.0	42	11.2	94.9	7.3	6.0	0.390	0.019	0.058	0.005 U	3.7	21	0.378
97/05/26	1135	10.6	101.0	49	11.3	100.7	7.7	1.0	0.133	0.019	0.031	0.005 U	0.9	2	0.116
97/06/25	1210	12.7	158.0	53	9.2	86.2	7.6	1.0	0.358	0.011	0.010 U	0.005 U	0.8	40	0.275
97/07/28	1145	14.4	72.0	52	10.2	98.7	7.6	1.0	0.250	0.010 U	0.026	0.008	0.7	14	0.192
97/08/25	1205	15.2	60.0	55	9.9	98.0	7.4	1.0 U	0.158	0.010 U	0.027	0.005 U	0.9	190 J	0.114
97/09/28	1145	11.0	321.0	47	10.7	95.6	7.3	3.0	0.491	0.010 U	0.032	0.005 U	2.0	53	0.457

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 268070
 Water Body No.: WA-26-1040
 COWLITZ R @ KELSO
 Water Class: A
 River Mile: 4.90
 Latitude: 46 08 44.0
 Longitude: 122 54 47.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen (mg/L)	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100ml)	NO2+NO3 Nitrog. (mg/L)
96/10/30	1405	8.3	8760.0	77	11.0	92.8	7.4	62.0	0.267	0.010 U	0.059	0.005 U	40.0	39	0.184
96/11/25	1320	7.0	20100.0	61	11.4	91.5	7.4	138.0	0.527	0.010 U	0.081	0.008	65.0	210	0.337
96/12/17	1415	5.9	16300.0	64	12.1	94.4	7.1	28.0	0.310	0.010 U	0.053	0.005 U	21.0	11	0.245
97/01/29	1415	4.7	19100.0	63	12.3	93.7	7.3	32.0	0.328	0.016	0.043	0.005 U	30.0	8	0.239
97/02/24	1620	5.4	14400.0	70	12.2	94.2	7.3	33.0	0.381	0.010 U	0.139	0.010 U	37.0	5	0.317
97/03/24	1300	6.2	22400.0	54	12.0	94.9	7.3	118.0	0.364	0.010 U	0.142 J	0.005 U	80.0	5	0.282
97/04/28	1455	7.5	15700.0	67	11.4	94.4	7.2	89.0	0.270	0.018	0.132	0.005 U	75.0	32	0.203
97/05/26	1315	9.2	9230.0	80	10.9	93.9	7.5	26.0	0.083	0.018	0.053	0.005 U	18.0	12	0.080
97/06/25	1405	13.5	6440.0	101	9.9	94.5	7.5	158.0	0.177	0.010 U	0.047	0.005 U	36.0	18 J	0.121
97/07/28	1315	16.9	4250.0	103	9.4	96.0	7.5	30.0	0.067	0.010 U	0.031	0.007	5.9	25	0.010 U
97/08/25	1355	14.0	4690.0	91	10.1	97.4	7.5	28.0	0.044	0.010 U	0.027	0.005 U	5.9	72	0.010 U
97/09/28	1315	11.9	5310.0	73	10.5	95.8	7.4	171.0	0.197	0.010 U	0.054	0.005 U	25.0	140	0.099

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 27B070
 Water Body No.: WA-27-1010
 KALAMA R NR KALAMA
 Water Class: A
 River Mile: 2.80
 Latitude: 46 02 52.0
 Longitude: 122 50 11.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen Oxygen Satur- (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100ml)	NO2+NO3 Nitrog. (mg/L)
96/10/30	1430	7.9		32	11.4	95.3	5.0	0.413	0.010 U	0.013	0.005 U	3.7	7	0.373
96/11/25	1510	6.8		36	11.9	95.0	19.0	0.584	0.010 U	0.030	0.008	10.0	15	0.490
96/12/17	1455	4.2		42	12.9	96.4	8.0	0.476	0.010 U	0.040	0.006	5.3	7	0.473
97/01/29	1620	5.1		41	12.4	95.5	8.0	0.552	0.025	0.030	0.006	3.8	4	0.393
97/02/24	1820	4.9		39	12.5	95.3	2.0	0.393	0.010 U	0.108	0.010 U	2.0	1	0.350
97/03/24	1505	6.5		34	12.2	97.4	8.0	0.505	0.010 U	0.041	0.005 U	5.9	1	0.467
97/04/28	1630	7.4		35	11.7	96.7	6.0	0.295	0.020	0.078	0.005 U	4.2	8	0.277
97/05/26	1405	10.7		45	12.1	108.1	2.0	0.082	0.018	0.042	0.005 U	1.1	1	0.077
97/06/25	1615	13.3		48	11.0	104.6	4.0	0.163	0.016	0.018	0.005 U	1.7	3	0.068
97/07/28	1355	15.7		52	10.4	103.9	2.0	0.222	0.010 U	0.026	0.005	0.7	13	0.157
97/08/25	1440	14.2		55	11.1	107.8	2.0	0.094	0.010 U	0.028	0.005 U	0.9	38	0.047
97/09/28	1405	11.9	700.0	44	11.1	101.7	2.0	0.206	0.010 U	0.040	0.005 U	1.8	18	0.131

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 270090 EF LEWIS R NR DOLLAR CORNER Water Class: A Latitude: 45 48 53.0
 Water Body No.: WA-27-2020 River Mile: 10.20 Longitude: 122 35 26.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen Oxygen Satur. (%)	pH (pH)	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100ml)	N02+N03 Nitrog. (mg/L)	
96/10/30	1520	7.4	983.0	41	11.7	96.6	7.6	2.0	0.463	0.010 U	0.010 U	0.005 U	2.2	16	0.457
96/11/25	1420	7.1	2000.0	27	11.7	94.3	7.3	7.0	0.514	0.010 U	0.018	0.006	4.0	8	0.438
96/12/17	1540	3.9	1100.0	33	12.8	94.9	6.9	3.0	0.475	0.010 U	0.028	0.005 U	1.7	6	0.464
97/01/29	1515	4.6	950.0	32	12.6	95.9	7.2	2.0	0.526	0.011	0.029	0.005 U	1.8	1	0.428
97/02/24	1725	5.4	711.0	31	12.2	94.4	7.3	4.0	0.374	0.010 U	0.140	0.010 U	2.8	1	0.354
97/03/24	1410	7.1	1090.0	28	11.7	94.9	7.5	4.0	0.444	0.010 U	0.038	0.005 U	2.2	1	0.389
97/04/28	1545	8.2	799.0	30	11.3	95.3	7.6	2.0	0.278	0.015	0.055	0.005 U	2.9	4	0.276
97/05/26	1450	13.7	280.0	40	10.7	102.4	7.9	1.0	0.165	0.019	0.029	0.005 U	0.8	24	0.119
97/06/25	1520	15.4	334.0	39	9.8	97.7	7.7	2.0	0.331	0.013	0.014	0.005 U	4.0	12	0.256
97/07/28	1450	20.2	113.0	48	9.1	99.8	7.7	3.0	0.145	0.014	0.032	0.012	1.2	8	0.073
97/08/25	1530	17.9	103.0	49	9.5	99.8	7.7	3.0	0.347	0.010 U	0.031	0.005 U	1.4	180	J 0.280
97/09/28	1445	13.9	198.0	39	10.5	100.7	7.8	1.0	0.331	0.010 U	0.030	0.005 U	1.0	27	0.237

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 29D070 Rattlesnake CR NR MOUTH Water Class: A Latitude: 45 47 50.4
 Water Body No.: WA-29-1010 River Mile: 0.05 Longitude: 121 29 02.1

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c/mg/L)	Oxygen (mg/L)	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100mL)	NO2+NO3 Nitrog. (mg/L)
96/10/16	1745	9.4	4.4	136	10.9	94.6	8.0	1.0	0.102	0.010 U	0.023	0.021	0.7	15	0.025
96/11/13	1400	8.3	4.6		10.8	91.6	7.8	1.0	0.087	0.010 U	0.033	0.026	0.7	7	0.010 U
96/12/11	1305	5.6	323.0	60	11.6	95.1	7.6	6.0	0.197	0.010 U		0.025	16.0	25	0.102
97/01/15	1310	1.2	159.0	53	14.2	101.1	7.9	2.0	0.142	0.010 U	0.065	0.020	8.6	5	0.078
97/02/12	1400	4.3	121.0	47	13.1	100.8	7.9	2.0	0.119	0.010 U	0.109	0.020	7.6	6	0.050
97/03/12	1310	5.8	503.0	56	11.8	94.2	7.7	6.0	0.163	0.010 U	0.100	0.017	9.1	4	0.100
97/04/16	1230	9.8	65.0	68	11.7	103.6	8.2	2.0	0.128	0.033	0.112	0.014	4.2	24	0.110
97/05/14	1250	16.1	6.0	88	10.2	104.3	8.1	2.0	0.132	0.024	0.156	0.017	3.3	4	0.032
97/06/11	1335	15.1	3.0	110	9.7	97.6	8.1	4.0	0.088 J	0.010 UJ	0.254 J	0.025	1.5	7	0.029 J
97/07/16	1110	17.1	1.4	124	11.1	115.5	7.9	3.0	0.115	0.010 U	0.072	0.024	0.8	19	0.083
97/08/13	0930	18.6	1.0	145	9.8	104.4	8.0	1.0	0.259	0.010 U	0.062	0.042	0.6	24	0.186
97/09/17	1105	12.7	1.7	131	10.9	104.8	8.0	1.0	0.185	0.010 U	0.056	0.028	0.9	33	0.119

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 29E070

GILMER CR NR MOUTH

Water Class: A Latitude: 45 51 56.0

Water Body No.: WA-29-1010

River Mile: 1.50

Longitude: 121 29 50.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (Umhos/25c(mg/L)	Oxygen Satur. (%)	Oxygen (mg/L)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100mL)	NO2+NO3 Nitrog. (mg/L)
96/10/16	1715	8.8	1.1	138	96.4	11.1	8.0	2.0	4.150	0.010 U	0.010 U	0.005 U	1.1	1	4.410
96/11/13	1330	8.0	1.9		96.4	11.2	7.9	1.0 U	3.100	0.010 U	0.024	0.014	2.0	6	3.450
96/12/11	1335	6.0	63.0	73	99.9	12.0	7.6	12.0	0.921	0.010 U		0.026	16.0	150	0.852
97/01/15	1330	1.9	33.0	70	101.6	14.0	7.6	11.0	2.150	0.010 U	0.065	0.014	10.0	3 U	1.960
97/02/12	1335	5.1	24.0	69	78.0	9.8	8.1	9.0	2.330	0.010 U	0.138	0.015	11.0	11	2.110
97/03/12	1245	6.8	157.0	74	98.2	11.8	7.9	16.0	1.500	0.012	0.096	0.014	11.0	59	1.430
97/04/16	1250	9.4	12.0	97	100.7	11.3	7.8	4.0	3.190	0.030	0.084	0.010	4.1	39	3.610
97/05/14	1325	14.2	3.0	126	105.2	10.7	8.1	4.0	4.660	0.030	0.139	0.010	2.9	12	3.810
97/06/11	1420	15.0	1.1	134	116.9	11.5	8.0	12.0	4.690 J	0.010 UJ	0.457 J	0.008	1.8	2	5.440 J
97/07/16	1155	12.2	1.7	142	95.1	10.0	8.0	4.0	5.470	0.010 U	0.037	0.005 U	0.8	3	5.300
97/08/13	0955	12.3	1.2	134	98.0	10.5	7.8	1.0	3.900	0.010 U	0.036	0.020	0.9	23	4.200
97/09/17	1125	9.5	6.0	128	102.1	11.3	8.0	3.0	4.020	0.010 U	0.051	0.012	2.8	86	4.450

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 31A070

Water Body No.: WA-CR-1020

COLUMBIA R @ UMATILLA

Water Class: A

Latitude: 45 55 53.0

River Mile: 290.50

Longitude: 119 19 24.0

Date	Time	Temp (deg C)	Flow (cfs)	Conduc- tivity (umhos/25c(mg/L))	Oxygen (mg/L)	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100mL)	NO2+NO3 Nitrog. (mg/L)
96/10/16	1330	15.8	131000.0	144	9.4	93.6	8.1	7.0	0.258	0.010 U	0.010 U	0.005 U	6.8	12	0.142
96/11/13	1025	11.0	143100.0		10.5	96.2	8.2	4.0	0.336	0.010 U	0.018	0.008	2.5	7	0.264
96/12/11	1015	6.6	161000.0	153	12.0	99.6	8.1	3.0	0.309	0.010 U		0.013	2.3	1	0.260
97/01/15	1020	2.5	262000.0	146	15.8	115.0	7.8	11.0	0.553	0.017	0.051	0.017	17.0	32	0.416
97/02/12	0905	2.1	298000.0	123	15.4	112.2	7.7	16.0	0.841	0.010 U	0.118	0.025	24.0	10	0.627
97/03/12	0925	5.0	122200.0	188	14.1	110.3	8.2	10.0	0.673	0.012	0.069	0.010	7.3	3	0.541
97/04/16	0940	8.4	269000.0	183	12.8	109.6	8.1	10.0	0.639	0.043	0.077	0.013	11.0	10	0.512
97/05/14	0930	12.7	481500.0	129	13.4	127.1	8.0	16.0	0.343	0.034	0.073	0.008	11.0	20 X	0.156
97/06/11	1045	15.8	560000.0	110	12.7	128.6	7.8	16.0	0.147 J	0.010 UJ	0.088 J	0.005 U	12.0	21	0.071 J
97/07/16	0710	17.7	327000.0	124	11.4	118.9	8.2	14.0	0.488	0.010 U	0.028	0.005 U	6.6	4	0.142
97/08/13	0700	20.2	190500.0	128	10.2	111.3	8.3	9.0	0.213	0.010 U	0.028	0.005 U	4.4	1	0.118
97/09/17	0710	17.7		146	9.0	95.5	8.1	8.0	0.272	0.010 U	0.043	0.005 U	4.5	7	0.198

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 32A070 WALLA WALLA R NR TOUCHET Water Class: B Latitude: 46 02 16.0
 Water Body No.: WA-32-1010 River Mile: 15.30 Longitude: 118 45 55.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Hardnes (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100mL)
96/10/07	0740	14.8	36.0	354	9.3	91.3	8.5	20.0	1.060	0.010 U	0.119	0.050	138	14.0	110
96/11/04	0720	6.4	191.0	245	11.5	93.9	8.0	18.0	1.180	0.010 U	0.097	0.051		11.0	37
96/12/02	0730	4.5	1210.0	118 J	12.3	95.4	7.7	113.0	1.160 J	0.034	0.164 J	0.060	49	50.0	630 J
97/01/13	0705	-0.2	1290.0	176 J	13.5	91.4	6.9	163.0	2.110	0.038	0.218	0.063		40.0	45
97/02/03	0715	4.5	4050.0	80	12.2	94.0	7.6	2990.0	1.600	0.060	0.579 J	0.060	100	800.0	69
97/03/03	0745	4.9	1610.0	127	12.0	94.3	7.6	626.0	2.440	0.027	0.433	0.073		400.0	240
97/04/07	0710	8.9	950.0	176	11.2	96.9	7.4	101.0	2.370	0.010 U	0.440	0.059	68	20.0	14
97/05/05	0705	13.1	1650.0	119	9.9	94.0	7.6	206.0	1.200	0.025	0.273	0.050		50.0	120
97/06/02	0750	14.6	890.0	96	8.9	88.1	7.4	1720.0	1.850	0.090	0.178 J	0.070	95	2700.0 J	2900
97/07/07	0730	20.3	155.0	309	7.7	85.2	7.9	39.0	1.330	0.036	0.115	0.041		15.0	92
97/08/04	0705	23.8	55.0	370	6.5	76.5	8.0	17.0	0.924	0.010 U	0.107	0.049	150	8.8	210
97/09/08	0745	16.6	74.0	354	7.8	80.0	7.9	32.0	0.966	0.019	0.144	0.063		15.0	43

32A070 Walla Walla R nr Touchet continued: more parameters.

Date	Time	N02+N03 Nitrog. (mg/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Zinc Dissol. (ug/L)
96/10/07	0740	0.633	0.0020 U	0.027	1.270	0.101	1.040	1.400 J
96/11/04	0720	1.120						
96/12/02	0730	0.734	0.0060	0.014	0.560	0.030 U	0.340	1.000
97/01/13	0705	1.900						
97/02/03	0715	1.250	0.0380	0.030 U	0.795	0.200	0.390	1.000
97/03/03	0745	1.820						
97/04/07	0710	2.120	0.0020 U	0.020 U	1.120	1.380	0.650	0.950
97/05/05	0705	0.968						
97/06/02	0750	0.975	0.0020 U	0.020 U	1.140	0.150	0.824	0.660
97/07/07	0730	0.990						
97/08/04	0705	0.671	0.0020 U	0.020 U	1.570	0.060	1.250	0.580
97/09/08	0745	0.754						

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 32B070
 Water Body No.: WA-32-1020
 TOUCHET R @ TOUCHET
 Water Class: A
 River Mile: 0.50
 Latitude: 46 02 29.0
 Longitude: 118 40 59.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100ml)	NO2+NO3 Nitrog. (mg/L)
96/10/07	0820	13.9	60.0	207	8.6	82.9	7.8	12.0	0.500	0.010 U	0.072	0.031	8.4	58	0.202
96/11/04	0800	6.0	150.0	141	11.6		7.9	21.0	0.757	0.016	0.071	0.035	12.0	61	0.628
96/12/02	0805	4.1	410.0	85 J	12.7	97.6	7.7	145.0	0.948 J	0.019	0.178 J	0.047	60.0	84	0.587
97/01/13	0750	-0.8	710.0	146 J	13.6	91.3	6.9	190.0	2.250	0.017	0.178	0.046	40.0	41 S	2.100
97/02/03	0750	4.1	2120.0	74 J	12.5	95.4	7.7	3920.0	1.710	0.067	0.281	0.051	850.0	100	1.390
97/03/03	0845	4.3	760.0	114	12.4	96.1	7.6	562.0	2.510	0.010 U	0.477	0.065	240.0	57	2.090
97/04/07	0820	8.0	415.0	148	10.8	91.5	8.0	113.0	2.670	0.010 U	0.478 J	0.046	38.0	9	2.410
97/05/05	0800	13.2	600.0	106	10.1	96.3	7.9	153.0	1.390	0.021	0.221	0.039	45.0	48	1.120
97/06/02	0915	13.2	415.0	78	9.2	88.3	7.5	950.0	1.810	0.112	0.142 J	0.057	1300.0	800	0.968
97/07/07	0815	21.3	110.0	176	7.7	87.1	8.2	32.0	0.963	0.043	0.097	0.033	10.0	180	0.612
97/08/04	0810	24.3	70.0	196	7.0	83.3	8.2	24.0	0.580	0.029	0.110	0.058	9.2	810	0.306
97/09/08	0810	16.6	70.0	189	7.7	79.0	8.2	24.0	0.651	0.018	0.095	0.045	7.3	88	0.358

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 32B140
 Water Body No.: WA-32-1020
 Touchet R Above Dayton
 Water Class: A
 River Mile: 53.70
 Latitude: 46 18 52.6
 Longitude: 117 58 32.1

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c)	Oxygen (mg/L)	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100ml)	N02+N03 Nitrog. (mg/L)
96/10/07	0930	11.5	85.0	85	11.0	105.2	7.9	3.0	0.149	0.010 U	0.060	0.035	2.3	13	0.085
96/11/04	0925	6.5	130.0	77	11.8	100.8	7.6	4.0	0.131	0.010 U	0.043	0.028	2.1	12	0.062
96/12/02	0920	4.0	360.0	67 J	12.3	98.5	7.0	14.0	0.341 J	0.010 U	0.084 J	0.029	14.0	12	0.227
97/01/13	0940	-0.4	240.0	87 J	13.2	93.2	7.7	15.0	0.732	0.010 U	0.151	0.032	28.0	3	0.591
97/02/03	0915	3.4	1050.0	48 J	12.6	98.6	7.3	123.0	0.624	0.010 U	0.356 J	0.042	60.0	17	0.447
97/03/03	1000	3.4	475.0	68	12.4	98.0	7.4	17.0	0.688	0.010 U	0.141	0.036	12.0	14	0.571
97/04/07	1005	5.3	250.0	65	11.7	96.6	8.2	2.0	0.442	0.010 U	0.285 J	0.031	4.4	1	0.343
97/05/05	0935	8.1	475.0	61	11.3	100.1	7.8	5.0	0.266	0.018	0.127	0.019	5.6	4	0.188
97/06/02	1120	11.4	25.0	51	10.0	96.1	7.2	57.0	0.385	0.025	0.087	0.021	13.0	27	0.262
97/07/07	0940	15.5		81	9.5	99.5	8.1	4.0	0.266	0.021	0.060	0.033	1.9	24	0.173
97/08/04	0955	19.5		91	9.9	111.6	8.2	7.0	0.235	0.010 U	0.074	0.044	2.4	12	0.170
97/09/08	1010	13.6		88	10.4	104.8	8.3	6.0	0.169	0.010 U	0.092	0.034	3.3	12	0.141

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 33A050
 Water Body No.: WA-33-1010
 Snake R NR PASCO
 Water Class: A
 River Mile: 2.20
 Latitude: 46 13 00.0
 Longitude: 119 01 20.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100ml)	NO2+NO3 Nitrog. (mg/L)
96/10/16	1150	15.8	19500.0	217	8.4	84.3	8.3	5.0	0.487	0.010 U	0.023	0.009	4.3	2	0.345
96/11/13	0905	11.7	22100.0		9.7	89.9	8.2	4.0	0.919	0.010 U	0.082	0.061	3.5	7	0.849
96/12/11	0900	6.6	49200.0	275	10.6	88.1	8.0	3.0	1.060	0.013		0.045	3.7	3	0.616
97/01/15	0840	3.2	81000.0	243	14.6	109.0	7.8	21.0	1.620	0.041	0.128	0.049	37.0	19	1.280
97/02/12	1020	3.3	85000.0	157	11.5	87.0	7.8	16.0	1.950	0.010 U	0.192	0.055	30.0	6	0.907
97/03/12	0825	4.8	121600.0	250	14.0	109.1	8.3	12.0	1.100	0.021	0.143	0.040	16.0	1	0.929
97/04/16	0815	9.8	100000.0	208	12.1	107.7	8.0	14.0	0.701	0.052	0.097	0.021	15.0	310 J	0.503
97/05/14	0820	12.9	204600.0	116	13.1	125.2	7.8	23.0	0.547	0.064	0.138	0.014	18.0	6	0.254
97/06/11	0930	15.8	178000.0	83	12.4	126.3	7.9	28.0	0.188 J	0.010 UJ	0.093 J	0.006	23.0	7	0.101 J
97/07/15	1830	18.9	102500.0	142	10.6	114.8	8.2	12.0	0.308	0.011	0.036	0.008	7.1	5	0.183
97/08/13	1920	22.2	63500.0	143	10.1	116.1	8.0	10.0	0.323	0.010 U	0.038	0.009	5.3	9	0.187
97/09/16	1903	18.6	65800.0	190	8.1	87.5	8.2	8.0	0.468	0.010 U	0.064	0.014	5.8	6 J	0.398

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 34A070

Water Body No.: WA-34-1010

PALOUSE R @ HOOPER

Water Class: B

River Mile: 19.50

Latitude: 46 45 33.0

Longitude: 118 08 49.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen (mg/L)	Oxygen Satur- (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100mL)	NO2+NO3 Nitrog. (mg/L)
96/10/06	1205	13.7	67.0	360	12.0	118.2	9.1	28.0	1.010	0.010 U	0.131	0.005 U	15.0	25	0.193
96/11/03	1210	5.6	164.0	293	11.9	98.1	8.2	15.0	1.870	0.010 U	0.218	0.128	18.0	30	2.050
96/12/01	1130	4.1	770.0	234 J	12.0	95.6	7.8	125.0	6.000 J	0.114	0.266 J	0.101	240.0		4.980
97/01/12	1535	0.5	3600.0	328 J	13.3	94.3	6.8	200.0	7.370	0.053	0.330	0.119	140.0	170 S	6.260
97/02/02	1210	2.7	8600.0	114	12.8	96.9	7.6	2130.0	5.230	0.100	0.414 J	0.129	1300.0	310	4.770
97/03/02	1245	4.0	2700.0	182	12.3	98.0	8.2	205.0	5.920	0.020	0.338	0.124	110.0	58	5.620
97/04/06	1205	6.4	1860.0	306	11.2	93.7	7.5	31.0	4.270	0.010 U	0.408	0.077	29.0	9	3.740
97/05/04	1220	10.7	2480.0	186	10.7	98.8	8.1	68.0	2.960	0.026	0.262	0.083	45.0	66	2.670
97/06/01	1245	17.7	1000.0	270	8.5	91.8	8.1	43.0	3.140	0.063	0.146	0.074	25.0	92 S	2.660
97/07/06	1210	22.3	260.0	330	9.2	108.8	8.8	39.0	2.430	0.020	0.121	0.039	21.0	140	1.990
97/08/03	1320	26.4	125.0	414	11.2	142.4	9.1	33.0	1.810	0.010 U	0.175	0.040	17.0	23 J	1.230
97/09/07	1350	19.4	114.0	370	11.3	126.7	8.9	74.0	2.020	0.020	0.175	0.005 U	45.0	210	1.020

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 34A170 PALOUSE R @ PALOUSE Water Class: A Latitude: 46 54 37.0
 Water Body No.: WA-34-1030 River Mile: 121.20 Longitude: 117 04 08.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100ml)	NO2+NO3 Nitrog. (mg/L)
96/10/07	1345	12.0	9.0	86	10.9	108.6	8.1	1.0 U	0.161	0.010 U	0.028	0.005 U	1.3	31	0.010 U
96/11/04	1345	4.5	28.0	74	12.7	106.4	8.0	2.0	0.160	0.010 U	0.022	0.009	4.3	15	0.010 U
96/12/02	1410	1.5	239.0	82 J	12.4	96.3	7.5	9.0	1.680 J	0.037	0.124 J	0.041	38.0	450	1.350
97/01/13	1430	-0.8	432.0	90 J	12.1	76.1	7.4	9.0	1.310	0.010	0.178	0.044	29.0	69	1.090
97/02/03	1410	1.3	1240.0	39	12.5	95.1	7.8	95.0	1.130	0.014	0.259 J	0.044	60.0	57	0.833
97/03/03	1405	2.2	584.0	78	12.3	97.0	7.8	45.0	1.490	0.010 U	0.197	0.048	50.0	77	1.060
97/04/07	1505	5.9	590.0	48	11.3	97.7	8.3	20.0	0.315	0.013	0.280	0.022	18.0	12	0.158
97/05/05	1355	7.9	1200.0	48	10.9	99.4	8.1	35.0	0.429	0.020	0.142	0.024	20.0	25	0.233
97/06/02	1605	16.3	239.0	48	8.3	91.5	7.2	129.0	0.729	0.045	0.264	0.031	170.0	670	0.196
97/07/07	1410	23.2	47.0	69	9.4	118.4	8.8	6.0	0.155	0.010 U	0.063	0.031	5.5	57	0.010 U
97/08/04	1550	25.4	23.0	72	9.3	120.9	9.0	5.0	0.222	0.010 U	0.344 J	0.031	3.4	80	0.010 U
97/09/08	1505	18.1	14.0	74	10.9	125.1	9.1	4.0	0.168	0.010 U	0.066	0.012	3.1	29	0.010 U

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 34B110 SF PALOUSE R @ PULLMAN Water Class: A Latitude: 46 43 58.0
 Water Body No.: WA-34-1020 River Mile: 22.20 Longitude: 117 10 48.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100ml)	NO2+NO3 Nitrog. (mg/L)
96/10/07	1305	12.4	7.0	613	11.6	116.4	8.2	4.0	6.330	0.059	3.490	1.700	2.5	730 J	4.880
96/11/04	1310	6.2	16.0	465	10.2	89.1	7.7	28.0	4.420	0.249	1.370	1.190	19.0	310	3.970
96/12/02	1335	2.4	49.0	316 J	11.8	93.7	7.6	13.0	8.900 J	0.190	0.299 J	0.218	85.0	250 S	7.800
97/01/13	1345	-0.8	114.0	293 J	12.5	78.5	7.5	25.0	9.430	0.158	0.346	0.209	39.0	80	8.190
97/02/03	1335	2.5	420.0	159	12.2	95.6	7.6	162.0	7.450	0.096	0.343	0.175	120.0	370 S	6.720
97/03/03	1335	3.7	200.0	248	11.7	95.8	7.7	142.0	8.200	0.090	0.412	0.174	190.0	62	7.200
97/04/07	1435	9.2	76.0	266	11.3	105.6	8.4	13.0	5.840	0.160	0.659	0.257	20.0	22	5.020
97/05/05	1320	12.4	117.0	252	9.7	97.8	7.9	39.0	4.950	0.076	0.340	0.224	45.0	92 S	4.200
97/06/02	1520	16.7	37.0	218	10.2	113.1	7.4	3740.0	6.920	0.229	0.162 J	0.135	8000.0 J	4400	4.910
97/07/07	1335	20.7	8.0	451	10.8	129.6	8.5	22.0	5.040	0.034	0.930	0.745	14.0	210	4.750
97/08/04	1510	23.3	6.0	438	10.0	124.7	8.5	7.0	1.980	0.026	0.803	0.642	5.0	290	1.660
97/09/08	1440	16.0	7.0	506	10.9	119.5	8.5	3.0	5.590	0.128	1.710	1.560	4.6	210	5.090

