



# River and Stream Ambient Monitoring Report for Water Year 1997

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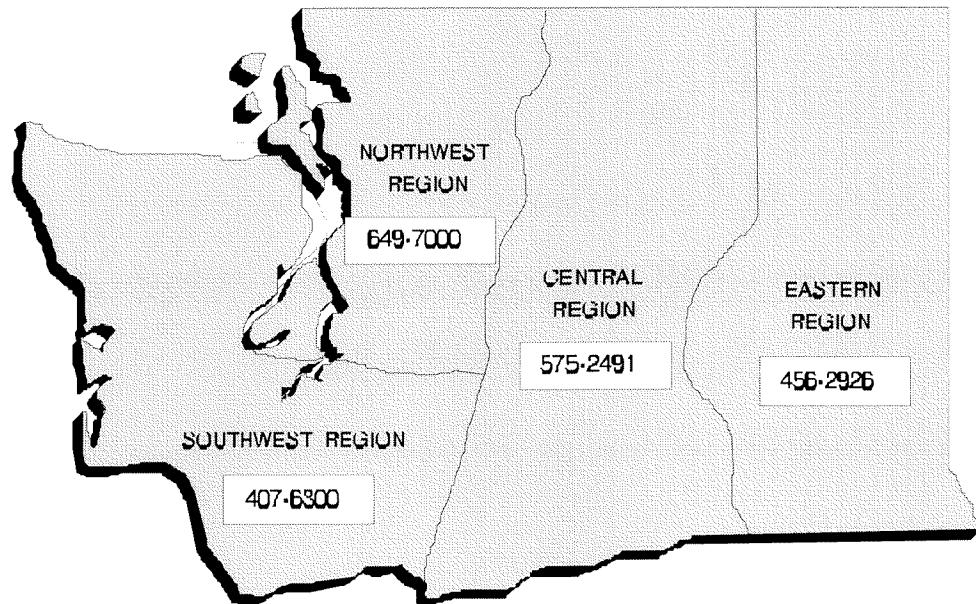
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# River and Stream Ambient Monitoring Report for Water Year 1997

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prepared by  
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August 1999

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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 WQMA's 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 WQMA's. 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 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	<b>01A050</b>	Nooksack R @ Brennan	43	26B070	Cowlitz R @ Kelso
2	<b>01A120</b>	Nooksack R @ No Cedarville	44	27B070	Kalama R nr Kalama
3	<b>01A140</b>	Nooksack R above the MF	45	27D090	EF Lewis R nr Dollar Corner
4	<b>01D070</b>	Sumas R nr Huntingdon BC	46	29D070	Rattlesnake Cr nr Mouth
5	<b>01D120</b>	Sumas R nr Nooksack	47	29E070	Gilmer Cr nr Mouth
6	<b>01F070</b>	SF Nooksack @ Potter Rd	48	31A070	Columbia R @ Umatilla
7	<b>01G070</b>	MF Nooksack R	49	<b>32A070</b>	<b>Walla Walla R nr Touchet</b>
8	03A060	Skagit R nr Mount Vernon	50	<b>32B070</b>	<b>Touchet R @ Touchet</b>
9	03B050	Samish R nr Burlington	51	<b>32B140</b>	<b>Touchet R above Dayton</b>
10	04A100	Skagit R @ Marblemount	52	<b>33A050</b>	<b>Snake R nr Pasco</b>
11	05A070	Stillaguamish R nr Silvana	53	<b>34A070</b>	<b>Palouse R @ Hooper</b>
12	05A090	SF Stillaguamish @ Arlington	54	<b>34A170</b>	<b>Palouse R @ Palouse</b>
13	05A110	SF Stilly nr Granite Falls	55	<b>34B110</b>	<b>SF Palouse R @ Pullman</b>
14	05B070	NF Stillaguamish @ Cicero	56	<b>35A150</b>	<b>Snake R @ Interstate Br</b>
15	05B110	NF Stilly nr Darrington	57	<b>35B060</b>	<b>Tucannon R @ Powers</b>
16	07A090	Snohomish R @ Snohomish	58	<b>35B150</b>	<b>Tucannon R nr Marengo</b>
17	07C070	Skykomish R @ Monroe	59	<b>35D070</b>	<b>Asotin Cr @ Asotin</b>
18	07D050	Snoqualmie R nr Monroe	60	<b>35F070</b>	<b>Pataha Ck @ Archer Rd</b>
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	<b>45A070</b>	<b>Wenatchee R @ Wenatchee</b>
25	11A070	Nisqually R @ Nisqually	67	<b>45A110</b>	<b>Wenatchee R nr Leavenworth</b>
26	13A060	Deschutes R @ E St Bridge	68	<b>45C070</b>	<b>Chumstick Cr nr Leavenworth</b>
27	16A070	Skokomish R nr Potlatch	69	<b>45D070</b>	<b>Brender Cr nr Cashmere</b>
28	16C090	Duckabush R nr Brinnon	70	<b>45E070</b>	<b>Mission Cr nr Cashmere</b>
29	18B070	Elwha R nr Port Angeles	71	<b>46A070</b>	<b>Entiat R nr Entiat</b>
30	<b>20B070</b>	<b>Hoh R @ DNR Campground</b>	72	48A070	Methow R nr Pateros
31	<b>20D070</b>	<b>Dickey R nr La Push</b>	73	48A140	Methow R @ Twisp
32	<b>22A070</b>	<b>Humptulips R nr Humptulips</b>	74	49A070	Okanogan R @ Malott
33	<b>23A070</b>	<b>Chehalis R @ Porter</b>	75	49A190	Okanogan R @ Oroville
34	<b>23A100</b>	<b>Chehalis R @ Prather Rd</b>	76	49B070	Similkameen R @ Oroville
35	<b>23A130</b>	<b>Chehalis R @ Claquato</b>	77	53A070	Columbia R @ Grand Coulee
36	<b>23A160</b>	<b>Chehalis R @ Dryad</b>	78	54A120	Spokane R @ Riverside State Pk
37	<b>23B070</b>	<b>Newaukum R nr Chehalis</b>	79	55B070	Little Spokane R nr Mouth
38	<b>23D055</b>	<b>Skookumchuck R @ Centralia</b>	80	56A070	Hangman Cr @ Mouth
39	<b>23E070</b>	<b>Black River @ Moon Road Bridge</b>	81	57A150	Spokane R @ Stateline Br
40	<b>23G070</b>	<b>SF Chehalis R @ Curtis</b>	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 Number	Name	Dissolved metals <sup>a</sup> and total mercury	Total Recoverable metals <sup>b</sup>
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 <sup>c</sup>	Spokane R @ Stateline Br	X	X
61A070 <sup>c</sup>	Columbia R @ Northport	X	X

<sup>a</sup> Dissolved metals: cadmium, copper, lead, and nickel, zinc

<sup>b</sup> Total recoverable metals: arsenic, cadmium, chromium, copper, and lead, zinc

<sup>c</sup> Metals 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 <sup>a</sup>	Parameter					
		Temp	Oxygen	pH	FC <sup>b</sup>	FC <sup>c</sup>	
<b>BY STATION</b>							
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	
<b>BY SAMPLE</b>							
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	

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

<sup>b</sup> Based on individual results greater than the "10 percent not to exceed" criteria. See text.

<sup>c</sup> 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 Siemans) 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)	$\leq 10$	0.8	36	0.7	36	0.1	228
	$> 10$	26.8	7	3.3	6	1.9	65
Suspended solids (mg L <sup>-1</sup> )	$\leq 10$	1.9	26	NA	-	0.6	119
	$> 10$	12.9	17			5.5	85
Total phosphorus ( $\mu\text{g L}^{-1}$ )	$\leq 50$	7.8	15	2.8	48	3.0	152
	$> 50$	16.0	6	13.1	20	30.3	94
Soluble reactive P ( $\mu\text{g L}^{-1}$ )	$\leq 50$	1.4	41	2.4	39	1.0	271
	$> 50$	2.1	2	6.4	1	3.4	32
Total Nitrogen ( $\mu\text{g L}^{-1}$ )	$\leq 500$	52.2	27	46.2	26	3.7	152
	$> 500$	33.9	16	24.2	15	14.4	96
$\text{NO}_3/\text{NO}_2\text{-N}$ ( $\mu\text{g L}^{-1}$ )	$\leq 500$	22.0	29	23.6	28	2.9	171
	$> 500$	17.4	13	23.9	13	15.6	77
$\text{NH}_3\text{-N}$ ( $\mu\text{g L}^{-1}$ )	$\leq 20$	1.9	33	2.2	32	1.2	197
	$> 20$	8.0	10	7.0	9	3.7	51
Fecal coliform (# 100 mL <sup>-1</sup> )	$\leq 50$	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, n
Specific conductivity ( $\mu\text{S}$ )	NA	mean= 2.5 sd= 0.5	6
Turbidity (NTU)	0.5	2 (0.7, 1.2)	6
Suspended solids ( $\text{mg L}^{-1}$ )	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 (# $100 \text{ mL}^{-1}$ )	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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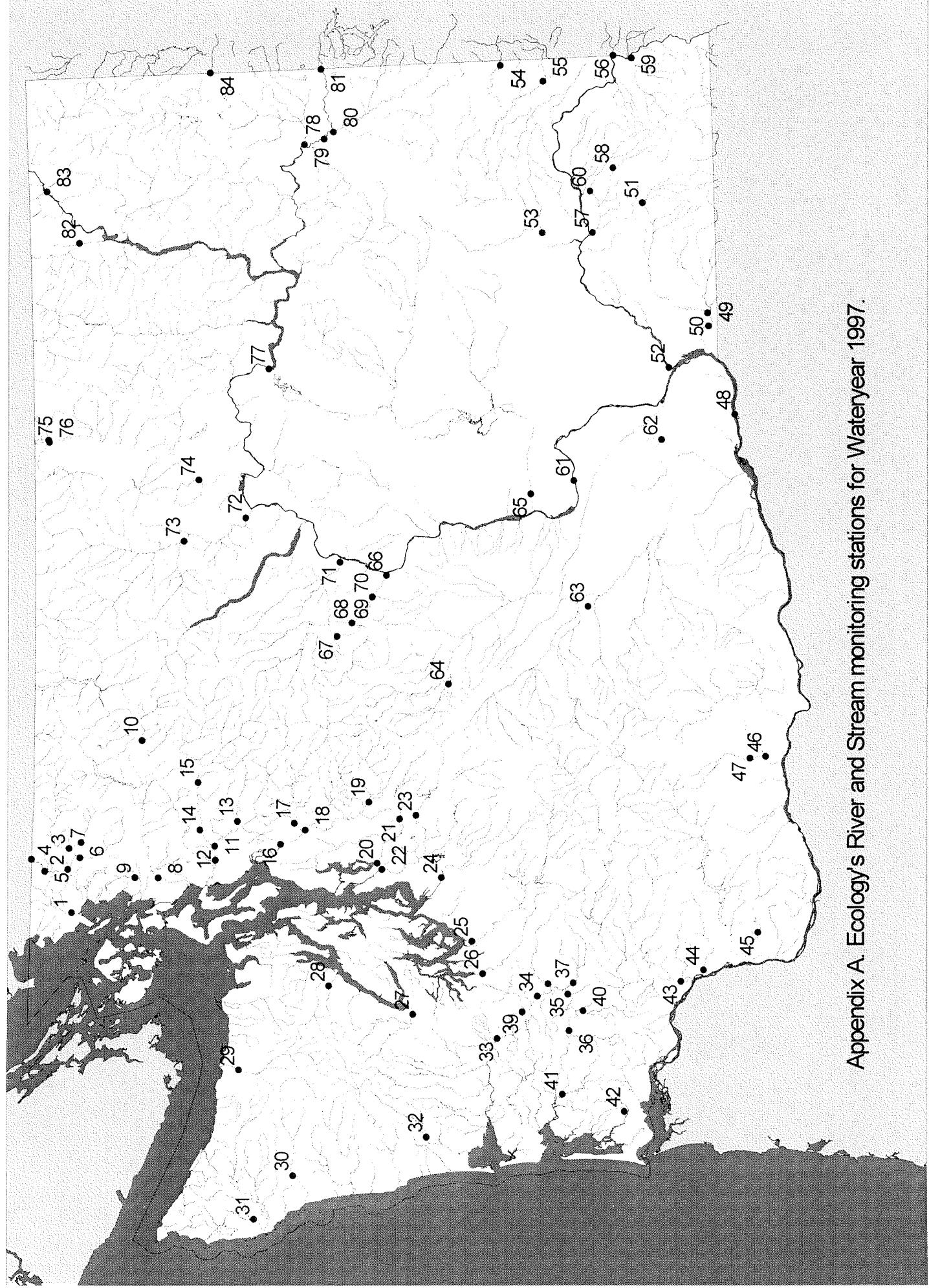
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# **Appendix A**

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.

Station description and monitoring history for EIS freshwater monitoring program.

Station description and monitoring history for EILS freshwater monitoring program.

Station description and monitoring history for EILS freshwater monitoring program.

Station Number	Name	Water Year Sampled	59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98
08A070	West Branch Thornton Cr		X
09A090	Ship Canal @ Fremont		X
09A060	Duwanish R @ Allentown Br		
09A070	Duwanish R @ Foster		X X X X X X X X
09A080	Green R @ Tukwila		
09A090	Green R @ 212th St nr Kent		X X X X X X X X
09A110	Green R @ Auburn		X X X X X X X X
09A130	Green Abv Big Soos/Auburn		X X X X X X X X
09A150	Green R nr Auburn		X X X X X X X X
09A170	Green R nr Black Diamond		X X X X X X X X
09A190	Green R @ Kanaskat		X X X X X X X X
09B070	Big Soos Cr blw Hatchery		X X X X X X X X
09B090	Big Soos Cr nr Auburn		X X X X X X X X
09C070	Des Moines Cr nr Mouth		X X X X X X X X
09C090	Des Moines Cr @ So 200th		X X X X X X X X
09D070	Miller Cr nr Mouth		X X X X X X X X
09D090	Miller Cr @ Ambaum Blvd SW		X X X X X X X X
09E070	Mill Creek @ Onilia		X X X X X X X X
09E090	Mill Creek - Kent on W Valley Hwy		X X X X X X X X
09H090	Black R @ Renton		X X X X X X X X
10A050	Puyallup R @ Puyallup (USGS)		X X X X X X X X
10A070	Puyallup R @ Meridian St		X X X X X X X X
10A090	Puyallup R @ McMillin		X X X X X X X X
10A110	Puyallup R @ Orting		X X X X X X X X
10B070	Carbon R nr Orting		X X X X X X X X
10B090	Carbon R @ Fairfax		X X X X X X X X
10C070	White R @ Sumner		X X X X X X X X
10C085	White R nr Sumner		X X X X X X X X
10C090	White R @ Auburn		X X X X X X X X
10C110	White R blw Buckley		X X X X X X X X
10C130	White R @ Buckley		X X X X X X X X
110C140	White R nr Buckley		X X X X X X X X
110C150	White R nr Greenwater		X X X X X X X X
110D070	Boise Cr @ Buckley		X X X X X X X X
110D090	Boise Cr nr Enumclaw		X X X X X X X X
110E070	Salmon Cr @ Sumner		X X X X X X X X
110F070	So Prairie Cr nr Crocker		X X X X X X X X
110F090	South Prairie Cr nr S. Prairie		X X X X X X X X
111A070	Nisqually R @ Nisqually		X X X X X X X X

## Station description and monitoring history for EILS freshwater monitoring program.



Station description and monitoring history for EIS freshwater monitoring program.

Station description and monitoring history for EILS freshwater monitoring program.

Station description and monitoring history for EILS freshwater monitoring program.

Station description and monitoring history for EIS freshwater monitoring program.

Station description and monitoring history for EILS freshwater monitoring program.