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 35A150
 Water Body No.: WA-35-1010
 Snake R @ INTERSTATE BR
 Water Class: A
 River Mile: 139.60
 Latitude: 46 25 15.0
 Longitude: 117 02 05.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c)	Oxygen (mg/L)	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100mL)	N02+N03 Nitrog. (mg/L)
96/10/07	1150	16.7	23800.0	365	9.1	94.3	8.3	3.0	1.110	0.010 U	0.089	0.051	2.1	1 U	0.798
96/11/04	1205	9.9	16000.0	337	10.7	96.3	8.4	4.0	0.834	0.010 U	0.045	0.033	1.9	1 U	0.751
96/12/02	1215	6.5	20500.0	261 J	11.6	96.3	8.2	5.0	0.985 J	0.041	0.085 J	0.045	3.5	2	0.757
97/01/13	1225	2.4	59000.0	284 J	13.1	96.7	7.8	18.0	1.140	0.025	0.198	0.058	40.0	8	0.822
97/02/03	1200	3.2	84000.0	174	13.9	104.6	8.0	21.0	1.020	0.038	0.092 J	0.061	22.0	8 S	0.800
97/03/03	1230	5.7	71500.0	294	12.8	104.1	8.2	7.0	0.991	0.010 U	0.108	0.043	12.0	1	0.803
97/04/07	1325	9.0	70800.0	229	11.6	101.9	8.1	19.0	0.715	0.078	0.283	0.016	16.0	1 U	0.387
97/05/05	1200	11.9	82000.0	178	10.7	100.5	7.9	22.0	0.704	0.066	0.118	0.014	17.0	4	0.437
97/06/02	1410	12.3	127000.0	79	10.4	99.5	7.2	97.0	0.290	0.017	0.080	0.009	28.0	56	0.130
97/07/07	1215	18.9	54400.0	185	9.5	103.8	8.4	19.0	0.360	0.010 U	0.043	0.013	6.4	7	0.201
97/08/04	1305	23.2	35600.0	315	8.3	97.9	8.5	7.0	0.389	0.010 U	0.041	0.020	3.5	11	0.289
97/09/08	1300	20.0	25900.0	306	8.1	90.7	8.4	4.0	0.788	0.010 U	0.070	0.033	3.2	3	0.641

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 35B060
 Water Body No.: WA-35-2010

TUCANNON R @ POWERS

Water Class: A
 River Mile: 2.30
 Latitude: 46 32 18.0
 Longitude: 118 09 18.0

Date	Time	Temp (deg C)	Flow (cfs)	Conduc- tivity (umhos/25c(mg/L))	Oxygen	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100ml)	NO2+NO3 Nitrog. (mg/L)
96/10/06	1305	14.9	84.0	153	11.4	113.1	8.5	6.0	0.219	0.010 U	0.075	0.044	1.9	22	0.101
96/11/03	1315	9.1	103.0	147	11.6	102.1	8.0	7.0	0.350	0.010 U	0.059	0.049	3.1	7	0.269
96/12/01	1250	7.2	174.0	136 J	11.8	99.8	7.7	19.0	0.504 J	0.011	0.110 J	0.040	11.0		0.373
97/01/12	1635	1.3	360.0	172 J	12.6	89.6	7.0	58.0	1.390	0.015	0.160	0.057	19.0	16	1.300
97/02/02	1310	5.6	1080.0	78	12.2	97.8	7.6	1880.0	1.150	0.034	0.190	0.075	550.0	110	0.856
97/03/02	1345	6.9	347.0	124	11.6	97.6	7.9	218.0	2.190	0.010 U	0.374	0.069	140.0	84	1.730
97/04/06	1340	9.3	320.0	141	11.0	97.1	8.1	26.0	1.320	0.010 U	0.396	0.046	7.0	3	1.170
97/05/04	1325	12.9		116	10.5	100.0	8.1	78.0	0.866	0.023	0.217	0.052	21.0	47	0.623
97/06/01	1350	14.7	388.0	90	10.0	99.7	8.1	2180.0	1.100	0.121	0.326 J	0.095	1700.0 J	4500 S	0.370
97/07/06	1330	21.3	143.0	140	9.4	107.2	8.6	19.0	0.407	0.013	0.081	0.043	3.5	51	0.252
97/08/03	1440	25.3	95.0	156	8.2	100.3	8.7	11.0	0.331	0.011	0.103	0.058	4.8	190 J	0.207
97/09/07	1510	19.0	56.0	157	10.2	111.5	9.0	11.0	0.362	0.010 U	0.116	0.050	5.0	40	0.216

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 35B150
 Water Body No.: WA-35-2010

TUCANNON R NR MARENGO

Water Class: A
 River Mile: 24.80
 Latitude: 46 44 56.1
 Longitude: 117 26 25.7

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100ml)	NO2+NO3 Nitrog. (mg/L)
96/10/06	1425	13.6	62.0	88	10.0	99.6	8.0	5.0	0.089	0.010	0.077	0.049	1.9	16	0.030
96/11/03	1445	8.4	157.0	86	11.2	100.0	8.1	2.0	0.110	0.010 U	0.045	0.043	1.3	5	0.025
96/12/01	1415	6.0	223.0	81 J	11.7	98.9	7.7	5.0	0.196 J	0.010 U	0.081 J	0.043	3.1		0.124
97/01/12	1820	1.8	220.0	93 J	12.6	90.8	7.1	14.0	0.567	0.010 U	0.134	0.043	7.6	17	0.475
97/02/02	1430	5.5	805.0	52	11.7	96.5	7.8	175.0	0.507	0.010 U	0.125	0.069	85.0	10	0.310
97/03/02	1510	6.3	250.0	89	11.4	97.4	7.9	8.0	0.664	0.010 U	0.157	0.047	12.0	7	0.550
97/04/06	1540	9.5	220.0	76	9.9	90.6	8.4	4.0	0.316	0.010 U	0.423	0.041	3.2	6	0.217
97/05/04	1445	11.5	358.0	68	10.4	99.1	8.4	7.0	0.166	0.019 J	0.170	0.039	4.4	4	0.106
97/06/01	1540	12.1	612.0	74	9.6	93.4	7.6	75.0	0.157	0.016	0.108	0.034	16.0	100 S	0.040
97/07/06	1815	19.1	86.0	81	8.7	98.8	8.6	5.0	0.082	0.010 U	0.068		1.8	22	0.029
97/08/03	1605	22.8	67.0	350	8.3	100.3	8.6	4.0	0.068	0.010 U	0.086	0.052	2.3	67 J	0.030
97/09/07	1650	17.0	68.0	88	8.8	95.3	8.7	4.0	0.025	0.010 U	0.102	0.038	2.5	36 J	0.012

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 35D070 ASOTIN CR @ ASOTIN Water Class: A Latitude: 46 20 27.0
 Water Body No.: Longitude: 117 03 18.0
 River Mile: 0.40

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c/mg/L)	Oxygen	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100ml)	NO2+NO3 Nitrog. (mg/L)
96/10/07	1115	12.1	29.0	128	11.2	105.2	8.3	3.0	0.122	0.010 U	0.089	0.040	1.5	32	0.047
96/11/04	1115	7.7	32.0	122	12.0	102.5	8.0	4.0	0.139	0.010 U	0.063	0.047	2.0	21	0.066
96/12/02	1120	5.0	38.0	120 J	12.6	100.6	7.9	3.0	0.317 J	0.010 U	0.087 J	0.045	2.0	12	0.226
97/01/13	1140	-0.8	169.0	155 J	13.0	84.6	7.4	16.0	1.030	0.010 U	0.200	0.093	13.0	8	0.869
97/02/03	1105	3.5	251.0	86	12.9	98.0	7.7	181.0	0.810	0.010 U	0.195 J	0.092	50.0	18	0.552
97/03/03	1145	5.5	128.0	134	12.2	98.7	7.8	11.0	0.722	0.010 U	0.160	0.073	5.8	99	0.590
97/04/07	1245	7.2	222.0	109	11.4	96.0	7.9	5.0	0.465	0.010 U	0.415	0.072	6.7	5	0.318
97/05/05	1125	9.8	923.0	88	11.0	98.5	7.8	15.0	0.329	0.018	0.186	0.049	8.5	22	0.219
97/06/02	1315	13.2	95.0	70	9.1	88.6	8.0	10.0	0.292	0.017	0.115	0.048	6.5	39	0.094
97/07/07	1135	17.9	43.0	133	9.8	104.9	8.3	4.0	0.195	0.011	0.092	0.055	1.4	44	0.109
97/08/04	1220	21.4	53.0	143	9.3	105.7	8.5	8.0	0.235	0.010 U	0.113	0.074	2.6	72	0.132
97/09/08	1210	15.6	46.0	137	10.3	105.2	8.6	5.0	0.092	0.010 U	0.128	0.060	3.4	32	0.036

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 35F070
 Water Body No.: WA-35-2013
 PATAHA CK @ ARCHER RD
 Water Class: A
 River Mile: 5.20
 Latitude: 46 32 40.1
 Longitude: 117 53 28.4

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen Oxygen (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100mL)	NO2+NO3 Nitrog. (mg/L)
96/10/06	1345	14.4	7.0	287	116.1	8.7	4.0	1.190	0.010 U	0.140	0.112	2.6	61	0.840
96/11/03	1400	6.1	8.0	283	106.7	8.5	15.0	1.660	0.010 U	0.134	0.106	7.9	57	1.080
96/12/01	1340	5.2	11.0	287 J	99.1	8.0	56.0	2.180 J	0.011	0.203 J	0.050	39.0		1.870
97/01/12	1730	-0.8	59.0	284 J	94.5	7.5	31.0	3.830	0.048	0.232	0.096	28.0	60	3.540
97/02/02	1355	3.9	330.0	114	96.1	7.8	1350.0	2.760	0.038	0.178	0.107	370.0	85	2.030
97/03/02	1430	5.8	71.0	262	95.8	8.0	927.0	4.500	0.038	0.483	0.121	950.0	700	4.020
97/04/06	1455	9.3	65.0	233	101.8	8.4	46.0	3.410	0.010 U	0.413	0.055	18.0	14	3.160
97/05/04	1410	13.5	121.0	205	102.2	8.2	141.0	2.630	0.024	0.268	0.073	55.0	250	2.290
97/06/01	1440	14.4	2.0	213	85.8	8.1	2300.0	3.240	0.133	0.217 J	0.169	2000.0 J	7600 S	2.080
97/07/06	1420	23.2	9.0	328	121.8	8.8	9.0	2.650	0.025	0.145	0.091	5.1	280	2.400
97/08/03	1515	27.0	7.0	305	118.2	9.1	15.0	2.160	0.011	0.174	0.123	7.7	210 J	1.950
97/09/07	1610	19.0	6.0	393	99.1	8.8	31.0	2.330	0.034	0.242	0.170	24.0	100	2.250

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 36A070

Water Body No.: WA-CR-1030

COLUMBIA R NR VERNITA

Water Class: A

Latitude: 46 38 34.0

River Mile: 388.10

Longitude: 119 43 54.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen (mg/L)	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100mL)	NO2+NO3 Nitrog. (mg/L)
96/10/15	1800	15.9	62100.0	135	9.6	97.1	8.3	2.0	0.216	0.010 U	0.010 U	0.005 U	1.5	2	0.137
96/11/12	1540	11.6	64700.0		10.3	94.5	7.8	1.0 U	0.210	0.010 U	0.010 U	0.005 U	1.1	1 U	0.156
96/12/10	1615	6.9	114000.0	129	10.9	92.5	8.0	4.0	0.174	0.010 U	0.010 U	0.065 J	1.1	1 U	0.159
97/01/14	1545	2.8	169000.0	137	15.8	118.3	8.3	2.0	0.204	0.010 U	0.010 U	0.005 U	1.5	1 U	0.140
97/02/11	1605	1.3	155000.0	101	14.3	102.6	7.9	2.0	0.358	0.010 U	0.040	0.005 U	3.9	1 U	0.193
97/03/11	1510	3.4	100000.0	153	13.9	105.7	8.4	2.0	0.375	0.010	0.028	0.005 U	2.0 J	1	0.293
97/04/15	1645	9.3	156000.0	155	12.1	106.6	7.9	4.0	0.370	0.011	0.042	0.005 U	7.0	1 U	0.326
97/05/13	1520	10.7	262000.0	129	13.7	126.4	8.3	5.0	0.250	0.016	0.062	0.005 U	5.0	13	0.125
97/06/10	1610	15.1	333000.0	118	12.2	124.0	8.4	9.0	0.160 J	0.010 UJ	0.085 J	0.005 U	6.8	1	0.087 J
97/07/15	1530	16.8	250000.0	122	12.0	124.6	8.4	5.0	0.130	0.010 U	0.010 U	0.005 U	2.2	13	0.043
97/08/12	1620	20.2	174000.0	118	10.8	119.5	8.3	4.0	0.133	0.010 U	0.016	0.005 U	2.0	1 U	0.048
97/09/16	1530	17.0	109000.0	117	9.6	100.4	8.6	3.0	0.137	0.010 U	0.030	0.005 U	1.4	1	0.097

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 37A090
 Water Body No.: WA-37-1010
 YAKIMA R @ KIONA
 Water Class: A
 River Mile: 29.80
 Latitude: 46 15 13.0
 Longitude: 119 28 37.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100mL)	NO2+NO3 Nitrog. (mg/L)
96/10/16	1025	11.3	2190.0	286	10.6	96.7	8.3	9.0	1.940	0.038	0.099	0.081	5.7	190	1.630
96/11/13	0815	7.1	2510.0		10.7	88.8	8.1	12.0	1.490	0.010 U	0.063	0.045	7.5	20	1.400
96/12/11	0805	4.1	3580.0	237	11.9	93.0	7.9	21.0	1.480	0.130		0.087	13.0	230 J	1.270
97/01/14	1820	0.7	6240.0	194	14.5	102.6	7.8	48.0	1.700	0.095	0.179	0.070	24.0	65	1.200
97/02/12	0800	3.1	5400.0	158	12.8	96.3	7.8	27.0	1.430	0.010 U	0.201	0.058	10.0	31	0.935
97/03/12	0710	6.4	6270.0	208	11.1	90.7	8.1	28.0	1.390	0.029	0.142	0.051	10.0	57	1.220
97/04/16	0715	9.1	10100.0	127	10.8	94.8	7.7	45.0	0.568	0.044	0.097	0.031	18.0	37	0.438
97/05/13	1735	15.0	15900.0	104	9.9	100.4	7.8	125.0	0.581	0.028	0.195	0.033	55.0	480	0.269
97/06/11	0835	15.4	9465.0	125	9.2	93.1	7.6	87.0	0.569 J	0.010 UJ	0.188 J	0.038	35.0	180	0.481 J
97/07/15	1750	22.4	3310.0	181	10.7	123.9	8.7	24.0	1.090	0.015	0.084	0.045	11.0	28	0.929
97/08/13	1840	24.9	1900.0	225	11.3	136.4	8.8	10.0	0.264	0.012	0.046	0.019	4.0	20	0.163
97/09/16	1710	14.4	2490.0	248	11.0	109.4	8.3	13.0	1.690	0.010 U	0.126 J	0.057	6.7	93 J	1.610

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 37A205
 Water Body No.: WA-37-1040
 YAKIMA R @ KNOB HILL
 Water Class: A
 River Mile: 111.30
 Latitude: 46 34 57.0
 Longitude: 120 32 18.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen (mg/L)	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100ml)	NO2+NO3 Nitrog. (mg/L)
96/10/16	0840	8.8	2020.0	130	10.5	92.0	7.9	6.0	0.349	0.010 U	0.033	0.014	4.7	34	0.232
96/11/13	0650	7.2	1990.0		10.8	91.2	7.5	11.0	0.336	0.010 U	0.041	0.030	5.3	15	0.259
96/12/11	0600	2.5	2000.0	125	11.8	89.5	7.7	6.0	0.304	0.017	1.870	0.027	4.2	12	0.258
97/01/14	1700	0.0	3390.0	125	14.0	99.2	8.2	9.0	0.670	0.022	0.076	0.026	9.4	11	0.488
97/02/12	0540	1.8	3080.0	89	13.2	98.1	7.3	15.0	0.337	0.010 U	0.079	0.021	5.5	24	0.193
97/03/12	0540	4.6	3830.0	173	11.8	94.2	7.7	9.0	0.743	0.014	0.087	0.023	4.7	5	0.630
97/04/16	0555	6.8		85	11.2	94.7	6.9	17.0	0.194	0.013	0.071	0.014	7.2	10	0.137
97/05/13	1620	11.1		73	11.1	104.8	7.9	204.0	0.277	0.022	0.275	0.007	100.0	130 S	0.121
97/06/11	0700	15.8	8920.0	75	9.9	103.0	6.8	38.0	0.168 J	0.010 UJ	0.129 J	0.008	15.0	88	0.083 J
97/07/15	1630	18.2	4420.0	76	10.8	117.3	8.7	8.0	0.218	0.010 U	0.032	0.024	3.0		0.124
97/08/13	1730	19.9	4060.0	81	10.5	117.5	8.4	25.0	1.510	0.010 U	0.122	0.069	9.2	29	1.300
97/09/16	1645	12.5	2870.0	94	11.2	108.7	8.4	5.0	0.251	0.010 U	0.059	0.017	3.0	40	0.178

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 39A090 YAKIMA R NR CLE ELUM Water Class: AA Latitude: 47 11 10.0
 Water Body No.: WA-39-1060 River Mile: 191.00 Longitude: 121 02 30.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen (mg/L)	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100ml)	NO2+NO3 Nitrog. (mg/L)
96/10/14	1030	10.5	575.0	52	9.9	94.3	6.7	3.0	0.054	0.010 U	0.010 U	0.005 U	1.0	1 U	0.010 U
96/11/11	1010	6.4	450.0	61	11.7	100.6	7.3	2.0	0.040	0.010 U	0.010 U	0.005 U	1.4	3	0.010 U
96/12/09	1115	3.5	500.0	61	11.7	95.8	7.2	1.0	0.034	0.010 U	0.010 U	0.005 U	0.9	5	0.024
97/01/13	0730	0.1	1270.0	63	12.8	94.2	7.0	3.0	0.101	0.010 U	0.019	0.005 U	2.2	1	0.050
97/02/10	1045	1.9	614.0	53	13.0	98.7	7.0	2.0	0.083	0.010 U	0.051	0.005 U	0.7	1	0.050
97/03/10	1020	2.4	1320.0	67	12.4	96.3	6.8	3.0	0.158	0.010 U	0.026	0.005 U	0.8	1	0.108
97/04/14	1010	3.2	4750.0	48	12.3	97.9	6.8	3.0	0.075	0.017	0.033	0.005 U	1.7	1 U	0.068
97/05/12	0810	5.7	6605.0	46	11.6	98.7	7.9	57.0	0.154	0.021	0.124	0.005 U	30.0	36	0.059
97/06/09	1055	9.0	5647.0	65	10.6	97.8	6.9	6.0	0.038 J	0.010 UJ	0.067 J	0.005 U	3.9	3	0.014 J
97/07/14	0830	10.8	2780.0	49	9.9	95.2	7.0	4.0	0.030	0.010 U	0.016	0.008	1.8	43	0.011
97/08/11	0820	12.4	3726.0	42	9.6	94.6	6.7	3.0	0.046	0.010 U	0.022	0.005 U	1.4	9	0.015
97/09/15	0810	12.2	524.0	61	9.2	91.9	6.7	2.0	0.062	0.010 U	0.028	0.005 U	0.9	9	0.010 U

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 41A070
 Water Body No.: WA-41-1010
 CRAB CR NR BEVERLY
 Water Class: B
 River Mile: 6.00
 Latitude: 46 49 53.0
 Longitude: 119 48 54.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L)	Oxygen	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100mL)	N02+N03 Nitrog. (mg/L)
96/10/15	1650	12.3	332.0	585	11.7	110.3	8.5	9.0	1.830	0.010 U	0.038	0.010	4.4	89	1.550
96/11/12	1455	8.3	212.0		12.4	105.7	8.4	12.0	2.630	0.010 U	0.034	0.016 U	7.0	20	2.300
96/12/10	1515	4.4	253.0	602	12.6	101.1	8.4	15.0	2.550	0.018		0.063	8.6	20	2.760
97/01/14	1500	1.6	236.0	782	13.6	99.6	8.2	13.0	3.740	0.053	0.156	0.060	8.7	3	3.480
97/03/11	1410	8.4	268.0	846	12.9	111.7	8.6	18.0	4.320	0.015	0.142	0.041	10.0	18	4.180
97/04/15	1435	13.3	319.0	634	12.5	120.7	8.9	46.0	2.410	0.040	0.127	0.005 U	21.0	72	2.240
97/05/13	1430	21.6	271.0	604	9.4	108.9	8.4	131.0	2.110	0.035	0.285	0.017	38.0	88	1.460
97/06/10	1440	23.3	301.0	554	9.0	107.1	8.3	72.0	1.850 J	0.010 UJ	0.254 J	0.028	27.0	80	1.450 J
97/07/15	1430	23.4	283.0	490	9.8	115.7	8.5	57.0	1.900	0.015	0.074	0.009	26.0	59	1.720
97/08/12	1530	24.9	311.0	468	11.4	137.8	8.7	40.0	1.940	0.010 U	0.074	0.005 U	13.0	61	1.650
97/09/16	1450	14.5	373.0	538	10.9	108.8	8.3	6.0	1.850	0.010 U	0.057	0.005 U	4.0	48	1.650

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 45A070
 Water Body No.: WA-45-1010
 WENATCHEE R @ WENATCHEE
 Water Class: A
 River Mile: 1.10
 Latitude: 47 27 32.0
 Longitude: 120 20 07.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100ml)	NO2+NO3 Nitrog. (mg/L)
96/10/14	1500	12.9	762.0	84	113.6	8.5	3.0	0.293	0.010 U	0.010 U	0.005 U	1.6	14	0.214
96/11/11	1500	9.9	2040.0	51	109.9	8.7	4.0	0.108	0.010 U	0.010 U	0.005 U	1.7	1	0.078
96/12/09	1600	4.8	1350.0	64	107.4	8.3	116.0	0.169	0.010 U	0.010 U	0.011	9.8	1	0.152
97/02/10	1500	2.7	1780.0	48	105.2	8.4	5.0	0.198	0.010 U	0.041	0.005 U	1.0	1	0.131
97/03/10	1440	6.8	1870.0	93	109.9	8.6	6.0	0.339	0.010	0.031	0.005 U	1.2	1	0.240
97/04/14	1420	9.2	3750.0	79	107.7	8.8	9.0	0.169	0.018	0.041	0.005 U	4.5	3	0.127
97/05/12	1300	8.0	13700.0	43	106.5	8.4	64.0	0.254	0.016	0.126	0.005 U	24.0	25	0.107
97/06/09	1535	11.4	12800.0	35	100.6	6.8	14.0	0.087 J	0.010 UJ	0.031 J	0.005 U	5.0	1	0.056 J
97/07/14	1240	13.5	7180.0	38	101.7	8.0	11.0	0.108	0.010 U	0.013	0.005 U	3.7	8	0.064
97/08/11	1300	18.0	2330.0	50	101.7	8.5	4.0	0.177	0.010 U	0.016	0.005 U	1.0	6	0.118
97/09/15	1215	13.4	1110.0	82	112.1	8.8	6.0	0.300	0.010 U	0.030	0.005 U	1.7	72	0.201

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 45A110 WENATCHEE R NR LEAVENWORTH Water Class: AA Latitude: 47 40 35.0
 Water Body No.: WA-45-1020 River Mile: 35.60 Longitude: 120 44 00.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100mL)	NO2+NO3 Nitrog. (mg/L)
96/10/14	1245	9.3	550.0	39	10.4	95.5	7.3	1.0	0.047	0.010 U	0.010 U	0.005 U	0.5	3	0.010 U
96/11/11	1225	7.1	1450.0	32	11.3	98.1	6.5	3.0	0.045	0.010 U	0.010 U	0.009	0.9	1	0.010 U
96/12/09	1330	2.9	834.0	34	12.1	96.7	7.6	3.0	0.067	0.010 U	0.010 U	0.005 U	0.9	1 U	0.047
97/01/13	1050	0.0	1000.0	35	13.8	99.5	7.4	2.0	0.108	0.010 U	0.013	0.005 U	1.4	1 U	0.054
97/02/10	1225	1.5	1110.0	34	13.4	99.9	7.5	6.0	0.099	0.010 U	0.031	0.005 U	0.6	1 U	0.050
97/03/10	1235	2.2	1050.0	131	13.1	100.2	8.2	1.0	0.130	0.010 U	0.025	0.005 U	0.5	1 U	0.087
97/04/14	1215	4.8	2260.0	42	12.5	102.5	8.6	3.0	0.064	0.020	0.038	0.005 U	2.1	1 U	0.033
97/05/12	0950	5.7	9010.0	30	12.2	102.7	7.4	40.0	0.247	0.017	0.089	0.005 U	8.3	2	0.100
97/06/09	1330	8.3	8690.0	37	10.5	94.6	7.1	9.0	0.073 J	0.010 UJ	0.080 J	0.005 U	2.9	3	0.040 J
97/07/14	1010	10.2	5370.0	27	10.7	100.4	7.5	6.0	0.058	0.010 U	0.010	0.005 U	1.8	3	0.029
97/08/11	1040	14.6	1870.0	33	9.9	101.6	7.9	3.0	0.010 U	0.010 U	0.010	0.005 U	2.0	1	
97/09/15	1035	11.9	827.0	44	10.2	100.5	8.1	3.0	0.033	0.010 U	0.028	0.005 U	1.1	5	0.010 U

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 45C070 CHUMSTICK CR NR LEAVENWORTH Water Class: A Latitude: 47 28 17.0
 Water Body No.: River Mile: 0.20 Longitude: 120 18 57.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen (mg/L)	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100mL)	NO2+NO3 Nitrog. (mg/L)
96/10/14	1320	8.5	6.6	336	9.5	83.9	7.7	4.0	0.697	0.010 U	0.023	0.005 U	1.8	58	0.601
96/11/11	1315	7.4	9.8	347	10.3	88.4	7.8	1.0	0.493	0.010 U	0.130	0.013	1.1	29	0.511
96/12/09	1410	3.2	9.4	326	11.7	91.8	7.8	2.0	0.519	0.010 U	0.357	0.013	1.4	16	0.408
97/01/13	1120	0.6	15.0	239	13.1	94.1	7.7	6.0	0.433	0.012	0.038	0.022	2.5	1	0.303
97/02/10	1305	2.6	17.0	211	12.5	94.2	7.7	2.0	0.465	0.010 U	0.077	0.014	1.4		0.314
97/03/10	1315	4.9	86.0	265	11.6	93.5	7.9	18.0	0.565	0.011	0.067	0.019	5.0	4	0.371
97/04/14	1145	5.8	154.0	404	11.6	96.0	7.0	20.0	0.470	0.011	0.078	0.020	8.8	6	0.358
97/05/12	1020	8.8	55.0	293	11.1	99.1	7.9	40.0	0.399	0.023	0.184	0.022	10.0	17	0.170
97/06/09	1300	14.1	22.0	331	9.9	99.8	8.0	27.0	0.421 J	0.010 UJ	0.210 J	0.027	11.0	42	0.256 J
97/07/14	1045	13.0		365	10.1	99.2	7.9	15.0	0.536	0.014	0.051	0.030	7.0	55	0.428
97/08/11	1000	12.6	7.2	352	9.6	92.5	7.7	5.0	0.546	0.010 U	0.061	0.030	2.6	190 J	0.492
97/09/15	1000	10.3	7.2	336	10.1	94.1	7.7	5.0	0.496	0.010 U	0.060	0.022	2.4	46	0.380

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 45D070
 Water Body No.:

BRENDER CR NR CASHMERE

Water Class: A
 River Mile: 0.20
 Latitude: 47 31 17.0
 Longitude: 120 28 36.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100mL)	NO2+NO3 Nitrog. (mg/L)
96/10/14	1400	10.7	3.3	491	80.1	7.8								
96/11/11	1355	10.7	3.0	517	89.8	7.9	23.0	4.250	0.010 U	0.066	0.038	12.0	130	4.750
96/12/09	1450	7.7	3.7	500	90.1	7.9	42.0	3.970	0.032	1.450	0.042	15.0	550	4.250
97/01/13	1150	3.5		468	98.9	7.8	39.0	4.450	0.041	0.121	0.033	14.0	800	4.260
97/02/10	1355	7.6	3.3	436	96.3	8.0	48.0	4.380	0.010 U	0.155	0.018	10.0		3.870
97/03/10	1355	9.3	5.9	461	103.9	8.1	20.0	3.640	0.017	0.115	0.048	7.9	46	3.720
97/04/14	1305	10.3	8.8	390	112.0	8.1	9.0	3.230	0.020	0.128	0.039	11.0	31	3.490
97/05/12	1050	11.7	10.2	305	103.9	8.1	27.0	1.890	0.026	0.184	0.029	14.0	100	1.510
97/06/09	1435	15.1	7.2	420	91.8	7.8	42.0	2.520 J	0.013 J	0.214 J	0.029	17.0	140	2.400 J
97/07/14	1150	16.4	5.1	339	103.4	7.9	17.0	2.720	0.018	0.057	0.035	9.3	360	2.620
97/08/11	1140	15.5	4.9	368	97.8	7.8	22.0	2.710	0.010 U	0.057	0.027	6.9	550	2.730
97/09/15	1120	12.1	8.1	306	95.6	7.8	26.0	1.720	0.010 U	0.098	0.015	15.0	280	1.710

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 45E070 MISSION CR NR CASHMERE Water Class: A Latitude: 47 31 17.0
 Water Body No.: Longitude: 120 28 32.5
 River Mile: 0.20

Date	Time	Temp (deg C)	Flow (CFS)	Conduc-tivity (umhos/25c(mg/L))	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid-ity (NTU)	Fecal Colif. (#/100ml)	NO2+NO3 Nitrog. (mg/L)
96/10/14	1420	9.6	4.0	331	82.4	8.1	15.0	2.220	0.149	0.124	0.046	17.0	1600 J	1.510
96/11/11	1415	7.8	4.0	364	94.9	8.3	3.0	1.290	0.010 U	0.010 U	0.005 U	1.8	20	1.220
96/12/09	1515	2.5	5.0	321	94.1	8.3	2.0	0.902	0.010 U	1.020	0.005 U	1.9	3	0.841
97/01/13	1215	0.0		273	100.3	8.3	3.0	0.560	0.010 U	0.030	0.005 U	1.2	2	0.520
97/02/10	1420	3.1	18.0	209	106.9	8.6	3.0	0.706	0.010 U	0.071	0.005 U	1.9		0.407
97/03/10	1410	6.1	33.0	305	102.6	8.6	10.0	0.657	0.010 U	0.057	0.005 U	2.0	9	0.556
97/04/14	1325	6.7	66.0	277	100.2	8.5	11.0	0.474	0.010 U	0.048	0.005 U	3.1	6	0.403
97/05/12	1110	7.9	96.0	182	103.7	8.4	31.0	0.285	0.017	0.131	0.005 U	8.1	8	0.164
97/06/09	1450	19.8	41.0	216	108.8	7.8	15.0	0.365 J	0.010 UJ	0.129 J	0.005 U	4.3	17	0.316 J
97/07/14	1210	15.7	18.0	282	103.0	8.5	11.0	0.726	0.010 U	0.025	0.007	4.3	57 J	0.635
97/08/11	1200	15.3	13.0	345	100.4	8.4	5.0	1.410	0.011	0.043	0.016	1.8	170 J	1.360
97/09/15	1235	11.8	9.0	246	104.5	8.4	8.0	0.879	0.010 U	0.048	0.005 U	2.4	160	0.845

Remarks: U, K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 46A070
 Water Body No.: WA-46-1010
 Water Class: A
 River Miles: 1.50
 Latitude: 47 39 48.0
 Longitude: 120 14 58.0

ENTIAT R NR ENTIAT

Date	Time	Temp (deg C)	Flow (CFS)	Conduc-tivity (umhos/25c(mg/L))	Oxygen	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid-ity (NTU)	Fecal Colif. (#/100ml)	NO2+NO3 Nitrog. (mg/L)
96/10/15	1445	9.4	173.0	100	11.3	100.4	8.1	2.0	0.146	0.010 U	0.010 U	0.005 U	0.5	2	0.094
96/11/12	1300	5.9	167.0	97	12.1	98.2	7.8	2.0	0.084	0.010 U	0.010 U	0.005 U	0.8	1	0.059
96/12/10	1300	1.4	161.0	97	13.0	96.1	8.1	2.0	0.274	0.010 U	0.010 U	0.005 U	0.6	6	0.165
97/01/14	1230	0.0	130.0	126	14.7	103.1	7.7	1.0	0.332	0.010 U	0.026	0.005 U	1.2	2	0.276
97/02/11	1320	0.7	131.0	77	14.1	100.1	7.9	1.0	0.200	0.010 U	0.054	0.005 U	0.6	1 U	0.112
97/03/11	1150	4.7	236.0	140	13.9	110.0	9.0	5.0	0.351	0.010 U	0.044	0.005 U	3.3 J	1 U	0.264
97/04/15	1225	8.2	500.0	124	11.8	101.8	8.6	24.0	0.281	0.017	0.070	0.005 U	13.0	1	0.301
97/05/13	1230	7.5	2640.0	46	11.6	99.6	7.8	121.0	0.358	0.022	0.180	0.005 U	26.0	44	0.394
97/06/10	1215	7.9	2630.0	73	11.3	97.8	7.8	18.0	0.042 J	0.010 UJ	0.096 J	0.005 U	5.1	2	0.010 UJ
97/07/15	1140	11.4	1150.0	45	10.8	100.5	7.9	8.0	0.040	0.010 U	0.013	0.005 U	2.1	3	0.019
97/08/12	1235	16.9	364.0	74	9.9	103.0	8.1	3.0	0.118	0.010 U	0.019	0.005 U	0.8	8	0.069
97/09/16	1144	10.8	219.0	99	11.4	105.4	8.3	7.0	0.157	0.010 U	0.036	0.005 U	2.0	7	0.109

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 48A070 METHOW R NR PATEROS Water Class: A Latitude: 48 04 29.0
 Water Body No.: WA-48-1010 River Miles: 5.00 Longitude: 119 57 20.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc-tivity (umhos/25c(mg/L))	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid-ity (NTU)	Fecal Colif. (#/100ml)	NO2+NO3 Nitrog. (mg/L)	
96/10/15	1305	8.1	466.0	176	11.3	98.0	8.4	1.0 U	0.242	0.010 U	0.010 U	0.005 U	0.7	1 U	0.219
96/11/12	1110	6.6	480.0	175	11.9	98.8	8.0	1.0	0.210	0.010 U	0.010 U	0.005 U	0.8	1 U	0.221
96/12/10	1105	0.0	490.0	162	13.6	98.6	8.0	1.0	0.256	0.010 U	0.005 U	1.1	3	0.248	
97/01/14	1130	0.0	1180.0	169	15.1	105.9	7.8	1.0	0.338	0.010 U	0.014	0.005 U	1.0	1	0.256
97/02/11	1050	0.0	504.0	120	14.6	102.1	7.8	1.0 U	0.281	0.010 U	0.014	0.005 U	0.5 U	1	0.162
97/03/11	0950	4.8	466.0	180	12.2	97.6	8.2	7.0	0.343	0.010 U	0.023	0.005 U	1.5 J	2	0.262
97/04/15	1050	7.6	1440.0	168	11.7	99.8	8.2	4.0	0.150	0.010 U	0.050	0.005 U	1.4	4	0.171
97/05/13	1140	7.8	9800.0	75	11.6	101.0	7.9	122.0	0.261	0.019	0.163	0.005 U	38.0	150	0.051
97/06/10	1035	9.1	8630.0	62	10.8	96.5	7.0	28.0	0.061 J	0.010 UJ	0.068 J	0.005 U	10.0	31	0.010 UJ
97/07/15	1030	14.4	2890.0	94	10.0	100.1	8.1	4.0	0.094	0.010 U	0.010 U	0.005 U	1.1	13	0.059
97/08/12	1130	17.2	925.0	159	9.4	99.1	8.3	2.0	0.202	0.010 U	0.017	0.005 U	0.7	3	0.170
97/09/16	1035	11.8	561.0	174	10.9	103.8	8.3	2.0	0.284	0.010 U	0.034	0.005 U	0.8	9	0.257

Remarks: U, K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 48A140
 Water Body No.: WA-48-1020

METHOW R @ TWISP

Water Class: A
 River Mile: 39.40
 Latitude: 48 20 53.0
 Longitude: 120 06 21.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen (mg/L)	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100mL)	NO2+NO3 Nitrog. (mg/L)
96/10/15	1150	6.4	397.0	147	11.5	98.2	8.1	2.0	0.212	0.010 U	0.010 U	0.005 U	0.5 U	5	0.172
96/11/12	1000	6.0	390.0	151	11.4	95.5	7.9	2.0	0.159	0.010 U	0.010 U	0.005 U	0.7	1 U	0.151
96/12/10	0950	1.0	367.0	137	12.5	95.7	8.1	1.0	0.166	0.010 U	0.010 U	0.005 U	1.0	4	0.159
97/01/14	1000	0.0	290.0	151	15.2	109.2	7.7	1.0	0.235	0.010 U	0.010 U	0.005 U	1.1	27	0.209
97/02/11	0940	0.6	428.0	102	13.7	99.8	7.9	1.0	0.201	0.010 U	0.033	0.005 U	0.5 U	5	0.117
97/03/11	0845	3.6	353.0	153	12.2	96.8	8.2	31.0	0.236	0.015	0.033	0.005 U	1.5 J	12	0.154
97/04/15	0955	5.7	1320.0	150	11.7	97.4	8.2	3.0	0.215	0.010 U	0.037	0.005 U	1.4	2	0.228
97/05/13	1010	5.9	10000.0	66	11.8	99.8	8.0	85.0	0.226	0.021	0.110	0.005 U	26.0	11	0.041
97/06/10	0935	7.2	8590.0	56	10.8	94.3	7.9	15.0	0.047 J	0.010 UJ	0.068 J	0.005 U	5.9	9	0.010 UJ
97/07/15	0900	11.0	2710.0	85	10.4	98.7	8.0	2.0	0.103	0.010 U	0.010 U	0.005 U	1.0		0.086
97/08/12	1010	13.5	767.0	128	10.2	101.9	7.9	2.0	0.213	0.010 U	0.015	0.005 U	0.5 U	11	0.159
97/09/16	0925	9.4	412.0	144	10.8	99.5	8.2	1.0 U	0.209	0.010 U	0.032	0.005 U	0.5	8	0.205

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 49A070 OKANOGAN R @ MALOTT Water Class: A Latitude: 48 16 53.0
 Water Body No.: WA-49-1010 River Mile: 17.00 Longitude: 119 42 12.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc-tivity (umhos/25c(mg/L))	Oxygen	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid-ity (NTU)	Fecal Colif. (#/100ml)	Nitrog. (mg/L)
96/10/15	1050	10.3	1110.0	278	9.8	89.2	8.3	4.0	0.177	0.010 U	0.010 U	0.005 U	1.6	8	0.028
96/11/12	0905	6.1	1860.0	255	11.3	92.5	8.0	11.0	0.089	0.010 U	0.012	0.005 U	2.8	25	0.010 U
96/12/10	0845	0.1	1670.0	251	12.7	92.2	8.0	11.0	0.176	0.010 U		0.005 U	3.8	10	0.088
97/02/11	0830	0.1	3250.0	184	13.7	95.6	7.7	16.0	0.234	0.010 U	0.053	0.005 U	3.0	15	0.053
97/03/11	0740	4.6	2540.0	290	12.1	96.1	8.3	9.0	0.242	0.011	0.029	0.005 U	3.1 J	1	0.077
97/04/15	0905	8.3	3720.0	254	11.0	95.1	8.5	20.0	0.188	0.016	0.050	0.005 U	7.6	7	0.036
97/05/13	0900	10.7	13900.0	136	11.1	102.8	7.7	153.0	0.222	0.018	0.241	0.005 U	65.0	71	0.020
97/06/10	0830	14.3	16100.0	136	8.5	85.0	7.4	68.0	0.182 J	0.010 UJ	0.098 J	0.005 U	29.0	27	0.010 UJ
97/07/15	0800	18.4	7170.0	176	8.9	96.1	8.1	25.0	0.147	0.010 U	0.020	0.005 U	6.6	79	0.015
97/08/12	0830	22.1	3680.0	237	7.8	89.8	8.2	8.0	0.263	0.010 U	0.031	0.005 U	2.3	53	0.091
97/09/16	0830	16.2	2870.0	250	8.9	92.9	8.3	7.0	0.200	0.010 U	0.040	0.005 U	2.6	24	0.046

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 49A190
 Water Body No.: WA-49-1040
 OKANOGAN R @ OROVILLE
 Water Class: A
 River Mile: 78.00
 Latitude: 48 56 20.0
 Longitude: 119 25 36.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc-tivity (umhos/25c(mg/L))	Oxygen	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid-ity (NTU)	Fecal Colif. (#/100ml)	NO2+NO3 Nitrog. (mg/L)
96/10/15	0910	13.8	424.0	267	7.2	70.8	8.3	3.0	0.291	0.054	0.010 U	0.005 U	1.3	7	0.010 U
96/11/12	0730	8.4	353.0	280	10.8	93.6	8.1	4.0	0.236	0.010 U	0.013	0.005 U	1.8	1 U	0.010 U
96/12/10	0700	1.8	469.0	259	12.2	92.9	8.0	4.0	0.240	0.010 U		0.005 U	1.9	3	0.036
97/01/14	0715	0.8	940.0	259	14.5	104.0	8.4	9.0	0.243	0.010 U	0.019	0.005 U	1.3	1	0.041
97/02/11	0700	1.5	1070.0	204	15.1	109.6	8.3	2.0	0.252	0.010 U	0.042	0.005 U	0.9	1 U	0.026
97/03/11	0605	2.6	1690.0	288	14.9	112.6	8.6	3.0	0.301	0.011	0.020	0.005 U	1.1 J	1	0.089
97/04/15	0745	6.5	1850.0	281	12.6	104.6	8.3	5.0	0.229	0.018	0.033	0.005 U	1.6	6	0.021
97/05/13	0635	13.4	2110.0	273	11.5	113.1	7.8	5.0	0.238	0.020	0.043	0.005 U	1.9	2	0.042
97/06/10	0700	17.3	3460.0	242	8.4	89.6	7.8	3.0	0.188 J	0.010 UJ	0.062 J	0.005 U	2.1	1	0.010 UJ
97/07/15	0640	21.9	2610.0	236	8.8	102.4	8.5	3.0	0.306	0.010 U	0.014	0.005 U	1.5	6	0.069
97/08/12	0700	22.7	2580.0	242	8.2	96.1	8.5	4.0	0.207	0.010 U	0.018	0.005 U	1.3	3	0.010 U
97/09/16	0700	18.1	2290.0	239	8.4	91.1	8.3	2.0	0.148	0.010 U	0.029	0.005 U	0.9	5	0.010 U

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 498070 SIMILKAMEEN R @ OROVILLE Water Class: A Latitude: 48 56 05.0
 Water Body No.: WA-49-1030 River Mile: 5.00 Longitude: 119 26 27.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc-tivity (umhos/25c)	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Hardnes (mg/L)	Turbid-ity (NTU)	Fecal Colif. (#/100mL)
96/10/15	0805	9.5	750.0	203	96.6	8.4	1.0	0.062	0.010 U	0.010 U	0.005 U	98	1.1	12
96/11/12	0655	5.4	1300.0	130	99.0	7.7	6.0	0.053	0.010 U	0.010 U	0.005 U		9.3	6
96/12/10	0615	0.0	900.0	186	98.5	7.9	4.0	0.092	0.010 U		0.005 U	95	2.6	1 U
97/03/11	0535	5.5	850.0	204	94.5	8.2	3.0	0.158	0.010 U	0.033	0.005 U	95	1.8 J	1 U
97/04/15	0655	7.6	1650.0	197	102.5	7.4	9.0	0.093	0.013	0.049	0.005 U	95	5.4	8
97/05/13	0615	8.3	15000.0	94	112.9	7.2	293.0	0.336	0.033	0.334	0.005 U		110.0	92
97/06/10	0610	13.0	14000.0	89	101.0	7.2	82.0	0.121 J	0.010 UJ	0.125 J	0.005 U	45	36.0	10
97/07/15	0620	16.8	4000.0	125	105.3	7.9	14.0	0.152	0.010 U	0.011	0.005 U		5.0	16
97/08/12	0630	19.7	1200.0	183	98.6	8.1	4.0	0.065	0.010 U	0.021	0.005 U	87	1.7	6
97/09/16	0630	13.7	1500.0	209	99.0	8.1	5.0	0.095	0.010 U	0.021	0.005 U		2.0	23

498070 Similkameen R @ Oroville continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol. (ug/L)	Nickle Dissol. (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
96/10/15	0805	0.010 U	0.40 U	1.1 J	0.1 U	3.5 J	0.10 U	0.0020 U	0.019	0.759	0.087	0.600	1.400 J	2.770
96/11/12	0655	0.010 U												
96/12/10	0615	0.060	0.40 U	0.7	0.2	4.0 J	0.10 U	0.0010 U	0.019	0.480	0.030 U	0.500	0.760	1.900
97/03/11	0535	0.073												
97/04/15	0655	0.010 U	0.27	2.3	0.2	14.6	0.10 U	0.0020 U	0.020 U	1.210	0.020 U	0.730	0.490	2.040
97/05/13	0615	0.010 U												
97/06/10	0610	0.010 UJ	1.40	8.7	0.9	13.0 J	0.10 U	0.0020 U	0.020 U	1.440	0.030	0.562	3.370	8.280
97/07/15	0620	0.070												
97/08/12	0630	0.018	0.20 U	1.1	0.2	2.2	0.10 U	0.0020 U	0.020 U	0.881	0.039	0.602	1.810	4.180
97/09/16	0630	0.016												

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 53A070
 Water Body No.: WA-CR-1050
 COLUMBIA R @ GRAND COULEE
 Water Class: A
 River Mile: 596.00
 Latitude: 47 57 56.0
 Longitude: 118 58 54.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100ml)	NO2+NO3 Nitrog. (mg/L)
96/10/09	1150	17.4	114200.0	122	9.1	97.3	8.0	1.0 U	0.144	0.010 U	0.010 U	0.005 U	0.6	1 U	0.093
96/11/06	1230	14.3	117500.0	121	9.6	96.7	8.0	1.0 U	0.160	0.010 U	0.010 U	0.005 U	0.5 U	1 U	0.096
96/12/04	1315	9.2	166100.0	130 J	10.3	94.1	7.8	3.0	0.183	0.033	0.024 J	0.005 UJ	0.5 U		0.122
97/01/15	1520	1.8	144000.0	165 J	12.0	87.8	8.2	2.0	0.269	0.010 U	0.030	0.005 U	2.2	1 U	0.210
97/02/05	1155	4.8	130000.0	95	13.2	104.4	7.6	2.0	0.294	0.010 U	0.010 U	0.005 U	4.0	1 U	0.244
97/03/05	1150	3.3	176000.0	147	13.0	99.9	8.0	1.0	0.331	0.010 U	0.013	0.005 U	2.3	1 U	0.259
97/04/09	1445	5.6	148000.0	135	12.4	101.9	8.1	3.0	0.327	0.010 U	0.176	0.005 U	5.9	1 U	0.205
97/05/07	1200	8.3	199600.0	132	12.5	108.8	7.7	4.0	0.196	0.013	0.060	0.005 U	5.2	1 U	0.105
97/06/04	1500	10.4	240400.0	99	11.9	110.3	7.6	3.0	0.136	0.010 U	0.036	0.015	3.7	1	0.055
97/07/09	1250	16.4	189600.0	124	11.0	116.6	8.0	2.0	0.142	0.021	0.019	0.005 U	1.1	1 U	0.035
97/08/06	1320	20.4	174000.0	121	10.0	113.4	8.1	1.0 U	0.169	0.011	0.861 J	0.005 U	0.5 U	1 U	0.106
97/09/10	1330	18.1	155500.0	116	8.8	96.9	8.3	1.0 U	0.096	0.027	0.026	0.005 U	0.5 U	1 U	0.092

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 54A120
 Water Body No.: WA-54-1020
 SPOKANE R @ RIVERSIDE STATE PK
 Water Class: A
 River Mile: 66.00
 Latitude: 47 41 48.0
 Longitude: 117 29 48.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc-tivity (umhos/25c(mg/L))	Oxygen (mg/L)	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Ortho P (mg/L)	Turbid-ity (NTU)	Fecal Colif. (#/100ml)	NO2+NO3 Nitrog. (mg/L)
96/10/08	0745	12.5	2200.0	152	9.4	92.0	8.0	1.0 U	0.772	0.010 U	0.022	0.008	1.1	23 S	0.642
96/11/05	0745	8.3	3050.0	116	10.6	94.4	8.3	2.0	0.625	0.033	0.032	0.021	1.2	180 X	0.530
96/12/03	0740	5.4	4450.0	103 J	11.8	98.5	7.7	7.0	1.220 J	0.033	0.079 J	0.047	11.0	24 X	1.170
97/01/14	0750	1.7	11900.0	90 J	14.2	106.5	7.6	14.0	0.446	0.012	0.057	0.012 J	5.3		0.368
97/02/04	0800	2.6	8080.0	69	13.8	105.7	7.7	35.0	0.974	0.016	0.060	0.025	27.0	14 S	0.845
97/03/04	0745	3.1	8600.0	101	13.5	105.7	7.7	33.0	1.150	0.010 U	0.108	0.020	33.0	80	0.994
97/04/08	0750	4.7	14600.0	217	13.7	112.1	8.2	6.0	0.456	0.012	0.158	0.007	4.7	18	0.317
97/05/06	0710	7.8	31000.0	58	13.4	118.4	8.2	7.0	0.320	0.019	0.080	0.005 U	7.3	7	0.206
97/06/03	0835	14.8	30300.0	51	11.0	114.8	7.0	7.0	0.177	0.014	0.040	0.005 U	6.8	12	0.103
97/07/08	0750	16.8	7080.0	101	9.5	102.4	8.0	2.0	0.422	0.010 U	0.021	0.005 U	0.9	35	0.365
97/08/05	0805	17.7	2320.0	210	8.4	91.2	8.2	2.0	0.956	0.013	0.041	0.014	1.3	28	0.907
97/09/09	0810	14.0	1750.0	216	8.8	89.7	8.4	2.0	1.180	0.066	0.048	0.010	0.9	33	1.100

Remarks: U, K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 558070
 Water Body No.: WA-55-1010
 LITTLE SPOKANE R NR MOUTH
 Water Class: A
 River Mile: 1.10
 Latitude: 47 47 00.0
 Longitude: 117 31 43.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc-tivity (umhos/25c(mg/L))	Oxygen (mg/L)	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid-ity (NTU)	Fecal Colif. (#/100ml)	NO2+NO3 Nitrog. (mg/L)
96/10/08	0820	9.9	408.0	265	9.1	83.7	8.2	5.0	1.360	0.010 U	0.022	0.005	2.1	43	1.200
96/11/05	0835	8.2	459.0	226	9.9	87.6	8.2	4.0	1.300	0.010 U	0.012	0.006	1.6	49	1.350
96/12/03	0820	4.9	622.0	230 J	10.4	85.3	7.9	14.0	1.240 J	0.011	0.064 J	0.019	6.1	34	1.110
97/01/14	0835	0.9	882.0	212 J	11.3	82.6	7.3	10.0	1.250	0.018	0.075	0.022 J	7.3		0.974
97/02/04	0835	3.7	811.0	176	11.0	86.3	7.8	22.0	1.280	0.018	0.058	0.025	20.0	33	1.120
97/03/04	0825	4.1	1070.0	203	10.6	84.7	7.6	9.0	1.300	0.010 U	0.096	0.023	9.5	11	1.030
97/04/08	0820	7.3	1745.0	153	9.2	79.8	7.5	5.0	0.637	0.010 U	0.253	0.009	6.1	9	0.421
97/05/06	0805	11.6	1549.0	170	7.6	73.0	7.5	5.0	0.738	0.024	0.107	0.015	3.9	25	0.479
97/06/03	0945	13.6	967.0	181	7.0	71.1	7.6	21.0	0.979	0.032	0.085	0.044	10.0	100	0.642
97/07/08	0830	15.2	775.0	258			8.1	11.0	1.120	0.013	0.042	0.017	5.0	100	0.976
97/08/05	0835	16.7	680.0	281	7.9	83.7	8.1	10.0	1.240	0.010 U	0.040	0.014	3.0	210	1.130
97/09/09	0850	12.3	473.0	281	8.4	82.2	8.2	8.0	1.240	0.010 U	0.053	0.008	4.2	100	1.260

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 56A070
 Water Body No.: WA-56-1010
 HANGMAN CR @ MOUTH
 Water Class: A
 River Mile: 0.60
 Latitude: 47 39 17.0
 Longitude: 117 27 12.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen (%)	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100ml)	NO2+NO3 Nitrog. (mg/L)
96/10/08	0710	9.3	28.0	368	9.9	90.5	8.2	4.0	1.440	0.010 U	0.045	0.021	2.2	83	0.611
96/11/05	0710	3.8	64.0	331	11.7	93.4	8.2	4.0	1.440	0.010 U	0.037	0.014	2.4	23	1.330
96/12/03	0700	1.2	487.0	189 J	12.7	95.2	7.6	35.0	10.100 J	0.161	0.166 J	0.091	110.0	88 S	8.660
97/01/14	0700	-0.9	446.0	239 J	13.0	91.1	7.2	30.0	6.410	0.022	0.201	0.083 J	40.0	5.730	
97/02/04	0720	0.7	1350.0	107	13.0	94.8	7.4	197.0	4.910	0.045	0.108 J	0.083	160.0	200 S	4.440
97/03/04	0710	3.0	1280.0	177	12.0	93.9	7.3	203.0	5.750	0.024	0.369	0.079	220.0	740	5.800
97/04/08	0655	6.8	399.0	234	10.7	92.4	7.2	17.0	3.830	0.010 U	0.321	0.042	20.0	420	2.930
97/05/06	0630	11.9	592.0	186	9.8	95.4	8.1	37.0	3.190	0.026	0.223	0.042	56.0	23	1.890
97/06/03	0740	14.6	222.0	234	8.3	86.6	8.0	54.0	2.690	0.100	0.238	0.070	95.0	130	1.820
97/07/08	0720	16.2	78.0	380	8.8	93.9	8.2	14.0	1.630	0.046	0.093	0.031	9.1	230	1.360
97/08/05	0720	18.7	50.0	443	7.8	86.7	8.0	11.0	1.700	0.018	0.096	0.037	6.1	100	1.390
97/09/09	0725	12.0	45.0	437	9.0	88.0	8.1	9.0	1.740	0.013	0.097	0.031	5.4	110	1.570

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 57A150
 Water Body No.: WA-57-1010
 SPOKANE R @ STATELINE BR
 Water Class: A
 River Mile: 96.00
 Latitude: 47 41 55.0
 Longitude: 117 02 37.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc-tivity (umhos/25c(mg/L))	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Hardnes (mg/L)	Turbid-ity (NTU)	Fecal Colif. (#/100ml)
96/10/08	0945	14.5	1750.0	50	97.6	7.6	2.0	0.096	0.010 U	0.010 U	0.005 U	21	0.9	5
96/11/05	0940	8.9	2780.0	48	95.4	7.8	1.0	0.104	0.010 U	0.010 U	0.005 U		0.6	2
96/12/03	0930	5.3	4550.0	47 J	91.1	7.5	1.0	0.108 J	0.010 U	0.039 J	0.006	20	1.2	2
97/01/14	0945	1.6	13300.0	66 J	96.0	7.1	2.0	0.153	0.010 U	0.029	0.005 UJ		1.4	
97/02/04	0945	2.0	8210.0	42	96.3	7.7	2.0	0.195	0.013	0.010 U	0.005 U	24	2.5	1 U
97/03/04	0945	2.1	8720.0	57	98.8	7.2	1.0	0.238	0.010 U	0.044	0.005 U	23	2.6	2
97/04/08	0950	7.5	15000.0	53	111.8	8.1	2.0	0.244	0.010 U	0.126	0.005 U	23	3.8	2
97/05/06	0930	0.9	32000.0	47	115.6	7.9	4.0	0.205	0.019	0.064	0.005 U	20	5.2	1
97/06/03	1205	0.9	29900.0	32	109.0	7.2	4.0	0.052	0.011	0.029	0.005 U	16	4.6	1
97/07/08	0950	18.4	6310.0	40	103.2	7.6	1.0	0.053	0.010 U	0.017	0.005 U	17	1.0	6
97/08/05	1010	24.2	1410.0	43	98.4	8.1	3.0	0.094	0.010 U	0.029	0.005	19	0.9	20
97/09/09	1005	18.8	1090.0	47	95.1	8.4	2.0	0.105	0.010 U	0.031	0.005 U	19	0.6	15

57A150 Spokane R @ Stateline Br continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
96/10/08	0945	0.022	0.40 U	0.8 J	1.2	46.9 J	0.18	0.0020	0.219	0.500	0.227	0.430	50.200 J	0.330
96/11/05	0940	0.010 U												
96/12/03	0930	0.064	0.40 U	0.6	1.5	78.6	0.30	0.0050	0.249	0.450	0.340	0.410	81.600	0.460
97/01/14	0945	0.082												
97/02/04	0945	0.106	0.50 U	0.7	3.1	110.0 J	0.34	0.0020	0.342	0.593	0.914	0.550	105.000	0.470
97/03/04	0945	0.144						0.0027	0.420	0.710	1.340	0.670	124.000	
97/04/08	0950	0.123						0.440	0.440	0.860	1.410	0.760	119.000	
97/05/06	0930	0.104						0.326	0.326	0.617	2.500	0.370	74.100	
97/06/03	1205	0.010 U	0.50 U	1.5	9.1	91.0 J	0.45	0.0020 U	0.337	0.640	1.650	0.340	78.900	0.580
97/07/08	0950	0.015	0.50 U	0.7	1.6	47.0 J	0.22		0.160	0.420	0.377	0.230	40.400	0.370
97/08/05	1010	0.024	0.20 U	0.7	1.0	44.0 J	0.18	0.0020 U	0.160	0.400	0.130	0.300	45.300	0.410
97/09/09	1005	0.060						0.0020 U	0.093	0.460	0.120	0.290	39.400	