Station description and monitoring history for EILS freshwater 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 NO<sub>3</sub> 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 NO<sub>2</sub>+NO<sub>3</sub> 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 NO<sub>2</sub>+NO<sub>3</sub>. 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 NO<sub>2</sub>+NO<sub>3</sub> 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: NO<sub>3</sub>, NH<sub>3</sub>, 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  $\mu\text{mho}/\text{cm}$  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  $\mu\text{mhos}/\text{cm}$  (and could not be calibrated). This meter had last been calibrated about 1 year earlier. Most meters read higher than the 100  $\mu\text{mhos}/\text{cm}$  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 HNO<sub>3</sub> 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; rpl0461@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	WRRIAs	WQMA	WRRIAs
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

Latitudes: 48 49 10.0  
 Longitudes: 122 34 43.0

NOOKSACK R @ BRENNAN

Date	Time	Temp (deg C)	Flow (CFS)	Conduc-tivity (mhos/25°C(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)	Dissol. 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	0.013	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	0.560	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	Mercury	Cadmium	Copper	Lead	Nickle	Zinc	Dissol.	Dissol.	Dissol.	Dissol.	Dissol.	Dissol.
		(mg/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(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	0.389	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	0.0020 U	0.020 U	0.270	0.020 U	1.070	3.570						
97/08/19	1400	0.124												
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

Date	Time	Temp	Flow	Conduc-tivity	Oxygen	pH	Suspend-ed Solids	Total NH <sub>3</sub> NH <sub>4</sub>	Total Nitrog.	Dissol. Phosph.	Turbid-ity	Fecal Colif.	NO <sub>2</sub> +NO <sub>3</sub>	Nitrog.
		(deg C)	(CFS)	(umhos/25c(mg/L))	(%)	(pH)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(NTU)	(#/100mL)	(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
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
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
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
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
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
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
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
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
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
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
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

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

Date	Time	Temp	Flow	Conduc-tivity	Oxygen	pH	Suspend-Solids	Total-NH3-NH4	Total-Phosph.	Dissol.-Ortho P	Turbid-ity	Fecal-Collif.	NO2+NO3	Nitrog.
		(deg C)	(CFS)	(umhos/25c(mg/L))	Satur. (%)	(pH)	(mg/L)	Pers. N	(mg/L)	(mg/L)	(NTU)	(#/100mL)	(mg/L)	(#/100mL)
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
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
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
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
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
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
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
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
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	0.024
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	120
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	0.051 J
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	11
														0.074
														0.010 U
														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  
 River Mile: 11.90  
 Latitude: 49 00 09.0  
 Longitude: 122 13 50.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc-tivity (mhos/25c(mg/L))	Oxygen (mg/L)	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)	NO2+NO3 Nitrog. (mg/L)
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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	4,800	J	1,020
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	0.072	J	0.048	J	9.5	6500	2,780
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 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)
96/10/22	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
96/11/19	1305	0.0	60.0	226	12.1	84.0	8.0	120.0	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
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
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
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
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
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
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
97/07/22	1245	16.6	25.0	291	8.8	89.2	8.4							0.620 J
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
97/09/22	1135	14.7	18.0	295	9.8	95.9	7.8	42.0	0.864	0.046	0.083	0.013	16.0	44.0

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  
Water Body No. :

SF NOOKSACK @ POTTER RD  
River Mile: 19.00  
Water Class: A  
Latitude: 48 47 21.0  
Longitude: 122 12 51.0

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Date	Time	Temp (deg C)	Flow (CFS)	Conduc-tivity (mhos/25c(mg/L))	Oxygen Satur. (%)	pH (pH)	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid-ity (NTU)	Fecal Colif. (#/100ml)	Nitrog. (mg/L)	NO2+NO3					
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			

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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.: 016070  
Water Body No. :

MF NOOKSACK R

Date	Time	Temp (deg C)	Flow (CFS)	Conduc-tivity (mhos/25c(mg/L))	Oxygen Satur. (%)	pH (pH)	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid-ity (NTU)	Water Class: AA	Latitude: 48 47 06.0	Longitude: 122 06 45.0
96/10/22	1055	5.1		41	12.1	95.5	7.6	21.0	0.263	0.010 U	0.021	0.005 U	12.0	4	0.167
96/11/19	0000	0.0		66	13.6	100.1	7.6	2.0	0.233	0.010 U	0.024	0.005 U	1.5	1 U	0.219
96/12/16	1120	2.9		39	12.8	97.6	7.4	14.0	0.147	0.010 U	0.012	0.005 U	7.6	1	0.119
97/01/21	1110	3.4		41	12.9	96.1	7.5	7.0	0.232	0.010 U	0.029	0.005 U	4.0	2	0.182
97/02/18	1115	3.2		33	12.9	97.1	7.5	69.0	0.314	0.010 U	0.081	0.005 U	27.0	7	0.165
97/03/18	1055	3.2		44	12.7	96.1	7.7	5.0	0.183	0.030	0.052	0.005 U	2.7	1	0.148
97/04/22	1025	3.3		42	12.2	94.8	7.6	4.0	0.134	0.010 U	0.035	0.005 U	4.0	1	0.077
97/05/20	1045	4.6		28	11.8	99.1	7.6	71.0	0.028 J	0.010 UJ	0.049 J	0.005 U	45.0	12	0.010 UJ
97/06/17	1025	7.0		45	11.3	95.2	7.7	44.0	0.067	0.010 U	0.059	0.005 U	28.0	4	0.047
97/07/22	1115	7.6		52	11.8	100.0	7.5	42.0	0.051	0.010 U	0.052	0.005 U	31.0	2	0.034
97/08/19	1045	7.7		56	11.4	103.4	7.4	34.0	0.189	0.010 U	0.047	0.005 U	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  
 Water Body No.: WA-03-1010

SKAGIT R NR MOUNT VERNON

River Mile: 15.90

Latitude: 48 26 42.0  
 Longitude: 122 20 03.0

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Date	Time	Temp	Flow	Conduc-tivity	Oxygen	Oxygen Satur.	pH	Suspend Solids	Total Pers. N	NH3-NH4 Nitrog.	Total Phosph.	Dissol. Ortho P (mg/L)	Turbid-ity (NTU)	Water Class: A	Fecal Colif. (#/100ml)	NO2-N03 Nitrog.
(deg C)	(CFS)	(mhos/25c(mg/L))	(%)	(pH)	(mg/L)	(%)		(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)			(mg/L)	
96/10/23	0805	7.5	21000.0	41	11.2	92.3	7.4	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	7.7	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	7.5	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	7.4	53.0	0.210	0.010 U	0.044	0.005 U	22.0	4 S	0.170	
97/02/19	0750	4.0	25600.0	52	12.6	95.7	7.4	26.0	0.241	0.010 U	0.078	0.005	14.0	40	0.204	
97/03/19	0735	4.2	38400.0	39	12.6	95.6	7.2	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	7.6	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	7.5	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	7.7	246.0	0.198 J	0.010 UJ	0.052 J	0.006	100.0	130 J	0.095 J	
97/07/23	0735	10.6	26200.0	39	10.4	92.0	7.5	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	7.6	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	7.4	14.0	0.079	0.010 U	0.028	0.005 U	6.6	15	0.064	

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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.: 03B050  
 Water Body No.: WA-03-2010

SAMISH R NR BURLINGTON

Date	Time	Temp (deg C)	Flow (CFS)	Conductivity (mhos/25c(mg/L))	Oxygen (mg/L)	pH	Satur. (%)	Solids (mg/L)	Total Pers. N (mg/L)	NH3-NH4 (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbidity (NTU)	Water Class: A	Latitude: 48 32 46.0	River Mile: 10.40	Longitude: 122 20 13.0
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  
 Water Body No.: WA-04-1090

SKAGIT R @ MARBLEMOUNT

Date	Time	Temp (deg C)	Flow (CFS)	Conduc-tivity (µhos/25c(mg/L))	Oxygen Satur. (%)	pH (pH)	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3-NH4 Nitrog. (mg/L)	Dissol. Phosph. (mg/L)	Turbid-ity (NTU)	Fecal Colif. (#/100ml)	Water Class: AA	Latitude: 48 31 35.0	River Mile: 78.20	Longitude: 121 25 40.0
96/10/22	0830	6.7	6020.0	35	11.5	93.7	7.8	7.0	0.135	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	0.005 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  
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 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)	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
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
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
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
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
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
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
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
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
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
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 - Spreader colonies, S - Spread colonies, P - below quantitation limit.

Station No.: 05A090  
 Water Body No.: WA-05-1040

SF STILLAGUAMISH @ ARLINGTON  
 River Mile: 18-20  
 Latitude: 48 12 03.0  
 Longitude: 122 07 04.0

Date	Time	Temp (deg C)	Flow (CFS)	Conductivity (mhos/25c(mg/L))	Oxygen (mg/L)	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 (mg/L)	Total Nitrog. (mg/L)	Dissol. Ortho P (mg/L)	Turbidity (NTU)	Water Class: A	Water Class: B	Water Class: C	Water Class: D	Water Class: E
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  
 Water Body No.: WA-05-1050

SF STILLY NR GRANITE FALLS  
 River Mile: 34.60  
 Latitude: 48 06 12.0  
 Longitude: 121 57 07.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc-tivity (mhos/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)	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  
Water Body No.: WA-05-1020

NF STILLAGUAMISH @ CICERO  
River Mile: 9.50  
Latitude: 48 16 05.0  
Longitude: 122 00 44.0

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Date Time Temp Flow Conductivity (mhos/25c(mg/L)) (deg C) (CFS) Oxygen Satur. (%) pH (pH) Solids (mg/L) Suspend (mg/L)

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Date	Time	Temp	Flow	Conduc-tivity	Oxygen	Satur.	pH	Suspend	Total Solids	NH3NH4 Pers. N	Total Nitrog.	Phosph.	Dissol. Ortho P (mg/L)	Turbid-ity (NTU)	Fecal Colif. (#/100ml)	Nitrog. NO2+NO3 (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	0.334 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	

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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.:

05B110

Water Body No.:

WA-05-1020

## NF STILLAGUAMISH NR DARRINGTON

Date	Time	Temp	Flow	Conduc-tivity	Oxygen	pH	Suspend-	Total	NH3+NH4	Total	Dissol.	Turbid-i-	Fecal	NO2+NO3
		(deg C)	(CFS)	(umhos/25°C(mg/L))	Satur.	(%)	Solids	Pers. N	Nitrog.	Phosph.	Ortho P	Colif.	Nitrog.	(#/100mL) (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
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
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
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
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
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
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
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
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
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
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
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 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.

River Mile: 30.00

Latitude: 48 16 48.0

Longitude: 121 42 04.0

Station No.: 07A090  
 Water Body No.: WA-07-1020

Water Class: A  
 River Mile: 12.70  
 Latitude: 47 54 38.0  
 Longitude: 122 05 52.0

SNOHOMISH R @ SNOHOMISH								Water Class: A						Water Class: A	
Date	Time	Temp	Flow	Conduc-tivity	Oxygen	pH	Satur.	Solids	Total	NH3+NH4	Total	Dissol.	Ortho P	Turbid-ity	Fecal colif.
		(deg C)	(CFS)	(umhos/25c(mg/L))	(mg/L)	(pH)	(%)	(mg/L)	(mg/L)	Nitrog.	(mg/L)	(mg/L)	(mg/L)	(NTU)	(#/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	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		4.9 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	11		39.0
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
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
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+N03	Chrom-ium	Copper	Zinc	Cadmium	Mercury	Cadmium	Dissol.	Dissol.	Copper	Lead	Nickle	Zinc	Arsenic
		(mg/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(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

Date	Time	Temp (deg C)	Flow (CFS)	Conduc-tivity (umhos/25c(mg/L))	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Nitrog. N (mg/L)	NH3+NH4 (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid-ity (NTU)	Fecal Colif. (#/100ml)	Nitrog. (mg/L)	NO2+NO3	Latitude: 47 51 08.0	Longitude: 121 57 29.0
96/10/21	1120	6.9	5340.0	33	11.6	93.8	7.2	6.0	0.331	0.012	0.010 U	0.005 U	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 U	0.010 U	0.005 U	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 U	0.018	0.005 U	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 U	0.017	0.005 U	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 U	0.045	0.005 U	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 U	0.028	0.005 U	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 U	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 U	9.1	4	0.029		
97/06/16	1115	8.1	11070.0	18	11.6	97.6	7.1	11.0	0.076 J	0.010 UJ	0.044 J	0.005 U	6.9	18	0.076 J		
97/07/21	1130	11.7	6340.0	22	10.2	93.1	7.3	4.0	0.058	0.010 U	0.020	0.005 U	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 U	0.015	0.005 U	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 U	0.036	0.005 U	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 Flow Conductivity (umhos/25c(mg/L)) (CFS) (deg C)  
Oxygen Satur. (%) pH (pH)

=====  
NH3+NH4 Total Pers. N Solids (mg/L) (mg/L) (mg/L) (NTU)

Nitrog. Ortho P Colif. (#/100ml) Nitrog. (mg/L) (mg/L) (mg/L) (mg/L) (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	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  
Water Body No.: WA-07-1100

## SNOQUALMIE R @ SNOQUALMIE

Date	Time	Temp (deg C)	Flow (CFS)	Oxygen (umhos/25c(mg/L))	Conductivity (umhos/cm)	Oxygen Satur. (%)	pH (pH)	Suspend Solids (mg/L)	Total Nitrog. (mg/L)	NH3+NH4 (mg/L)	Dissol. Phosph. (mg/L)	Ortho P (mg/L)	Turbidity (NTU)	Water Class: A (#/100mL) (mg/L)	Latitude: 47 31 40.0	Longitude: 121 48 40.0
96/10/21	0925	5.6	2195.0	30	11.7	92.7	7.5	5.0	0.332	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	2950.0	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.: 08CC070  
 Water Body No.: WA-08-1140

CEDAR R @ LOGAN ST/RENTON

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)	Water Class: A	Latitude: 47 29 09.0	River Mile: 1.00	Longitude: 122 12 28.0
96/10/23 1020	8.6	309.0	71	10.1	86.5	7.2	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	7.6	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	7.4	5.0	0.467	0.018	0.029	0.005 U	2.1	6	0.439		
97/01/22 1015	4.7	1720.0	46	12.2	94.1	7.3	16.0	0.404	0.010 U	0.013	0.005 U	7.4	22 S	0.355		
97/02/19 1010	5.0	1390.0	48	12.1	94.0	7.4	20.0	0.397	0.010 U	0.076	0.006	7.4	58	0.336		
97/03/19 0950	6.3	2550.0	41	11.8	94.3	7.2	84.0	0.511	0.010 U	0.118	0.005 U	40.0	200	0.336		
97/04/23 0945	7.6	1500.0	47	11.3	93.8	7.5	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	7.3	8.0	0.148	0.015	0.046	0.005 U	2.0	31	0.045		
97/06/18 1015	11.1	659.0	56	11.5	103.4	7.5	7.0	0.216 J	0.010 UJ	0.056 J	0.006	3.1	150 J	0.202 J		
97/07/23 0940	11.7	605.0	57	10.3	93.5	7.7	4.0	0.191	0.010 U	0.042	0.005 U	1.3	21	0.158		
97/08/20 0925	15.3	182.0	79	10.5	104.2	7.6	3.0	0.200	0.010 U	0.018	0.005 U	1.6	130	0.170		
97/09/23 0930	13.2	286.0	72	11.0	103.7	7.4	6.0	0.276	0.010 U	0.024	0.005 U	1.6	170 J	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  
Water Body No.: WA-08-1150

## CEDAR R NR LANDSBURG

Date	Time	Temp (deg C)	Flow (CFS)	Conduc-tivity (mhos/25c(mg/L))	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)	Water Class: AA	Latitude: 47 23 28.0	Longitude: 121 55 08.0			
96/10/21	0835	7.7	380.0	54	11.1	93.4	7.3	1.0	0.235	0.010	U	0.005	U	0.5	3	0.233		
96/11/18	0900	5.7	1190.0	36	11.8	96.2	8.1	3.0	0.182	0.010	U	0.005	U	1.2	1	0.164		
96/12/15	0845	5.8	850.0	42	12.2	98.1	7.4	1.0	0.213	0.010	U	0.016	0.005	U	1.2	1 U	0.193	
97/01/20	0850	3.9	1710.0	40	12.4	96.9	7.2	3.0	0.194	0.010	U	0.014	0.005	U	2.1	1 U	0.169	
97/02/17	0830	4.5	1370.0	37	12.2	95.5	7.1	3.0	0.252	0.010	U	0.047	0.005	U	1.6	1 U	0.218	
97/03/17	0855	4.3	1340.0	36	12.2	94.9	7.3	2.0	0.284	0.010	U	0.023	0.005	U	1.2	1 U	0.261	
97/04/21	0855	6.5	740.0	48	11.5	94.0	7.5	3.0	0.283	0.034	0.038	0.006	1.1	1 U	0.268			
97/05/19	0845	9.2	1780.0	32	10.6	93.8	7.5	6.0	0.122	0.013	0.035	0.005	U	1.8	1 U	0.059		
97/06/16	0900	10.0	724.0	43	10.8	96.9	7.4	1.0	0.094	J	0.010	U	0.041	J	0.005	U	0.7	
97/07/21	0850	10.8	693.0	47	10.0	91.4	7.6	2.0	0.182	0.010	U	0.023	0.005	U	0.7	4	0.099 J	
97/08/18	0855	11.2	419.0	56	10.5	96.7	7.6	1.0	0.195	0.010	U	0.017	0.005	U	0.7	1	0.167	
97/09/21	0835	11.0	309.0	60	10.8	99.1	7.6	1.0	U	0.226	0.010	U	0.029	0.006	U	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  
 Water Body No.:

GREEN R @ TUKWILA

Water Class: A  
 River Mile: 12.40  
 Latitude: 47 27 52.0  
 Longitude: 122 14 49.0

Date	Time	Temp (deg C)	Flow (CFS)	Conductivity (mhos/25c(mg/L))	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total NH3-NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbidity (NTU)	Fecal Colif. (#/100ml)	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
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
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
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
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
97/04/23	1015	6.8	4310.0	4.7	11.2	91.2	7.5	40.0	0.392	0.052	0.125	0.016	21.0	84
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
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
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
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
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

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  
 Water Body No.: WA-09-1030

GREEN R @ KANASKAT

Date	Time	Temp (deg C)	Flow (CFS)	Conductivity (mhos/25c(mg/L))	Oxygen Satur. (%)	pH (pH)	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbidity (NTU)	Water Class: AA	Latitude: 47 19 10.0
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
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
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
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 U	4.3	2
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 U	55.0	5
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
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
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
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
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
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
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

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  
 Water Body No.: WA-10-1020

PUYALLUP R @ MERIDIAN ST  
 River Mile: 8.30

Latitude: 47 12 10.0  
 Longitude: 122 17 33.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc-tivity (mhos/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)
96/10/23	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	4.1
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	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	Flow	Conduc-tivity	Oxygen	pH	Suspend-Solids	Total-NH3+NH4	Total-Phosph.	Dissol.-Ortho P	Turbid-ity	Fecal-Colif.	NO2+NO3	Nitrog.
		(deg C)	(CFS)	(umhos/25c(mg/L))	Satur. (%)	(pH)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(NTU)	(#/100ml)	(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
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
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
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
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
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
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
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
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
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
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
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