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 60A070
 Water Body No.: WA-60-1010
 KETTLE R NR BARSTOW
 Water Class: AA
 River Mile: 10.90
 Latitude: 48 47 05.0
 Longitude: 118 07 27.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc-tivity (umhos/25c(mg/L))	Oxygen	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Ortho P (mg/L)	Turbid-ity (NTU)	Fecal Colif. (#/100ml)	NO2+NO3 Nitrog. (mg/L)
96/10/09	0910	10.6	859.0	166	10.5	97.5	8.0	1.0	0.108	0.010 U	0.010 U	0.005 U	0.6	14	0.033
96/11/06	0915	3.3	913.0	154	12.7	99.2	7.9	1.0	0.120	0.010 U	0.010 U	0.005 U	0.5 U	2	0.035
96/12/04	0925	0.0	842.0	140 J	14.0	100.2	7.6	1.0 U	0.163	0.010 U	0.033 J	0.005 UJ	0.5 U		0.120
97/03/05	0905	0.1	850.0	164	13.8	97.9	7.8	2.0	0.243	0.010 U	0.036	0.005 U	0.6	6	0.166
97/04/09	0720	5.7		272	13.2	109.1	6.9	8.0	0.159	0.010 U	0.160	0.005 U	3.1	4	0.010 U
97/05/07	0855	7.5	14400.0	89	12.6	108.3	7.9	28.0	0.231	0.021	0.103	0.005 U	7.2	16	0.075
97/06/04	1155	8.0	22100.0	53	11.8	104.4	7.0	56.0	0.148	0.010 U	0.072	0.014	21.0	22	0.010 U
97/07/09	0940	14.7	8880.0	89	10.0	102.9	7.9	7.0	0.109	0.010 U	0.027	0.005 U	2.4	27	0.031
97/08/06	1025	22.3	2240.0	136	8.6	101.1	8.1	4.0	0.111	0.010 U	0.023	0.005 U	1.1	12	0.028
97/09/10	1030	16.0	897.0	185	9.4	99.0	8.4	2.0	0.098	0.019	0.028	0.005 U	0.6	5	0.013

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 61A070
 Water Body No.: WA-CR-9010
 COLUMBIA R @ NORTHPORT
 Water Class: AA
 River Mile: 735.10
 Latitude: 48 55 21.0
 Longitude: 117 46 32.0

Date	Time	Temp (deg C)	Flow (CFS)	Conductivity (umhos/25c/mg/L)	Oxygen (mg/L)	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Hardnes (mg/L)	Turbidity (NTU)	Fecal Colif. (#/100ml)
96/10/09	0755	12.9	98500.0	124	10.3	100.7	8.1	2.0	0.133	0.010 U	0.010 U	0.005 U	64	1.0	19
96/11/06	0755	8.9	82800.0	122	11.2	100.7	8.0	1.0	0.145	0.010 U	0.010 U	0.005 U	61	0.8	5
96/12/04	0750	5.3	70500.0	110 J	11.9	97.8	7.8	3.0	0.156	0.010 U	0.030 J	0.005 UJ	64	0.9	
97/01/15	0925	2.0	122000.0	174 J	13.0	96.3	7.7	3.0	0.183	0.010 U	0.036	0.005 U		1.4	27
97/02/05	0745	1.8	106000.0	97	13.3	98.2	7.6	1.0	0.161	0.010 U	0.010 U	0.005 U	76	1.1	1 U
97/03/05	0740	2.7	88700.0	148	13.0	99.1	8.1	1.0	0.225	0.010 U	0.014	0.005 U	74	0.9	1
97/04/09	1000	5.0	80100.0	141	12.9	105.1	8.1	4.0	0.153	0.011	0.088 J	0.005 U	76	1.9	1 U
97/05/07	0730	6.9	151000.0	138	13.7	116.1	7.9	7.0	0.162	0.022	0.047	0.005 U	73	3.7	5
97/06/04	0945	9.1	283000.0	139	12.6	114.8	7.6	39.0	0.143	0.010 U	0.047	0.012	67	11.0	2
97/07/09	0750	14.4	171000.0	123	11.5	117.7	8.1	4.0	0.122	0.010 U	0.027	0.005 U	60	2.2	8
97/08/06	0840	19.4	141000.0	135	10.8	120.4	7.6	2.0	0.170	0.010 U	0.024	0.005 U	62	1.0	11
97/09/10	0905	15.9	97800.0	117	10.1	106.5	7.7	2.0	0.104	0.026	0.024	0.005 U	59	0.8	1 U

61A070 Columbia R @ Northport continued: more parameters.

Date	Time	N02+N03 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol. (ug/L)	Nickle Dissol. (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
96/10/09	0755	0.065	0.40 U	1.2 J	0.4	6.1 J	0.10 U	0.0020 U	0.037	0.786	0.046	0.530	1.800 J	0.290
96/11/06	0755	0.083	0.40 U	1.1 J	0.5	10.1 J	0.10 U	0.0010 U						0.290
96/12/04	0750	0.118	0.40 U	1.1	0.9	8.0 J	0.10 U	0.0010 U	0.051	0.716	0.220	0.570	2.900	0.280
97/01/15	0925	0.124												
97/02/05	0745	0.115	0.40 U	2.1	0.5	34.0 J	0.10 U	0.0010 U	0.030 U	0.789	0.087	0.550	3.100	0.410
97/03/05	0740	0.171	0.17	1.4	0.5	6.9	0.07							0.470
97/04/09	1000	0.070	0.27	2.0	1.6	10.6	0.10 U	0.0020 U	0.050	0.840	0.150	0.570	3.970	0.560
97/05/07	0730	0.063	0.20 U	1.5	1.7	7.9 J	0.10 U	0.0030 J						0.610
97/06/04	0945	0.045	1.10	8.5	12.1	77.0 J	0.10	0.0030	0.025	1.090	0.322	0.568	1.800	1.010
97/07/09	0750	0.051	0.50 U	1.5	0.5	5.9 J	0.10 U							0.600
97/08/06	0840	0.080	0.25	1.1	0.4	17.5 J	0.10 U	0.0020	0.025	0.721	0.050	0.503	2.560	0.350
97/09/10	0905	0.064						0.0020 U						

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Station No.: 62A150
 Water Body No.: WA-62-1020
 River Mile: 88.20
 Water Class: A
 Latitude: 48 11 07.0
 Longitude: 117 02 02.0

PEND OREILLE R @ NEWPORT

Date	Time	Temp (deg C)	Flow (CFS)	Conduc- tivity (umhos/25c(mg/L))	Oxygen	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid- ity (NTU)	Fecal Colif. (#/100ml)	N02+N03 Nitrog. (mg/L)
96/10/08	1130	15.1	25800.0	155	9.5	100.2	8.4	1.0	0.090	0.010 U	0.010 U	0.005 U	1.2	1 U	0.010 U
96/11/05	1100	8.0	16000.0	148	11.0	98.9	8.2	2.0	0.088	0.010 U	0.010 U	0.005 U	1.1	1	0.010 U
96/12/03	1115	3.4	13600.0	159 J	11.9	96.0	7.9	1.0 U	0.088 J	0.010 U	0.032 J	0.005 U	1.3	1 U	0.044
97/01/14	1150	3.1	20700.0	171 J	12.3	95.3	7.7	7.0	0.131	0.010 U	0.040	0.005 UJ	2.6	1 U	0.059
97/02/04	1125	3.0	21500.0	123	12.3	96.8	7.8	3.0	0.135	0.010 U	0.010 U	0.005 U	1.7	1 U	0.063
97/03/04	1100	2.9	26200.0	163	13.0	102.9	7.9	3.0	0.108	0.010 U	0.026	0.005 U	1.7	1	0.023
97/04/08	1120	5.6	32100.0	138	12.0	101.9	7.7	8.0	0.111	0.010 U	0.135 J	0.005 U	4.6	1	0.022
97/05/06	1150	8.6	68100.0	145	11.9	109.0	7.8	8.0	0.138	0.025	0.051	0.005 U	6.1	1 U	0.020
97/06/03	1350	13.1	125000.0	109	11.4	116.4	7.9	15.0	0.121	0.034	0.051	0.005 U	13.0	11	0.013
97/07/08	1115	16.5	46400.0	150	10.6	115.8	8.2	3.0	0.081	0.010 U	0.016	0.005 U	2.7	1	0.010 U
97/08/05	1130	23.0	23700.0	142	8.6	105.0	8.4	2.0	0.040	0.011	0.033	0.005 U	1.5	1	0.010 U
97/09/09	1140	18.4	16300.0	143	8.6	98.1	8.6	2.0	0.059	0.012	0.026	0.005 U	1.0	1 U	0.010 U

Remarks: U,K - Below reporting limit; B - analyte in blank; X - background organisms; J - Estimate; S - Spreader colonies, P - below quantitation limit.

Appendix E

Water Year 1997 Six-year Summary Statistics
for Core Stations in Ecology's River and Stream
Ambient Monitoring Program

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 01A050 Name: NOOKSACK R @ BRENNAN Class: A Elevation: 10 River Mile: 3.40
 Location: LOCATED ONE MILE WEST OF BRENNAN AT BRIDGE OVER NOOKSACK ON STATE HIGHWAY 540 (RURAL ROAD EXIT FROM I-5)
 Water Years Sampled: 5 6 7 8 9
 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			-----JANUARY-MARCH-----			-----APRIL-JUNE-----			----JULY-SEPTEMBER----			-----SIX YEAR-----		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	deg C	6.794	2.754	18	5.413	1.826	16	10.589	2.323	18	15.533	2.179	18	18.400	0.500	
ZN	P1094	ug/L	14.750	6.344	4	19.333	24.846	3	8.500	6.364	2	6.500	0.707	2	48.000	4.000K	
CD	P1113	ug/L	0.100	0.000	4	0.187	0.150	3	0.193	0.095	3	0.100	0.000	2	0.360	0.100K	
PB	P1114	ug/L	1.650	0.661	4	3.000	2.879	3	3.100	2.970	2	1.100	0.141	2	6.300	1.000K	
CR	P1118	ug/L	4.975	3.571	2	1.390	0.651	2	5.485	1.676	2	1.880	1.881	2	7.500	0.550P	
CU	P1119	ug/L	6.700	3.696	4	12.667	14.468	3	3.767	0.666	3	4.100	1.556	2	29.300	2.000K	
PRESS	P25	mm/Hg	765.211	8.065	18	762.506	8.196	16	761.961	5.588	18	766.294	5.241	17	778.500	745.000	
OXYGEN	P300	mg/L	11.733	0.683	18	12.007	0.623	15	10.756	0.451	18	9.928	0.532	18	13.600	8.900	
PCTSAT	P301	%	95.000	2.722	18	94.413	1.988	15	95.844	3.490	18	98.056	4.517	18	106.200	83.100	
FC	P31616	#/100ml	141.000	170.384	17	121.733	218.841	15	128.647	255.677	17	116.333	117.999	18	1100.000	6.000	
PH	P400	pH	7.522	0.152	18	7.436	0.122	14	7.506	0.215	18	7.665	0.173	17	8.000	7.200	
SUSSOL	P530	mg/L	190.222	359.566	18	60.875	101.130	16	52.111	48.166	18	35.000	32.894	18	1520.000	6.000	
FLOW	P60	CFS	4989.733	4947.168	15	4427.143	4329.158	14	3619.667	1299.470	15	1811.667	582.806	15	20700.000	785.000	
TPN	P600	mg/L	0.580	0.261	12	0.833	0.225	11	0.339	0.223	12	0.217	0.092	12	1.220	0.097	
NH3_N	P610	mg/L	0.034	0.032	18	0.036	0.021	16	0.019	0.013	18	0.013	0.006	17	0.130	0.010U	
NO2_DIS	P613	mg/L	0.010	0.000	6	0.010	0.000	5	0.010	0.000	6	0.010	0.000	6	0.010	0.010K	
NO2_N	P615	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.010K	
NH3_UN	P619	mg/L	0.000	0.000	10	0.000	0.000	11	0.000	0.000	12	0.000	0.000	9	0.001	0.000	
NO3_N	P620	mg/L	0.495	0.120	2	0.553	0.047	3	0.223	0.111	3	0.137	0.059	3	0.590	0.070	
NO2_NO3	P630	mg/L	0.451	0.219	18	0.607	0.164	16	0.246	0.124	18	0.176	0.074	17	0.971	0.010U	
TP_P	P665	mg/L	0.112	0.180	18	0.066	0.078	16	0.049	0.049	18	0.042	0.024	17	0.777	0.010U	
OP_DIS	P671	mg/L	0.016	0.021	18	0.018	0.029	15	0.009	0.002	18	0.009	0.004	18	0.121	0.005U	
HG	P71900	ug/L	0.017	0.020	5	0.005	0.000	2	0.002	0.001	4	0.002	0.001	2	0.050	0.001U	
COLOR	P80	Pt-Co	33.500	21.486	4	283.000	465.174	3	14.667	23.671	3	2.000	1.732	3	820.000	1.000K	
TURB	P82079	NTU	93.856	185.741	18	34.506	61.949	16	23.153	19.902	17	21.839	17.060	18	800.000	2.600	
HARD	P900	mg/L	47.400	6.542	5	38.000	1.414	2	42.500	6.557	4	46.000	5.657	2	52.000	34.000	
COND	P95	umhos/25c	90.833	23.503	18	97.313	17.685	16	80.611	13.802	18	93.444	13.250	18	126.000	38.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 01A140 Name: NOOKSACK R ABOVE THE MF

Class: A Elevation: 297 River Mile: 40.80

Location:

MOSQUITO LAKE ROAD BRIDGE

Water Years Sampled:

5 6 7 8 9
 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 X

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			-----JANUARY-MARCH-----			-----APRIL-JUNE-----			----JULY-SEPTEMBER----			-----SIX YEAR-----		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N
TEMP	P10	deg C	3.500	2.326	3	4.167	0.404	3	6.133	1.332	3	10.067	1.007	3	11.000	1.000	
PRESS	P25	mm/Hg	758.800	12.537	3	757.400	4.681	3	753.367	4.148	3	756.167	2.040	3	770.400	745.500	
OXYGEN	P300	mg/L	12.500	0.608	3	12.300	0.100	3	11.633	0.416	3	11.067	0.473	3	12.900	10.700	
PCTSAT	P301	%	94.000	1.735	3	94.400	0.624	3	94.333	1.701	3	98.367	5.498	3	103.400	92.400	
FC	P31616	#/100ml	24.000	26.665	3	6.667	6.429	3	51.333	61.330	3	9.333	2.887	3	120.000	2.000	
PH	P400	pH	7.567	0.208	3	7.400	0.000	3	7.533	0.058	3	7.700	0.100	3	7.800	7.400	
SUSSOL	P530	mg/L	36.333	52.577	3	104.667	90.666	3	123.667	133.680	3	28.333	17.039	3	278.000	4.000	
TPN	P600	mg/L	0.308	0.063	3	0.337	0.044	3	0.162	0.090	3	0.095	0.076	3	0.387	0.025	
NH3_N	P610	mg/L	0.010	0.000	3	0.010	0.000	3	0.019	0.013	3	0.010	0.000	3	0.034	0.010U	
NO2_NO3	P630	mg/L	0.273	0.078	3	0.259	0.007	3	0.104	0.116	3	0.063	0.049	3	0.363	0.010U	
TP_P	P665	mg/L	0.040	0.041	3	0.087	0.034	3	0.071	0.031	3	0.044	0.019	3	0.122	0.010	
OP_DIS	P671	mg/L	0.005	0.000	3	0.005	0.000	3	0.005	0.000	3	0.005	0.000	3	0.005	0.005U	
TURB	P82079	NTU	24.000	35.518	3	40.667	43.016	3	50.000	34.699	3	26.333	16.653	3	90.000	2.600	
COND	P95	umhos/25c	82.333	17.214	3	67.000	4.583	3	59.667	9.504	3	67.333	9.074	3	96.000	50.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 01D120 Name: SUMAS R NR NOOKSACK

Class: A Elevation: 70 River Mile: 23.00

Location:

GILLIES ROAD BRIDGE

Water Years Sampled:

5 6 7 8 9
 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 X

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---		-----JANUARY-MARCH-----		-----APRIL-JUNE-----		----JULY-SEPTEMBER----		-----SIX YEAR-----					
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN
TEMP	P10	deg C	4.000	3.904	3	5.933	0.569	3	11.000	2.623	3	15.700	0.954	3	16.600	0.000
PRESS	P25	mm/Hg	765.200	14.279	3	763.967	4.588	3	759.067	4.620	3	762.333	1.528	3	778.000	749.800
OXYGEN	P300	mg/L	10.933	1.021	3	10.267	0.551	3	9.367	0.603	3	9.367	0.513	3	12.100	8.800
PCTSAT	P301	%	82.400	3.305	3	81.800	5.086	3	84.533	1.159	3	93.367	3.636	3	95.900	78.100
FC	P31616	#/100ml	910.000	675.500	3	83.333	26.502	3	1710.000	2110.995	3	247.500	272.236	2	4100.000	55.000
PH	P400	pH	7.733	0.231	3	7.700	0.100	3	7.900	0.100	3	8.067	0.306	3	8.400	7.600
SUSSOL	P530	mg/L	220.000	245.764	3	455.333	367.391	3	96.667	104.184	3	26.500	21.920	2	779.000	11.000
TPN	P600	mg/L	1.453	0.483	3	1.171	0.218	3	1.003	0.123	3	0.833	0.016	2	2.010	0.822
NH3_N	P610	mg/L	0.159	0.257	3	0.025	0.012	3	0.035	0.019	3	0.039	0.010	2	0.455	0.010U
NO2_NO3	P630	mg/L	1.027	0.246	3	0.947	0.291	3	0.608	0.257	3	0.706	0.008	2	1.300	0.345
TP_P	P665	mg/L	0.077	0.056	3	0.092	0.044	3	0.075	0.055	3	0.062	0.030	2	0.142	0.022J
OP_D1S	P671	mg/L	0.035	0.038	3	0.011	0.006	3	0.013	0.003	3	0.011	0.003	2	0.078	0.005U
TURB	P82079	NTU	61.333	85.454	3	146.667	104.083	3	41.533	59.338	3	10.000	8.485	2	230.000	4.000
COND	P95	umhos/25c	215.333	20.232	3	165.667	28.746	3	256.667	31.070	3	299.667	11.719	3	313.000	143.000

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 01F070 Name: SF NOOKSACK @ POTTER RD

Class: A Elevation: 235 River Mile: 19.00

Location:

POTTER ROAD ONE-LANE BRIDGE

Water Years Sampled:

5 6 7 8 9
 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 X

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			-----JANUARY-MARCH-----			-----APRIL-JUNE-----			----JULY-SEPTEMBER----			-----SIX YEAR-----		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	deg C	3.667	2.021	3	4.100	0.436	3	6.767	2.570	3	13.767	1.222	3	15.100	1.500	
PRESS	P25	mm/Hg	759.233	14.872	3	759.267	4.769	3	755.500	4.518	3	757.933	2.050	3	772.200	743.000	
OXYGEN	P300	mg/L	12.267	0.404	3	12.300	0.100	3	11.367	0.603	3	9.700	0.300	3	12.500	9.400	
PCTSAT	P301	%	92.633	1.361	3	94.033	0.473	3	93.233	1.893	3	93.367	2.511	3	96.000	91.000	
FC	P31616	#/100ml	36.000	9.539	3	20.667	6.658	3	19.667	21.939	3	9.000	5.196	3	46.000	3.000	
PH	P400	PH	7.467	0.306	3	7.433	0.231	3	7.500	0.100	3	7.667	0.306	3	8.000	7.200	
SUSSOL	P530	mg/L	119.333	179.901	3	134.000	62.554	3	70.667	53.818	3	5.333	2.082	3	327.000	3.000	
TPN	P600	mg/L	0.499	0.051	3	0.364	0.024	3	0.133	0.118	3	0.180	0.135	3	0.540	0.043J	
NH3_N	P610	mg/L	0.012	0.003	3	0.010	0.000	3	0.024	0.012	3	0.010	0.000	3	0.032	0.010U	
NO2_NO3	P630	mg/L	0.403	0.069	3	0.280	0.020	3	0.099	0.110	3	0.130	0.106	3	0.479	0.029	
TP_P	P665	mg/L	0.083	0.092	3	0.113	0.030	3	0.067	0.021	3	0.025	0.008	3	0.189	0.018	
OP_DIS	P671	mg/L	0.005	0.000	3	0.005	0.000	3	0.005	0.000	3	0.005	0.000	3	0.005	0.005U	
TURB	P82079	NTU	87.333	123.654	3	68.333	27.538	3	33.000	12.530	3	3.300	1.873	3	230.000	1.200	
COND	P95	umhos/25c	64.667	14.468	3	47.333	1.528	3	51.000	2.000	3	83.667	13.503	3	97.000	46.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 01G070 Name: MF NOOKSACK R

Class: AA Elevation: 680 River Mile: 4.90

Location:

MOSQUITO LAKE ROAD ONE-LANE STEEL GIRDER BRIDGE

Water Years Sampled:

5 6 7 8 9
 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 X

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			-----JANUARY-MARCH-----			-----APRIL-JUNE-----			-----JULY-SEPTEMBER-----			-----SIX YEAR-----		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	deg C	2.667	2.558	3	3.267	0.115	3	4.967	1.877	3	8.600	1.646	3	10.500	0.000	
PRESS	P25	mm/Hg	759.350	7.000	2	753.900	6.864	3	750.567	6.616	3	750.067	2.040	3	764.300	743.700	
OXYGEN	P300	mg/L	12.850	1.061	2	12.867	0.058	3	12.233	0.451	3	11.500	0.265	3	13.600	11.300	
PCTSAT	P301	%	97.800	3.253	2	96.933	0.764	3	96.667	2.205	3	99.533	4.120	3	103.400	94.800	
FC	P31616	#/100ml	2.500	2.121	2	3.333	3.215	3	4.667	6.351	3	3.000	1.000	3	12.000	1.000U	
PH	P400	PH	7.600	0.000	2	7.467	0.058	3	7.633	0.058	3	7.533	0.153	3	7.700	7.400	
SUSSOL	P530	mg/L	11.500	13.435	2	30.000	33.956	3	26.667	38.397	3	40.000	5.292	3	71.000	2.000	
TPN	P600	mg/L	0.248	0.021	2	0.231	0.084	3	0.115	0.079	3	0.102	0.075	3	0.314	0.028J	
NH3_N	P610	mg/L	0.010	0.000	2	0.010	0.000	3	0.017	0.012	3	0.010	0.000	3	0.030	0.010U	
NO2_NO3	P630	mg/L	0.193	0.037	2	0.155	0.033	3	0.078	0.069	3	0.056	0.028	3	0.219	0.010U	
TP_P	P665	mg/L	0.023	0.002	2	0.041	0.036	3	0.045	0.009	3	0.053	0.006	3	0.081	0.012	
OP_DIS	P671	mg/L	0.005	0.000	2	0.005	0.000	3	0.005	0.000	3	0.005	0.000	3	0.005	0.005U	
TURB	P82079	NTU	6.750	7.425	2	12.867	12.371	3	17.233	24.055	3	22.933	11.472	3	45.000	1.500	
COND	P95	umhos/25c	53.500	17.678	2	37.667	4.163	3	38.000	8.718	3	51.000	5.568	3	66.000	28.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 05A110 Name: SF STILLY NR GRANITE FALLS Class: AA Elevation: 290 River Mile: 34.60

Location: Water Years Sampled:

LOCATED 1.5 MILES PAST GRANITE FALLS ON MOUNTAIN LOOP HIGHWAY AT BRIDGE
 OVER THE SOUTH FORK OF THE STILLAGUAMISH RIVER JUST UPSTREAM FROM THE
 FISHWAY

5 6 7 8 9
 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 X

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---		----JANUARY-MARCH----		-----APRIL-JUNE-----		----JULY-SEPTEMBER----		-----SIX YEAR-----					
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN			
TEMP	P10	deg C	5.917	2.256	12	3.658	1.640	12	7.975	2.470	12	14.300	2.961	12	20.000	0.000
PRESS	P25	mm/Hg	755.775	7.167	12	751.475	7.565	12	753.242	4.894	12	758.742	6.051	12	771.100	736.600
OXYGEN	P300	mg/L	12.558	0.921	12	13.164	0.582	11	11.675	0.761	12	10.175	0.728	12	14.400	8.900
PCTSAT	P301	%	100.708	3.554	12	100.400	1.601	11	98.817	1.038	12	98.617	3.409	12	110.600	90.400
FC	P31616	#/100ml	27.091	34.277	11	4.083	3.679	12	50.667	130.416	12	41.667	55.926	12	460.000	1.000U
PH	P400	pH	7.233	0.242	12	7.264	0.206	11	7.175	0.230	12	7.400	0.237	12	7.900	6.900
SUSSOL	P530	mg/L	170.167	254.854	12	73.500	56.410	12	146.250	230.625	12	11.417	13.767	12	898.000	1.000
TPN	P600	mg/L	0.190	0.043	9	0.165	0.049	9	0.139	0.057	9	0.102	0.078	9	0.255	0.047J
NH3_N	P610	mg/L	0.018	0.016	12	0.013	0.006	12	0.013	0.007	12	0.011	0.003	11	0.061	0.010U
NO2_DIS	P613	mg/L	0.010	0.000	3	0.010	0.000	2	0.010	0.000	3	0.010	0.000	3	0.010	0.010K
NO2_NO3	P630	mg/L	0.139	0.038	12	0.119	0.040	12	0.063	0.033	12	0.061	0.064	11	0.217	0.010U
TP_P	P665	mg/L	0.087	0.155	12	0.063	0.056	12	0.095	0.152	12	0.019	0.014	11	0.571	0.010U
OP_DIS	P671	mg/L	0.007	0.003	12	0.006	0.002	11	0.006	0.002	12	0.006	0.002	12	0.010	0.005U
TURB	P82079	NTU	103.383	173.936	12	52.633	46.037	12	146.275	273.153	12	9.008	10.008	12	850.000	1.000
COND	P95	umhos/25c	34.167	8.674	12	30.750	10.288	12	29.917	6.882	12	48.583	13.608	12	74.000	17.000

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 05B070 Name: NF STILLAGUAMISH @ CICERO Class: A Elevation: 110 River Mile: 9.50

Location:
 LOCATED AT BRIDGE ON STATE HIGHWAY 530 7.2 MILES NORTHEAST OF ARLINGTON
 AT CICERO

Water Years Sampled:
 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 X

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			-----JANUARY-MARCH-----			-----APRIL-JUNE-----			----JULY-SEPTEMBER----			-----SIX YEAR-----		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	deg C	6.317	2.018	12	4.242	1.427	12	9.075	2.335	12	14.142	2.216	12	17.800	1.100	
PRESS	P25	mm/Hg	762.517	6.982	12	758.508	7.563	12	759.800	5.515	12	765.350	6.013	12	776.700	743.200	
OXYGEN	P300	mg/L	11.950	0.728	12	12.600	0.647	11	11.442	0.617	12	10.458	0.861	12	14.100	9.400	
PCTSAT	P301	%	96.008	2.191	12	96.655	1.379	11	98.700	5.076	12	100.458	8.143	12	115.100	91.200	
FC	P31616	#/100ml	56.727	73.271	11	12.417	8.382	12	41.417	79.184	12	48.750	43.545	12	280.000	1.000U	
PH	P400	ph	7.333	0.235	12	7.318	0.199	11	7.333	0.167	12	7.733	0.448	12	8.600	7.000	
SUSSOL	P530	mg/L	188.667	397.104	12	93.417	84.788	12	72.667	166.203	12	10.667	10.722	12	1400.000	2.000	
FLOW	P60	CFS	4754.556	7118.979	9	2345.333	1801.330	9	1451.889	825.534	9	507.000	300.002	9	23500.000	233.000	
TPN	P600	mg/L	0.331	0.079	9	0.274	0.056	9	0.157	0.070	9	0.165	0.114	9	0.442	0.034J	
NH3_N	P610	mg/L	0.018	0.011	12	0.012	0.003	12	0.013	0.008	12	0.010	0.000	11	0.039	0.010U	
NO2_D1S	P613	mg/L	0.010	0.000	3	0.010	0.000	2	0.010	0.000	3	0.010	0.000	3	0.010	0.010K	
NO2_N	P615	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.010K	
NH3_UN	P619	mg/L	0.000	0.000	10	0.000	0.000	11	0.000	0.000	12	0.000	0.000	9	*****	0.000	
NO3_N	P620	mg/L	0.365	0.049	2	0.230	0.036	3	0.110	0.030	3	0.077	0.040	3	0.400	0.040	
NO2_NO3	P630	mg/L	0.259	0.076	12	0.206	0.051	12	0.094	0.044	12	0.105	0.098	11	0.402	0.010	
TP_P	P665	mg/L	0.115	0.193	12	0.066	0.053	12	0.069	0.119	12	0.021	0.015	11	0.665	0.010U	
OP_D1S	P671	mg/L	0.009	0.005	12	0.007	0.002	11	0.007	0.002	12	0.007	0.003	12	0.022	0.005U	
COLOR	P80	Pt-Co	34.500	10.472	4	330.500	465.983	2	36.667	2.309	3	2.000	1.732	3	660.000	1.000	
TURB	P82079	NTU	94.708	200.327	12	54.250	46.377	12	37.892	78.743	12	7.458	9.593	12	700.000	0.600	
COND	P95	umhos/25c	47.083	14.737	12	42.500	16.071	12	44.500	10.475	12	73.583	17.763	12	104.000	23.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 05B110 Name: NF STILLAGUAMISH NR DARRINGTON Class: A Elevation: 435 River Mile: 30.00

Location: Water Years Sampled:

LOCATED .9 MILES NORTH OF HIGHWAY 530 AND WHITEHORSE AT BRIDGE ON SWEDE
 HEAVEN ROAD

5 6 7 8 9
 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 X X X X X

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---		-----JANUARY-MARCH-----		-----APRIL-JUNE-----		----JULY-SEPTEMBER----		-----SIX YEAR-----					
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN
TEMP	P10	deg C	5.917	1.965	12	3.817	1.137	12	7.550	2.184	12	11.883	1.705	12	14.500	1.600
PRESS	P25	mm/Hg	754.100	8.642	12	751.175	7.694	12	752.100	5.024	12	757.625	5.013	12	769.600	736.900
OXYGEN	P300	mg/L	11.875	0.648	12	12.491	0.457	11	11.467	0.585	12	10.367	0.579	12	13.500	9.700
PCTSAT	P301	%	95.567	2.683	12	95.709	1.611	11	96.350	3.062	12	95.742	5.374	12	105.500	86.700
FC	P31616	#/100ml	30.818	69.882	11	3.167	2.823	12	27.250	35.299	12	16.333	10.569	12	240.000	1.000U
PH	P400	pH	7.275	0.270	12	7.200	0.257	11	7.392	0.353	12	7.458	0.250	12	8.000	6.600
SUSSOL	P530	mg/L	74.000	197.309	12	13.333	18.908	12	6.833	11.216	12	2.083	1.443	12	695.000	1.000K
FLOW	P60	CFS	2595.556	5787.467	9	777.778	630.737	9	487.556	304.756	9	123.444	54.704	9	18000.000	52.000
TPN	P600	mg/L	0.268	0.084	9	0.201	0.048	9	0.122	0.040	9	0.153	0.051	9	0.403	0.039J
NH3_N	P610	mg/L	0.011	0.003	12	0.012	0.006	12	0.012	0.005	12	0.010	0.000	11	0.030	0.010U
NO2_DIS	P613	mg/L	0.010	0.000	3	0.010	0.000	2	0.010	0.000	3	0.010	0.000	3	0.010	0.010K
NO2_NO3	P630	mg/L	0.179	0.066	12	0.159	0.042	12	0.076	0.039	12	0.108	0.045	11	0.283	0.029J
TP_P	P665	mg/L	0.042	0.071	12	0.020	0.011	12	0.022	0.016	12	0.015	0.007	11	0.251	0.010U
OP_DIS	P671	mg/L	0.007	0.003	12	0.006	0.002	11	0.007	0.003	12	0.006	0.002	12	0.013	0.005U
TURB	P82079	NTU	37.192	102.574	12	6.858	8.962	12	3.125	4.495	12	0.675	0.447	12	360.000	0.200
COND	P95	umhos/25c	36.500	14.100	12	36.000	11.481	12	33.167	7.095	12	56.750	15.463	12	91.000	16.000

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 08C070 Name: CEDAR R @ LOGAN ST/RENTON Class: A Elevation: 15 River Mile: 1.00

Location:
 LOCATED AT THE BRIDGE ON LOGAN STREET IN RENTON ADJACENT TO THE
 SOUTHEAST CORNER OF THE RENTON AIRPORT

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			-----JANUARY-MARCH-----			-----APRIL-JUNE-----			----JULY-SEPTEMBER----			-----SIX YEAR-----		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	deg C	8.033	2.309	18	6.167	1.430	18	10.789	1.834	18	14.233	2.110	18	18.600	3.100	
PRESS	P25	mm/Hg	765.567	8.240	18	762.950	7.826	18	765.222	3.631	18	767.076	5.412	17	782.800	748.000	
OXYGEN	P300	mg/L	11.739	0.607	18	12.300	0.442	17	11.511	0.468	18	11.011	0.668	18	13.400	10.000	
PCTSAT	P301	%	98.072	4.770	18	98.394	3.227	17	102.728	5.649	18	105.717	6.037	18	115.500	86.500	
FC	P31616	#/100ml	51.000	62.173	18	41.765	57.840	17	107.944	203.245	18	186.889	183.817	18	900.000	1.000	
PH	P400	ph	7.489	0.184	18	7.400	0.183	16	7.561	0.212	18	7.771	0.273	17	8.200	7.000	
SUSSOL	P530	mg/L	11.444	17.524	18	21.944	30.198	18	11.000	20.167	18	13.611	28.652	18	109.000	1.000	
FLOW	P60	CFS	761.200	653.919	15	897.000	785.213	15	564.133	476.258	15	189.400	72.445	15	2710.000	129.000	
TPN	P600	mg/L	0.380	0.141	12	0.496	0.134	12	0.288	0.124	12	0.241	0.050	12	0.756	0.148	
NH3_N	P610	mg/L	0.017	0.009	18	0.012	0.004	18	0.012	0.006	18	0.014	0.007	17	0.039	0.010U	
NO2_DIS	P613	mg/L	0.010	0.000	6	0.010	0.000	6	0.010	0.000	6	0.010	0.000	6	0.010	0.010K	
NO2_N	P615	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.010K	
NH3_UN	P619	mg/L	0.000	0.000	11	0.000	0.000	12	0.000	0.000	12	0.000	0.001	9	0.001	0.000	
NO3_N	P620	mg/L	0.310	0.161	3	0.360	0.095	3	0.143	0.040	3	0.153	0.061	3	0.480	0.100	
NO2_NO3	P630	mg/L	0.318	0.131	18	0.395	0.098	18	0.220	0.067	18	0.183	0.038	17	0.643	0.045	
TP_P	P665	mg/L	0.020	0.015	18	0.031	0.028	18	0.027	0.023	18	0.021	0.016	17	0.118	0.010U	
OP_DIS	P671	mg/L	0.008	0.002	18	0.008	0.002	18	0.008	0.003	18	0.008	0.003	18	0.012	0.005U	
COLOR	P80	Pt-Co	16.500	12.342	4	29.333	32.716	3	8.667	10.786	3	11.333	15.373	3	67.000	1.000	
TURB	P82079	NTU	4.389	7.292	18	9.433	13.694	18	4.139	8.381	18	3.172	6.603	18	45.000	0.400	
HARD	P900	mg/L	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	26.000	0.000	
COND	P95	umhos/25c	62.944	11.859	18	58.444	11.748	18	63.333	11.672	18	82.556	11.121	18	107.000	39.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 09A080 Name: GREEN R @ TUKWILA Class: A Elevation: 4 River Mile: 12.40
 Location: LOCATED AT THE INTERSECTION ON INTERURBAN AVENUE AT I-405 AND SOUTHCENTER BLVD
 Water Years Sampled: 7 8 9
 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 X X X X X X X

VARIABLE	P-CODE	UNITS	---OCTOBER--DECEMBER---			-----JANUARY-MARCH-----			-----APRIL-JUNE-----			----JULY-SEPTEMBER----			-----SIX YEAR-----		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	deg C	8.018	2.623	17	5.661	1.474	18	11.889	2.536	18	17.033	2.587	18	3.000	3.000K	
ZN	P1094	ug/L	6.500	0.707	2	9.333	10.116	3	8.333	4.509	3	4.000	0.000	2	21.000	3.000V	
CD	P1113	ug/L	0.120	0.028	2	0.107	0.012	3	0.100	0.000	3	0.100	0.000	2	0.140	0.100K	
PB	P1114	ug/L	1.000	0.000	2	2.200	1.908	3	1.100	0.173	3	1.000	0.000	2	4.400	1.000K	
CR	P1118	ug/L	0.980	0.028	2	4.440	6.898	3	0.490	0.096	3	0.425	0.177	2	12.400	0.200K	
CU	P1119	ug/L	2.500	0.707	2	9.633	6.615	3	3.533	0.924	3	3.000	0.000	2	17.000	2.000V	
PRESS	P25	mm/Hg	765.871	8.221	17	762.700	7.202	18	765.244	3.458	18	766.282	5.366	17	783.300	749.000	
OXYGEN	P300	mg/L	10.929	0.952	17	11.689	0.492	18	9.817	0.590	18	8.767	0.853	18	12.800	7.500	
PCTSAT	P301	%	90.959	3.562	17	92.472	1.315	18	89.628	3.921	18	89.189	7.176	18	111.200	81.000	
FC	P31616	#/100ml	185.235	174.098	17	210.222	178.151	18	223.000	627.421	18	189.278	260.717	18	2700.000	6.000	
PH	P400	ph	7.341	0.197	17	7.306	0.169	16	7.394	0.170	18	7.382	0.129	17	7.800	6.900	
SUSSOL	P530	mg/L	19.353	24.002	17	36.167	50.216	18	18.278	21.959	18	11.667	6.920	18	215.000	1.000	
FLOW	P60	CFS	1465.867	1337.802	15	2112.600	1484.766	15	965.533	488.978	15	337.467	196.281	15	6080.000	220.000	
TPN	P600	mg/L	0.605	0.188	11	0.687	0.176	12	0.481	0.221	12	0.492	0.081	12	1.090	0.203	
NH3_N	P610	mg/L	0.035	0.031	17	0.030	0.017	18	0.031	0.020	18	0.029	0.017	17	0.120	0.010U	
NO2_DIS	P613	mg/L	0.010	0.000	6	0.010	0.000	6	0.010	0.000	6	0.010	0.000	6	0.010	0.010K	
NO2_NO3	P630	mg/L	0.416	0.132	17	0.471	0.127	18	0.339	0.122	18	0.324	0.079	17	0.702	0.031	
TP_P	P665	mg/L	0.051	0.035	17	0.064	0.048	18	0.051	0.047	18	0.052	0.013	17	0.207	0.010U	
OP_DIS	P671	mg/L	0.017	0.009	17	0.020	0.009	18	0.018	0.013	18	0.019	0.006	18	0.050	0.050U	
HG	P71900	ug/L	0.045	0.007	2	0.040	0.000	2	0.093	0.092	3	0.000	0.000	0	0.200	0.040K	
TURB	P82079	NTU	7.494	8.848	17	17.350	24.647	18	7.172	10.729	18	3.606	1.189	18	45.000	45.000	
HARD	P900	mg/L	33.500	16.263	2	22.667	6.658	3	32.667	3.215	3	55.667	5.508	3	62.000	15.000	
COND	P95	umhos/25c	80.765	24.121	17	68.444	18.411	18	94.389	28.558	18	138.778	25.381	18	187.000	38.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 09A190 Name: GREEN R @ KAMASKAT

Class: AA Elevation: 775 River Mile: 57.60

Location:

LOCATED AT THE CUMBERLAND-PALMER ROAD BRIDGE AT KANASKAT, 1.1 MILES ABOVE THE FISH HATCHERY AND 4.5 MILES BELOW THE GAGE NEAR BEAR CREEK

Water Years Sampled:

5 6 7 8 9
 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 X

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			-----JANUARY-MARCH-----			-----APRIL-JUNE-----			----JULY-SEPTEMBER----			-----SIX YEAR-----		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	deg C	7.206	2.763	18	4.572	1.414	18	9.250	2.047	18	13.872	1.112	18	16.100	1.700	
PRESS	P25	mm/Hg	744.150	6.929	18	741.067	6.627	18	744.578	7.683	18	746.600	3.990	17	771.700	724.400	
OXYGEN	P300	mg/L	11.611	0.924	18	12.483	0.507	18	11.111	0.575	18	9.900	0.220	18	13.300	9.300	
PCTSAT	P301	%	97.522	2.416	18	98.889	2.805	18	98.183	1.926	18	96.989	1.790	18	104.100	91.100	
FC	P31616	#/100ml	11.278	11.140	18	4.722	5.050	18	11.778	20.533	18	18.176	27.160	17	120.000	1.000K	
PH	P400	PH	7.483	0.309	18	7.394	0.201	17	7.483	0.390	18	7.418	0.317	17	8.100	6.800	
SUSSOL	P530	mg/L	4.222	4.095	18	14.000	27.745	18	3.778	5.735	18	2.500	1.886	18	112.000	1.000U	
FLOW	P60	CFS	1080.533	1125.486	15	1470.800	1671.308	15	690.200	435.295	15	174.200	64.066	15	6890.000	124.000	
TPN	P600	mg/L	0.220	0.073	12	0.228	0.057	12	0.090	0.055	12	0.164	0.115	12	0.522	0.010U	
NH3_N	P610	mg/L	0.011	0.003	18	0.011	0.003	18	0.014	0.007	18	0.012	0.005	17	0.035	0.010U	
NO2_DIS	P613	mg/L	0.010	0.000	6	0.010	0.000	5	0.010	0.000	6	0.010	0.000	6	0.010	0.010K	
NO2_N	P615	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.010K	
NH3_UN	P619	mg/L	0.000	0.000	9	0.000	0.000	11	0.000	0.000	12	0.000	0.000	9	0.001	0.000	
NO3_N	P620	mg/L	0.165	0.064	2	0.073	0.065	3	0.047	0.012	3	0.037	0.012	3	0.210	0.010K	
NO2_NO3	P630	mg/L	0.171	0.089	18	0.167	0.044	18	0.058	0.039	18	0.069	0.018	17	0.296	0.010U	
TP_P	P665	mg/L	0.013	0.006	18	0.023	0.030	18	0.023	0.027	18	0.014	0.009	17	0.137	0.010U	
OP_DIS	P671	mg/L	0.009	0.002	18	0.008	0.002	17	0.008	0.002	18	0.008	0.003	18	0.013	0.005U	
COLOR	P80	Pt-Co	9.667	2.887	3	6.667	2.309	3	15.667	4.619	3	12.143	8.611	7	29.000	1.000	
TURB	P82079	NTU	2.406	2.081	18	11.678	24.316	18	2.878	5.928	18	1.583	2.397	18	90.000	0.200	
COND	P95	umhos/25c	50.944	23.713	18	37.000	4.419	18	38.389	5.500	18	54.944	10.350	18	140.000	28.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 16C090 Name: DUCKABUSH R NR BRINNON Class: AA Elevation: 300 River Mile: 4.50

Location: LOCATED AT THE GS RECORDER IN THE SOUTHWEST QUARTER OF SECTION ONE IN TOWNSHIP 25 NORTH, RANGE THREE WEST, 4.5 MILES UPSTREAM FROM THE MOUTH OF THE DUCKABUSH RIVER AND FIVE MILES WEST OF BRINNON, JEFFERSON COUNTY

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			-----JANUARY-MARCH-----			-----APRIL-JUNE-----			----JULY-SEPTEMBER----			-----SIX YEAR-----		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	deg C	5.667	1.221	12	4.140	0.682	10	6.808	1.500	12	10.492	1.492	12	13.100	3.100	
PRESS	P25	mm/Hg	764.375	7.123	12	758.730	5.336	10	758.300	4.719	12	758.817	5.012	12	775.200	748.800	
OXYGEN	P300	mg/L	12.475	0.414	12	12.800	0.221	10	11.933	0.377	12	11.075	0.331	12	13.200	10.700	
PCTSAT	P301	%	98.550	2.598	12	98.020	1.966	10	97.792	3.461	12	98.967	3.159	12	103.400	92.300	
FC	P31616	#/100ml	3.167	4.174	12	1.400	0.843	10	3.167	2.725	12	10.250	27.039	12	96.000	1.0000	
PH	P400	ph	7.492	0.353	12	7.440	0.412	10	7.575	0.431	12	7.658	0.257	12	8.000	6.300	
SUSSOL	P530	mg/L	5.750	8.719	12	3.000	5.637	10	1.833	0.718	12	4.417	11.524	12	41.000	1.0000	
FLOW	P60	CFS	333.500	350.893	8	386.200	184.573	5	384.333	57.677	6	117.200	51.334	5	962.000	59.000	
TPN	P600	mg/L	0.059	0.031	12	0.045	0.032	10	0.039	0.027	12	0.034	0.022	11	0.135	0.0100	
NH3_N	P610	mg/L	0.012	0.005	12	0.010	0.000	9	0.012	0.005	12	0.010	0.001	11	0.028	0.0100	
NO2_NO3	P630	mg/L	0.039	0.023	12	0.030	0.022	10	0.021	0.022	12	0.015	0.008	12	0.084	0.0100	
TP_P	P665	mg/L	0.012	0.005	12	0.016	0.014	10	0.013	0.006	12	0.026	0.033	11	0.118	0.0100	
OP_DIS	P671	mg/L	0.006	0.002	12	0.007	0.002	10	0.006	0.002	12	0.006	0.002	12	0.010	0.0050	
TURB	P82079	NTU	4.342	7.603	12	1.900	2.790	10	1.425	0.602	12	6.058	18.564	12	65.000	0.5000	
COND	P95	umhos/25c	71.917	11.611	12	70.400	8.959	10	63.250	7.060	12	74.917	11.229	12	92.000	46.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 208070 Name: HOH R @ DNR CAMPGROUND Class: AA Elevation: 350 River Mile: 16.50

Location:
 LOCATED AT THE BANK IN THE DEPARTMENT OF NATURAL RESOURCES CAMPGROUND,
 21 MILES SOUTH OF FORKS, JUST BEFORE THE HOH RIVER BRIDGE ON HIGHWAY 101

VARIABLE	P-CODE UNITS	---OCTOBER-DECEMBER---			-----JANUARY-MARCH-----			-----APRIL-JUNE-----			----JULY-SEPTEMBER----			-----SIX YEAR-----		
		MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10 deg C	6.867	1.510	12	5.717	1.327	12	10.067	2.192	12	12.033	1.818	12	15.000	3.400	
PRESS	P25 mm/Hg	761.917	7.968	12	761.892	3.703	12	760.133	4.429	12	759.825	4.761	12	772.900	749.600	
OXYGEN	P300 mg/L	11.958	0.466	12	12.250	0.315	12	11.283	0.441	12	10.883	0.420	12	12.700	10.300	
PCTSAT	P301 %	97.625	2.929	12	97.225	2.519	12	99.633	3.833	12	100.542	3.775	12	107.500	92.000	
FC	P31616 #/100ml	24.417	29.187	12	1.250	0.622	12	3.250	3.166	12	16.417	25.415	12	95.000	1.000U	
PH	P400 pH	7.342	0.264	12	7.292	0.151	12	7.517	0.208	12	7.550	0.173	12	7.900	6.900	
SUSSOL	P530 mg/L	64.182	125.506	11	8.333	6.692	12	6.500	5.901	12	10.833	14.135	12	428.000	1.000U	
FLOW	P60 CFS	4760.000	5791.718	9	2124.444	575.117	9	1720.556	622.638	9	895.889	288.142	9	18600.000	620.000	
TPN	P600 mg/L	0.162	0.042	12	0.117	0.039	12	0.048	0.041	12	0.048	0.045	11	0.240	0.010U	
NH3_N	P610 mg/L	0.012	0.006	12	0.011	0.002	12	0.012	0.003	12	0.011	0.005	11	0.030	0.010U	
NO2_NO3	P630 mg/L	0.125	0.048	12	0.091	0.035	12	0.031	0.033	12	0.022	0.024	12	0.212	0.010U	
TP_P	P665 mg/L	0.040	0.066	12	0.018	0.015	12	0.014	0.008	12	0.018	0.014	11	0.244	0.010U	
OP_DIS	P671 mg/L	0.006	0.002	11	0.006	0.002	12	0.006	0.002	12	0.006	0.002	12	0.010	0.005U	
TURB	P82079 NTU	29.908	55.823	12	6.658	4.759	12	5.533	4.572	12	12.242	15.646	12	200.000	0.900	
COND	P95 umhos/25c	71.167	12.540	12	70.250	4.288	12	74.417	7.012	12	72.333	9.018	12	91.000	40.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 20D070 Name: DICKEY R NR LA PUSH Class: AA Elevation: 30 River Mile: 6.10

Location: 1.9 Miles up Mina-Smith Road (off of Quillayute Road)
 Water Years Sampled: 5 6 7 8 9
 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 X

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			-----JANUARY-MARCH-----			-----APRIL-JUNE-----			----JULY-SEPTEMBER----			-----SIX YEAR-----		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N
TEMP	P10	deg C	6.400	2.343	3	5.567	3.272	3	12.667	2.663	3	15.467	3.027	3	18.700	2.100	
PRESS	P25	mm/Hg	763.333	9.527	3	766.200	3.811	3	766.933	0.764	3	758.600	3.940	3	773.900	755.400	
OXYGEN	P300	mg/L	11.300	0.889	3	11.733	0.651	3	9.933	0.577	3	9.467	0.321	3	12.400	9.100	
PCTSAT	P301	%	90.833	1.159	3	92.033	2.532	3	92.033	0.416	3	94.367	6.309	3	101.600	89.300	
FC	P31616	#/100ml	112.667	146.155	3	3.333	3.215	3	52.333	84.583	3	273.000	430.464	3	770.000	1.000	
PH	P400	pH	7.000	0.361	3	6.967	0.493	3	7.600	0.000	3	7.367	0.153	3	7.600	6.400	
SUSSOL	P530	mg/L	55.667	60.962	3	5.333	4.163	3	4.000	3.000	3	5.000	4.000	3	126.000	1.000	
TPN	P600	mg/L	0.381	0.151	3	0.218	0.023	3	0.161	0.096	3	0.273	0.174	3	0.555	0.050	
NH3_N	P610	mg/L	0.017	0.013	3	0.011	0.002	3	0.016	0.007	3	0.010	0.000	3	0.032	0.010U	
NO2_NO3	P630	mg/L	0.231	0.059	3	0.152	0.020	3	0.066	0.056	3	0.133	0.146	3	0.297	0.010U	
TP_P	P665	mg/L	0.050	0.053	3	0.032	0.024	3	0.025	0.004	3	0.032	0.005	3	0.111	0.012	
OP_DIS	P671	mg/L	0.005	0.000	3	0.005	0.000	3	0.005	0.000	3	0.005	0.000	3	0.005	0.005U	
TURB	P82079	NTU	26.967	33.323	3	2.867	0.839	3	2.767	1.563	3	6.500	6.727	3	65.000	1.000	
COND	P95	umhos/25c	40.333	6.807	3	39.667	3.055	3	49.333	14.012	3	56.667	13.650	3	66.000	35.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 23A100 Name: CHEHALIS R @ PRATHER RD Class: A Elevation: 128 River Mile: 59.90

Location: PRATHER ROAD BRIDGE NEAR ROCHESTER
 Water Years Sampled: 5 6 7 8 9
 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 X X X

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			-----JANUARY-MARCH-----			-----APRIL-JUNE-----			----JULY-SEPTEMBER----			-----SIX YEAR-----		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	deg C	7.656	2.253	9	5.556	2.495	9	14.300	3.344	9	17.567	3.073	9	22.100	2.900	
PRESS	P25	mm/Hg	765.544	8.694	9	762.467	6.072	9	761.444	3.701	9	760.844	6.317	9	778.300	752.900	
OXYGEN	P300	mg/L	10.533	0.689	9	11.422	0.710	9	9.656	0.802	9	8.544	1.213	9	12.100	7.200	
PCTSAT	P301	%	87.144	4.641	9	89.978	1.812	9	93.322	6.951	9	88.656	13.577	9	110.300	73.900	
FC	P31616	#/100ml	328.000	489.413	9	56.000	62.925	9	31.889	21.456	9	47.778	59.462	9	1500.000	3.000	
PH	P400	pH	7.044	0.279	9	7.000	0.200	9	7.289	0.190	9	7.356	0.213	9	7.700	6.500	
SUSSOL	P530	mg/L	39.889	41.619	9	9.000	4.528	9	9.889	9.545	9	2.889	0.782	9	118.000	2.000	
FLOW	P60	CFS	9229.667	8490.945	6	2953.333	980.238	6	2218.333	2346.641	6	286.167	47.482	6	22300.000	200.000	
TPN	P600	mg/L	0.994	0.264	9	0.894	0.078	9	0.607	0.117	9	0.642	0.101	9	1.310	0.455	
NH3_N	P610	mg/L	0.023	0.012	9	0.028	0.009	9	0.035	0.016	9	0.049	0.040	9	0.123	0.010U	
NO2_NO3	P630	mg/L	0.711	0.183	9	0.726	0.086	9	0.405	0.106	9	0.435	0.067	9	0.857	0.284	
TP_P	P665	mg/L	0.068	0.026	9	0.049	0.026	9	0.056	0.013	9	0.077	0.030	9	0.138	0.021	
OP_DIS	P671	mg/L	0.024	0.030	9	0.012	0.005	9	0.021	0.010	9	0.043	0.024	9	0.102	0.006	
HG	P71900	ug/L	0.002	0.001	2	0.000	0.000	0	0.002	0.000	2	0.000	0.000	0	0.002	0.001U	
TURB	P82079	NTU	24.533	22.196	9	9.178	4.068	9	6.044	7.234	9	2.133	0.880	9	60.000	1.200	
HARD	P900	mg/L	26.000	2.828	2	0.000	0.000	0	26.500	3.536	2	0.000	0.000	0	35.000	24.000	
COND	P95	umhos/25c	81.667	18.145	9	74.333	7.937	9	84.000	13.332	9	97.222	11.200	9	121.000	63.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 23A160 Name: CHEHALIS R @ DRYAD

Class: A Elevation: 288 River Mile: 101.70

Location:

LOCATED AT THE BRIDGE LEAVING DRYAD ON THE SOUTHEAST AND APPROXIMATELY
1.5 MILES EAST OF DOTY

Water Years Sampled:

5 6 7 8 9
 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 X

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			-----JANUARY-MARCH-----			-----APRIL-JUNE-----			----JULY-SEPTEMBER----			-----SIX YEAR-----		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	deg C	6.750	2.364	18	5.600	2.958	18	12.944	4.184	18	15.606	3.009	18	24.500	0.300	
ZN	P1094	ug/L	5.950	3.889	2	0.000	0.000	0	2.350	1.909	2	0.000	0.000	0	8.700	1.000U	
CD	P1113	ug/L	0.100	0.000	2	0.000	0.000	0	0.100	0.000	2	0.000	0.000	0	0.100	0.100U	
PB	P1114	ug/L	0.100	0.000	2	0.000	0.000	0	0.100	0.000	2	0.000	0.000	0	0.100	0.100U	
CR	P1118	ug/L	0.400	0.000	2	0.000	0.000	0	0.350	0.212	2	0.000	0.000	0	0.500	0.200U	
CJ	P1119	ug/L	0.850	0.071	2	0.000	0.000	0	0.850	0.071	2	0.000	0.000	0	0.900	0.400	
PRESS	P25	mm/Hg	760.556	8.188	18	760.511	6.771	18	757.700	5.532	18	758.839	6.507	18	775.700	742.200	
OXYGEN	P300	mg/L	11.872	0.751	18	12.341	0.555	17	10.522	0.904	18	9.506	0.799	18	13.600	8.400	
PCTSAT	P301	%	96.633	3.241	18	98.212	4.719	17	99.039	6.468	18	94.800	7.068	18	113.200	87.800	
FC	P31616	#/100ml	86.056	90.771	18	33.444	33.862	18	51.889	59.278	18	224.722	647.101	18	2800.000	3.000	
PH	P400	ph	7.356	0.311	18	7.206	0.364	18	7.522	0.361	18	7.567	0.247	18	8.500	6.300	
SUSSOL	P530	mg/L	53.611	123.001	18	23.778	54.267	18	3.722	3.754	18	5.000	10.278	18	397.000	1.000U	
FLOW	P60	CFS	1975.133	2990.248	15	1446.800	1840.426	15	481.373	499.401	15	85.100	73.202	15	10000.000	26.000	
TPN	P600	mg/L	0.683	0.255	12	0.613	0.106	12	0.333	0.112	12	0.282	0.172	12	1.060	0.135	
NH3_N	P610	mg/L	0.013	0.006	18	0.012	0.005	18	0.018	0.017	18	0.014	0.005	18	0.081	0.010U	
NO2_DIS	P613	mg/L	0.010	0.000	6	0.010	0.000	6	0.010	0.000	6	0.010	0.000	6	0.010	0.010K	
NO2_N	P615	mg/L	0.010	0.000	2	0.040	0.052	3	0.010	0.000	3	0.010	0.000	3	0.010	0.010K	
NH3_UN	P619	mg/L	0.000	0.000	13	0.000	0.000	13	0.000	0.000	10	0.000	0.000	9	0.001	0.000	
NO3_N	P620	mg/L	0.533	0.190	3	0.390	0.026	3	0.115	0.007	2	0.027	0.012	3	0.720	0.020	
NO2_NO3	P630	mg/L	0.490	0.289	18	0.504	0.144	18	0.201	0.115	18	0.097	0.114	18	0.959	0.010	
TP_P	P665	mg/L	0.035	0.039	18	0.036	0.046	18	0.017	0.012	18	0.023	0.019	18	0.178	0.010U	
OP_DIS	P671	mg/L	0.008	0.002	18	0.009	0.003	18	0.008	0.003	18	0.008	0.002	18	0.012	0.005U	
HG	P71900	ug/L	0.002	0.001	2	0.000	0.000	0	0.003	0.001	2	0.000	0.000	0	0.003	0.001U	
COLOR	P80	Pt-Co	46.000	33.719	3	18.333	2.309	3	25.000	5.657	2	58.667	7.506	3	83.000	17.000	
TURB	P82079	NTU	20.161	44.138	18	6.261	11.242	18	1.944	1.332	18	2.644	3.857	18	140.000	0.800	
HARD	P900	mg/L	20.500	0.707	2	0.000	0.000	0	20.000	1.414	2	0.000	0.000	0	26.000	19.000	
COND	P95	umhos/25c	61.500	9.167	18	58.278	7.843	18	64.944	8.185	18	75.722	7.395	18	88.000	40.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 230055 Name: SKOOKUMCHUCK R @ CENTRALIA Class: A Elevation: 41 River Mile: 2.30
 Location: LOCATED AT STATE HIGHWAY 507 BRIDGE
 Water Years Sampled: 5 6 7 8 9
 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 X X