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

DE SCHUTES R A E ST BRIDGE

Date	Time	Temp (deg C)	Flow (CFS)	Conductivity (umhos/25c(mg/L))	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)	Turbidity (NTU)	Water Class: A	Latitude: 47 00 43.0
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
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
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
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
97/02/26	1535	7.6	636.0	90	10.7	89.1	7.2	6.0	0.868	0.010 U	0.117	0.005 U	4.2	7
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
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
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
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
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
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
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  
 Water Body No.: WA-16-1010

SKOKOMISH R NR POTLATCH

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)	Nitrog. (mg/L)	NO2+NO3	Latitude: 47 18 36.0	Longitude: 123 10 33.0
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  
Water Body No.: WA-16-3010

## DUCKABUSH R NR BRINNON

Water Class: AA  
River Mile: 4.50  
Latitude: 47 41 03.0  
Longitude: 123 00 37.0

Date	Time	Temp	Flow	Conduc-tivity	Oxygen	pH	Suspend-ed Solids	Total NH3+NH4	Total Nitrog.	Dissol. Phosph.	Turbid-ity	Fecal Colif.	NO2+NO3	Nitrog.	
		(deg C)	(CFS)	(umhos/25c(mg/L))	(mg/L)	(pH)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(NTU)	(#/100ml)	(mg/L)		
96/10/29	0900	5.7	341.0	59	12.0	95.5	7.8	2.0	0.047	0.010 U	0.005 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	0.005	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	0.056	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  
Water Body No.: WA-18-2010

## ELWHA R NR PORT ANGELES

Latitude: 48 03 56.0  
Longitude: 123 34 35.0

Date	Time	Temp	Flow	Conduc-tivity	Oxygen	pH	Suspend-Solids	Total-NH3+NH4	Dissol.-Ortho P	Turbid-ity	Fecal-Collif.	NO2+NO3	Nitrog.
		(deg C)	(CFS)	(umhos/25c(mg/L))	(mg/L)	(pH)	(mg/L)	(mg/L)	(mg/L)	(NTU)	(#/100ml)	(mg/L)	(mg/L)
96/10/28	1550	7.3	2330.0	87	11.6	97.4	6.8	4.0	0.023	0.010 U	0.005 U	3.7	3
96/11/24	1630	4.8	667.0	89	12.1	94.6	7.7	6.0	0.016	0.010 U	0.013	2.7	1 U
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
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
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
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
97/04/29	1615	6.0	2540.0	76	12.4	99.3	7.0	7.0	0.058	0.018	0.033	0.005 U	7.7
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
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
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
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
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

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

Station No.: 20B070  
 Water Body No.: WA-20-2010

HOH R @ DNR CAMPGROUND

Date	Time	Temp (deg C)	Flow (CFS)	Conductivity (umhos/25c(mg/L))	Oxygen Satur. (%)	pH (pH)	Suspend Solids (mg/L)	Total NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbidity (NTU)	Water Class: AA	Latitude: 47 48 25.0	River Mile: 16.50	Longitude: 124 14 59.0
96/10/28	1305	8.0	4340.0	59	11.0	93.6	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	11.7	94.0	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	12.4	95.2	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	12.3	92.0	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	11.8	93.3	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	2885.0	65	11.7	97.5	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	11.5	95.3	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	11.1	94.5	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	10.7	93.4	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	10.5	96.8	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	10.6	94.1	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	10.9	95.2	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.: 200070 Water Body No.:

Latitude: 47 58 07.0  
Longitude: 124 32 56.0

DICKEY R NR LA PUSH								Water Class: AA	Water Mile: 6.10	Latitude: 47 58 07.0	Longitude: 124 32 56.0				
Date	Time	Temp (deg C)	Flow (CFS)	Oxygen (mg/L)	pH	Satur. (%)	(pH)	Suspend Solids (mg/L)	Total NH3+NH4 Nitrog. (mg/L)	Total Pers. N (mg/L)	Dissol. Ortho P (mg/L)	Turbid. (NTU)	Fecal Colif. (#/100ml)	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	4.8	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

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

HIMPTIII IPS R NB HIMPTIII IPS

Water Class: A      Latitude: 47 13 48.0  
 River Mile: 23.60      Longitude: 123 57 38.0

96/10/28	1020	8.6	1300.0	50	10.8	92.9	7.4	5.0	0.275	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

Date	Time	Temp (deg C)	Flow (CFS)	Conduc-tivity (umhos/25c(mg/L))	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)	Water Class: A	Latitude: 46 56 17.0	River Mile: 33.30	Longitude: 123 18 45.0
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	9450.0	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  
 Water Body No.: WA-23-1010

CHEHALIS R @ PRATHER RD  
 Water Class: A  
 River Mile: 59.90  
 Latitude: 46 46 31.4  
 Longitude: 123 02 03.3

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)	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
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
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
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		31
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		11.0
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		6.7
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	24	5.6
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		49
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	2.4
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		19 S
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	3.4
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		38
														1.5
														14
														180 J
														4.0
														48

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

Date	Time	NO2+NO3 Nitrog. (mg/L)	Mercury Dissol. (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	0.380	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  
 Water Body No.:

CHEHALIS R @ CLAQUATO

Water Class: A  
 River Mile: 77.70  
 Latitude: 46 38 01.0  
 Longitude: 123 00 59.0

Date	Time	Temp	Flow	Conduc-tivity	Oxygen	Oxygen Satur.	pH	Suspend Solids	Total Pers. N	NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid-ity (NTU)	Fecal Colif. (#/100ml)	Nitrog. (mg/L)
		(deg C)	(CFS)	(umhos/25c(mg/L))	(%)	(pH)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(NTU)		
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 U	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	0.393	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	0.236	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  
 Water Body No.: WA-23-1100

CHEHALIS R @ DRYAD  
 Water Class: A  
 River Mile: 101.70  
 Latitude: 46 37 54.0  
 Longitude: 123 14 51.0

Date	Time	Temp (deg C)	Flow (CFS)	Conductivity (mhos/25c(mg/L))	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Hardness (mg/L)	Turbidity (NTU)	Fecal Colif. (#/100ml)
96/10/30	0925	6.0	550.0	60	11.6	92.7	7.5	2.0	0.650	0.010 U	0.011	0.005 U	20	2.2
96/11/25	0935	5.3	2800.0	52	12.2	94.7	7.3	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	7.0	6.0	0.710	0.010 U	0.042	0.005 U	21	3.0
97/01/29	0930	4.7	1050.0	53	12.5	96.0	7.1	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	7.2	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	7.2	9.0	0.668	0.010 U	0.031 J	0.005 U	4.5	10
97/04/28	1025	8.2	900.0	54	11.4	96.8	7.4	3.0	0.468	0.029	0.059	0.005 U	19	3.4
97/05/26	0910	10.5	250.0	63	10.5	93.8	7.7	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	7.4	2.0	0.234	0.016	0.011	0.005 U	21	1.4
97/07/28	0930	16.7	100.0	68	8.6	87.9	7.6	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	7.4	2.0	0.177	0.013	0.027	0.005 U	26	1.7
97/09/28	0920	11.2	700.0	56	10.5	95.0	7.3	4.0	0.575	0.010 U	0.038	0.005 U	2.4	92
														320 J

23A160 Chehalis R @ Dryad continued: more parameters.

Date	Time	NO2+NO3	Chrom-ium	Copper	Zinc	Cadmium	Mercury	Copper	Cadmium	Lead	Nickle	Zinc	Arsenic
		(mg/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	Dissol.	Dissol.	Dissol.	
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
96/11/25	0935	0.780	0.684	0.40 U	0.8	0.1 U	3.2 J	0.10 U	0.0010 U	0.030 U	0.290	1.200	0.200 U
96/12/17	0935	0.684	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
97/01/29	0930	0.504	0.588	0.40 U	0.612	0.20 U	0.8	0.1 U	0.10 U	0.0020 U	0.430	0.020 U	0.280
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
97/03/24	0840	0.612	0.361	0.20 U	0.8	0.1 U	1.0 U	0.10 U	0.0020 U	0.430	0.020 U	0.280	0.770
97/04/28	1025	0.087	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
97/05/26	0910	0.094	0.122	0.122	0.20 U	0.9	0.1 U	1.0 U	0.10 U	0.0020 U	0.988	0.114	0.360
97/06/25	1910	0.122	0.068	0.20 U	0.20 U	0.1 U	1.0 U	0.10 U	0.0020 U	0.988	0.114	0.360	2.110
97/07/28	0930	0.122	0.511	0.20 U	0.20 U	0.1 U	1.0 U	0.10 U	0.0020 U	0.988	0.114	0.360	2.110
97/08/25	0930	0.068	0.20 U	0.20 U	0.1 U	1.0 U	0.10 U	0.0020 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

Latitude: 46 37 13.0  
Longitude: 122 56 38.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc-tivity (mhos/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)
96/10/29	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  
Water Body No.: WA-23-

## SKOOKUMCHUCK R @ CENTRALIA

Latitude: 46 43 50.0  
Longitude: 122 57 13.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc-tivity (mhos/25c(mg/L))	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)	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
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
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
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
97/02/26	1450	6.1	517.0	86	11.1	89.2	7.1	5.0	0.743	0.010	0.137	0.005	U	9.5
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
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
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
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
97/07/30	1510	16.4	360.0	67	9.8	99.6	7.6	3.0	0.386	0.010	0.037	0.005	2.6	16
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
97/09/30	1300	13.3	210.0	120	9.2	88.1	7.3	3.0	0.350	0.010	0.047	0.007	3.4	150

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

Date	Time	Temp (deg C)	Conductivity (mhos/25c(mg/L))	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)	Hardness (mg/L)	Turbidity (NTU)	Water Class: A	River Mile: 7.10	Latitude: 46 50 21.1 Longitude: 123 08 17.0
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 (ug/L)	Copper (ug/L)	Dissol. Lead (ug/L)	Nickle (ug/L)	Zinc (ug/L)	Dissol. Dissol. Zinc (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	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	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  
 Water Body No.:  
 ======  
 Date Time Temp Flow Conductivity (mhos/25c(mg/L)) Oxygen Satur. (%) pH Suspend Solids (mg/L) Total NH3+NH4 Nitrog. (mg/L) Phosph. (mg/L) Dissol. Ortho P (mg/L) Turbidity (NTU) Fecal Colif. (#/100ml) Nitrog. (mg/L)

96/10/30	0855	6.1	250.0	72	11.2	89.5	7.3	2.0	0.546	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.: 24B090  
Water Body No.: WA-24-2020

WILLAPA R NR WILLAPPA  
River Mile: 17.70 Water Class: A  
Latitude: 46 39 00.0  
Longitude: 123 39 10.0

Date	Time	Temp	Flow	Conduc-tivity	Oxygen	Oxygen	pH	Suspend-Solids	Total-NH3+NH4	Total-Nitrog.	Turbid-ity	Fecal-Collif.	NO2+NO3	Nitrog.
		(deg C)	(CFS)	(umhos/25c(mg/L))	Satur.	(%)	(pH)	(mg/L)	(mg/L)	(mg/L)	(NTU)	(#/100ml)	(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
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
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
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
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
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
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
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
97/06/25	1050	15.6	146.0	62	9.1	90.5	7.1	3.0	0.355	0.027	0.015	0.005 U	2.0	140
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
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
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	Flow	Conduc-tivity	Oxygen	pH	Suspend-	Total	NH3+NH4	Total	Dissol.	Turbid-	Fecal	NO2+NO3
(deg C)	(CFS)	(CFS)	(umhos/25c(mg/L))	Satur.	(%)	(pH)	Solids	Pers. N	Nitrog.	Phosph.	Ortho P	Colif.	Nitrog.	(#/100ml) (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
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
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
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
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
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
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
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
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
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
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
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

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

Station No.: 26B070  
Water Body No.: WA-26-1040

## COWLITZ R @ KELSO

Latitude: 46 08 44.0  
Longitude: 122 54 47.0

Date	Time	Temp	Flow	Conduc-tivity	Oxygen	pH	Suspend-	Total	NH3+NH4	Dissol.	Turbid-	Fecal	NO2+NO3
(deg C)	(CFS)	(CFS)	(umhos/25c(mg/L))	(%)	(mg/L)	(pH)	Solids	Pers. N	Nitrog.	Phosph.	Ortho P	Colif.	Nitrog.
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
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
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
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
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
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
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
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
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
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
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
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

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

Date	Time	Temp (deg C)	Flow (CFS)	Conductivity (mhos/25c(mg/L))	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3-NH4 (mg/L)	Total Nitrog. (mg/L)	Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbidity (NTU)	Water Class: A (#/100ml)	Water Class: A (#/100ml)	Latitude: 46 02 52.0	Longitude: 122 50 11.0
96/10/30	1430	7.9	32	11.4	95.3	7.5	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	7.4	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	7.3	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	7.1	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	7.1	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	7.3	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	7.4	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	8.4	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	8.3	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	8.0	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	7.9	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	7.6	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.: 27D090  
Water Body No.: WA-27-2020

EF LEWIS R NR DOLLAR CORNER  
River Mile: 10.20  
Latitude: 45 48 53.0  
Longitude: 122 35 26.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc-tivity (mhos/25c(mg/L))	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3-NH4 (mg/L)	Total Nitrog. (mg/L)	Dissol. Phosph. (mg/L)	Turbid-ity (NTU)	Water Class: A	Fecal Colif. (#/100ml)	Nitrog. (mg/L)	NO2+NO3
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 U	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 U	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  
Water Body No.: WA-29-1010

RATTLESNAKE CR NR MOUTH  
River Mile: 0.05  
Latitude: 45 47 50.4  
Longitude: 121 29 02.1

Date	Time	Temp	Flow	Conduc-tivity	Oxygen	pH	Suspend-Solids	Total-NH3+NH4	Total-Nitrog.	Dissol.-Phosph.	Turbid-ity	Fecal-Collif.	NO2+NO3	Nitrog.
		(deg C)	(CFS)	(umhos/25c(mg/L))	(%)	(pH)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(NTU)	(#/100mL)	(mg/L)	(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	0.187	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  
 Water Body No.: WA 29-1010

GILMER CR NR MOUTH

Water Class: A  
 River Mile: 1.50  
 Latitude: 45 51 56.0  
 Longitude: 121 29 50.0

Date	Time	Temp	Flow	Conduc-tivity	Oxygen	Oxygen	pH	Suspend-	Total	NH3+NH4	Total	Dissol.	Turbid-i-	Fecal	NO2+NO3
		(deg C)	(CFS)	(umhos/25c(mg/L))	Satur.	(%)	(pH)	Solids	Pers. N	Nitrog.	Phosph.	Ortho P	ity	Colif.	Nitrog.
								(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(NTU)	(#/100ml)	(mg/L)
96/10/16	1715	8.8	1.1	138	11.1	96.4	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	11.2	96.4	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	12.0	99.9	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	14.0	101.6	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	9.8	78.0	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	11.8	98.2	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	11.3	100.7	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	10.7	105.2	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	11.5	116.9	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	10.0	95.1	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	10.5	98.0	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	11.3	102.1	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  
 River Mile: 290.50  
 Latitude: 45 55 53.0  
 Longitude: 119 19 24.0

Date	Time	Temp	Flow	Conduc-tivity	Oxygen	pH	Suspend-Solids	Total Nitro-g. N	NH <sub>3</sub> +NH <sub>4</sub>	Total Phosph.	Dissol. Ortho P	Turbid-ity	Fecal Colif.	NO <sub>2</sub> +NO <sub>3</sub>	Nitrog.
(deg C)	(CFS)	(CFS)	(mhos/25°C(mg/L))	(%)	(pH)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(NTU)	(#/100mL)	(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	0.743	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  
 Water Body No.: WA-32-1010

WALLA WALLA R NR TOUCHET

Water Class: B  
 River Mile: 15.30  
 Latitude: 46 02 16.0  
 Longitude: 118 45 55.0

Date	Time	Temp (deg C)	Flow (CFS)	Conductivity (mhos/25c(mg/L))	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3NH4 (mg/L)	Total Nitrog. (mg/L)	Dissol. Ortho P (mg/L)	Hardnes (mg/L)	Turbidity (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
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
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
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
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
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
97/09/08	0745	16.6	74.0	354	7.8	80.0	7.9	32.0	0.566	0.019	0.144	0.063	15.0	43

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

Date	Time	NO2+NO3 (mg/L)	Mercury (ug/L)	Cadmium (ug/L)	Copper (ug/L)	Lead (ug/L)	Nickle (ug/L)	Zinc (ug/L)	Dissol. Dissol. (ug/L)	Dissol. Dissol. (ug/L)	Dissol. 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 (mhos/25c(mg/L))	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3-NH4 (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
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
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
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
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
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
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
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
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
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
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

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

Date	Time	Temp (deg C)	Flow (CFS)	Conduc-tivity (mhos/25c(mg/L))	Oxygen (mg/L)	pH	Satur. (%)	Solids (mg/L)	Total NH3-NH4 (mg/L)	Nitrog. N (mg/L)	Dissol. Phosph. (mg/L)	Ortho P (mg/L)	Turbid-ity (NTU)	Fecal Colif. (#/100ml)	Nitrog. NO2+NO3 (mg/L)		
96/10/07	0930	11.5	85.0	85	11.0	105.2	7.9	3.0	0.149	0.010	0.060	0.035	2.3	13	S 0.085		
96/11/04	0925	6.5	130.0	77	11.8	100.8	7.6	4.0	0.131	0.010	0.043	0.028	2.1	12	0.062		
96/12/02	0920	4.0	360.0	67	12.3	98.5	7.0	14.0	0.341	J	0.010	0.084	J	0.029	14.0	12	0.227
97/01/13	0940	-0.4	240.0	87	J	93.2	7.7	15.0	0.732	0.010	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	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	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	0.285	J	0.031	4.4	1	U 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	90.0	91	9.9	111.6	8.2	7.0	0.235	0.010	0.074	0.044	2.4	12	0.170		
97/09/08	1010	13.6	50.0	88	10.4	104.8	8.3	6.0	0.169	0.010	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  
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River Mile: 2.20      Latitude: 46 13 00.0  
Longtude: 119 01 20.0

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Date Time Temp Flow Conductivity (mhos/25c(mg/L)) Oxygen Satur. pH Suspended Solids (mg/L) Total NH3-NH4 Pers. N Nitrog. Phosph. Ortho P Dissol. (mg/L) Turbidity (NTU) Fecal Colif. (#/100ml) Nitrog. (mg/L)

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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 0855	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	0.338	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	0.336	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

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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.: 34A070  
Water Body No.: WA-34-1010

PALOUSE R @ HOOPER  
River Mile: 19.50  
Latitude: 46 45 33.0  
Longitude: 118 08 49.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc-tivity (mhos/25c(mg/L))	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total NH3+NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid-ity (NTU)	Fecal Colif. (#/100mL)	Nitrog. (mg/L)
96/10/06	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
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
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
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
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
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
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
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
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
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
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
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

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  
 Water Body No.: WA-34-1030

PALOUSE R @ PALOUSE  
 River Mile: 121.20  
 Latitude: 46 54 37.0  
 Longitude: 117 04 08.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc-tivity (umhos/25c(mg/L))	Oxygen (mg/L)	pH	Satur. (%)	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  
 Water Body No.: WA-34-1020

SF PALOUSE R @ PULLMAN

Date	Time	Temp (deg C)	Flow (CFS)	Conduc-tivity (mhos/25c(mg/L))	Oxygen (mg/L)	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3-NH4 (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbid-ity (NTU)	Water Class: A	Latitude: 46 43 58.0	River Mile: 22.20	Longitude: 117 10 48.0
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 Class: A Latitude: 46 25 15.0  
 Water Body No.: WA-35-1010 River Mile: 139.60 Longitude: 117 02 05.0

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Date	Time	Temp (deg C)	Flow (CFS)	Conduc-tivity (mhos/25c(mg/L))	Oxygen (mg/L)	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)	NO2-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

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

TUCANNON R @ POWERS

Date	Time	Temp	Flow	Conduc-tivity	Oxygen	pH	Suspend-Solids	Total Pers. N	NH <sub>3</sub> +NH <sub>4</sub>	Total Phosph.	Dissol. Ortho P	Turbid-ity	Fecal Colif.	NO <sub>2</sub> +NO <sub>3</sub>	Nitrog.	
		(deg C)	(CFS)	(umhos/25c(mg/L))	(%)	(pH)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(NTU)	(#/100ml)	(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.

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

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

TUCANNON R NR MARENKO

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 (mhos/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)	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  
Water Body No.:

ASOTIN CR @ ASOTIN  
River Mile: 0.40  
Latitude: 46 20 27.0  
Longitude: 117 03 18.0

Date	Time	Temp	Flow	Conduc-tivity	Oxygen	Oxygen	pH	Suspend	Total	NH3-NH4	Total	Dissol.	Turbid-ity	Fecal	NO2+NO3
		(deg C)	(CFS)	(mhos/25c(mg/L)	Satur.	(%)	(pH)	Solids	Pers. N	Nitrog.	Phosph.	Ortho P	(mg/L)	(NTU)	Nitrog.
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  
 River Mile: 5.20

Latitude: 46 32 40.1  
 Longitude: 117 53 28.4

Date	Time	Temp (deg C)	Flow (CFS)	Conductivity (mhos/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)	Turbidity (NTU)	Fecal Colif. (#/100ml)	NO2+NO3 Nitrog. (mg/L)	
96/10/06	1345	14.4	7.0	287	11.6	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	12.8	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	12.1	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	13.8	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	12.3	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	11.5	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	11.3	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	10.4	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	8.5	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	10.1	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	9.2	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	8.9	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

Date	Time	Temp	Flow	Conduc-tivity	Oxygen	Oxygen Satur.	pH	Suspend Solids	Total Pers. N	NH3+NH4 Nitrog.	Total Phosph.	Dissol. Ortho P	Turbid-ity	Fecal Colif.	NO2+NO3 Nitrog.
		(deg C)	(CFS)	(umhos/25c(mg/L))	(%)	(pH)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(NTU)	(#/100ml)	(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

Date	Time	Temp (deg C)	Flow (CFS)	Conduc-tivity (mhos/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	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  
River Mile: 111.30  
Latitude: 46 34 57.0  
Longitude: 120 32 18.0

Date	Time	Temp (deg C)	Flow (CFS)	Conduc-tivity (mhos/25c(mg/L))	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)	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  
Water Body No.: WA-39-1060

YAKIMA R NR CLE ELUM  
River Mile: 191.00  
Latitude: 47 11 10.0  
Longitude: 121 02 30.0

Date	Time	Temp (deg C)	Flow (CFS)	Conductivity (mhos/25c(mg/L))	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (ng/L)	NH3-NH4 (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbidity (NTU)	Water Class: AA	Lat/Long:	
96/10/14	1030	10.5	575.0	52	9.9	94.3	6.7	3.0	0.054	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	0.005 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	0.005 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		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  
River Mile: 6.00  
Latitude: 46 49 53.0  
Longitude: 119 48 54.0

Date	Time	Temp	Flow	Conduc-tivity	Oxygen	Oxygen Satur.	pH	Suspend Solids	Total Pers. N	NH3-NH4 Nitrog.	Total Phosph.	Dissol. Ortho P	Turbid-ity	Fecal Colif.	NO2+NO3 Nitrog.
(deg C)	(CFS)	(mhos/25c(mg/L))	(%)	(pH)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(NTU)	(#/100mL)	(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

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WENATCHEE R @ WENATCHEE

Date	Time	Temp (deg C)	Flow (CFS)	Conductivity (mhos/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)	Turbidity (NTU)	Water Class: A	Latitude: 47 27 32.0	
96/10/14	1500	12.9	762.0	84	11.8	113.6	8.5	3.0	0.293	0.010 U	0.005 U	1.6	14	0.214	
96/11/11	1500	9.9	2040.0	51	12.3	109.9	8.7	4.0	0.108	0.010 U	0.005 U	1.7	1	0.078	
96/12/09	1600	4.8	1350.0	64	13.3	107.4	8.3	116.0	0.169	0.010 U	0.011	9.8	1	0.152	
97/02/10	1500	2.7	1780.0	48	14.2	105.2	8.4	5.0	0.198	0.010 U	0.041	0.005 U	1.0	0.131	
97/03/10	1440	6.8	1870.0	93	13.2	109.9	8.6	6.0	0.339	0.010	0.031	0.005 U	1.2	1 U	0.240
97/04/14	1420	9.2	3750.0	79	12.2	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	12.3	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	10.7	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	10.4	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	9.5	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	11.4	112.1	8.8	6.0	0.300	0.010 U	0.030	0.005 U	1.7	72	0.201

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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.: 45A110  
 Water Body No.: WA-45-1020

WENATCHEE R NR LEAVENWORTH

Date	Time	Temp (deg C)	Flow (CFS)	Conductivity (mhos/25°C(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)
96/10/14	1245	9.3	550.0	39	10.4	95.5	7.3	1.0	0.047	0.010	0.005	U	0.5	3
96/11/11	1225	7.1	1450.0	32	11.3	98.1	6.5	3.0	0.045	0.010	0.010	U	0.009	0.9
96/12/09	1330	2.9	834.0	34	12.1	96.7	7.6	3.0	0.067	0.010	0.005	U	0.005	0.9
97/01/13	1050	0.0	1000.0	35	13.8	99.5	7.4	2.0	0.108	0.010	0.013	U	0.005	1.4
97/02/10	1225	1.5	1110.0	34	13.4	99.9	7.5	6.0	0.099	0.010	0.031	U	0.005	1.4
97/03/10	1235	2.2	1050.0	131	13.1	100.2	8.2	1.0	0.130	0.010	0.025	U	0.005	0.6
97/04/14	1215	4.8	2260.0	42	12.5	102.5	8.6	3.0	0.064	0.020	0.038	U	0.005	0.5
97/05/12	0950	5.7	9010.0	30	12.2	102.7	7.4	40.0	0.247	0.017	0.089	U	0.005	8.3
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
97/07/14	1010	10.2	5370.0	27	10.7	100.4	7.5	6.0	0.058	0.010	0.010	U	0.005	2.9
97/08/11	1040	14.6	1870.0	33	9.9	101.6	7.9	3.0	0.010	U	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

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

Water Class: AA  
 River Mile: 35.60  
 Latitude: 47 40 35.0  
 Longitude: 120 44 00.0

Station No.: 45C070  
 Water Body No.:

CHUMSTICK CR NR LEAVENWORTH  
 Date Time Temp Flow Conductivity (mhos/25c(mg/L))  
 (deg C) (CFS) (mg/L)

Date	Time	Temp	Flow	Conduc-tivity	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)	Water Class: A	Latitude: 47 28 17.0
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 U 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

Date	Time	Temp (deg C)	Flow (CFS)	Conduc-tivity (mhos/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	8.7	80.1	7.8	23.0	4.250	0.010 U	0.066	0.038	12.0	130
96/11/11	1355	10.7	3.0	517	9.8	89.8	7.9	42.0	3.970	0.032	1.450	0.042	15.0	550
96/12/09	1450	7.7	3.7	500	10.3	90.1	7.9	39.0	4.450	0.041	0.121	0.033	14.0	800
97/01/13	1150	3.5		468	12.9	98.9	7.8	48.0	4.380	0.010 U	0.155	0.018	10.0	3.870
97/02/10	1355	7.6		3.3	436	11.4	96.3	8.0	20.0	3.640	0.017	0.115	0.048	7.9
97/03/10	1355	9.3		5.9	461	11.7	103.9	8.1					4.6	3.720
97/04/14	1305	10.3		8.8	390	12.3	112.0	8.1	9.0	3.230	0.020	0.128	0.039	11.0
97/05/12	1050	11.7		10.2	305	11.0	103.9	8.1	27.0	1.890	0.026	0.184	0.029	14.0
97/06/09	1435	15.1		7.2	420	9.0	91.8	7.8	42.0	2.520 J	0.013 J	0.214 J	0.029	17.0
97/07/14	1150	16.4		5.1	339	9.9	103.4	7.9	17.0	2.720	0.018	0.057	0.035	9.3
97/08/11	1140	15.5		4.9	368	9.6	97.8	7.8	22.0	2.710	0.010 U	0.057	0.027	6.9
97/09/15	1120	12.1		8.1	306	10.0	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  
Water Body No.:

MISSION CR NR CASHMERE

River Mile: 0.20  
Latitude: 47 31 17.0  
Longitude: 120 28 32.5

Date	Time	Temp (deg C)	Flow (CFS)	Oxygen (mhos/25c(mg/L))	Conductivity (umhos/25c(mg/L))	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)	Turbidity (NTU)	Water Class: A (#/100ml)				
96/10/14	1420	9.6	4.0	331	9.2	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	11.1	94.9	8.3	3.0	1.290	0.010	0.010	0.005	U	1.8	20	1.220		
96/12/09	1515	2.5	5.0	321	12.3	94.1	8.3	2.0	0.902	0.010	0.020	0.005	U	1.9	3	0.841		
97/01/13	1215	0.0		273	14.4	100.3	8.3	3.0	0.560	0.010	0.030	0.005	U	1.2	2	0.520		
97/02/10	1420	3.1	18.0	209	14.2	106.9	8.6	3.0	0.706	0.010	0.071	0.005	U	1.9		0.407		
97/03/10	1410	6.1	33.0	305	12.5	102.6	8.6	10.0	0.657	0.010	0.057	0.005	U	2.0	9	0.556		
97/04/14	1325	6.7	66.0	277	12.0	100.2	8.5	11.0	0.474	0.010	0.048	0.005	U	3.1	6	0.403		
97/05/12	1110	7.9	96.0	182	12.0	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	9.7	108.8	7.8	15.0	0.365	J	0.010	0.129	J	0.005	U	4.3	17	0.316
97/07/14	1210	15.7	18.0	282	10.0	103.0	8.5	11.0	0.726	0.010	0.025	0.007	U	4.3	57	J	0.635	
97/08/11	1200	15.3	13.0	345	9.9	100.4	8.4	5.0	1.410	0.011	0.043	0.016	U	1.8	170	J	1.360	
97/09/15	1235	11.8	9.0	246	11.0	104.5	8.4	8.0	0.879	0.010	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

ENTIAT R NR ENTIAT

Date	Time	Temp (deg C)	Flow (CFS)	Conduc-tivity (mhos/25c(mg/L))	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3-NH4 (mg/L)	Total Nitrog. (mg/L)	Dissol. Ortho P (mg/L)	Turbid-ity (NTU)	Water Class: A	Water Class: B	Latitude: 47 39 48.0	Longitude: 120 14 58.0
96/10/15	1445	9.4	173.0	100	11.3	100.4	8.1	2.0	0.146	0.010 U	0.005 U	0.5	2	0.094		
96/11/12	1300	5.9	167.0	12.1	98.2	7.8	2.0	0.084	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	0.005 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  
Water Body No.: WA-48-1010

## METHOW R NR PATEROS

River Mile: 5.00  
Latitude: 48 04 29.0  
Longitude: 119 57 20.0

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Date Time Temp Flow Conductivity (mhos/25c(mg/L)) Oxygen Satur. (%) pH Dissol. Solids (mg/L) Suspend Solids (mg/L) Pers. N (mg/L) Nitrog. (mg/L) Total Phosph. (mg/L) Ortho P (mg/L) Turbidity (NTU) Feal Colif. (#/100ml) Nitrog. (mg/L)

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Date	Time	Temp	Flow	Conductivity (mhos/25c(mg/L))	Oxygen Satur. (%)	pH	Dissol. Solids (mg/L)	Suspend Solids (mg/L)	Pers. N (mg/L)	Nitrog. (mg/L)	Total NH3-NH4 (mg/L)	Ortho P (mg/L)	Turbidity (NTU)	Feal Colif. (#/100ml)	Nitrog. (mg/L)	
96/10/15 1305		8.1	466.0	176	11.3	98.0	8.4		1.0	0.242	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	0.005 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

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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.

STWIR R 9 METHOW

Water Class:	A	Latitude:	48° 20'	53.0
River Mile:	39 40	Longitude:	120° 06'	21.0

Date	Time	Temp (deg C)	Flow (cmhos/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)	Turbid. (NTU)	Fecal Colif. (#/100ml)	N02+N03 Nitrog.
96/10/15	1150	6.4	397.0	147	11.5	98.2	8.1	2.0	0.212	0.010 U	0.005 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	0.005 U	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	0.005 U	1.0	0.159
97/01/14	1000	0.0	290.0	151	15.2	109.2	7.7	1.0	0.235	0.010 U	0.005 U	1.1	27
97/02/11	0940	0.6	428.0	102	13.7	99.8	7.9	1.0	0.201	0.010 U	0.033	0.5 U	5
97/03/11	0845	3.6	353.0	153	12.2	96.8	8.2	31.0	0.236	0.015	0.033	1.5 J	12
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	2
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
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	5.9	9
97/07/15	0900	11.0	2710.0	85	10.4	98.7	8.0	2.0	0.103	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	0.5 U	11
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	8
												0.010 UJ	

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  
Water Body No.: WA-49 1010

OKANOGAN R @ MALOTT  
River Mile: 17.00  
Latitude: 48 16 53.0  
Longitude: 119 42 12.0

Date	Time	Temp (deg C)	Flow (CFS)	Conductivity (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)	Turbidity (NTU)	Fecal Colif. (#/100ml)	NO2+NO3 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	0.005 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	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

Date	Time	Temp (deg C)	Flow (CFS)	Conductivity (umhos/25c(mg/L))	Oxygen (mg/L)	pH (PH)	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3+NH4 (mg/L)	Total Nitrog. (mg/L)	Dissol. Ortho P (mg/L)	Turbidity (NTU)	Water Class: A (#/100ml) (mg/L)	Latitude: 48 56 20.0	Longitude: 119 25 36.0
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	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.: 49B070  
 Water Body No.: WA-49-1030

SIMILKAMEEN R @ OROVILLE							Water Class: A				Latitude: 48 56 05.0		
							River Mile: 5.00				Longitude: 119 26 27.0		
Date	Time	Temp (deg C)	Flow (CFS)	Conductivity (µmhos/25c(mg/L))	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3-NH4 (mg/L)	Total Phosph. (mg/L)	Ortho P (mg/L)	Turbidity (NTU)	Fecal Colif. (#/100mL)