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			-----JANUARY-MARCH-----			-----APRIL-JUNE-----			-----JULY-SEPTEMBER-----			-----SIX YEAR-----		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	deg C	7.600	2.742	6	6.533	2.185	6	13.200	2.800	6	15.083	1.717	6	16.900	4.100	
PRESS	P25	mm/Hg	765.767	6.584	6	762.033	6.793	6	760.217	2.466	6	759.783	3.884	6	777.200	751.300	
OXYGEN	P300	mg/L	10.433	0.641	6	11.367	0.771	6	9.833	0.472	6	9.783	0.574	6	12.700	9.100	
PCTSAT	P301	%	86.233	5.093	6	91.883	3.461	6	93.033	3.032	6	96.617	6.820	6	108.000	81.500	
FC	P31616	#/100ml	257.500	370.119	6	18.500	15.333	6	101.833	88.180	6	56.667	58.343	6	960.000	4.000	
PH	P400	pH	6.933	0.288	6	7.067	0.207	6	7.317	0.172	6	7.467	0.250	6	7.800	6.500	
SUSSOL	P530	mg/L	17.167	17.244	6	6.667	3.327	6	6.167	4.916	6	3.000	0.000	6	43.000	2.000	
FLOW	P60	CFS	259.667	171.797	3	250.667	128.877	3	363.000	379.380	3	98.667	27.791	3	800.000	77.000	
TPN	P600	mg/L	1.059	0.407	3	0.770	0.071	3	0.518	0.094	3	0.379	0.026	3	1.520	0.350	
NH3_N	P610	mg/L	0.029	0.024	6	0.022	0.011	6	0.025	0.006	6	0.012	0.003	6	0.072	0.010U	
NO2_DIS	P613	mg/L	0.010	0.001	3	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.011	0.010K	
NO2_NO3	P630	mg/L	0.811	0.449	6	0.681	0.159	6	0.362	0.069	6	0.292	0.069	6	1.480	0.154	
TP_P	P665	mg/L	0.048	0.019	6	0.055	0.041	6	0.041	0.018	6	0.031	0.011	6	0.137	0.016	
OP_DIS	P671	mg/L	0.012	0.004	6	0.009	0.003	6	0.010	0.004	6	0.009	0.005	6	0.020	0.005U	
TURB	P82079	NTU	16.700	14.639	6	9.817	5.030	6	5.783	2.964	6	2.600	0.756	6	38.000	1.700	
COND	P95	umhos/25c	161.833	75.053	6	99.667	13.456	6	105.167	39.746	6	77.000	21.679	6	300.000	61.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 23E070 Name: BLACK RIVER @ MOON ROAD BRIDGE Class: A Elevation: 90 River Mile: 7.10
 Location: LOCATED AT THE BRIDGE 6.7 MILES WEST OF I-5 (WEST OF ROCHESTER) AND .6 MILES NORTH ON MOON ROAD.
 Water Years Sampled: 5 6 7 8 9
 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 X X X X X X X

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			-----JANUARY-MARCH-----			-----APRIL-JUNE-----			-----JULY-SEPTEMBER-----			-----SIX YEAR-----		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	deg C	8.133	2.444	12	5.875	2.634	12	13.808	2.561	12	16.100	2.055	12	19.200	2.300	
ZN	P1094	ug/L	5.333	0.577	3	6.333	4.041	3	0.000	0.000	0	8.500	6.364	2	13.000	4.000K	
CD	P1113	ug/L	0.000	0.000	0	0.110	0.017	3	0.100	0.000	3	0.113	0.023	3	0.140	0.100K	
PB	P1114	ug/L	0.000	0.000	0	1.150	0.212	2	1.000	0.000	2	1.000	0.000	3	1.300	1.000K	
CR	P1118	ug/L	0.000	0.000	0	0.663	0.006	3	0.635	0.007	2	0.873	0.982	3	2.000	0.200K	
CU	P1119	ug/L	0.000	0.000	0	2.767	1.328	3	3.000	0.000	3	3.000	0.000	3	4.300	2.000K	
PRESS	P25	mm/Hg	765.975	7.885	12	763.800	6.177	12	762.617	3.582	12	762.833	5.975	12	779.300	752.300	
OXYGEN	P300	mg/L	8.433	1.303	12	9.650	0.962	12	8.558	0.833	12	8.250	2.073	12	11.300	3.300	
PCTSAT	P301	%	70.442	9.985	12	76.608	7.496	12	81.992	9.677	12	83.058	21.315	12	107.000	31.600	
FC	P31616	#/100ml	119.500	209.382	12	28.417	25.837	12	80.750	86.834	12	70.917	91.265	12	760.000	4.000	
PH	P400	ph	7.100	0.252	12	7.008	0.235	12	7.200	0.256	12	7.342	0.188	12	7.600	6.600	
SUSSOL	P530	mg/L	4.500	3.555	12	3.500	1.382	12	2.500	0.905	12	1.500	0.674	12	12.000	1.000U	
TPN	P600	mg/L	0.985	0.116	9	1.033	0.133	9	1.003	0.212	9	0.961	0.229	9	1.380	0.611	
NH3_N	P610	mg/L	0.016	0.007	12	0.020	0.010	12	0.026	0.023	12	0.028	0.042	12	0.157	0.010U	
NO2_DIS	P613	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.001	3	0.011	0.010K	
NO2_NO3	P630	mg/L	0.687	0.163	12	0.830	0.162	12	0.753	0.208	12	0.859	0.244	12	1.170	0.245	
TP_P	P665	mg/L	0.051	0.017	12	0.043	0.027	12	0.046	0.020	12	0.037	0.017	12	0.120	0.010	
OP_DIS	P671	mg/L	0.023	0.008	12	0.017	0.005	12	0.020	0.004	12	0.018	0.009	12	0.043	0.009	
HG	P71900	ug/L	0.004	0.001	2	0.040	0.000	3	0.003	0.001	2	0.016	0.021	2	0.004	0.002U	
TURB	P82079	NTU	4.250	4.559	12	2.600	0.887	12	2.225	0.789	12	0.950	0.444	12	17.000	0.500	
HARD	P900	mg/L	26.000	4.243	2	26.667	3.215	3	32.000	4.243	2	45.333	4.933	3	41.000	23.000	
COND	P95	umhos/25c	75.250	17.772	12	69.583	9.830	12	83.083	16.957	12	104.583	10.647	12	126.000	48.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 236070 Name: SF CHEHALIS R @ CURTIS Class: A Elevation: 232 River Mile: 3.00

Location: 3 Miles on Boistfort Road (begining of Beaver Creek Road)
 Water Years Sampled: 5 6 7 8 9
 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 X

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			-----JANUARY-MARCH-----			-----APRIL-JUNE-----			----JULY-SEPTEMBER----			-----SIX YEAR-----		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N
TEMP	P10	deg C	5.367	0.751	3	5.267	1.069	3	12.033	4.188	3	15.300	3.064	3	17.500	4.600	
PRESS	P25	mm/Hg	771.367	6.732	3	772.233	3.972	3	758.800	2.621	3	760.067	3.201	3	777.200	755.900	
OXYGEN	P300	mg/L	11.500	0.361	3	11.833	0.764	3	10.233	0.115	3	8.567	1.069	3	12.500	7.900	
PCTSAT	P301	%	89.333	0.764	3	91.533	3.951	3	94.800	9.536	3	84.500	4.504	3	105.700	81.800	
FC	P31616	#/100ml	181.000	169.479	3	128.333	122.859	3	100.000	105.148	3	351.000	238.523	3	540.000	23.000	
PH	P400	ph	7.167	0.153	3	7.067	0.058	3	7.500	0.200	3	7.300	0.200	3	7.700	7.000	
SUSSOL	P530	mg/L	33.000	41.388	3	15.333	11.150	3	2.667	2.887	3	4.333	2.517	3	80.000	1.000	
TPN	P600	mg/L	1.175	0.436	3	0.844	0.057	3	0.329	0.192	3	0.420	0.353	3	1.670	0.160	
NH3_N	P610	mg/L	0.016	0.007	3	0.027	0.024	3	0.019	0.005	3	0.014	0.003	3	0.054	0.0100	
NO2_NO3	P630	mg/L	0.980	0.257	3	0.697	0.023	3	0.246	0.185	3	0.327	0.388	3	1.260	0.062	
TP_P	P665	mg/L	0.050	0.027	3	0.064	0.033	3	0.044	0.030	3	0.040	0.010	3	0.101	0.015	
OP_DIS	P671	mg/L	0.009	0.006	3	0.009	0.004	3	0.006	0.001	3	0.007	0.003	3	0.016	0.0050	
TURB	P82079	NTU	17.167	19.951	3	8.800	3.704	3	2.600	1.217	3	3.300	2.339	3	40.000	1.800	
COND	P95	umhos/25c	64.333	7.095	3	57.333	3.055	3	71.667	8.737	3	81.000	14.933	3	92.000	54.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 24F070 Name: NASELLE R NR NASELLE Class: A Elevation: 75 River Mile: 17.40

Location:
 LOCATED APPROXIMATELY TWO MILES UP THE SOUTH VALLEY ROAD TO SECONDARY
 ROAD BRIDGE ON LEFT

Water Years Sampled:
 5 6 7 8 9
 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 X

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			-----JANUARY-MARCH-----			-----APRIL-JUNE-----			-----JULY-SEPTEMBER-----			-----SIX YEAR-----		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	deg C	7.875	2.183	12	6.317	2.547	12	12.683	3.874	12	14.908	2.965	12	21.200	1.600	
PRESS	P25	mm/Hg	766.458	8.291	12	762.417	12.144	12	762.042	4.165	12	763.942	5.231	12	779.500	732.800	
OXYGEN	P300	mg/L	11.808	0.592	12	12.367	0.668	12	10.800	0.858	12	10.200	0.465	12	13.900	9.200	
PCTSAT	P301	%	97.008	4.822	12	98.925	2.903	12	100.550	5.514	12	99.642	4.318	12	106.800	85.600	
FC	P31616	#/100ml	144.083	261.881	12	19.000	41.567	12	20.167	17.108	12	318.917	703.175	12	2400.000	1.000	
PH	P400	ph	7.125	0.234	12	7.158	0.198	12	7.425	0.355	12	7.642	0.257	12	8.200	6.400	
SUSSOL	P530	mg/L	122.583	258.207	12	17.417	50.015	12	2.833	2.038	12	5.417	11.882	12	791.000	1.000U	
FLOW	P60	CFS	1991.556	2710.793	9	614.667	821.537	9	194.000	154.724	9	73.889	108.191	9	7180.000	25.000	
TPN	P600	mg/L	0.753	0.192	9	0.514	0.086	8	0.329	0.101	9	0.281	0.190	9	1.060	0.118	
NH3_N	P610	mg/L	0.012	0.007	12	0.011	0.003	11	0.014	0.006	12	0.017	0.014	12	0.059	0.010U	
NO2_DIS	P613	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.010K	
NO2_NO3	P630	mg/L	0.591	0.137	12	0.471	0.103	11	0.257	0.115	12	0.160	0.128	12	0.843	0.024	
TP_P	P665	mg/L	0.058	0.090	12	0.033	0.038	11	0.018	0.014	12	0.026	0.027	12	0.334	0.010U	
OP_DIS	P671	mg/L	0.007	0.003	12	0.008	0.003	12	0.006	0.002	12	0.007	0.002	12	0.012	0.005U	
TURB	P82079	NTU	53.300	109.242	12	4.192	7.120	12	1.433	1.121	12	3.000	5.345	12	310.000	0.300	
COND	P95	umhos/25c	50.417	6.815	12	50.250	8.761	12	52.500	5.713	12	58.333	5.449	12	75.000	38.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 29D070 Name: RATTLESNAKE CR NR MOUTH Class: A Elevation: 385 River Mile: 0.05

Location: HIGHWAY 141 BRIDGE
 Water Years Sampled:
 5 6 7 8 9
 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 X X X

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			-----JANUARY-MARCH-----			-----APRIL-JUNE-----			----JULY-SEPTEMBER----			-----SIX YEAR-----		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	deg C	7.033	2.750	9	4.178	1.641	9	12.422	2.934	9	16.078	2.388	9	19.000	1.200	
PRESS	P25	mm/Hg	754.800	9.833	9	755.722	8.810	9	750.456	6.538	9	752.011	8.852	9	768.900	734.100	
OXYGEN	P300	mg/L	11.538	1.021	8	12.978	0.776	9	10.689	0.822	9	10.000	0.922	9	14.200	9.000	
PCTSAT	P301	%	95.588	2.895	8	99.689	2.696	9	100.533	2.757	9	101.889	10.199	9	116.400	87.600	
FC	P31616	#/100ml	30.000	37.371	8	16.889	22.116	9	30.333	32.863	9	83.667	179.060	9	560.000	1.000	
PH	P400	pH	7.700	0.335	9	7.889	0.209	9	7.967	0.229	9	7.900	0.274	9	8.400	6.900	
SUSSOL	P530	mg/L	5.556	6.766	9	4.778	3.962	9	2.111	1.054	9	1.667	0.866	9	21.000	1.0000	
FLOW	P60	CFS	194.633	332.906	6	299.833	225.730	6	12.367	7.243	6	2.933	1.404	6	820.000	1.000	
TPN	P600	mg/L	0.181	0.123	9	0.180	0.131	9	0.097	0.041	9	0.194	0.046	9	0.509	0.029	
NH3_N	P610	mg/L	0.010	0.000	9	0.011	0.004	9	0.014	0.008	9	0.016	0.011	9	0.040	0.0100	
NO2_NO3	P630	mg/L	0.071	0.066	9	0.066	0.029	9	0.030	0.032	9	0.108	0.046	9	0.211	0.0100	
TP_P	P665	mg/L	0.048	0.025	8	0.053	0.034	9	0.079	0.081	9	0.059	0.008	9	0.254	0.011	
OP_DIS	P671	mg/L	0.025	0.011	9	0.019	0.006	9	0.020	0.006	9	0.035	0.006	9	0.052	0.010	
TURB	P82079	NTU	7.200	8.341	9	8.800	4.173	9	2.656	1.168	9	1.011	0.629	9	25.000	0.500	
COND	P95	umhos/25c	110.750	52.257	8	58.000	5.788	9	90.778	14.746	9	140.222	15.006	9	205.000	47.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 29E070 Name: GILMER CR NR MOUTH

Class: A Elevation: 1090 River Mile: 1.50

Location:
UPSTREAM SIDE OF FIRST CULVERT ON GLENWOOD ROAD

Water Years Sampled:

5 6 7 8 9
9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
X X X

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			-----JANUARY-MARCH-----			-----APRIL-JUNE-----			----JULY-SEPTEMBER----			-----SIX YEAR-----		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N
TEMP	P10	deg C	7.113	2.370	8	4.800	1.756	9	11.100	2.574	9	11.711	1.358	9	15.000	1.900	
PRESS	P25	mm/Hg	742.275	7.395	8	746.578	9.512	9	741.956	7.535	9	745.011	8.387	9	759.500	732.500	
OXYGEN	P300	mg/L	11.350	0.907	8	12.233	1.128	9	10.989	0.504	9	10.622	0.377	9	14.000	9.600	
PCTSAT	P301	%	95.750	7.939	8	96.700	7.251	9	101.856	6.138	9	99.433	3.474	9	116.900	76.600	
FC	P31616	#/100ml	77.000	74.708	7	236.333	624.391	9	62.444	67.921	9	180.444	300.661	9	1900.000	1.000	
PH	P400	pH	7.725	0.266	8	7.789	0.285	9	7.833	0.240	9	7.744	0.317	9	8.300	7.100	
SUSSOL	P530	mg/L	13.750	24.691	8	20.000	29.146	9	4.889	3.586	9	6.444	11.555	9	96.000	1.0000	
FLOW	P60	CFS	43.840	92.901	5	53.917	33.693	6	13.683	11.222	6	3.040	1.795	5	210.000	0.600	
TPN	P600	mg/L	2.961	1.481	8	1.885	0.784	9	3.303	1.000	9	4.226	0.730	9	5.470	0.404	
NH3_N	P610	mg/L	0.020	0.027	8	0.012	0.007	9	0.015	0.009	9	0.011	0.003	9	0.086	0.0100	
NO2_NO3	P630	mg/L	2.872	1.594	8	1.764	0.317	9	3.316	1.141	9	4.327	0.703	9	5.440	0.852	
TP_P	P665	mg/L	0.036	0.017	7	0.066	0.048	9	0.091	0.143	9	0.037	0.012	9	0.457	0.0100	
OP_DIS	P671	mg/L	0.016	0.007	8	0.018	0.007	9	0.010	0.004	9	0.016	0.005	9	0.030	0.0050	
TURB	P82079	NTU	9.813	12.111	8	14.489	17.417	9	3.378	1.598	9	3.000	4.543	9	60.000	0.800	
COND	P95	umhos/25c	114.000	29.961	7	79.444	8.293	9	110.889	19.726	9	125.667	14.053	9	150.000	69.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 328070 Name: TOUCHET R @ TOUCHET

Class: A Elevation: 425 River Mile: 0.50

Location:
LOCATED AT THE BRIDGE ON HIGHWAY 410 AT TOUCHET

Water Years Sampled:

5 6 7 8 9
 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 X

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---		-----JANUARY-MARCH-----		-----APRIL-JUNE-----		----JULY-SEPTEMBER----		-----SIX YEAR-----						
			MEAN	STD. DEV.	MEAN	STD. DEV.	MEAN	STD. DEV.	MEAN	STD. DEV.	MAX	MIN					
TEMP	P10	deg C	7.733	4.724	4.000	2.700	6	6	14.550	5.696	6	6	20.267	3.124	6	24.300	-0.800
PRESS	P25	mm/Hg	756.267	3.891	6	4.528	5	6	752.700	6.154	6	6	750.833	3.555	6	760.500	741.400
OXYGEN	P300	mg/L	11.633	1.608	6	0.700	6	6	9.950	1.097	6	6	7.767	1.159	6	13.600	6.100
PCTSAT	P301	%	97.480	9.820	5	3.625	6	6	97.333	6.958	6	6	85.933	11.754	6	110.600	70.000
FC	P31616	#/100ml	67.833	18.541	6	37.206	6	6	223.167	308.898	6	6	371.333	287.963	6	810.000	5.000
PH	P400	PH	7.850	0.187	6	0.321	6	6	7.933	0.242	6	6	8.100	0.167	6	8.200	6.900
SUSSOL	P530	mg/L	42.667	55.432	6	1545.460	6	6	217.167	363.705	6	6	51.500	50.820	6	3920.000	4.000
FLOW	P60	CFS	84.867	121.636	3	134.995	3	3	59.667	52.729	3	3	1.033	0.635	3	315.000	0.300
TPN	P600	mg/L	0.735	0.225	3	0.408	3	3	1.957	0.652	3	3	0.731	0.204	3	2.670	0.500
NH3_N	P610	mg/L	0.015	0.005	6	0.024	6	6	0.043	0.043	6	6	0.051	0.035	6	0.116	0.010U
NO2_DIS	P613	mg/L	0.010	0.000	3	0.000	3	3	0.010	0.000	3	3	0.015	0.009	3	0.026	0.010K
NO2_N	P615	mg/L	0.013	0.006	3	0.000	3	3	0.010	0.000	2	2	0.010	0.000	3	0.020	0.010K
NH3_UN	P619	mg/L	0.000	0.000	13	0.001	13	11	0.001	0.002	11	9	0.004	0.002	9	0.009	0.000
NO3_N	P620	mg/L	0.435	0.488	2	0.743	3	3	0.270	0.199	3	3	0.167	0.142	3	0.930	0.040
NO2_NO3	P630	mg/L	0.480	0.291	6	1.241	6	6	0.812	0.908	6	6	0.432	0.172	6	2.410	0.024
TP_P	P665	mg/L	0.098	0.047	6	0.200	6	6	0.181	0.158	6	6	0.115	0.035	6	0.478	0.041
OP_DIS	P671	mg/L	0.040	0.007	6	0.052	6	6	0.048	0.018	6	6	0.059	0.020	6	0.090	0.017
COLOR	P80	Pt-Co	29.714	8.381	7	24.249	3	7	48.857	58.678	7	6	34.833	18.978	6	67.000	8.000
TURB	P82079	NTU	16.900	21.663	6	333.776	6	6	235.733	521.669	6	6	20.667	23.257	6	1300.000	1.900
COND	P95	umhos/25c	163.833	93.047	6	107.000	6	6	119.333	27.449	6	6	200.500	25.595	6	331.000	74.000J

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 32B140 Name: TOUCHET R ABOVE DAYTON

Class: A Elevation: 1610 River Mile: 53.70

Location:
Footbridge at City Park

Water Years Sampled:

5 6 7 8 9
9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 X

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			-----JANUARY-MARCH-----			-----APRIL-JUNE-----			----JULY-SEPTEMBER----			-----SIX YEAR-----		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	deg C	7.333	3.819	3	2.133	2.194	3	8.267	3.053	3	16.200	3.012	3	19.500	-0.400	
PRESS	P25	mm/Hg	723.967	1.950	3	726.333	4.099	3	723.567	2.219	3	724.667	3.573	3	728.700	721.100	
OXYGEN	P300	mg/L	11.700	0.656	3	12.733	0.416	3	11.000	0.889	3	9.933	0.451	3	13.200	9.500	
PCTSAT	P301	%	101.500	3.404	3	96.600	2.960	3	97.600	2.179	3	105.300	6.065	3	111.600	93.200	
FC	P31616	#/100ml	12.333	0.577	3	11.333	7.371	3	10.667	14.224	3	16.000	6.928	3	27.000	1.000U	
PH	P400	ph	7.500	0.458	3	7.467	0.208	3	7.733	0.503	3	8.200	0.100	3	8.300	7.000	
SUSSOL	P530	mg/L	7.000	6.083	3	51.667	61.785	3	21.333	30.925	3	5.667	1.528	3	123.000	2.000	
TPN	P600	mg/L	0.207	0.116	3	0.681	0.054	3	0.364	0.090	3	0.223	0.050	3	0.732	0.131	
NH3_N	P610	mg/L	0.010	0.000	3	0.010	0.000	3	0.018	0.008	3	0.014	0.006	3	0.025	0.010U	
NO2_NO3	P630	mg/L	0.125	0.089	3	0.536	0.078	3	0.264	0.078	3	0.161	0.018	3	0.591	0.062	
TP_P	P665	mg/L	0.062	0.021	3	0.216	0.121	3	0.166	0.105	3	0.075	0.016	3	0.356	0.043	
OP_DIS	P671	mg/L	0.031	0.004	3	0.037	0.005	3	0.024	0.006	3	0.037	0.006	3	0.044	0.019	
TURB	P82079	NTU	6.133	6.813	3	33.333	24.440	3	7.667	4.658	3	2.533	0.709	3	60.000	1.900	
COND	P95	umhos/25c	76.333	9.018	3	67.667	19.502	3	59.000	7.211	3	86.667	5.132	3	91.000	48.000J	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 35B150 Name: TUCANNON R NR MARENGO Class: A Elevation: 1475 River Mile: 24.80

Location: Turner Road Bridge at Marengo
 Water Years Sampled: 5 6 7 8 9
 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 X

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			-----JANUARY-MARCH-----			-----APRIL-JUNE-----			----JULY-SEPTEMBER----			-----SIX YEAR-----		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	deg C	9.333	3.885	3	4.533	2.401	3	11.033	1.361	3	19.633	2.937	3	22.800	1.800	
PRESS	P25	mm/Hg	725.200	4.681	3	735.733	19.928	3	725.767	2.695	3	721.367	3.332	3	757.900	717.800	
OXYGEN	P300	mg/L	10.967	0.874	3	11.900	0.624	3	9.967	0.404	3	8.600	0.265	3	12.600	8.300	
PCTSAT	P301	%	99.500	0.557	3	94.900	3.579	3	94.367	4.332	3	98.133	2.566	3	100.300	90.600	
FC	P31616	#/100ml	10.500	7.778	2	11.333	5.132	3	36.667	54.857	3	41.667	23.029	3	100.000	4.000	
PH	P400	pH	7.933	0.208	3	7.600	0.436	3	8.133	0.462	3	8.633	0.058	3	8.700	7.100	
SUSSOL	P530	mg/L	4.000	1.732	3	65.667	94.733	3	28.667	40.154	3	4.333	0.577	3	175.000	2.000	
TPN	P600	mg/L	0.132	0.057	3	0.579	0.079	3	0.213	0.089	3	0.058	0.030	3	0.664	0.025	
NH3_N	P610	mg/L	0.010	0.000	3	0.010	0.000	3	0.015	0.005	3	0.010	0.000	3	0.019	0.010U	
NO2_NO3	P630	mg/L	0.060	0.056	3	0.445	0.123	3	0.121	0.089	3	0.024	0.010	3	0.550	0.012	
TP_P	P665	mg/L	0.068	0.020	3	0.139	0.017	3	0.234	0.167	3	0.085	0.017	3	0.423	0.045	
OP_DIS	P671	mg/L	0.045	0.003	3	0.053	0.014	3	0.038	0.004	3	0.045	0.010	2	0.069	0.034	
TURB	P82079	NTU	2.100	0.917	3	34.867	43.472	3	7.867	7.069	3	2.200	0.361	3	85.000	1.300	
COND	P95	umhos/25c	85.000	3.606	3	78.000	22.605	3	72.667	4.163	3	173.000	153.326	3	350.000	52.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 35F070 Name: PATAHA CK @ ARCHER RD Class: A Elevation: 1080 River Mile: 5.20

Location:
LOCATED AT ARCHER ROAD BRIDGE

Water Years Sampled:
5 6 7 8 9
9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6

X

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			-----JANUARY-MARCH-----			-----APRIL-JUNE-----			----JULY-SEPTEMBER----			-----SIX YEAR-----		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	deg C	8.567	5.072	3	2.967	3.398	3	12.400	2.722	3	23.067	4.002	3	27.000	-0.800	
PRESS	P25	mm/Hg	734.467	5.133	3	737.267	7.724	3	735.000	2.960	3	732.100	1.905	3	743.700	728.700	
OXYGEN	P300	mg/L	12.167	0.603	3	12.533	1.168	3	10.067	1.429	3	9.400	0.624	3	13.800	8.500	
PCTSAT	P301	%	107.300	8.516	3	95.467	0.850	3	96.600	9.355	3	113.033	12.200	3	121.800	85.800	
FC	P31616	#/100ml	59.000	2.828	2	281.667	362.503	3	2621.333	4313.266	3	196.667	90.738	3	7600.000	14.000	
PH	P400	pH	8.400	0.361	3	7.767	0.252	3	8.233	0.153	3	8.900	0.173	3	9.100	7.500	
SUSSOL	P530	mg/L	25.000	27.404	3	769.333	673.487	3	829.000	1274.809	3	18.333	11.372	3	2300.000	4.000	
TPN	P600	mg/L	1.677	0.495	3	3.697	0.878	3	3.093	0.410	3	2.380	0.249	3	4.500	1.190	
NH3_N	P610	mg/L	0.010	0.001	3	0.041	0.006	3	0.056	0.067	3	0.023	0.012	3	0.133	0.0100	
NO2_NO3	P630	mg/L	1.263	0.539	3	3.197	1.038	3	2.510	0.573	3	2.200	0.229	3	4.020	0.840	
TP_P	P665	mg/L	0.159	0.038	3	0.298	0.163	3	0.299	0.102	3	0.187	0.050	3	0.483	0.134	
OP_DIS	P671	mg/L	0.089	0.034	3	0.108	0.013	3	0.099	0.061	3	0.128	0.040	3	0.170	0.050	
TURB	P82079	NTU	16.500	19.665	3	449.333	466.092	3	691.000	1133.778	3	12.267	10.244	3	2000.000	2.600	
COND	P95	umhos/25c	285.667	2.309	3	220.000	92.455	3	217.000	14.422	3	342.000	45.640	3	393.000	114.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 36A070 Name: COLUMBIA R NR VERNITA Class: A Elevation: 380 River Mile: 388.10

Location:
 LOCATED ON STATE HIGHWAY 24 AT THE VERNITA BRIDGE APPROXIMATELY FIVE
 MILES NORTHEAST OF VERNITA

Water Years Sampled:
 5 6 7 8 9
 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 X