96/10/15 0805	9.5	750.0	203	10.8	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	12.3	99.0	7.7	6.0	0.053	0.010 U	0.010 U	0.005 U	0.005 U	9.3	6	
96/12/10 0615	0.0	900.0	186	13.6	98.5	7.9	4.0	0.092	0.010 U	0.010 U	0.005 U	0.005 U	95	2.6	1 U
97/03/11 0535	5.5	850.0	204	11.6	94.5	8.2	3.0	0.158	0.010 U	0.033	0.005 U	0.005 U	1.8 J	1 U	
97/04/15 0655	7.6	1650.0	197	12.0	102.5	7.4	9.0	0.093	0.013	0.049	0.005 U	0.005 U	95	5.4	8
97/05/13 0615	8.3	15000.0	94	12.9	112.9	7.2	293.0	0.336	0.033	0.334	0.005 U	0.005 U	110.0	92	
97/06/10 0610	13.0	14000.0	89	10.4	101.0	7.2	82.0	0.121 J	0.010 UJ	0.125 J	0.005 U	0.005 U	45	36.0	10
97/07/15 0620	16.8	4000.0	125	10.0	105.3	7.9	14.0	0.152	0.010 U	0.011	0.005 U	0.005 U	5.0	16	
97/08/12 0630	19.7	1200.0	183	8.9	98.6	8.1	4.0	0.065	0.010 U	0.021	0.005 U	0.005 U	87	1.7	6
97/09/16 0630	13.7	1500.0	209	10.0	99.0	8.1	5.0	0.095	0.010 U	0.021	0.005 U	0.005 U	2.0	23	

49B070 Similkameen R @ Oroville continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chromium (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	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
96/12/10 0615	0.010 U	0.073	0.10 U	0.27	2.3	0.2	14.6	0.10 U	0.0020 U	1.210	0.020 U	0.730	0.490	2.040
97/03/11 0535	0.010 U	0.010 U	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
97/04/15 0655	0.010 U	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
97/05/13 0615	0.016													
97/06/10 0610														
97/07/15 0620														
97/08/12 0630														
97/09/16 0630														

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	Flow	Conduc-	Oxygen	pH	Suspend-	Total	NH3+NH4	Total	Dissol.	Turbid-	Fecal	NO2+NO3
		(deg C)	(CFS)	tivity	Satur.	(pH)	Solids	Pers. N	Nitrog.	Phosph.	Ortho P	Colif.	Nitrog.	
				(umhos/25c(mg/L))	(%)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(NTU)	(#/100ml)	(mg/L)	
96/10/09	1150	17.4	114200.0	122	9.1	97.3	8.0	1.0	0.144	0.010	U	0.005	U	
96/11/06	1230	14.3	117500.0	121	9.6	96.7	8.0	1.0	U	0.160	0.010	U	0.005	U
96/12/04	1315	9.2	166100.0	130	J	10.3	94.1	7.8	3.0	0.183	0.033	J	0.024	J
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	U
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
97/03/05	1150	3.3	176000.0	147		13.0	99.9	8.0	1.0	0.331	0.010	U	0.013	U
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
97/05/07	1200	8.3	199600.0	132		12.5	108.8	7.7	4.0	0.196	0.013	U	0.060	U
97/06/04	1500	10.4	240400.0	99		11.9	110.3	7.6	3.0	0.136	0.010	U	0.336	0.015
97/07/09	1250	16.4	189600.0	124		111.0	116.6	8.0	2.0	0.142	0.021		0.019	U
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
97/09/10	1330	18.1	155500.0	116		8.8	96.9	8.3	1.0	U	0.096	0.027	0.026	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.: 54A120  
Water Body No.: WA-54-1020

SPOKANE R @ RIVERSIDE STATE PK  
River Mile: 66.00  
Latitude: 47 41 48.0  
Longitude: 117 29 48.0

Date	Time	Temp (deg C)	Flow (CFS)	Conductivity (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)	Turbidity (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	0.772	0.010	U	0.022	0.008	1.1
96/11/05	0745	8.3	3050.0	116	10.6	94.4	8.3	2.0	0.625	0.033	0.332	0.021	1.2	180 X
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
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
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
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
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
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
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
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
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
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.: 55B070  
 Water Body No.: WA-55-1010

LITTLE SPOKANE R NR MOUTH

Date	Time	Temp (deg C)	Flow (CFS)	Conductivity (µmhos/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)	Turbidity (NTU)	Water Class: A	Latitude: 47 47 00.0
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
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
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
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	1.110
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
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	1.120
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	1.030
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	0.974
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	1.120
97/07/08	0830	15.2	775.0	258			8.1	11.0	1.120	0.013	0.042	0.017	5.0	1.030
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	0.976
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	1.130
														1.260

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

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

Date	Time	Temp (deg C)	Flow (CFS)	Conductivity (mhos/25c(mg/L))	Oxygen Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3-NH4 (mg/L)	Total Nitrog. (mg/L)	Dissol. Phosph. (mg/L)	Ortho P (mg/L)	Turbidity (NTU)	Fecal Colif. (#/100ml)
96/10/08	0945	14.5	1750.0	50	9.4	97.6	7.6	2.0	0.096	0.010 U	0.010 U	0.005 U	21	0.9
96/11/05	0940	8.9	2780.0	48	10.4	95.4	7.8	1.0	0.104	0.010 U	0.010 U	0.005 U		0.6
96/12/03	0920	5.3	4550.0	47 J	10.8	91.1	7.5	1.0	0.108 J	0.010 U	0.039 J	0.006	20	1.2
97/01/14	0945	1.6	13300.0	66 J	12.7	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	12.6	96.3	7.7	2.0	0.195	0.013	0.010 U	0.005 U	24	2.5
97/03/04	0945	2.1	8720.0	57	12.8	98.8	7.2	1.0	0.238	0.010 U	0.044	0.005 U	23	2.6
97/04/08	0920	7.5	15000.0	53	12.6	111.8	8.1	2.0	0.244	0.010 U	0.126	0.005 U	23	3.8
97/05/06	0930	0.9	32000.0	47	13.0	115.6	7.9	4.0	0.205	0.019	0.064	0.005 U	20	5.2
97/06/03	1205	0.9	29900.0	32	10.9	109.0	7.2	4.0	0.052	0.011	0.029	0.005 U	16	4.6
97/07/08	0950	18.4	6310.0	40	9.1	103.2	7.6	1.0	0.053	0.010 U	0.017	0.005 U	17	1.0
97/08/05	1010	24.2	1410.0	43	7.9	98.4	8.1	3.0	0.094	0.010 U	0.029	0.005	19	6
97/09/09	1005	18.8	1090.0	47	8.3	95.1	8.4	2.0	0.105	0.010 U	0.031	0.005 U	19	0.9
													20	20

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

Date	Time	NO2+NO3 (mg/L)	Chrom. (ug/L)	Copper (ug/L)	Zinc (ug/L)	Lead (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium (ug/L)	Dissol. (ug/L)	Dissol. (ug/L)	Nickle (ug/L)	Zinc (ug/L)	Arsenic (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	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
97/02/04	0945	0.144	0.144						0.0027	0.420	0.710	1.340	0.670	124.000
97/04/08	0950	0.123	0.104							0.440	0.860	1.410	0.760	119.000
97/05/06	0930	0.104								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  
River Mile: 10.90  
Latitude: 48 47 05.0  
Longitude: 118 07 27.0

Date	Time	Temp (deg C)	Flow (CFS)	Conductivity (µhos/25c(mg/l))	Oxygen (mg/l)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3-NH4 (mg/L)	Total Phosph. (mg/L)	Dissol. Ortho P (mg/L)	Turbidity (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	0.005 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	0.005 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	
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	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	Latitude: 48 55 21.0		
Date	Time	Temp	Flow (deg C)	Conductivity (umhos/25c(mg/L))	Oxygen Satur. (%)	pH (pH)	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3-NH4 Nitrog. (mg/L)	Total Phosph. (mg/L)	Ortho P (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 U	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 J	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	NO2+NO3 Nitrog. (mg/L)	Chrom. (ug/L)	Copper (ug/L)	Zinc (ug/L)	Lead (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	0.051	0.716	0.220	0.570	2.900	0.280	
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	0.037	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

PEND OREILLE R @ NEWPORT  
 River Mile: 88.20  
 Latitude: 48 11 07.0  
 Longitude: 117 02 02.0

Date	Time	Temp (deg C)	Flow (CFS)	Conductivity (mhos/25c(mg/L))	Oxygen (mg/L)	Satur. (%)	pH	Suspend Solids (mg/L)	Total Pers. N (mg/L)	NH3-NH4 (mg/L)	Nitrog. Phosph. (mg/L)	Total Ortho P (mg/L)	Turbidity (NTU)	Water Class: A	Fecal Colif. (#/100ml)	NO2+NO3 Nitrog. (mg/L)
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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	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**

Name: NOOKSACK R 2 BRENNAN Station Number: 01A050

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
9012345678901234567890123456789012345678901234567890123456					

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	P110	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	7.565	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	
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Station Number: 01A120		Name: NOOKSACK R @ NO CEDARVILLE		Class: A		Elevation:	140	River Mile:	30.80	Water Years Sampled:							
Location:		LOCATED ON HIGHWAY 542 (MOUNT BAKER HIGHWAY) AT BRIDGE OVER NOOKSACK RIVER BETWEEN CEDARVILLE AND NORTH CEDARVILLE APPROXIMATELY FOUR MILES WEST OF DEMING				5	6	7	8	9	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	6.150	2.662	12	4.600	1.602	12	8.325	1.577	12	12.758	1.990	12	16.000	1.300	
PRESS	P25	mm/Hg	761.008	9.541	12	757.383	8.834	12	756.992	5.793	12	764.617	5.060	12	775.200	741.400	
OXYGEN	P300	mg/L	12.092	0.715	12	12.436	0.602	11	11.442	0.378	12	10.833	0.444	12	13.700	10.300	
PCTSAT	P301	%	96.933	4.265	12	96.400	2.169	11	97.417	3.156	12	101.017	3.766	12	109.000	90.800	
FC	P31616	#/100ml	30.091	32.639	11	8.909	8.252	11	36.750	56.660	12	48.417	90.889	12	310.000	1.000U	
PH	P400	pH	7.550	0.265	12	7.391	0.158	11	7.533	0.210	12	7.592	0.275	12	8.100	7.100	
SUSSOL	P530	mg/L	206.333	393.798	12	89.917	134.168	12	88.750	161.435	12	24.750	24.019	12	1410.000	3.000	
FLOW	P60	cfs	5312.333	5424.745	9	3430.000	3102.600	9	3637.778	1512.248	9	1698.167	838.587	6	18800.000	851.000	
TPN	P600	mg/L	0.329	0.121	9	0.333	0.061	9	0.185	0.103	9	0.184	0.234	9	0.779	0.017	
NH3_N	P610	mg/L	0.014	0.010	12	0.012	0.006	12	0.013	0.007	12	0.010	0.001	11	0.044	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_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	11	0.000	0.000	12	0.000	0.000	9	*****.***	0.000	
NO3_N	P620	mg/L	0.257	0.133	3	0.227	0.046	3	0.110	0.056	3	0.047	0.023	3	0.370	0.020	
NO2_NO3	P630	mg/L	0.255	0.116	12	0.259	0.047	12	0.117	0.066	12	0.132	0.174	11	0.626	0.011	
TP_P	P665	mg/L	0.128	0.242	12	0.074	0.084	12	0.048	0.053	12	0.031	0.015	11	0.872	0.010U	
OP_DIS	P671	mg/L	0.007	0.002	12	0.006	0.002	12	0.006	0.002	12	0.007	0.003	12	0.011	0.005U	
COLOR	P80	Pt-Co	18.875	14.991	4	152.667	248.967	3	28.000	8.888	3	2.500	2.121	2	440.000	1.000	
TURB	P82079	NTU	131.117	279.120	12	39.292	50.655	12	42.892	65.966	12	16.350	11.784	12	1000.000	1.800	
COND	P95	umhos/25c	72.417	16.434	12	73.583	17.774	12	64.083	15.500	12	80.500	13.681	12	109.000	29.000	

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	
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Station Number: 01A140 Name: NOOKSACK R ABOVE THE MF		Class: A Elevation: 297 River Mile: 40.80		Water Years Sampled:		---JULY-SEPTEMBER---		---APRIL-JUNE---		---JANUARY-MARCH---		P-CODE UNITS		---OCTOBER-DECEMBER---		VARIABLE	
Location:	MOSQUITO LAKE ROAD BRIDGE	5	6	7	8	8	9	7	8	9	0	1	2	3	4	5	6
		9	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5
		X															
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		Water Years Sampled:		---JULY-SEPTEMBER---		---APRIL-JUNE---		---JANUARY-MARCH---		Location: GILLIES ROAD BRIDGE				
		5 6 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 X		5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 X		5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 X		5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 X		5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 X		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--	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	--SIX YEAR--			
TEMP	P10	deg C	4.000	3.904	3	5.935	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_DIS	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		Water Years Sampled:													
Location: POTTER ROAD ONE-LANE BRIDGE				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		Water Years Sampled:		X		--- J U L Y - S E P T E M B E R ---		--- A P R I L - J U N E -		--- J A N U A R Y - M A R C H -		--- O C T O B E R - D E C E M B E R -		P-CODE UNITS		VARIABLE	
Location: MOSQUITO LAKE ROAD ONE-LANE STEEL GIRDER BRIDGE		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		8 9		X		X		X		X		X		X	
TMP	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	0.000	0.000	0.000	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	743.700	743.700	743.700	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	11.300	11.300	11.300	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	94.800	94.800	94.800	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	1.0000	1.0000	1.0000	1.0000	1.0000
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	7.400	7.400	7.400	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	2.000	2.000	2.000	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	0.028J	0.028J	0.028J	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	0.010U	0.010U	0.010U	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	0.010U	0.010U	0.010U	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	0.012	0.012	0.012	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	0.005	0.005	0.005	0.005	0.005
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	1.500	1.500	1.500	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	28.000	28.000	28.000	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: 03A060 Name: SKAGIT R NR MOUNT VERNON		Class: A Elevation: 14 River Mile: 15.90		Water Years Sampled:		8		9				
VARIABLE	P-CODE UNITS	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN
<b>--OCTOBER-DECEMBER--</b>												
<b>--JANUARY-MARCH--</b>												
<b>--APRIL-JUNE--</b>												
<b>--JULY-SEPTEMBER--</b>												
TEMP	deg C	7.656	2.226	18	4.761	1.145	18	9.283	2.078	18	13.644	1.471
CR	ug/L	0.000	0.000	0	5.000	0.000	2	0.000	0.000	0	5.000	5.000
PRESS	mm/Hg	766.739	7.087	18	762.228	9.459	18	765.333	3.647	18	767.482	5.927
OXYGEN	mg/L	11.611	0.639	18	12.450	0.394	18	11.239	0.478	18	10.278	0.330
PCTSAT	%	95.867	2.118	18	96.383	1.999	18	96.700	2.191	18	97.411	2.613
FC	P31616 #/100ml	22.389	25.514	18	11.944	11.553	18	22.556	30.897	18	29.833	34.106
COD	mg/L	7.000	2.646	3	7.667	1.528	3	6.333	2.082	3	4.500	0.707
PH	pH	7.433	0.168	18	7.369	0.158	16	7.478	0.237	18	7.541	0.206
SUSSOL	mg/L	48.833	61.744	18	41.111	89.610	18	67.556	121.068	18	107.000	283.732
FLOW	CFS	18874.667	13211.075	15	17646.000	7846.684	15	17021.333	7369.491	15	10770.667	3799.208
TPN	mg/L	0.190	0.052	12	0.236	0.094	12	0.124	0.067	12	0.071	0.017
NH3_N	mg/L	0.016	0.011	18	0.013	0.004	18	0.012	0.007	18	0.014	0.009
NO2_DIS	mg/L	0.010	0.000	6	0.010	0.000	6	0.010	0.000	6	0.010	0.000
NO2_N	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.000
NH3_UN	mg/L	0.000	0.000	11	0.000	0.000	12	0.000	0.000	12	0.000	0.000
NO3_N	mg/L	0.120	0.070	3	0.113	0.015	3	0.087	0.025	3	0.043	0.012
NO2_NO3	mg/L	0.139	0.054	18	0.152	0.045	18	0.082	0.035	18	0.044	0.014
TP_P	mg/L	0.040	0.050	18	0.040	0.063	18	0.034	0.057	18	0.075	0.173
OP_DIS	mg/L	0.008	0.003	18	0.008	0.003	18	0.008	0.003	18	0.008	0.003
HG	ug/L	0.000	0.000	0	0.001	0.000	2	0.000	0.000	0	0.001	0.001
COLOR	Pt-Co	22.000	19.916	4	99.333	156.666	3	21.333	18.771	3	22.667	34.962
TURB	P82079 NTU	18.611	30.662	18	21.072	52.943	18	17.322	34.179	18	29.283	59.753
HARD	mg/L	25.500	2.121	2	28.500	0.707	2	0.000	0.000	0	21.500	2.121
COND	umhos/25c	52.333	9.114	18	55.167	7.254	18	45.500	8.760	18	47.111	9.628

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## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 03B050 Name: SAMISH R NR BURLINGTON

**Location:** LOCATED AT BRIDGE OVER SAMISH RIVER ON OLD HIGHWAY 99 APPROXIMATELY MID WAY BETWEEN BURLINGTON AND ALGER

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			---JANUARY-MARCH---			---APRIL-JUNE---			---JULY-SEPTEMBER---		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N
TEMP	P10	deg C	7.200	2.653	12	5.167	1.869	12	10.575	1.697	12	12.475	1.804	12
PRESS	P25	mm/Hg	767.508	7.493	12	759.583	10.357	12	764.475	4.106	12	769.267	5.915	12
OXYGEN	P300	mg/L	11.517	0.861	12	12.142	0.617	12	10.508	0.474	12	9.942	0.635	12
PCTSAT	P301	%	93.817	1.782	12	95.208	1.489	12	93.300	2.046	12	91.467	2.984	12
FC	P31616	#/100ml	284.667	611.964	12	92.083	87.841	12	313.667	223.951	12	344.417	587.041	12
PH	P400	pH	7.283	0.212	12	7.300	0.268	11	7.225	0.249	12	7.500	0.256	12
SUSSOL	P530	mg/L	65.417	177.825	12	28.250	31.230	12	9.333	8.359	12	5.083	6.097	12
FLOW	P60	CFS	412.622	380.717	9	578.556	580.436	9	258.922	185.792	9	48.533	42.099	9
T_PN	P600	mg/L	0.873	0.113	9	1.019	0.208	9	0.780	0.085	9	0.753	0.085	9
NH3_N	P610	mg/L	0.019	0.008	12	0.021	0.021	12	0.023	0.024	12	0.014	0.009	11
N02_DIS	P613	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3
N02_N	P615	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3
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
N03_N	P620	mg/L	0.875	0.007	2	0.913	0.150	3	0.673	0.051	3	0.757	0.055	3
N02_NO3	P630	mg/L	0.788	0.210	12	0.791	0.115	12	0.575	0.147	12	0.634	0.086	11
TP_P	P665	mg/L	0.044	0.043	12	0.045	0.034	12	0.035	0.021	12	0.021	0.011	11
OP_DIS	P671	mg/L	0.008	0.003	12	0.007	0.002	12	0.008	0.002	12	0.008	0.003	12
COLOR	P80	Pt-Co	34.250	11.927	4	59.000	72.125	2	62.667	21.939	3	2.000	1.732	3
TURB	P82079	NTU	16.642	26.319	12	16.442	14.438	12	7.192	6.772	12	2.967	2.573	12
HARD	P900	mg/L	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0
COND	P95	umhos/25c	74.333	16.626	12	65.167	13.334	12	79.917	17.312	12	108.083	19.157	12

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## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 06A100 Name: SKAGIT B A MARBLE MOUNT

## location:

**Location:**  
LOCATED AT THE BRIDGE ON THE CASCADE RIVER ROAD WHERE HIGHWAY 20 (NORTH CASCades HIGHWAY) TURNS 90 DEGREES IN MARBLE MOUNT

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	7.472	1.855	18	4.072	1.609	18	7.222	1.699	18	10.550	1.041	18	12.300	0.600	
CR	P1118	ug/L	0.000	0.000	0	5.000	0.000	2	0.000	0.000	0	5.000	0.000	2	5.000	5.000U	
PRESS	P25	mm/Hg	757.678	8.585	18	755.594	7.620	18	755.367	4.612	18	759.776	5.116	17	771.900	739.600	
OXYGEN	P300	mg/L	11.722	0.466	18	12.644	0.375	18	11.928	0.325	18	11.122	0.190	18	13.500	10.800	
PCTSAT	P301	%	97.650	3.115	18	96.994	2.615	18	99.083	2.448	18	99.461	2.233	18	103.900	92.400	
FC	P31616	#/100ml	9.059	15.490	17	5.938	18.958	16	4.235	6.960	17	9.611	21.674	18	94.000	1.000U	
PH	P400	PH	7.517	0.273	18	7.356	0.219	16	7.333	0.181	18	7.476	0.168	17	8.100	6.800	
SUSSOL	P530	mg/L	8.167	20.261	18	3.333	4.589	18	3.389	7.196	18	2.278	2.081	18	88.000	1.000U	
FLOW	P60	CFS	6859.333	4635.812	15	7214.667	2274.090	15	5579.333	1933.300	15	4518.667	1399.310	15	17900.000	2290.000	
TPN	P600	mg/L	0.122	0.045	12	0.108	0.024	12	0.081	0.039	12	0.063	0.018	12	0.208	0.010K	
NH3_N	P610	mg/L	0.011	0.003	18	0.010	0.001	18	0.011	0.005	18	0.010	0.002	17	0.033	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	10	0.000	0.000	11	0.000	0.000	12	0.000	0.000	9	*****,*	0.000	
NO3_N	P620	mg/L	0.060	0.014	2	0.050	0.010	3	0.057	0.015	3	0.037	0.006	3	0.070	0.030	
NO2_N03	P630	mg/L	0.075	0.018	18	0.071	0.018	18	0.065	0.024	18	0.045	0.014	17	0.134	0.010K	
TP_P	P665	mg/L	0.016	0.023	18	0.013	0.006	18	0.016	0.013	18	0.013	0.005	17	0.106	0.010U	
OP_DIS	P671	mg/L	0.008	0.003	18	0.008	0.003	18	0.008	0.003	18	0.008	0.003	18	0.014	0.005U	
HG	P71900	ug/L	0.000	0.000	0	0.002	0.001	2	0.000	0.000	0	0.001	0.000	2	0.003	0.001U	
COLOR	P80	Pt-Co	5.125	3.614	4	10.000	5.196	3	22.667	24.987	3	6.000	6.245	3	50.000	1.000	
TURB	P82079	NTU	3.139	6.442	18	1.089	0.888	18	1.641	2.072	17	1.511	0.650	18	28.000	0.200	
HARD	P900	mg/L	0.000	0.000	0	30.000	0.000	2	0.000	0.000	0	20.500	4.950	2	30.000	17.000	
COND	P95	umhos/25c	47.167	10.337	18	54.000	7.046	18	40.944	11.481	18	42.222	5.857	18	67.000	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:	05A070	Name:	STILLAGUAMISH R NR SILVANA	Class:	A	Elevation:	35	River Mile:	11.10
<b>Location:</b>									
LOCATED ON THE INTERSTATE 5 BRIDGE JUST NORTH OF THE ARLINGTON-SILVANA EXIT (EXIT 208)									
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				
VARIABLE	P-CODE	UNITS	--OCTOBER-DECEMBER--	MEAN	STD. DEV.	N	--JANUARY-MARCH--	MEAN	STD. DEV. N
TEMP	P10	deg C	7.041	2.479	17	4.678	1.496	18	10.211 2.720
CR	P1118	ug/L	0.000	0.000	0	10.500	7.778	2	0.000 0.000
PRESS	P25	mm/Hg	766.565	7.453	17	762.183	8.940	18	765.233 3.750
OXYGEN	P300	mg/L	11.771	0.833	17	12.472	0.597	18	10.939 0.552
PCTSAT	P301	%	95.653	2.360	17	96.272	2.122	18	96.128 2.933
FC	P31616	#/100ml	44.118	36.375	17	46.444	54.575	18	63.889 66.511
PH	P400	pH	7.376	0.148	17	7.363	0.182	16	7.394 0.151
SUSSOL	P530	mg/L	57.235	70.791	17	129.667	386.188	18	47.222 103.760
FLOW	P60	CFS	5621.538	4606.808	13	3844.133	1999.644	15	3932.000 4382.100
TPN	P600	mg/L	0.408	0.109	11	0.428	0.126	12	0.228 0.068
NH3_N	P610	mg/L	0.025	0.020	17	0.017	0.010	18	0.013 0.007
NO2_DIS	P613	mg/L	0.010	0.000	6	0.010	0.000	6	0.010 0.000
NO2_N	P615	mg/L	0.010	0.000	3	0.010	0.000	3	0.010 0.000
NH3_JUN	P619	mg/L	0.000	0.000	10	0.000	0.000	11	0.000 0.000
NO3_N	P620	mg/L	0.425	0.021	2	0.237	0.135	3	0.153 0.055
NO2_NO3	P630	mg/L	0.345	0.117	17	0.323	0.104	18	0.154 0.044
TP_P	P665	mg/L	0.051	0.067	17	0.052	0.074	18	0.038 0.058
OP_DIS	P671	mg/L	0.008	0.002	17	0.009	0.007	18	0.008 0.003
HG	P71900	ug/L	0.008	0.008	2	0.007	0.006	3	0.002 0.001
COLOR	P80	Pt-Co	38.500	14.526	4	295.500	416.486	2	30.667 9.815
TURB	P82079	NTU	31.894	37.271	17	60.528	148.728	18	29.989 61.710
HARD	P900	mg/L	19.333	3.055	3	22.333	2.082	3	22.667 2.887
COND	P95	umhos/25c	52.235	15.143	17	46.167	11.648	18	43.944 11.117

Location:

LOCATED ON THE INTERSTATE 5 BRIDGE JUST NORTH OF THE ARLINGTON-SILVANA  
EXIT (EXIT 208)

Water Years Sampled:

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## QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 05A020 Name: SF STILASHAMISH @ ARLINGTON

Location: AT PROVINCE ON STATE HIGHWAY 520 IN ADIRONDACK

Location: AT SOURCE ON STATE HIGHWAY E20 IN AD' INCTION

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	6.625	2.166	12	4.367	1.725	12	9.867	2.700	12	15.617	2.809	12	20.600	0.000	
PRESS	P25	mm/Hg	763.725	7.233	12	760.025	7.774	12	761.125	5.712	12	767.025	6.125	12	778.500	745.000	
OXYGEN	P300	mg/L	12.033	0.909	12	12.709	0.663	11	11.200	0.732	12	9.775	0.779	12	14.300	8.300	
PCTSAT	P301	%	97.192	3.786	12	97.564	0.524	11	98.083	2.760	12	96.400	5.445	12	107.200	89.100	
FC	P31616	#/100ml	92.818	165.532	11	33.000	75.153	12	41.417	73.422	12	97.750	181.126	12	660.000	1.000K	
pH	P400	pH	7.342	0.227	12	7.364	0.277	11	7.400	0.298	12	7.567	0.202	12	8.000	6.700	
SUSSOL	P530	mg/L	158.917	265.184	12	71.333	75.307	12	24.333	27.327	12	7.083	7.379	12	822.000	2.000	
FLOW	P60	CFS	3209.222	3058.554	9	2811.111	2541.417	9	1638.989	721.957	9	593.333	537.523	9	9500.000	125.000	
TNH	P600	mg/L	0.348	0.094	9	0.342	0.092	9	0.175	0.061	9	0.275	0.165	9	0.668	0.054J	
NH3_N	P610	mg/L	0.013	0.005	12	0.011	0.003	12	0.012	0.006	12	0.011	0.003	11	0.028	0.010U	
N02_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	
N02_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	
N03_N	P620	mg/L	0.340	0.071	2	0.263	0.087	3	0.167	0.100	3	0.110	0.010	3	0.390	0.070	
N02_N03	P630	mg/L	0.265	0.101	12	0.268	0.095	12	0.125	0.054	12	0.160	0.057	11	0.467	0.024	
TP_P	P665	mg/L	0.079	0.184	12	0.062	0.065	12	0.035	0.029	12	0.018	0.011	11	0.658	0.010U	
OP_DIS	P671	mg/L	0.007	0.003	12	0.006	0.002	11	0.006	0.002	12	0.007	0.002	12	0.011	0.005U	
COLOR	P80	Pt-Co	31.250	8.098	4	206.500	273.650	2	37.667	10.970	3	2.000	1.732	3	400.000	1.000	
TURB	P82079	NTU	96.617	166.609	12	44.825	44.898	12	17.875	17.676	12	4.958	5.874	12	450.000	0.900	
COND	P95	umhos/25c	40.917	10.086	12	37.000	13.605	12	37.833	7.566	12	59.750	17.003	12	88.000	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: 05A110 Name: SF STITH NB GRANITE FAHLS

**Location:** 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

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	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	111.417	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	Water Years Sampled:			
VARIABLE	P-CODE	UNITS	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN
<b>LOCATED AT BRIDGE ON STATE HIGHWAY 530 7.2 MILES NORTHEAST OF ARLINGTON AT CICERO</b>													
TEMP	P10	deg C	6.317	2.018	12	4.242	1.427	12	9.075	2.335	12	14.142	2.216
PRESS	P25	mm/Hg	762.517	6.982	12	758.508	7.563	12	759.800	5.515	12	765.350	6.013
OXYGEN	P300	mg/L	11.950	0.728	12	12.600	0.647	11	11.442	0.617	12	10.458	0.861
PCTSAT	P301	%	96.008	2.191	12	96.655	1.379	11	98.700	5.076	12	100.458	8.143
FC	P31616	#/100ml	56.727	73.271	11	12.417	8.382	12	41.417	79.184	12	48.750	43.545
PH	P400	pH	7.333	0.235	12	7.318	0.199	11	7.333	0.167	12	7.733	0.448
SUSSOL	P530	mg/L	188.667	397.104	12	93.417	84.788	12	72.667	166.203	12	10.667	10.722
FLOW	P60	CFS	4754.556	7118.979	9	2345.333	1801.330	9	1451.889	825.534	9	507.000	300.002
TPN	P600	mg/L	0.331	0.079	9	0.274	0.056	9	0.157	0.070	9	0.165	0.114
NH3_N	P610	mg/L	0.018	0.011	12	0.012	0.003	12	0.013	0.008	12	0.010	0.000
NO2_DIS	P613	mg/L	0.010	0.000	3	0.010	0.000	2	0.010	0.000	3	0.010	0.000
NO2_N	P615	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.000
NH3_UN	P619	mg/L	0.000	0.000	10	0.000	0.000	11	0.000	0.000	12	0.000	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
NO2_NO3	P630	mg/L	0.259	0.076	12	0.206	0.051	12	0.094	0.044	12	0.105	0.098
TP_P	P665	mg/L	0.115	0.193	12	0.066	0.053	12	0.069	0.119	12	0.021	0.015
OP_DIS	P671	mg/L	0.009	0.005	12	0.007	0.002	11	0.007	0.002	12	0.007	0.003
COLOR	P80	Pt-Co	34.500	10.472	4	330.500	465.983	2	36.667	2.309	3	2.000	1.732
TURB	P82079	NTU	94.708	200.327	12	54.250	46.377	12	37.892	78.743	12	7.458	9.593
COND	P95	umhos/25c	47.083	14.737	12	42.500	16.071	12	44.500	10.475	12	73.583	17.763

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

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

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: 07A090		Name: SNOHOMISH R @ SNOHOMISH		Class: A		Elevation: 8		River Mile: 12.70		Water Years Sampled:							
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	7.461	2.450	18	5.183	1.529	18	10.017	2.500	18	16.383	2.380	18	21.300	1.400	
ZN	P1094	ug/L	13.540	11.602	5	22.500	0.707	2	4.075	3.106	4	7.200	4.101	2	33.900	1.900B	
CD	P1113	ug/L	0.100	0.000	5	0.100	0.000	2	0.088	0.025	4	0.100	0.000	2	0.100	0.050U	
PB	P1114	ug/L	0.580	0.576	5	0.850	0.778	2	0.650	0.619	4	0.400	0.424	2	1.600	0.100U	
CR	P1118	ug/L	0.884	0.360	5	2.730	3.210	2	0.655	0.434	4	0.300	0.141	2	5.000	0.200U	
CU	P1119	ug/L	1.980	0.709	5	3.800	2.970	2	1.750	1.121	4	0.700	0.141	2	5.900	0.600	
PRESS	P25	mm/Hg	766.806	7.074	18	763.106	7.118	18	764.300	4.636	18	767.271	4.387	17	780.000	743.700	
OXYGEN	P300	mg/L	11.528	0.798	18	12.241	0.429	17	10.928	0.702	18	9.411	0.486	18	13.300	8.400	
PCTSAT	P301	%	94.617	2.531	18	95.676	2.690	17	95.644	2.809	18	94.450	4.358	18	102.500	88.500	
FC	P31616	#/100ml	84.556	63.507	18	64.824	46.125	17	74.059	82.497	17	112.059	184.340	17	820.000	5.000	
COD	P340	mg/L	10.333	0.577	3	8.333	0.577	3	7.333	2.887	3	17.333	15.308	3	35.000	4.000K	
PH	P400	pH	7.217	0.212	18	7.094	0.189	17	7.156	0.172	18	7.276	0.192	17	7.700	6.600	
SUSSOL	P530	mg/L	13.889	13.168	18	24.833	34.262	18	13.944	13.884	18	5.778	3.828	18	121.000	1.000K	
FLOW	P60	CFS	9825.286	8404.328	14	12907.467	12594.030	15	9630.333	3526.951	15	2988.286	1314.195	14	53230.000	1510.000	
TPN	P600	mg/L	0.467	0.125	12	0.497	0.171	12	0.180	0.092	12	0.211	0.071	12	0.840	0.030J	
NH3_N	P610	mg/L	0.032	0.023	18	0.023	0.012	18	0.014	0.007	18	0.013	0.006	17	0.103	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	*****.***	0.000	
NO3_N	P620	mg/L	0.355	0.064	2	0.370	0.115	3	0.113	0.055	3	0.133	0.023	3	0.490	0.060	
NO2_NO3	P630	mg/L	0.363	0.206	18	0.343	0.129	18	0.147	0.065	18	0.146	0.071	17	1.010	0.010K	
TP_P	P665	mg/L	0.023	0.012	18	0.031	0.025	18	0.023	0.026	18	0.019	0.016	17	0.114	0.010U	
OP_DIS	P671	mg/L	0.009	0.003	18	0.008	0.002	17	0.008	0.003	18	0.008	0.002	18	0.018	0.005U	
HG	P71900	ug/L	0.012	0.022	5	0.002	0.001	2	0.002	0.001	4	0.002	0.001	2	0.050	0.001U	
COLOR	P80	Pt-Co	28.000	13.229	3	21.000	4.000	3	18.000	12.124	3	16.286	11.116	7	38.000	1.000	
TURB	P82079	NTU	6.500	5.817	18	15.306	22.155	18	7.347	9.058	17	2.606	2.658	18	90.000	0.900	
HARD	P900	mg/L	18.400	3.647	5	13.000	0.000	2	13.500	2.887	4	21.000	1.414	2	24.000	11.000	
COND	P95	umhos/25c	45.294	10.588	17	38.944	9.194	18	31.278	5.665	18	47.889	8.065	18	65.000	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: 07C070 Name: SKYKOMISH R & MONROE