VARIABLE	P-CODE	UNITS	---OCTOBER--DECEMBER---			-----JANUARY-MARCH-----			-----APRIL-JUNE-----			----JULY-SEPTEMBER----			-----SIX YEAR-----		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	deg C	11.433	4.001	12	3.358	1.142	12	10.217	2.781	12	17.817	1.692	12	20.200	1.300	
ZN	P1094	ug/L	7.000	0.000	2	5.667	1.155	3	14.000	3.464	3	9.667	9.866	3	7.000	7.000V	
CD	P1113	ug/L	0.100	0.000	2	0.200	0.000	3	0.280	0.231	3	0.120	0.035	3	0.100	0.100K	
PB	P1114	ug/L	1.000	0.000	2	1.067	0.115	3	1.000	0.000	2	1.000	0.000	3	1.000	1.000K	
CR	P1118	ug/L	0.240	0.057	2	0.350	0.075	3	0.670	0.397	3	0.300	0.100	3	0.280	0.200K	
CU	P1119	ug/L	5.800	3.536	2	2.300	0.520	3	3.000	1.732	3	4.000	1.732	3	8.300	3.300V	
PRESS	P25	mm/Hg	751.550	11.672	12	748.383	10.147	12	747.908	6.139	12	748.708	8.568	12	767.300	721.400	
OXYGEN	P300	mg/L	10.417	0.709	12	13.983	1.394	12	12.675	1.005	12	10.608	0.754	12	16.100	9.400	
PCTSAT	P301	%	95.642	2.947	12	106.267	9.163	12	114.067	8.339	12	112.575	9.642	12	128.400	92.000	
FC	P31616	#/100ml	1.800	1.619	10	5.250	14.410	12	3.417	3.476	12	4.333	5.280	12	51.000	1.000U	
COD	P340	mg/L	5.500	0.707	2	13.333	11.930	3	10.000	1.414	2	8.333	1.528	3	6.000	5.000K	
PH	P400	PH	8.109	0.324	11	8.167	0.172	12	8.150	0.275	12	8.325	0.196	12	8.700	7.400	
SUSSOL	P530	mg/L	2.250	0.965	12	4.083	5.501	12	4.750	2.379	12	3.083	0.793	12	21.000	1.000U	
FLOW	P60	CFS	86000.000	24320.156	9	137677.778	32249.216	9	154611.111	55765.815	9	115722.222	60465.295	9	255500.000	45200.000	
TPN	P600	mg/L	0.178	0.036	12	0.234	0.074	12	0.200	0.087	12	0.132	0.040	12	0.375	0.066	
NH3_N	P610	mg/L	0.010	0.000	12	0.010	0.000	12	0.011	0.002	12	0.011	0.002	12	0.016	0.010U	
NO2_DIS	P613	mg/L	0.006	0.006	2	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.002	
NO2_N	P615	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	2	0.010	0.000	3	0.010	0.010K	
NH3_UN	P619	mg/L	0.000	0.000	13	0.000	0.000	13	0.002	0.005	11	0.000	0.001	9	0.016	0.000	
NO3_N	P620	mg/L	0.120	0.000	2	0.103	0.021	3	0.063	0.035	3	0.013	0.006	3	0.120	0.010	
NO2_NO3	P630	mg/L	0.105	0.032	12	0.156	0.065	12	0.109	0.080	12	0.053	0.034	12	0.326	0.010K	
TP_P	P665	mg/L	0.013	0.004	11	0.017	0.010	12	0.026	0.025	12	0.015	0.006	12	0.085	0.010U	
OP_DIS	P671	mg/L	0.013	0.018	11	0.009	0.008	12	0.009	0.010	12	0.006	0.002	12	0.065	0.005U	
HG	P71900	ug/L	0.001	0.001	4	0.003	0.002	2	0.002	0.001	4	0.002	0.001	2	0.004	0.001U	
COLOR	P80	Pt-Co	8.857	3.185	7	9.667	2.887	3	12.714	7.847	7	13.667	1.633	6	13.000	1.000	
TURB	P82079	NTU	1.283	0.747	12	4.300	6.225	12	4.117	2.567	12	1.783	0.539	12	23.000	0.700	
HARD	P900	mg/L	65.500	3.416	4	66.500	9.192	2	63.250	10.935	4	61.000	0.000	2	78.000	54.000	
COND	P95	umhos/25c	131.636	6.607	11	143.417	22.521	12	132.000	13.045	12	128.167	11.637	12	196.000	101.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 37A090 Name: YAKIMA R @ KIONA

Class: A Elevation: 460 River Mile: 29.80

Location:

LOCATED .1 MILE NORTHWEST OF HIGHWAY 12 AND KIONA AND SOUTHEAST OF BENTON CITY

Water Years Sampled:

5 6 7 8 9
 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 X

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---		-----JANUARY-MARCH-----		-----APRIL-JUNE-----		----JULY-SEPTEMBER----		-----SIX YEAR-----					
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN
TEMP	P10	deg C	7.639	4.295	18	4.594	3.002	18	14.244	3.080	18	19.978	3.215	18	24.900	0.000
PRESS	P25	mm/Hg	750.978	10.726	18	752.289	4.855	18	749.600	5.449	18	751.083	4.958	18	767.100	725.400
OXYGEN	P300	mg/L	11.322	1.264	18	12.250	1.244	18	9.406	1.008	18	8.839	1.212	18	14.500	7.400
PCTSAT	P301	%	94.983	6.609	18	95.250	4.442	18	92.078	6.405	18	97.589	15.370	18	136.400	81.100
FC	P31616	#/100ml	78.063	79.906	16	32.235	30.026	17	104.111	126.503	18	96.167	86.688	18	480.000	1.000K
COD	P340	mg/L	8.667	4.726	3	12.333	1.528	3	17.667	3.215	3	8.667	4.509	3	20.000	4.000K
PH	P400	ph	8.141	0.194	17	7.961	0.238	18	7.933	0.225	18	8.228	0.323	18	8.800	7.600
SUSSOL	P530	mg/L	24.111	32.300	18	37.778	37.574	18	47.556	37.575	18	24.667	18.426	18	139.000	1.000
FLOW	P60	CFS	2856.800	3195.213	15	5644.333	5875.946	15	3417.733	2298.568	15	1536.933	712.938	15	24000.000	580.000
TPN	P600	mg/L	1.449	0.417	12	1.146	0.455	12	0.775	0.356	12	1.396	0.484	12	1.980	0.264
NH3_N	P610	mg/L	0.032	0.029	18	0.052	0.056	18	0.022	0.013	18	0.021	0.012	18	0.209	0.010U
NO2_DIS	P613	mg/L	0.017	0.007	6	0.014	0.005	6	0.011	0.001	6	0.014	0.005	6	0.030	0.010K
NO2_N	P615	mg/L	0.023	0.012	3	0.010	0.000	3	0.010	0.000	2	0.020	0.000	3	0.030	0.010
NH3_UN	P619	mg/L	0.001	0.001	13	0.001	0.001	12	0.001	0.002	11	0.002	0.001	9	0.004	0.000
NO3_N	P620	mg/L	1.300	0.000	2	0.877	0.577	3	0.597	0.289	3	1.300	0.100	3	1.500	0.360
NO2_NO3	P630	mg/L	1.277	0.363	18	0.967	0.399	18	0.556	0.296	18	0.937	0.495	18	1.750	0.065
TP_P	P665	mg/L	0.110	0.032	17	0.122	0.068	18	0.104	0.050	18	0.111	0.061	18	0.308	0.017
OP_DIS	P671	mg/L	0.073	0.020	16	0.080	0.069	18	0.034	0.017	18	0.065	0.030	18	0.297	0.005U
COLOR	P80	Pt-Co	17.571	5.381	7	14.333	2.309	3	24.714	15.283	7	19.667	3.266	6	25.000	1.000
TURB	P82079	NTU	11.539	16.574	18	19.728	30.155	18	16.522	13.009	18	10.867	7.226	18	130.000	1.400
COND	P95	umhos/25c	254.706	54.957	17	203.333	58.854	18	187.111	61.255	18	257.222	32.938	18	325.000	104.000

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 37A205 Name: YAKIMA R @ KNOB HILL Class: A Elevation: 985 River Mile: 111.30

Location: HIGHWAY 24 BRIDGE
 Water Years Sampled: 5 6 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 X X X X

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			-----JANUARY-MARCH-----			-----APRIL-JUNE-----			----JULY-SEPTEMBER----			-----SIX YEAR-----		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	deg C	6.011	4.570	9	2.822	2.498	9	10.233	3.063	9	16.022	2.216	9	19.900	0.000	
PRESS	P25	mm/Hg	738.278	12.137	9	735.744	5.109	9	733.589	5.456	9	737.633	6.038	9	750.800	710.700	
OXYGEN	P300	mg/L	11.778	1.464	9	13.111	1.185	9	10.900	0.658	9	9.856	0.849	9	15.000	8.600	
PCTSAT	P301	%	96.344	5.648	9	99.611	3.004	9	99.989	3.923	9	102.289	10.217	9	117.500	89.500	
FC	P31616	#/100ml	19.000	14.233	8	17.333	14.124	9	65.889	41.241	9	59.875	46.348	8	170.000	2.000	
PH	P400	pH	7.925	0.238	8	7.656	0.336	9	7.778	0.549	9	8.244	0.313	9	8.700	6.800	
SUSSOL	P530	mg/L	13.667	13.500	9	33.111	42.280	9	44.000	62.580	9	16.000	8.155	9	204.000	4.000	
FLOW	P60	CFS	4351.667	4744.940	6	11568.000	14316.362	5	5622.000	1432.121	5	3478.333	386.493	6	37000.000	1240.000	
TPN	P600	mg/L	0.271	0.066	9	0.417	0.190	9	0.214	0.086	9	0.398	0.421	9	1.510	0.119	
NH3_N	P610	mg/L	0.011	0.002	9	0.012	0.004	9	0.012	0.004	9	0.012	0.004	9	0.022	0.0100	
NO2_NO3	P630	mg/L	0.168	0.064	9	0.271	0.177	9	0.085	0.043	9	0.264	0.389	9	1.300	0.011	
TP_P	P665	mg/L	0.250	0.608	9	0.074	0.049	9	0.088	0.079	9	0.053	0.031	9	1.870	0.0100	
OP_DIS	P671	mg/L	0.024	0.008	8	0.032	0.036	9	0.012	0.007	9	0.024	0.017	9	0.127	0.0050	
TURB	P82079	NTU	7.744	7.995	9	23.367	34.430	9	23.089	31.327	9	8.022	6.000	9	110.000	1.700	
COND	P95	umhos/25c	114.000	21.441	8	116.000	33.030	9	85.667	11.011	9	89.444	9.515	9	173.000	71.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 41A070 Name: CRAB CR NR BEVERLY Class: B Elevation: 500 River Mile: 6.00
 Location: LOCATED 6 MILES FROM THE MOUTH OF CRAB CREEK AT THE BRIDGE ON LOWER CRAB CREEK ROAD, ABOUT 5.6 MILES FROM BEVERLY
 Water Years Sampled: 5 6 7 8 9
 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 X

VARIABLE	P-CODE	UNITS	---OCTOBER--DECEMBER---			-----JANUARY-MARCH-----			-----APRIL-JUNE-----			----JULY-SEPTEMBER----			-----SIX YEAR-----		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	deg C	7.775	4.251	12	5.100	3.699	11	16.317	3.781	12	20.142	2.923	12	24.900	0.000	
PRESS	P25	mm/Hg	749.158	11.838	12	748.464	6.467	11	745.858	4.836	12	749.133	5.185	12	765.000	723.900	
OXYGEN	P300	mg/L	11.783	1.862	12	12.900	1.058	11	9.692	1.223	12	9.442	1.665	12	14.600	5.900	
PCTSAT	P301	%	99.225	10.514	12	103.000	12.619	11	99.808	10.553	12	105.167	20.952	12	137.800	63.600	
FC	P31616	#/100ml	38.800	32.714	10	25.000	36.480	11	366.167	551.218	12	126.333	98.250	12	2000.000	3.000	
PH	P400	PH	8.382	0.189	11	8.500	0.190	11	8.475	0.191	12	8.450	0.202	12	8.900	7.900	
SUSSOL	P530	mg/L	13.917	7.525	12	20.091	7.867	11	94.500	41.179	12	53.000	38.338	12	193.000	6.000	
FLOW	P60	CFS	276.444	67.056	9	186.556	31.588	9	252.000	25.065	9	305.222	48.582	9	388.000	125.000	
TPN	P600	mg/L	2.510	0.727	12	3.544	0.421	11	1.863	0.407	12	1.595	0.352	12	4.320	0.735J	
NH3_N	P610	mg/L	0.017	0.014	12	0.027	0.021	11	0.019	0.012	11	0.028	0.049	12	0.183	0.010U	
NO2_DIS	P613	mg/L	0.010	0.000	3	0.017	0.006	3	0.014	0.006	3	0.013	0.003	3	0.021	0.010K	
NO2_N	P615	mg/L	0.013	0.006	3	0.017	0.006	3	0.020	0.000	2	0.013	0.006	3	0.020	0.010	
NH3_UN	P619	mg/L	0.001	0.000	13	0.002	0.001	12	0.003	0.001	10	0.002	0.002	10	0.007	0.000	
NO3_N	P620	mg/L	2.600	0.917	3	3.000	0.624	3	1.200	0.707	2	1.095	0.573	2	3.700	0.690	
NO2_NO3	P630	mg/L	2.177	0.582	12	3.136	0.450	11	1.520	0.380	12	1.366	0.251	12	4.180	0.900	
TP_P	P665	mg/L	0.067	0.034	11	0.105	0.041	11	0.171	0.075	12	0.084	0.037	12	0.285	0.028	
OP_DIS	P671	mg/L	0.035	0.023	11	0.053	0.025	11	0.015	0.007	12	0.011	0.004	12	0.107	0.005U	
COLOR	P80	Pt-Co	25.000	5.657	2	107.500	74.246	2	19.667	6.110	3	43.333	19.035	3	160.000	13.000	
TURB	P82079	NTU	7.167	3.494	12	10.182	4.562	11	32.500	10.005	12	18.875	11.152	12	50.000	3.200	
COND	P95	umhos/25c	651.000	104.433	11	847.455	85.278	11	553.167	49.444	12	512.000	41.606	12	1053.000	454.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 45A070 Name: WENATCHEE R @ WENATCHEE

Class: A Elevation: 600 River Mile: 1.10

Location:

LOCATED 1.1 MILES FROM THE MOUTH OF THE WENATCHEE RIVER, 1.5 MILES NORTH OF WENATCHEE AT THE BRIDGE CROSSING HIGHWAYS 2-97

Water Years Sampled:

5 6 7 8 9
 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 X

VARIABLE	P-CODE UNITS	---OCTOBER-DECEMBER---			----JANUARY-MARCH----			-----APRIL-JUNE-----			----JULY-SEPTEMBER----			-----SIX YEAR-----		
		MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10 deg C	6.575	4.717	16	3.700	2.017	15	9.117	2.157	18	16.765	2.373	17	21.200	0.200	
PRESS	P25 mm/Hg	746.024	7.358	17	745.453	6.771	15	741.433	3.632	18	742.450	4.757	18	761.000	732.000	
OXYGEN	P300 mg/L	13.394	1.070	17	13.687	0.826	15	11.761	0.958	18	10.472	0.882	18	15.600	9.400	
PCTSAT	P301 %	109.335	8.367	17	105.293	4.308	15	103.933	4.660	18	107.128	9.221	18	127.300	84.600	
FC	P31616 #/100ml	4.353	3.856	17	19.231	38.958	13	12.765	13.868	17	27.222	32.877	18	130.000	1.000U	
COD	P340 mg/L	9.000	2.160	4	6.667	1.528	3	9.667	1.155	3	6.000	1.000	3	12.000	5.000K	
PH	P400 pH	8.307	0.633	15	7.927	0.555	15	7.782	0.538	17	8.244	0.463	18	9.400	6.800	
SUSSOL	P530 mg/L	10.059	27.399	17	13.067	26.075	15	16.833	20.039	18	3.778	2.669	18	116.000	1.000K	
FLOW	P60 CFS	1576.857	2429.374	14	2552.154	2121.615	13	6162.333	3031.571	15	1601.333	1764.540	15	13000.000	302.000	
TPN	P600 mg/L	0.263	0.106	12	0.230	0.054	10	0.144	0.072	12	0.221	0.105	12	0.482	0.072	
NH3_N	P610 mg/L	0.010	0.001	17	0.011	0.002	15	0.011	0.002	18	0.011	0.002	18	0.018	0.010U	
NO2_DIS	P613 mg/L	0.010	0.000	5	0.010	0.000	5	0.010	0.000	6	0.010	0.000	6	0.010	0.010K	
NO2_N	P615 mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	2	0.010	0.000	3	0.010	0.010K	
NH3_UN	P619 mg/L	0.001	0.001	12	0.000	0.001	9	0.001	0.001	8	0.002	0.002	10	0.008	0.000	
NO3_N	P620 mg/L	0.167	0.055	3	0.107	0.057	3	0.060	0.028	2	0.185	0.120	2	0.270	0.040	
NO2_NO3	P630 mg/L	0.190	0.084	17	0.133	0.054	15	0.063	0.027	18	0.163	0.088	18	0.351	0.020	
TP_P	P665 mg/L	0.014	0.004	16	0.020	0.018	15	0.026	0.031	18	0.012	0.005	18	0.126	0.010U	
OP_DIS	P671 mg/L	0.008	0.003	17	0.008	0.002	14	0.007	0.003	17	0.008	0.003	18	0.011	0.005U	
COLOR	P80 Pt-Co	14.000	4.041	7	14.500	14.849	2	15.000	19.799	2	12.000	19.053	3	34.000	1.000	
TURB	P82079 NTU	2.288	2.845	17	5.753	15.109	15	5.472	7.266	18	1.294	0.906	18	60.000	0.300	
COND	P95 umhos/25c	71.000	18.918	17	71.067	15.420	15	48.000	19.879	18	60.778	18.135	18	107.000	28.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 45C070 Name: CHUMSTICK CR NR LEAVENWORTH Class: A Elevation: 1200 River Mile: 0.20

Location: Chumstick Hwy to North Road to Motteler Rd to Bridge
 Water Years Sampled: 5 6 7 8 9
 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 X X

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			-----JANUARY-MARCH-----			-----APRIL-JUNE-----			----JULY-SEPTEMBER----			-----SIX YEAR-----		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	deg C	6.367	2.797	3	2.700	2.152	3	9.567	4.203	3	11.967	1.457	3	14.100	0.600	
PRESS	P25	mm/Hg	731.433	6.616	3	737.867	2.639	3	731.967	1.943	3	732.333	6.391	3	740.900	723.900	
OXYGEN	P300	mg/L	10.500	1.114	3	12.400	0.755	3	10.867	0.874	3	9.933	0.289	3	13.100	9.500	
PCTSAT	P301	%	88.033	3.963	3	93.933	0.379	3	98.300	2.022	3	95.267	3.499	3	99.800	83.900	
FC	P31616	#/100ml	34.333	21.502	3	2.500	2.121	2	21.667	18.448	3	97.000	80.666	3	190.000	1.0000	
PH	P400	ph	7.767	0.058	3	7.767	0.115	3	7.633	0.551	3	7.767	0.115	3	8.000	7.000	
SUSSOL	P530	mg/L	2.333	1.528	3	8.667	8.327	3	29.000	10.149	3	8.333	5.774	3	40.000	1.000	
TPN	P600	mg/L	0.570	0.111	3	0.488	0.069	3	0.430	0.036	3	0.526	0.026	3	0.697	0.399	
NH3_N	P610	mg/L	0.010	0.000	3	0.011	0.001	3	0.015	0.007	3	0.011	0.002	3	0.023	0.0100	
NO2_NO3	P630	mg/L	0.507	0.097	3	0.329	0.037	3	0.261	0.094	3	0.433	0.056	3	0.601	0.170	
TP_P	P665	mg/L	0.170	0.171	3	0.061	0.020	3	0.157	0.070	3	0.057	0.006	3	0.357	0.023	
OP_DIS	P671	mg/L	0.010	0.005	3	0.018	0.004	3	0.023	0.004	3	0.027	0.005	3	0.030	0.0050	
TURB	P82079	NTU	1.433	0.351	3	2.967	1.845	3	9.933	1.102	3	4.000	2.600	3	11.000	1.100	
COND	P95	umhos/25c	336.333	10.504	3	238.333	27.006	3	342.667	56.412	3	351.000	14.526	3	404.000	211.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 45D070 Name: BRENDER CR NR CASHMERE Class: A Elevation: 790 River Mile: 0.20
 Location: Sunset Hwy Near substation in Cashmere
 Water Years Sampled: 5 6 7 8 9
 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 X X

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			-----JANUARY-MARCH-----			-----APRIL-JUNE-----			----JULY-SEPTEMBER----			-----SIX YEAR-----		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N
TEMP	P10	deg C	9.700	1.732	3	6.800	2.982	3	12.367	2.468	3	14.667	2.268	3	16.400	3.500	
PRESS	P25	mm/Hg	738.467	9.282	3	747.600	3.372	3	739.733	3.197	3	739.967	3.873	3	751.300	728.000	
OXYGEN	P300	mg/L	9.600	0.819	3	12.000	0.794	3	10.767	1.662	3	9.833	0.208	3	12.900	8.700	
PCTSAT	P301	%	86.667	5.689	3	99.700	3.863	3	102.567	10.166	3	98.933	4.022	3	112.000	80.100	
FC	P31616	#/100ml	340.000	296.985	2	423.000	533.159	2	90.333	55.139	3	396.667	138.684	3	800.000	31.000	
PH	P400	ph	7.867	0.058	3	7.967	0.153	3	8.000	0.173	3	7.833	0.058	3	8.100	7.800	
SUSSOL	P530	mg/L	32.500	13.435	2	35.667	14.295	3	26.000	16.523	3	21.667	4.509	3	48.000	9.000	
TPN	P600	mg/L	4.110	0.198	2	4.157	0.449	3	2.547	0.670	3	2.383	0.574	3	4.450	1.720	
NH3_N	P610	mg/L	0.021	0.016	2	0.023	0.016	3	0.020	0.007	3	0.013	0.005	3	0.041	0.0100	
NO2_NO3	P630	mg/L	4.500	0.354	2	3.950	0.279	3	2.467	0.992	3	2.353	0.560	3	4.750	1.510	
TP_P	P665	mg/L	0.758	0.979	2	0.130	0.022	3	0.175	0.044	3	0.071	0.024	3	1.450	0.057	
OP_DIS	P671	mg/L	0.040	0.003	2	0.033	0.015	3	0.032	0.006	3	0.026	0.010	3	0.048	0.015	
TURB	P82079	NTU	13.500	2.121	2	10.633	3.099	3	14.000	3.000	3	10.400	4.161	3	17.000	6.900	
COND	P95	umhos/25c	502.667	13.204	3	455.000	16.823	3	371.667	59.652	3	337.667	31.021	3	517.000	305.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 45E070 Name: MISSION CR NR CASHMERE Class: A Elevation: 790 River Mile: 0.20

Location: Sunset Hwy near substation in Cashmere
 Water Years Sampled: 5 6 7 8 9
 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 X X

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			-----JANUARY-MARCH-----			-----APRIL-JUNE-----			----JULY-SEPTEMBER----			-----SIX YEAR-----		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	deg C	6.633	3.691	3	3.067	3.050	3	11.467	7.242	3	14.267	2.146	3	19.800	0.000	
PRESS	P25	mm/Hg	738.800	9.473	3	747.600	3.372	3	739.733	3.197	3	739.967	3.873	3	751.300	728.000	
OXYGEN	P300	mg/L	10.867	1.563	3	13.700	1.044	3	11.233	1.328	3	10.300	0.608	3	14.400	9.200	
PCTSAT	P301	%	90.467	6.997	3	103.267	3.350	3	104.233	4.325	3	102.633	2.074	3	108.800	82.400	
FC	P31616	#/100ml	541.000	917.160	3	5.500	4.950	2	10.333	5.859	3	129.000	62.554	3	1600.000	2.000	
PH	P400	ph	8.233	0.115	3	8.500	0.173	3	8.233	0.379	3	8.433	0.058	3	8.600	7.800	
SUSSOL	P530	mg/L	6.667	7.234	3	5.333	4.041	3	19.000	10.583	3	8.000	3.000	3	31.000	2.000	
TPN	P600	mg/L	1.471	0.677	3	0.641	0.074	3	0.375	0.095	3	1.005	0.359	3	2.220	0.285	
NH3_N	P610	mg/L	0.056	0.080	3	0.010	0.000	3	0.012	0.004	3	0.010	0.001	3	0.149	0.010U	
NO2_NO3	P630	mg/L	1.190	0.335	3	0.494	0.078	3	0.294	0.121	3	0.947	0.373	3	1.510	0.164	
TP_P	P665	mg/L	0.385	0.553	3	0.053	0.021	3	0.103	0.047	3	0.039	0.012	3	1.020	0.010U	
OP_DIS	P671	mg/L	0.019	0.024	3	0.005	0.000	3	0.005	0.000	3	0.009	0.006	3	0.046	0.005U	
TURB	P82079	NTU	6.900	8.747	3	1.700	0.436	3	5.167	2.610	3	2.833	1.305	3	17.000	1.200	
COND	P95	umhos/25c	338.667	22.502	3	262.333	48.881	3	225.000	48.135	3	291.000	50.110	3	364.000	182.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 48A070 Name: METHOW R NR PATEROS Class: A Elevation: 870 River Mile: 5.00

Location:
 LOCATED 5 MILES FROM THE MOUTH OF THE METHOW RIVER, 3.6 MILES FROM THE
 JUNCTION OF HIGHWAYS 153 AND 97 AT THE BRIDGE ON HIGHWAY 153 NORTHWEST
 OF PATEROS

Water Years Sampled:
 5 6 7 8 9
 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 X

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			-----JANUARY-MARCH-----			-----APRIL-JUNE-----			----JULY-SEPTEMBER----			-----SIX YEAR-----		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N
TEMP	P10	deg C	4.971	4.090	17	3.047	2.948	17	9.306	2.186	18	15.383	2.372	18	19.000	0.000	
PRESS	P25	mm/Hg	740.194	8.437	17	739.688	6.591	17	736.244	4.890	18	737.956	5.657	18	754.600	717.800	
OXYGEN	P300	mg/L	12.735	1.368	17	13.341	1.176	17	11.183	0.649	18	10.106	0.534	18	15.100	9.200	
PCTSAT	P301	%	101.288	2.610	17	101.365	1.979	17	100.061	2.109	18	103.278	3.058	18	109.000	96.500	
FC	P31616	#/100ml	1.688	1.195	16	1.235	0.562	17	22.389	39.024	18	6.889	7.661	18	150.000	1.000U	
PH	P400	PH	8.200	0.151	16	8.071	0.161	17	8.000	0.338	18	8.317	0.236	18	8.700	7.000	
SUSSOL	P530	mg/L	1.294	0.588	17	3.000	2.264	17	22.444	35.366	18	2.778	2.981	18	122.000	1.000U	
FLOW	P60	CFS	384.214	104.587	14	500.000	287.525	14	3616.800	2391.824	15	989.933	1010.118	15	7970.000	263.000	
TPN	P600	mg/L	0.270	0.039	11	0.274	0.071	12	0.152	0.101	12	0.203	0.101	12	0.393	0.048	
NH3_N	P610	mg/L	0.010	0.000	17	0.010	0.001	17	0.011	0.002	18	0.011	0.002	18	0.019	0.010U	
NO2_DIS	P613	mg/L	0.010	0.000	5	0.010	0.000	5	0.010	0.000	6	0.010	0.000	6	0.010	0.010K	
NO2_N	P615	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	2	0.010	0.000	3	0.010	0.010K	
NH3_UN	P619	mg/L	0.000	0.000	12	0.001	0.001	9	0.000	0.001	8	0.001	0.000	10	0.003	0.000	
NO3_N	P620	mg/L	0.230	0.000	2	0.207	0.032	3	0.065	0.049	2	0.205	0.106	2	0.280	0.030	
NO2_NO3	P630	mg/L	0.223	0.034	17	0.201	0.065	17	0.060	0.042	18	0.145	0.081	18	0.355	0.010U	
TP_P	P665	mg/L	0.010	0.002	16	0.012	0.004	17	0.032	0.043	18	0.013	0.006	18	0.163	0.010U	
OP_DIS	P671	mg/L	0.009	0.003	16	0.007	0.003	17	0.008	0.003	18	0.008	0.003	18	0.013	0.005U	
COLOR	P80	Pt-Co	4.000	0.000	2	4.000	0.000	2	3.333	4.041	3	11.000	14.142	2	21.000	1.000	
TURB	P82079	NTU	0.629	0.254	17	0.953	0.899	17	7.556	12.795	18	0.811	0.448	18	45.000	0.300	
COND	P95	umhos/25c	171.706	34.950	17	170.882	26.849	17	98.056	35.005	18	141.333	35.724	18	300.000	59.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 54A120 Name: SPOKANE R @ RIVERSIDE STATE PK Class: A Elevation: 1640 River Mile: 66.00
 Location: LOCATED IN SPOKANE AT RIVERSIDE STATE PARK ON THE WOODEN, SWINGING, FOOT BRIDGE
 Water Years Sampled: 5 6 7 8 9
 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 X