**Location:** LOCATED AT THE RAILROAD TRESTLE 5 MILES EAST OF MONROE IN MONROE PARK

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	7.267	2.393	15	4.423	1.506	13	8.860	2.327	15	14.653	2.740	15	20.300	1.200	
PRESS	P25	mm/Hg	764.627	7.054	15	761.077	7.287	13	762.780	4.433	15	765.743	4.715	14	780.300	743.700	
OXYGEN	P300	mg/L	11.853	0.659	15	12.675	0.445	12	11.660	0.560	15	10.213	0.277	15	13.600	9.700	
PCTSAT	P301	%	97.200	2.307	15	97.442	2.368	12	99.633	2.794	15	99.187	5.584	15	108.900	86.200	
FC	P31616	#/100ml	17.867	24.730	15	5.000	5.115	13	10.200	7.885	15	69.214	191.318	14	730.000	1.000U	
PH	P400	pH	7.253	0.223	15	7.131	0.170	13	7.273	0.171	15	7.387	0.141	15	7.800	6.800	
SUSSL	P530	mg/L	11.867	14.701	15	10.231	11.388	13	10.467	8.348	15	4.600	2.898	15	54.000	1.000K	
FLOW	P60	CFS	7286.250	6306.108	12	5624.400	3798.683	10	5338.667	2028.314	12	1712.500	556.501	12	20800.000	11000.000	
TPN	P600	mg/L	0.245	0.069	9	0.216	0.060	8	0.103	0.051	9	0.108	0.059	9	0.331	0.043	
NH3_N	P610	mg/L	0.012	0.004	15	0.011	0.002	13	0.013	0.006	15	0.010	0.000	14	0.035	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	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	0.245	0.064	2	0.153	0.042	3	0.060	0.036	3	0.047	0.006	3	0.290	0.030	
NO2_NO3	P630	mg/L	0.187	0.074	15	0.171	0.054	13	0.074	0.041	15	0.071	0.046	14	0.290	0.026	
TP_P	P665	mg/L	0.014	0.009	15	0.019	0.013	13	0.020	0.018	15	0.015	0.008	14	0.071	0.010U	
OP_DIS	P671	mg/L	0.008	0.003	15	0.007	0.002	12	0.007	0.003	15	0.007	0.003	15	0.013	0.005U	
COLOR	P80	Pt-Co	15.333	6.658	3	13.000	0.000	3	15.667	2.309	3	13.429	7.208	7	21.000	1.000	
TURB	P82079	NTU	6.193	5.971	15	8.031	9.452	13	6.267	6.720	15	2.187	1.928	15	37.000	0.700	
COND	P95	umhos/25c	33.200	7.083	15	28.692	5.750	13	24.733	4.978	15	36.067	6.135	15	50.000	18.000	

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: 070050		Name: SNOQUALMIE R NR MONROE		Class: A		Elevation:	15	River Mile:	2.70	Water Years Sampled:							
VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			---JANUARY-MARCH---			---APRIL-JUNE---			---JULY-SEPTEMBER---			---SIX YEAR---		
			MEAN	STD.	N	MEAN	STD.	N	MEAN	STD.	N	MEAN	STD.	N	MAX	MIN	
TEMP	P10	deg C	7.573	2.308	15	5.367	1.609	15	10.720	2.569	15	16.267	2.618	15	21.200	1.700	
PRESS	P25	mm/Hg	764.620	7.149	15	761.387	7.043	15	763.240	4.426	15	766.314	4.773	14	780.500	743.200	
OXYGEN	P300	mg/L	11.393	0.671	15	11.979	0.534	14	10.820	0.749	15	9.500	0.414	15	13.100	8.400	
PCITSAT	P301	%	94.013	2.737	15	94.250	3.023	14	96.387	4.117	15	95.293	5.220	15	111.700	88.400	
FC	P31616	#/100ml	156.133	184.875	15	119.533	140.771	15	192.267	241.256	15	74.286	43.789	14	790.000	3.000	
PH	P400	pH	7.220	0.237	15	7.067	0.250	15	7.173	0.260	15	7.313	0.207	15	8.000	6.500	
SUSSOL	P530	mg/L	11.867	9.493	15	29.400	40.053	15	14.467	19.387	15	5.000	3.295	15	150.000	1.000	
FLOW	P60	CFS	4775.167	3069.896	6	10720.167	12770.698	6	3648.500	1263.949	6	1393.167	722.890	6	35939.000	649.000	
TPN	P600	mg/L	0.549	0.149	9	0.528	0.166	9	0.244	0.104	9	0.260	0.057	9	0.822	0.085J	
NH3_N	P610	mg/L	0.033	0.035	15	0.028	0.015	15	0.016	0.007	15	0.011	0.002	14	0.146	0.010U	
NO2_DIS	P613	mg/L	0.010	0.000	6	0.012	0.004	5	0.010	0.000	6	0.010	0.000	6	0.018	0.010K	
NO2_N03	P630	mg/L	0.395	0.172	15	0.361	0.101	15	0.188	0.083	15	0.179	0.051	14	0.828	0.059	
TP_P	P665	mg/L	0.022	0.011	15	0.036	0.033	15	0.026	0.023	15	0.016	0.008	14	0.136	0.010U	
OP_DIS	P671	mg/L	0.011	0.005	15	0.009	0.003	14	0.007	0.002	15	0.007	0.002	15	0.023	0.005U	
TURB	P82079	NTU	6.393	4.870	15	17.713	26.728	15	7.307	11.012	15	2.593	2.074	15	100.000	0.700	
COND	P95	umhos/25c	52.267	23.085	15	39.800	10.065	15	34.467	7.736	15	53.533	10.921	15	122.000	21.000	

Location:  
LOCATED AT HIGH BRIDGE AT THE SOUTHWEST CORNER OF THE MONROE STATE  
REFORMATORY HONOR FARM NUMBER 2, NEAR CRESCENT LAKE, APPROXIMATELY THREE  
MILES SOUTHWEST OF MONROE IN TUALCO VALLEY ON HIGH BRIDGE ROAD

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

Name: SNOQUALMIE R @ SNOQUALMIE Station Number: 07D130

Location: LOCATED AT THE BRIDGE EAST OF SNOQUALMIE ON THE LUMMI RIVER.

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	6.608	2.191	12	4.583	0.951	12	8.375	2.372	12	13.667	1.795	12	16.300	2.900
PRESS	P25	mm/Hg	754.725	8.024	12	750.317	7.488	12	751.950	3.591	12	757.873	5.357	11	772.400	732.000
OXYGEN	P300	mg/L	11.600	0.918	12	12.233	0.394	12	11.283	0.644	12	9.650	0.462	12	12.800	8.800
PCTSAT	P301	%	94.742	3.739	12	95.792	2.426	12	96.633	1.519	12	92.667	3.435	12	100.200	85.700
FC	P31616	#/100ml	12.833	10.356	12	6.833	9.301	12	15.083	10.706	12	35.364	17.043	11	69.000	1.000U
PH	P400	pH	7.383	0.295	12	7.133	0.231	12	7.475	0.129	12	7.350	0.235	12	8.000	6.700
SUSSOL	P530	mg/L	8.833	7.849	12	22.000	30.550	12	9.417	9.356	12	5.167	4.877	12	109.000	1.000K
FLOW	P60	CFS	2948.444	2158.715	9	4484.444	5046.350	9	2447.778	892.451	9	825.333	392.198	9	16900.000	306.000
TPN	P600	mg/L	0.295	0.047	9	0.285	0.059	9	0.156	0.063	9	0.199	0.053	9	0.366	0.049J
NH3_N	P610	mg/L	0.012	0.004	12	0.011	0.002	12	0.012	0.006	12	0.010	0.001	12	0.030	0.010U
NO2_D_S	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_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	0.295	0.021	2	0.207	0.031	3	0.120	0.036	3	0.150	0.010	3	0.310	0.090
NO2_NO3	P630	mg/L	0.245	0.055	12	0.224	0.057	12	0.115	0.053	12	0.158	0.038	12	0.329	0.025
TP_P	P665	mg/L	0.012	0.005	12	0.026	0.020	12	0.035	0.051	12	0.016	0.008	12	0.187	0.010U
OP_DIS	P671	mg/L	0.007	0.003	12	0.006	0.002	12	0.006	0.002	12	0.006	0.002	12	0.010	0.005U
COLOR	P80	Pt-Co	17.000	4.000	3	13.000	0.000	3	18.333	6.110	3	14.714	8.281	7	25.000	1.000
TURB	P82079	NTU	4.592	3.102	12	13.192	13.162	12	5.083	4.951	12	2.642	3.403	12	37.000	0.600
COND	P95	umhos/25c	36.667	12.302	12	27.500	5.931	12	24.750	5.691	12	41.250	9.743	12	67.000	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: 0860070 Name: GARDEN LOCAN ST/DETTON

**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	
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	
FC	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	
PH	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	
SUSSL	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	0.010K	
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	26.000	
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	

| QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 08C110 Name: CEDAR R NR LANDSBURG

### Location:

STATION LOCATED ON THE CEDAR RIVER 1 MILE SOUTH OF WALSH LAKE AND 2.25 MILES NORTHEAST OF LANDSBURG AT THE TRUDE ROAD CROSSING

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	7.542	1.919	12	5.710	1.348	10	8.942	1.339	12	10.950	0.613	12	11.700	3.900	
PRESS	P25	mm/Hg	751.000	7.859	12	746.990	8.593	10	747.442	4.083	12	752.317	4.602	12	766.600	728.000	
OXYGEN	P300	mg/L	11.517	0.562	12	11.980	0.371	10	11.100	0.328	12	10.700	0.283	12	12.400	10.000	
PCTSAT	P301	%	96.883	1.990	12	96.960	1.881	10	97.142	2.315	12	97.500	2.148	12	100.700	91.400	
FC	P31616	#/100ml	1.833	1.528	12	1.300	0.483	10	4.083	4.420	12	4.818	2.857	11	17.000	1.000U	
COND	P340	mg/L	4.667	1.155	3	7.000	4.243	2	5.500	2.121	2	7.667	3.055	3	11.000	4.000U	
PH	P400	pH	7.525	0.249	12	7.311	0.117	9	7.458	0.138	12	7.545	0.230	11	8.100	7.000	
SUSSOL	P530	mg/L	2.500	1.732	12	6.200	9.659	10	2.250	1.658	12	1.250	0.622	12	31.000	1.000U	
FLOW	P60	CFS	708.667	435.028	9	868.714	586.318	7	547.444	206.526	9	308.111	56.720	9	2090.000	242.000	
TPN	P600	mg/L	0.207	0.043	12	0.265	0.036	10	0.177	0.062	12	0.198	0.017	12	0.306	0.090	
NH3_N	P610	mg/L	0.010	0.000	12	0.010	0.000	10	0.012	0.007	12	0.010	0.000	12	0.034	0.010U	
N02_DIS	P613	mg/L	0.007	0.005	3	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.002K	
N02_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	
N03_N	P620	mg/L	0.200	0.071	2	0.093	0.038	3	0.113	0.015	3	0.147	0.032	3	0.250	0.050	
N02_N03	P630	mg/L	0.178	0.039	12	0.212	0.029	10	0.163	0.053	12	0.179	0.027	12	0.268	0.059	
TP_P	P665	mg/L	0.011	0.002	12	0.016	0.012	10	0.018	0.012	12	0.014	0.006	12	0.047	0.010U	
OP_DIS	P671	mg/L	0.007	0.003	12	0.007	0.002	10	0.006	0.002	12	0.006	0.002	12	0.012	0.005U	
COLOR	P80	Pt-to	8.333	4.509	3	4.000	0.000	3	8.667	8.021	3	7.857	8.435	7	17.000	1.000	
TURB	P82079	NTU	1.058	0.826	12	2.010	2.807	10	0.892	0.496	12	0.662	0.342	12	9.900	0.300	
COND	P95	umhos/25c	49.083	10.122	12	45.500	9.431	10	51.667	10.790	12	64.333	7.843	12	75.000	32.000	

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

Elevation: 4 River Mile: 12.40

Location:  
LOCATED AT THE INTERSECTION ON INTERURBAN AVENUE AT I-405 AND SOUTHCENTER BLVD

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	X	X	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_N03	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 @ KANASKAT		Class: AA		Elevation: 775		River Mile: 57.60		Water Years Sampled:									
VARIABLE	P-CODE	UNITS	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN
<b>Location:</b> 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																			
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: 10A070 Name: PUYALLUP R @ MERIDIAN ST

Location:  
LOCATED AT THE BRIDGE IMMEDIATELY NORTH OF PUYALLUP ON MERIDIAN STREET  
(STATE HIGHWAY 161)

## 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	X	X	X	X	X	X	X	X	X	X	X	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	6.694	2.316	18	6.078	1.544	18	11.400	2.428	18	14.089	1.908	18	20.000	1.000K	
CR	P1118	ug/L	3.050	2.758	2	5.000	0.000	2	0.000	0.000	0	5.000	0.000	2	17.000	3.000K	
PRESS	P25	mm/Hg	767.528	7.449	18	763.994	7.215	18	763.683	4.624	18	766.106	6.017	18	781.800	745.700	
OXYGEN	P300	mg/L	11.700	0.738	18	11.871	0.524	17	10.450	0.596	18	9.983	0.507	18	13.100	9.100	
PCTSAT	P301	%	94.261	3.852	18	94.912	2.303	17	94.522	2.425	18	95.589	3.278	18	107.300	88.700	
FC	P31616	#/100ml	173.611	220.021	18	376.389	389.937	18	248.389	305.379	18	147.833	170.009	18	1400.000	20.000	
COD	P340	mg/L	8.667	1.155	3	7.667	3.215	3	10.667	7.638	3	6.500	0.707	2	19.000	4.000U	
PH	P400	pH	7.439	0.185	18	7.339	0.158	18	7.450	0.207	18	7.371	0.214	17	7.800	6.900	
SUSSOL	P530	mg/L	68.944	118.544	18	133.667	203.357	18	86.667	146.353	18	121.556	129.187	18	704.000	4.000	
FLOW	P60	CFS	3175.533	1693.600	15	5954.000	4445.497	15	3424.667	1848.964	15	1806.600	754.047	15	16100.000	433.000	
TPN	P600	mg/L	0.422	0.168	12	0.552	0.157	12	0.252	0.121	12	0.188	0.082	12	0.826	0.098U	
NH3_N	P610	mg/L	0.029	0.022	18	0.029	0.016	18	0.024	0.012	18	0.019	0.011	18	0.100	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	0.010	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	13	0.000	0.000	14	0.000	0.000	10	0.000	0.000	9	0.001	0.000	
NO3_N	P620	mg/L	0.270	0.142	3	0.313	0.068	3	0.085	0.007	2	0.087	0.031	3	0.390	0.060	
NO2_NO3	P630	mg/L	0.356	0.179	18	0.372	0.131	18	0.119	0.062	18	0.103	0.042	18	0.691	0.010U	
TP_P	P665	mg/L	0.058	0.043	18	0.090	0.102	18	0.080	0.090	18	0.114	0.065	18	0.376	0.010U	
OP_DIS	P671	mg/L	0.016	0.005	18	0.017	0.006	18	0.012	0.005	18	0.017	0.005	18	0.031	0.005U	
HG	P71900	ug/L	0.010	0.019	6	0.003	0.002	4	0.001	0.001	5	0.008	0.007	4	0.050	0.001U	
COLOR	P80	Pt-Co	37.667	8.505	3	47.667	26.858	3	25.333	7.506	3	486.667	326.548	3	690.000	17.000	
TURB	P82079	NTU	15.889	13.817	18	31.639	48.155	18	29.372	42.646	18	69.889	53.791	18	200.000	2.200	
HARD	P900	mg/L	26.000	3.578	6	25.000	2.582	4	24.200	2.049	5	33.750	6.397	4	41.000	20.000	
COND	P95	umhos/25c	67.667	11.931	18	62.667	10.347	18	57.611	9.450	18	67.444	12.500	18	98.000	41.000	

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: 11A070 Name: NISQUALLY R @ NISQUALLY