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			-----JANUARY-MARCH-----			-----APRIL-JUNE-----			----JULY-SEPTEMBER----			-----SIX YEAR-----		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	deg C	9.139	3.405	18	3.567	1.197	18	10.000	4.680	18	16.594	1.823	18	19.900	1.700	
ZN	P1094	ug/L	62.000	35.341	3	101.333	15.373	3	89.333	16.803	3	43.000	22.068	3	119.000	22.000V	
CD	P1113	ug/L	0.185	0.078	2	0.467	0.345	3	0.598	0.195	4	0.187	0.042	3	0.820	0.130V	
PB	P1114	ug/L	1.367	0.115	3	4.700	2.914	3	4.250	0.636	2	1.550	0.252	4	7.900	1.200V	
CR	P1118	ug/L	0.460	0.192	3	0.300	0.141	2	0.570	0.341	4	0.393	0.212	3	0.680	0.200K	
CU	P1119	ug/L	4.367	2.454	3	4.267	3.926	3	2.750	1.500	4	3.750	1.500	4	8.800	2.000K	
PRESS	P25	mm/Hg	719.161	8.126	18	719.947	7.084	17	717.383	3.150	18	718.129	6.713	17	732.500	693.400	
OXYGEN	P300	mg/L	11.406	1.080	18	13.400	0.837	18	12.256	1.443	18	9.650	0.520	18	14.800	8.400	
PCTSAT	P301	%	103.839	6.255	18	106.583	6.395	18	113.478	4.442	18	104.150	5.616	18	120.400	89.700	
FC	P31616	#/100ml	115.222	181.452	18	190.125	540.827	16	42.500	64.926	18	64.500	100.793	18	2200.000	1.000K	
COD	P340	mg/L	7.000	2.646	3	19.333	9.504	3	13.000	5.196	3	3.333	1.528	3	29.000	2.000K	
PH	P400	ph	8.056	0.243	18	7.889	0.332	18	8.056	0.376	18	8.344	0.206	18	8.800	7.000	
SUSSOL	P530	mg/L	2.833	2.749	18	40.444	133.545	18	8.722	20.891	18	1.833	0.857	18	574.000	1.000U	
FLOW	P60	CFS	4044.000	6329.016	15	6839.333	5035.208	15	10029.333	5477.649	15	1654.267	1111.433	15	26800.000	585.000	
TPN	P600	mg/L	0.720	0.252	12	0.778	0.372	12	0.365	0.099	11	1.095	0.354	12	1.710	0.177	
NH3_N	P610	mg/L	0.099	0.115	18	0.083	0.098	18	0.038	0.037	17	0.118	0.231	18	0.654	0.010U	
NO2_DIS	P613	mg/L	0.015	0.007	6	0.010	0.000	6	0.012	0.003	6	0.023	0.017	6	0.048	0.010K	
NO2_N	P615	mg/L	0.010	0.000	3	0.013	0.006	3	0.010	0.000	2	0.013	0.006	3	0.010	0.010K	
NH3_UN	P619	mg/L	0.003	0.006	13	0.001	0.001	13	0.000	0.000	10	0.011	0.013	9	0.043	0.000	
NO3_N	P620	mg/L	0.355	0.021	2	0.503	0.337	3	0.110	0.042	2	0.933	0.289	3	0.820	0.080	
NO2_NO3	P630	mg/L	0.545	0.234	18	0.551	0.268	18	0.266	0.100	17	0.965	0.353	18	1.530	0.097	
TP_P	P665	mg/L	0.040	0.022	18	0.072	0.064	18	0.033	0.037	17	0.022	0.011	18	0.300	0.010U	
OP_DIS	P671	mg/L	0.028	0.020	18	0.039	0.023	18	0.011	0.005	18	0.012	0.006	18	0.072	0.005U	
HG	P71900	ug/L	0.001	0.000	2	0.030	0.020	4	0.001	0.000	2	0.024	0.032	2	0.001	0.001U	
COLOR	P80	Pt-Co	10.143	5.581	7	22.000	24.249	3	7.667	11.547	3	27.000	2.828	2	50.000	1.000	
TURB	P82079	NTU	2.517	3.655	18	34.533	116.536	18	4.272	4.832	18	0.989	0.274	18	500.000	0.500	
HARD	P900	mg/L	49.000	35.355	2	38.750	6.946	4	28.000	2.646	3	74.250	33.059	4	74.000	24.000	
COND	P95	umhos/25c	121.556	30.254	18	98.500	24.378	18	84.611	36.444	18	195.111	56.004	18	285.000	51.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 558070 Name: LITTLE SPOKANE R NR MOUTH Class: A Elevation: 1525 River Mile: 1.10
 Location: Water Years Sampled: 5 6 7 8 9
 LOCATED APPROXIMATELY 1.5 MILES UPSTREAM FROM CONFLUENCE WITH LONG LAKE
 ON BRIDGE CROSSING THE LITTLE SPOKANE RIVER ON HIGHWAY 291 AT OLD FORT SPOKANE
 HISTORICAL SITE

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			-----JANUARY-MARCH-----			-----APRIL-JUNE-----			----JULY-SEPTEMBER----			-----SIX YEAR-----		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	deg C	7.900	2.314	12	4.909	1.610	11	11.375	2.698	12	14.783	1.578	12	18.000	0.900	
ZN	P1094	ug/L	4.333	3.215	3	25.667	28.113	3	3.500	0.707	2	5.667	2.887	3	58.000	2.000V	
CD	P1113	ug/L	0.100	0.000	3	0.150	0.151	3	*****	*****	4	0.100	0.000	4	0.320	0.030	
PB	P1114	ug/L	1.000	0.000	3	1.650	0.919	2	1.450	0.636	2	1.050	0.100	4	2.300	1.000K	
CR	P1118	ug/L	0.773	0.302	3	0.860	0.792	2	0.978	0.409	4	0.603	0.200	4	1.420	0.300V	
CU	P1119	ug/L	2.600	0.794	3	7.867	8.812	3	3.475	1.704	4	3.750	1.500	4	18.000	2.000K	
PRESS	P25	mm/Hg	722.650	4.555	12	723.773	6.570	11	720.800	3.144	12	721.992	7.872	12	734.300	709.900	
OXYGEN	P300	mg/L	10.100	0.529	12	10.655	0.396	11	9.233	1.024	12	9.373	0.759	11	11.300	7.000	
PCTSAT	P301	%	89.183	3.329	12	87.255	2.358	11	88.650	10.144	12	96.964	9.213	11	109.900	71.100	
FC	P31616	#/100ml	30.917	13.297	12	35.000	32.971	10	40.333	29.561	12	82.083	66.600	12	210.000	5.000	
COD	P340	mg/L	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	4.000	4.000K	
PH	P400	pH	8.133	0.115	12	7.855	0.291	11	7.992	0.312	12	8.258	0.168	12	8.600	7.300	
SUSSOL	P530	mg/L	5.250	3.388	12	16.091	7.503	11	10.333	4.539	12	5.667	2.839	12	28.000	2.000	
FLOW	P60	CFS	408.778	33.492	9	581.250	205.418	8	633.556	196.073	9	374.333	35.546	9	955.000	339.000	
TPN	P600	mg/L	1.309	0.084	12	1.223	0.173	11	0.938	0.158	11	1.237	0.122	12	1.470	0.637	
NH3_N	P610	mg/L	0.018	0.025	12	0.019	0.009	11	0.017	0.010	11	0.013	0.005	12	0.098	0.010U	
NO2_DIS	P613	mg/L	0.010	0.001	3	0.010	0.000	3	0.007	0.005	3	0.010	0.000	3	0.010	0.001	
NO2_N	P615	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	2	0.010	0.000	3	0.010	0.010K	
NH3_UN	P619	mg/L	0.000	0.001	13	0.000	0.000	13	0.000	0.000	12	0.001	0.001	9	0.003	0.000	
NO3_N	P620	mg/L	0.980	0.594	2	0.953	0.431	3	0.877	0.074	3	1.100	0.000	3	1.400	0.540	
NO2_NO3	P630	mg/L	1.208	0.076	12	1.089	0.186	11	0.760	0.201	11	1.160	0.091	12	1.350	0.421	
TP_P	P665	mg/L	0.022	0.016	12	0.046	0.023	11	0.059	0.071	11	0.023	0.016	12	0.253	0.010U	
OP_DIS	P671	mg/L	0.011	0.006	12	0.020	0.006	11	0.016	0.010	12	0.010	0.004	12	0.044	0.005U	
HG	P71900	ug/L	0.067	0.024	3	0.027	0.022	3	0.023	0.025	2	0.054	0.024	4	0.085	0.002	
COLOR	P80	Pt-Co	15.000	12.437	7	12.333	7.506	3	15.667	2.309	3	46.500	17.678	2	59.000	8.000	
TURB	P82079	NTU	2.108	1.483	12	9.236	5.509	11	4.692	2.391	12	2.367	1.279	12	20.000	0.800	
HARD	P900	mg/L	134.667	3.215	3	99.000	32.078	3	113.333	11.015	3	131.667	8.083	3	139.000	71.000	
COND	P95	umhos/25c	259.250	19.060	12	224.182	33.181	11	208.250	31.459	12	270.167	18.120	12	300.000	153.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 56A070 Name: HANGMAN CR @ MOUTH Class: A Elevation: 1720 River Mile: 0.60
 Location: LOCATED AT THE MOUTH OF HANGMAN CREEK AT RIVERSIDE AVENUE BRIDGE IN SPOKANE
 Water Years Sampled: 5 6 7 8 9
 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 X

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			-----JANUARY-MARCH-----			-----APRIL-JUNE-----			-----JULY-SEPTEMBER-----			-----SIX YEAR-----		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N
TEMP	P10	deg C	6.136	4.098	11	1.430	1.744	10	13.092	4.322	12	18.758	3.477	12	25.100	-0.900	
PRESS	P25	mm/Hg	720.300	4.668	11	719.030	7.566	10	716.717	3.311	12	717.992	7.231	12	731.000	704.900	
OXYGEN	P300	mg/L	12.927	1.354	11	12.620	0.551	10	10.192	0.843	12	10.692	1.842	12	14.300	7.800	
PCTSAT	P301	%	110.018	16.777	11	94.880	2.773	10	102.308	11.854	12	121.133	24.621	12	157.300	86.600	
FC	P31616	#/100ml	46.727	64.613	11	162.556	249.964	9	157.917	280.558	12	179.917	295.143	12	1100.000	1.000U	
PH	P400	ph	8.382	0.349	11	7.600	0.258	10	8.167	0.540	12	8.617	0.402	12	9.300	7.200	
SUSSOL	P530	mg/L	7.091	10.261	11	274.600	598.333	10	90.583	248.134	12	6.583	3.579	12	1960.000	1.000K	
FLOW	P60	CFS	32.413	60.267	8	869.571	1303.283	7	476.000	817.379	9	19.922	12.186	9	3690.000	1.000	
TPN	P600	mg/L	2.557	3.222	8	5.228	0.901	8	2.718	1.115	8	1.323	0.328	9	10.100	0.444	
NH3_N	P610	mg/L	0.034	0.046	11	0.050	0.042	10	0.027	0.027	11	0.017	0.011	12	0.161	0.010U	
NO2_DIS	P613	mg/L	0.012	0.004	3	0.016	0.008	2	0.018	0.014	3	0.010	0.000	3	0.034	0.010K	
NO2_N	P615	mg/L	0.013	0.006	3	0.023	0.012	3	0.010	0.000	2	0.027	0.012	3	0.020	0.010	
NH3_UN	P619	mg/L	0.001	0.001	13	0.001	0.001	12	0.002	0.002	11	0.024	0.055	9	0.170	0.000	
NO3_N	P620	mg/L	2.915	2.949	2	5.667	2.532	3	0.420	0.286	3	0.670	0.551	3	7.600	0.100	
NO2_NO3	P630	mg/L	1.728	2.430	11	4.699	0.888	10	1.966	1.086	11	0.906	0.391	12	8.660	0.284	
TP_P	P665	mg/L	0.055	0.058	11	0.163	0.095	10	0.143	0.106	11	0.056	0.029	12	0.369	0.010U	
OP_DIS	P671	mg/L	0.025	0.027	11	0.080	0.017	10	0.036	0.022	12	0.022	0.009	12	0.112	0.007	
COLOR	P80	Pt-Co	86.714	73.086	7	82.000	84.870	3	22.333	15.044	3	56.500	9.192	2	180.000	8.000	
TURB	P82079	NTU	18.700	38.326	11	300.700	705.900	10	37.717	47.028	12	5.192	4.297	12	2300.000	0.600	
COND	P95	umhos/25c	315.455	79.674	11	174.000	51.179	10	219.333	54.748	12	363.667	48.623	12	443.000	87.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 60A070 Name: KETTLE R NR BARSTOW Class: AA Elevation: 1400 River Mile: 10.90

Location: LOCATED 10.9 MILES FROM THE MOUTH OF THE KETTLE RIVER, .75 MILES EAST OF BARSTOW ON THE FERRY-STEVENS COUNTY LINE

Water Years Sampled: 5 6 7 8 9

VARIABLE	P-CODE UNITS	---OCTOBER-DECEMBER---			-----JANUARY-MARCH-----			-----APRIL-JUNE-----			----JULY-SEPTEMBER----			-----SIX YEAR-----		
		MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10 deg C	5.118	5.149	11	0.475	0.645	8	7.483	1.842	12	17.850	2.303	12	22.300	0.000	
PRESS	P25 mm/Hg	726.218	5.933	11	728.688	4.036	8	727.392	4.929	12	728.883	7.917	12	746.000	716.000	
OXYGEN	P300 mg/L	12.309	1.627	11	13.638	0.250	8	12.133	0.525	12	9.142	0.414	12	14.300	8.600	
PCTSAT	P301 %	99.700	1.893	11	98.625	1.461	8	105.383	3.818	12	99.600	3.979	12	112.700	92.200	
FC	P31616 #/100ml	4.900	4.771	10	1.625	1.768	8	27.500	28.389	12	11.000	10.296	12	97.000	1.0000	
COD	P340 mg/L	5.000	0.000	2	10.500	7.778	2	20.667	7.767	3	9.500	7.778	2	5.000	5.000K	
PH	P400 pH	8.118	0.289	11	8.038	0.245	8	7.742	0.382	12	8.333	0.267	12	8.800	6.900	
SUSSOL	P530 mg/L	1.182	0.405	11	2.375	1.598	8	36.583	40.529	12	2.667	1.875	12	156.000	1.0000	
FLOW	P60 CFS	783.727	575.062	11	837.000	259.404	8	10737.778	5024.522	9	1678.667	1861.442	9	21800.000	220.000	
TPN	P600 mg/L	0.163	0.043	11	0.222	0.055	8	0.194	0.105	12	0.120	0.032	12	0.486	0.079	
NH3_N	P610 mg/L	0.022	0.034	11	0.012	0.005	8	0.012	0.004	12	0.012	0.003	12	0.124	0.0100	
NO2_DIS	P613 mg/L	0.006	0.006	2	0.010	0.000	2	0.010	0.000	3	0.010	0.000	2	0.010	0.002	
NO2_N	P615 mg/L	0.010	0.000	2	0.010	0.000	2	0.010	0.000	2	0.010	0.000	3	0.010	0.010K	
NH3_UN	P619 mg/L	0.000	0.000	10	0.000	0.000	5	0.000	0.000	11	0.001	0.001	9	0.001	0.000	
NO3_N	P620 mg/L	0.090	0.078	3	0.070	0.028	2	0.023	0.015	3	0.030	0.035	3	0.180	0.010	
NO2_NO3	P630 mg/L	0.093	0.108	11	0.123	0.055	8	0.020	0.020	12	0.021	0.014	12	0.381	0.0100	
TP_P	P665 mg/L	0.012	0.007	11	0.013	0.009	8	0.064	0.059	12	0.014	0.007	12	0.190	0.0100	
OP_DIS	P671 mg/L	0.007	0.003	10	0.007	0.003	8	0.007	0.003	12	0.007	0.002	12	0.014	0.0050	
COLOR	P80 Pt-Co	15.857	4.451	7	27.000	26.870	2	31.000	8.888	3	3.333	4.041	3	46.000	1.000	
TURB	P82079 NTU	0.555	0.221	11	0.850	0.256	8	11.625	11.839	12	1.133	0.679	12	45.000	0.400	
HARD	P900 mg/L	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	549.000	549.000	
COND	P95 umhos/25c	167.909	38.464	11	173.500	50.268	8	90.417	60.491	12	147.750	42.732	12	290.000	45.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 62A150 Name: PEND OREILLE R @ NEWPORT Class: A Elevation: 2030 River Mile: 88.20
 Location: Water Years Sampled: 7 8 9
 LOCATED IN BONNER COUNTY, IDAHO AT THE BRIDGE ON U S HIGHWAY 2, JUST EAST OF NEWPORT
 5 6 7 8 9
 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 X

VARIABLE	P-CODE UNITS	---OCTOBER-DECEMBER---			----JANUARY-MARCH----			-----APRIL-JUNE-----			----JULY-SEPTEMBER----			-----SIX YEAR-----		
		MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10 deg C	8.917	4.724	18	2.160	1.370	15	10.372	3.856	18	19.650	2.417	18	24.900	0.000	
PRESS	P25 mm/Hg	711.106	5.523	18	711.243	7.587	14	708.889	3.160	18	709.872	5.559	18	730.000	699.000	
OXYGEN	P300 mg/L	10.467	1.138	18	12.633	0.502	15	11.256	1.012	18	9.139	0.617	18	13.600	8.600	
PCTSAT	P301 %	95.422	3.395	18	98.033	3.883	15	107.000	7.085	18	105.994	6.446	18	119.700	89.200	
FC	P31616 #/100ml	1.222	0.943	18	1.000	0.000	14	2.500	2.728	18	5.588	14.959	17	63.000	1.000U	
PH	P400 pH	8.178	0.170	18	7.993	0.183	15	8.056	0.245	18	8.406	0.173	18	8.700	7.600	
SUSSOL	P530 mg/L	2.222	1.166	18	3.600	1.298	15	5.611	3.127	18	2.167	0.985	18	15.000	1.000U	
FLOW	P60 CFS	23283.333	7873.205	18	18913.333	6197.334	15	32924.118	22679.267	17	19402.667	11628.452	15	94400.000	4450.000	
TPN	P600 mg/L	0.091	0.029	12	0.117	0.016	11	0.107	0.029	11	0.083	0.024	12	0.157	0.030	
NH3_N	P610 mg/L	0.015	0.016	18	0.011	0.004	15	0.013	0.007	17	0.010	0.001	18	0.079	0.010U	
NO2_DIS	P613 mg/L	0.010	0.000	6	0.010	0.000	4	0.010	0.000	6	0.010	0.000	6	0.010	0.010K	
NO2_N	P615 mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	2	0.010	0.000	3	0.010	0.010K	
NH3_UN	P619 mg/L	0.001	0.003	14	0.000	0.000	12	0.000	0.000	11	0.001	0.001	9	0.011	0.000	
NO3_N	P620 mg/L	0.013	0.006	3	0.023	0.012	3	0.013	0.006	3	0.010	0.000	3	0.030	0.010K	
NO2_NO3	P630 mg/L	0.013	0.009	18	0.036	0.017	15	0.013	0.004	17	0.010	0.000	18	0.068	0.010U	
TP_P	P665 mg/L	0.012	0.005	17	0.014	0.009	15	0.023	0.032	17	0.013	0.006	18	0.135	0.010U	
OP_DIS	P671 mg/L	0.008	0.003	18	0.007	0.003	15	0.008	0.003	18	0.008	0.003	18	0.011	0.005U	
COLOR	P80 Pt-Co	8.143	4.337	7	9.000	11.314	2	8.667	8.021	3	23.000	28.355	3	55.000	1.000	
TURB	P82079 NTU	1.222	0.693	18	1.753	0.820	15	3.494	2.896	18	1.478	0.569	18	13.000	0.400	
HARD	P900 mg/L	0.000	0.000	0	0.000	0.000	0	29.000	1.414	2	0.000	0.000	0	85.000	85.000	
COND	P95 umhos/25c	161.444	18.931	18	157.400	12.665	15	139.500	11.779	18	148.278	9.946	18	211.000	109.000	

Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

Appendix F

Number of Results Exceeding Water Quality Criteria in Water Year 1997
River and Stream Ambient Monitoring Stations.

Number of results exceeding water quality criteria in water year 1997 river and stream ambient monitoring stations. For each variable, the total number of samples, the number of samples that exceeded criteria, and the percent of samples exceeding criteria are shown. For fecal coliform bacteria, the "Exceed" and "Pct" columns are the number and percent of individual samples exceeding the "10 percent not to exceed" criterion; the "GM" column is the number of individual samples exceeding the geometric mean criterion (see text). Stations in basins scheduled for more intensive data collection in WY 1997 are shown in bold. (Some basin stations may be outside the Water Quality Management Areas ("basins") designated for data collection in 1997.)

CENTRAL REGION

STATION Number	Name	Class	TEMPERATURE			OXYGEN			pH			FECAL COLIFORM			
			No	Exceed	Pct	No	Exceed	Pct	No	Exceed	Pct	No	Exceed	Pct	GM
Core Stations															
31A070	Columbia R @ Umatilla	A	12	1 ^a	8	12			12			12			
36A070	Columbia R nr Vernita	A	12	1 ^a	8	12			12	1	8	12			
37A090	Yakima R @ Kiona	A	12	2 ^b	17	12			12	2	17	12	2	17	4
37A205	Yakima R @ Knob Hill	A	12	^b		12			12	1	8	12			1
39A090	Yakima R nr Cle Elum	AA	12		8	12	1	8	12			12			
45A070	Wenatchee R @ Wenatchee	A	11			11			11	4	36	10			
45A110	Wenatchee R nr Leavenworth	AA	12			12			12	1	8	11			
46A070	Entiat R nr Entiat	A	12			12			12	2	17	12			
48A070	Methow R nr Pateros	A	12			12			12			12			1
48A140	Methow R @ Twisp	A	12			12			12			12			
49A070	Okanogan R @ Malott	A	11	2	18	11	1	9	11			11			
49A190	Okanogan R @ Oroville	A	12	3	25	12	1	8	12	1	8	12			
49B070	Similkameen R @ Oroville	A	10	1	10	10			10			10			
53A070	Columbia R @ Grand Coulee	A	12	1 ^a	8	12			12			12			
Basin Stations															
45C070	Chumstick Cr nr Lvnwrth	A	12			12			12			11			1
45D070	Breder Cr nr Cashmere	A	12			12			12			10	5	50	7
45E070	Mission Cr nr Cashmere	A	12	1	8	12			12	2	17	11	1	9	3

^aSpecial temperature criterion of "shall not exceed 20°C" was applied.

^bThe lower Yakima has a special temperature criterion of "shall not exceed 21°C" which was considered.

^cAdditional oxygen criterion, "dissolved oxygen shall exceed 90 percent of saturation," was also evaluated.

EASTERN REGION

STATION Number	Name	Class	TEMPERATURE			OXYGEN			pH			FECAL COLIFORM		
			No	Exceed	Pct	No	Exceed	Pct	No	Exceed	Pct	No	Exceed	Pct
Core Stations														
32A070	Walla Walla R nr Touchet	B	12	1	8	12	1	8	12		12	2	17	4
33A050	Snake R nr Pasco	A	12	1 ^a	8	12			12		12	1	8	1
34A070	Palouse R @ Hooper	B	12	2	17	12			12	4	33			2
34A170	Palouse R @ Palouse	A	12	2 ^a	17	12			12	3	25	2	17	2
34B110	SF Palouse R @ Pullman	A	12	2	17	12			12			8	67	8
35A150	Snake R @ Interstate Br	A	12	1 ^a	8	12			12					
35B060	Tucannon R @ Powers	A	12	3	25	12			12	3	25	1	9	3
41A070	Crab Cr nr Beverly	B	11	4	36	11			11	3	27			
54A120	Spokane R @ Riverside S. P.	A	12	^a		12			12					1
55B070	Little Spokane R nr Mouth	A	12			11	3	27	12			1	9	1
56A070	Hangman Cr @ Mouth	A	12	1	8	12	1	8	12			3	27	6
57A150	Spokane R @ Stataline Br	A	12	1 ^a	8	12	1	8	12					
60A070	Kettle R nr Barstow	AA	10	1	10	10	2	20	10		9			
61A070	Columbia R @ Northport	AA	12	1	8	12			12		11			
62A150	Pend Oreille R @ Newport	A	12	1 ^a	8	12			12	1	8			
Basin Stations														
32B070	Touchet R @ Touchet	A	12	2	17	12	3	25	12			2	17	3
32B140	Touchet R above Dayton	A	12	1	8	12			12					
35B150	Tucannon R nr Marengo	A	12	2	17	12			12	3	25			
35D070	Asotin Cr @ Asotin	A	12	1	8	12			12	1	8			
35F070	Pataha Ck @ Archer Rd	A	12	3	25	12			12	4	33	5	45	5

^aSpecial temperature criterion of "shall not exceed 20°C" was applied.

NORTHWEST REGION

STATION		TEMPERATURE			OXYGEN			pH			FECAL COLIFORM				
Number	Name	Class	No	Exceed	Pct	No	Exceed	Pct	No	Exceed	Pct	No	Exceed	Pct	GM
Core Stations															
01A050	Nooksack R @ Brennan	A	11			11			11			11	2	18	3
01A120	Nooksack R @ No Cedarville	A	12			12			12			12	1	8	1
03A060	Skagit R nr Mount Vernon	A	12			12			12			12			1
03B050	Samish R nr Burlington	A	12			12			12			12	5	42	9
04A100	Skagit R @ Marblemount	AA	12			12			12			12			1
05A070	Stillaguamish R nr Silvana	A	11			11			11			11	1	9	1
05A090	SF Stillaguamish @ Arlington	A	12	1	8	12			12			12			
05A110	SF Stilly nr Granite Falls	AA	12	1	8	12		8	12			12			
05B070	NF Stillaguamish @ Cicero	A	12			12			12			12			
05B110	NF Stilly nr Darrington	A	12			12			12			12			
07A090	Snohomish R @ Snohomish	A	12			12			12			12	1	8	2
07C070	Skykomish R @ Monroe	A	12			12			12			12			
07D050	Snoqualmie R nr Monroe	A	12			12			12			12	2	17	5
07D130	Snoqualmie R @ Snoqualmie	A	12			12			12			12			
08C070	Cedar R @ Logan St/Renton	A	12			12			12			12	1	8	5
08C110	Cedar R nr Landsburg	AA	12			12			12			12			
09A080	Green R @ Tukwila	A	11			11			11			11	3	27	7
09A190	Green R @ Kanaskat	AA	12			12			12			12			
Basin Stations															
01A140	Nooksack R above the MF	A	12			12			12			12			1
01D070	Sumas R nr Huntingdon BC	A	11			11		36	11			11	10	91	11
01D120	Sumas R nr Nooksack	A	12			12			12			12	5	45	7
01F070	SF Nooksack @ Potter Rd	A	12			12			12			12			
01G070	MF Nooksack R	AA	12			12			12			12			

SOUTHWEST REGION

STATION Number	Name	Class	TEMPERATURE			OXYGEN			pH			FECAL COLIFORM			
			No	Exceed	Pct	No	Exceed	Pct	No	Exceed	Pct	No	Exceed	Pct	GM
Core Stations															
10A070	Puyallup R @ Meridian St	A	12			12			12			12	4	33	5
11A070	Nisqually R @ Nisqually	A	12			12			12			12			
13A060	Deschutes R @ E St Bridge	A	12			12			12			12	1	8	4
16A070	Skokomish R nr Potlatch	AA	12			12			12	1	8	12	1	8	1
16C090	Duckabush R nr Brinnon	AA	11			11			11	1	9	11			1
18B070	Elwha R nr Port Angeles	AA	12			12			12			12			
20B070	Hoh R @ DNR Campground	AA	12			12			12			12			2
22A070	Humtulsips R nr Humtulsips	A	12			12			12			12			2
23A070	Chehalis R @ Porter	A	12	1	8	12	1	8	11			12	1	8	1
23A160	Chehalis R @ Dryad	A	12			12			12			12	1	8	1
24B090	Willapa R nr Willapa	A	12			12			12			12	2	17	5
24F070	Naselle R nr Naselle	A	12			12			12			12			1
26B070	Cowlitz R @ Kelso	A	12			12			12			12	1	8	2
27B070	Kalama R nr Kalama	A	12			12			12			12			
27D090	EF Lewis R nr Dollar Corner	A	12	1	8	12			12			12			1
Basin Stations															
20D070	Dickey R nr La Push	AA	12	1	8	12	1	8	12	1	8	12	3	25	3
23A100	Chehalis R @ Prather Rd	A	12	1	8	12	1	8	12			12	1	8	4
23A130	Chehalis R @ Claquato	A	12	2	17	12	2	17	12			12	2	17	2
23B070	Newaukum R nr Chehalis	A	12	1	8	12			12			12	2	17	7
23D055	Skookumchuck R @ Centralia	A	12			12			12			12	1	8	4
23E070	Black River @ Moon Road	A	12			12	3	25	12			12	2	17	2
23G070	SF Chehalis R @ Curtis	A	12			12	2	17	12			12	5	42	6
29D070	Rattlesnake Cr nr Mouth	A	12	1	8	12			12			12			
29E070	Gilmer Cr nr Mouth	A	12			12			12			12			1