Location:  
LOCATED AT THE BRIDGE ON OLD PACIFIC HIGHWAY, .4 MILES DOWNSTREAM FROM  
THE GAGE

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	8.078	2.410	18	6.067	1.300	18	10.861	2.111	18	15.111	1.375	18	3.000	3.000K	
ZN	P1094	ug/L	8.667	8.083	3	4.000	0.000	3	4.667	0.577	3	8.353	4.509	3	18.000	4.000K	
CD	P1113	ug/L	0.238	0.149	4	0.100	0.000	3	0.117	0.029	3	0.100	0.000	3	0.450	0.100K	
PB	P1114	ug/L	1.075	0.150	4	1.000	0.000	2	1.000	0.000	3	1.067	0.115	3	1.200	1.000K	
CR	P1118	ug/L	0.490	0.238	4	0.443	0.170	3	0.340	0.122	3	0.897	0.886	3	1.900	0.200V	
CU	P1119	ug/L	3.925	1.938	4	2.967	1.504	3	3.467	0.808	3	3.133	0.231	3	4.700	2.000J	
PRESS	P25	mm/Hg	767.556	7.257	18	765.772	5.676	18	764.672	4.920	18	765.383	5.380	18	782.300	749.000	
OXYGEN	P300	mg/L	11.561	0.618	18	12.000	0.593	17	11.272	0.866	18	10.122	0.478	18	13.400	9.500	
PCTSAT	P301	%	96.367	3.591	18	95.529	3.475	17	100.694	7.014	18	99.300	5.809	18	116.300	85.000	
FC	P31616	#/100ml	25.567	40.612	18	62.389	150.859	18	12.500	8.227	18	15.778	9.546	18	590.000	1.000K	
COD	P340	mg/L	7.000	1.732	3	11.000	5.292	3	9.333	3.215	3	17.500	13.435	2	27.000	5.000	
PH	P400	pH	7.483	0.333	18	7.376	0.160	17	7.633	0.254	18	7.682	0.163	17	8.200	6.700	
SUSSOL	P530	mg/L	97.333	265.303	18	39.222	68.377	18	9.778	9.855	18	18.722	23.562	18	1120.000	3.000	
FLOW	P60	CFS	3361.200	4243.666	15	2709.600	1169.141	15	1873.267	781.933	15	965.267	236.841	15	14057.000	695.000	
TPN	P600	mg/L	0.413	0.244	12	0.537	0.097	12	0.320	0.092	12	0.247	0.130	12	1.050	0.131	
NH3_N	P610	mg/L	0.016	0.009	18	0.016	0.010	18	0.013	0.006	18	0.013	0.005	18	0.044	0.010U	
NO2_D1S	P613	mg/L	0.010	0.000	6	0.010	0.000	6	0.010	0.000	6	0.010	0.010	6	0.010	0.010K	
NO2_N	P615	mg/L	0.010	0.000	2	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	13	0.000	0.000	14	0.000	0.000	10	0.000	0.000	9	0.001	0.000	
NO3_N	P620	mg/L	0.243	0.111	3	0.387	0.042	3	0.195	0.049	2	0.113	0.049	3	0.420	0.080	
NO2_NO3	P630	mg/L	0.263	0.128	18	0.405	0.094	18	0.197	0.074	18	0.150	0.037	18	0.570	0.010U	
TP_P	P665	mg/L	0.044	0.038	18	0.061	0.061	18	0.032	0.041	18	0.035	0.024	18	0.231	0.010U	
OP_D1S	P671	mg/L	0.010	0.003	18	0.010	0.003	18	0.008	0.002	18	0.008	0.003	18	0.050	0.050K	
HG	P71900	ug/L	0.070	0.044	3	0.047	0.012	3	0.040	0.000	2	0.016	0.021	2	0.120	0.001K	
COLOR	P80	Pt-Co	51.667	16.743	3	71.333	54.976	3	18.000	8.888	3	124.667	84.056	3	200.000	8.000	
TURB	P82079	NTU	70.317	197.081	18	23.622	32.380	18	4.317	5.006	18	16.628	16.765	18	25.000	25.000	
HARD	P900	mg/L	22.667	2.082	3	23.000	1.732	3	28.333	8.386	3	25.000	0.000	3	38.000	21.000	
COND	P95	umhos/25c	61.389	8.211	18	57.889	7.120	18	60.278	5.497	18	66.389	7.277	18	78.000	41.000	

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: 13A060 Name: DESCHUTES R @ E ST BRIDGE				Class: A Elevation: 93 River Mile: 0.60		Water Years Sampled:				----SIX YEAR----						
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	7.847	1.934	15	7.380	2.115	15	13.460	2.574	15	15.100	2.318	15	19.500	3.200
ZN	P1094	ug/L	6.667	2.082	3	4.000	0.000	3	13.333	12.858	3	4.000	0.000	3	28.000	4.000K
CD	P1113	ug/L	0.180	0.072	3	0.100	0.000	3	0.147	0.081	3	0.100	0.000	3	0.240	0.100K
PB	P1114	ug/L	1.400	0.529	3	1.250	0.354	2	1.333	0.577	3	1.000	0.000	2	2.000	1.000K
CR	P1118	ug/L	0.743	0.478	3	0.500	0.300	3	0.473	0.159	3	0.275	0.106	2	0.800	0.200K
CU	P1119	ug/L	3.400	1.217	3	2.333	0.577	3	3.367	0.635	3	3.000	0.000	3	4.100	2.000K
PRESS	P25	mm/Hg	766.373	7.491	15	764.507	5.674	15	761.520	5.446	15	763.113	6.377	15	779.300	750.100
OXYGEN	P300	mg/L	11.173	0.700	15	11.260	0.919	15	10.393	0.603	15	10.293	0.902	15	12.800	8.900
PCTSAT	P301	%	92.840	5.126	15	92.740	7.283	15	98.880	7.130	15	101.340	10.902	15	124.000	71.200
FC	P31616	#/100ml	93.786	120.318	14	65.533	95.463	15	218.867	507.888	15	88.333	143.977	15	2000.000	1.000
COD	P340	mg/L	6.000	2.828	2	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
PH	P400	pH	7.293	0.246	15	7.193	0.194	15	7.413	0.213	15	7.507	0.279	15	8.200	6.800
SUSSOL	P530	mg/L	52.786	99.259	14	17.133	25.077	15	6.600	5.926	15	4.800	4.161	15	368.000	2.000
FLOW	P60	CFS	667.750	616.243	12	751.917	831.294	12	305.083	225.103	12	95.583	30.309	12	3270.000	56.000
TPN	P600	mg/L	0.749	0.112	9	0.863	0.092	9	0.761	0.105	9	0.878	0.165	9	1.190	0.628
NH3_N	P610	mg/L	0.017	0.011	14	0.017	0.010	15	0.018	0.014	15	0.021	0.023	15	0.103	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	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.010K
NH3_UN	P619	mg/L	0.000	0.001	13	0.000	0.000	13	0.000	0.000	10	0.001	0.003	9	0.010	0.000
NO3_N	P620	mg/L	0.493	0.038	3	0.483	0.021	3	0.420	0.028	2	0.473	0.083	3	0.540	0.380
NO2_NO3	P630	mg/L	0.584	0.101	15	0.670	0.113	15	0.570	0.132	15	0.708	0.110	15	0.907	0.290
TP_P	P665	mg/L	0.050	0.044	15	0.040	0.027	15	0.030	0.016	15	0.029	0.012	15	0.189	0.010U
OP_DIS	P671	mg/L	0.013	0.003	14	0.012	0.005	15	0.011	0.004	15	0.011	0.004	15	0.023	0.005U
HG	P71900	ug/L	0.042	0.002	2	0.040	0.000	3	0.040	0.000	2	0.016	0.021	2	0.043	0.001K
COLOR	P80	Pt-Co	67.000	54.617	3	25.000	22.113	3	21.000	13.000	3	30.667	6.658	3	130.000	8.000
TURB	P82079	NTU	20.993	30.711	15	9.807	14.675	15	3.153	2.995	15	3.153	4.157	15	87.000	0.700
HARD	P900	mg/L	31.000	8.485	2	32.333	3.512	3	34.667	7.506	3	46.000	2.000	3	48.000	25.000
COND	P95	umhos/25c	86.267	25.050	15	83.600	15.047	15	100.000	15.395	15	122.333	11.248	15	146.000	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: 16A070		Name: SKOKOMISH R NR POTLATCH		Class: AA		Elevation:	60	River Mile:	5.30	Water Years Sampled:							
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	7.429	1.147	17	6.311	1.233	18	9.778	1.625	18	11.200	1.572	18	15.800	3.800	
PRESS	P25	mm/Hg	769.494	7.839	17	766.361	4.471	18	764.572	5.311	18	765.289	5.270	18	781.100	754.400	
OXYGEN	P300	mg/L	11.059	0.584	17	11.756	0.322	18	10.889	0.416	18	10.150	0.437	18	12.300	9.600	
PCTSAT	P301	%	90.588	3.060	17	94.139	2.483	18	94.950	2.920	18	91.467	5.250	18	100.200	83.700	
FC	P31616	#/100ml	17.706	26.277	17	4.889	6.342	18	19.667	29.080	18	42.833	65.309	18	270.000	1.000U	
PH	P400	pH	7.418	0.194	17	7.300	0.309	18	7.456	0.318	18	7.453	0.174	17	7.900	6.400	
SUSSOL	P530	mg/L	20.882	42.357	17	18.667	30.705	18	9.000	19.683	18	2.444	2.064	18	168.000	1.000U	
FLOW	P60	CFS	2316.357	3784.734	14	1954.200	2672.300	15	803.467	718.764	15	208.600	36.866	15	12500.000	159.000	
TPN	P600	mg/L	0.142	0.051	11	0.110	0.036	12	0.064	0.032	12	0.086	0.023	11	0.242	0.010U	
NH3_N	P610	mg/L	0.016	0.016	17	0.012	0.005	18	0.015	0.010	18	0.012	0.005	17	0.076	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	0.010	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	13	0.000	0.001	13	0.000	0.000	10	0.000	0.000	9	0.003	0.000	
NO3_N	P620	mg/L	0.130	0.072	3	0.073	0.025	3	0.040	0.000	2	0.047	0.012	3	0.210	0.040	
NO2_NO3	P630	mg/L	0.119	0.045	17	0.091	0.026	18	0.050	0.022	18	0.064	0.019	18	0.209	0.020	
TP_P	P665	mg/L	0.022	0.023	17	0.027	0.026	18	0.016	0.011	18	0.016	0.008	17	0.112	0.010U	
OP_DIS	P671	mg/L	0.008	0.003	17	0.008	0.003	18	0.008	0.003	18	0.008	0.003	18	0.014	0.005U	
COLOR	P80	Pt-Co	15.333	12.662	3	5.333	2.309	3	12.500	12.021	2	8.333	4.509	3	29.000	4.000	
TURB	P82079	NTU	10.629	17.354	17	10.600	13.147	18	4.706	8.317	18	1.544	2.129	18	58.000	0.300	
COND	P95	umhos/25c	62.294	7.663	17	54.778	7.393	18	65.778	9.626	18	72.444	6.195	18	87.000	43.000	

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:	NAME:	DUCKABUSH R NR BRINNON	CLASS:	AA	ELEVATION:	300	RIVER MILE:	4.50	WATER YEARS SAMPLED:	5 6	7	8	9	
VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---	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
PRESS	P25	mm/Hg	764.375	7.123	12	758.730	5.336	10	758.300	4.719	12	758.817	5.012	12
OXYGEN	P300	mg/L	12.475	0.414	12	12.800	0.221	10	11.933	0.377	12	11.075	0.331	12
PCITSAT	P301	%	98.550	2.598	12	98.020	1.966	10	97.792	3.461	12	98.967	3.159	12
FC	P31616	#/100ml	3.167	4.174	12	1.400	0.843	10	3.167	2.725	12	10.250	27.039	12
PH	P400	pH	7.492	0.353	12	7.440	0.412	10	7.575	0.431	12	7.658	0.257	12
SUSSOL	P530	mg/L	5.750	8.719	12	3.000	5.637	10	1.833	0.718	12	4.417	11.524	12
FLOW	P60	CFS	333.500	350.893	8	386.200	184.573	5	384.333	57.677	6	117.200	51.334	5
TPN	P600	mg/L	0.059	0.031	12	0.045	0.032	10	0.039	0.027	12	0.034	0.022	11
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
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
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
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
TURB	P82079	NTU	4.342	7.603	12	1.900	2.790	10	1.425	0.602	12	6.058	18.564	12
COND	P95	umhos/25c	71.917	11.611	12	70.400	8.959	10	63.250	7.060	12	74.917	11.229	12

## 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

Water Years Sampled:	5 6	7	8	9
X X X X X	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			

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	
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Station Number: 18B070 Name: ELWHA R NR PORT ANGELES		Class: AA Elevation: 220 River Mile: 8.10		Water Years Sampled:		----JULY-SEPTEMBER----		----APRIL-JUNE----		----JANUARY-MARCH----		MEAN STD. DEV. N		MEAN STD. DEV. N		MEAN STD. DEV. N		MAX MIN		----SIX YEAR----	
<b>LOCATED AT BRIDGE ON HIGHWAY 101, 12 MILES WEST OF PORT ANGELES</b>																					
TEMP	P10	deg C	6.625	2.466	12	4.583	1.288	12	8.717	1.809	12	13.433	1.572	12	15.700	2.500					
PRESS	P25	mm/Hg	761.517	8.911	12	761.650	3.516	12	759.892	4.736	12	759.400	5.424	12	776.500	747.000					
OXYGEN	P300	mg/L	12.192	0.630	12	12.717	0.286	12	11.575	0.435	12	10.442	0.278	12	13.300	10.000					
PCISAT	P301	%	98.858	3.031	12	98.092	2.751	12	99.050	2.239	12	99.533	1.887	12	105.000	93.100					
FC	P31616	#/100ml	2.417	1.881	12	1.083	0.289	12	1.667	1.614	12	1.750	1.215	12	7.000	1.0000					
PH	P400	pH	7.483	0.324	12	7.517	0.330	12	7.600	0.325	12	7.625	0.230	12	8.200	6.800					
SUSSOL	P530	mg/L	21.273	26.669	11	9.250	8.497	12	4.000	3.438	12	2.417	2.644	12	71.000	1.0000					
FLOW	P60	CFS	2388.222	3137.117	9	1469.778	401.621	9	1431.444	407.856	9	535.111	259.759	9	9660.000	306.000					
TPN	P600	mg/L	0.046	0.028	12	0.055	0.026	12	0.023	0.016	12	0.029	0.025	11	0.113	0.010J					
NH3_N	P610	mg/L	0.011	0.002	12	0.010	0.000	12	0.012	0.004	12	0.011	0.002	11	0.021	0.010U					
NO2_NO3	P630	mg/L	0.022	0.015	12	0.032	0.023	12	0.014	0.013	12	0.010	0.001	12	0.085	0.010U					
TP_P	P665	mg/L	0.028	0.023	12	0.020	0.018	12	0.014	0.007	12	0.014	0.007	11	0.079	0.010U					
OP_DIS	P671	mg/L	0.007	0.003	11	0.006	0.002	12	0.006	0.002	12	0.006	0.002	12	0.010	0.005U					
TURB	P82079	NTU	24.333	32.503	12	10.883	9.606	12	4.642	4.081	12	1.983	3.499	12	95.000	0.5000					
COND	P95	umhos/25c	88.333	12.551	12	85.000	10.384	12	78.750	8.292	12	87.750	13.545	12	110.000	67.000					

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: 20B070 Name: HOH R @ DNR CAMPGROUND

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**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.

Class: A Elevation: 350 River Mile: 16.50

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

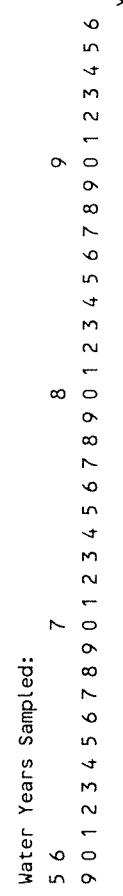
Summary statistics should be used with caution because variables may not be normally distributed. Values at the detection limit were replaced with 1/2 the detection limit.

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE	
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Station Number: 20D070      Name: DICKY R NR LA PUSH

Location:  
1.9 Miles up Mina-Smith Road off of Quillayute Road

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	6.400	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

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: 23A070 Name: CHEHALIS R @ PORTER

Location:  
LOCATED AT THE BRIDGE ON THE SIDE ROAD OFF US HIGHWAY 12 ON THE RIGHT  
WHEN ENTERING PORTER FROM THE NORTHWEST

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	X	X	X	X	X	X	X	X	X	X	X	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	7.572	2.334	18	6.761	2.192	18	14.522	3.719	18	17.561	2.647	18	22.100	2.500	
PRESS	P25	mm/Hg	768.389	6.232	18	767.178	4.505	18	765.439	4.002	18	765.939	5.577	18	777.700	755.400	
OXYGEN	P300	mg/L	10.972	0.721	18	11.106	0.600	18	9.544	0.759	18	9.067	0.744	18	12.600	7.700	
PCTSAT	P301	%	89.678	5.029	18	89.561	3.081	18	92.189	7.243	18	93.500	9.669	18	114.800	78.900	
FC	P31616	#/100ml	137.333	213.396	18	51.000	39.394	18	26.889	25.258	18	21.611	16.744	18	830.000	1.000K	
COD	P340	mg/L	14.667	2.517	3	9.000	1.414	2	12.333	1.155	3	7.500	3.536	2	17.000	5.000K	
PH	P400	pH	7.241	0.408	17	7.206	0.389	18	7.328	0.276	18	7.518	0.321	17	8.100	6.600	
SUSSOL	P530	mg/L	19.294	24.238	17	17.778	13.994	18	8.667	10.781	18	3.667	2.223	18	95.000	1.000K	
FLOW	P60	CFS	5975.067	7088.792	15	6292.333	3521.490	15	2916.467	4237.661	15	406.467	150.924	15	22000.000	202.000	
TPN	P600	mg/L	1.005	0.165	12	0.991	0.078	12	0.757	0.088	12	0.742	0.129	11	1.220	0.567	
NH3_N	P610	mg/L	0.023	0.009	18	0.023	0.008	18	0.025	0.017	18	0.020	0.014	17	0.080	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	0.010	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	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	0.713	0.140	3	0.590	0.046	3	0.380	0.085	2	0.337	0.042	3	0.850	0.290	
NO2_NO3	P630	mg/L	0.802	0.179	18	0.833	0.078	18	0.555	0.088	18	0.544	0.134	18	1.240	0.187	
TP_P	P665	mg/L	0.061	0.023	18	0.049	0.021	18	0.041	0.018	18	0.042	0.019	17	0.119	0.018	
OP_DIS	P671	mg/L	0.025	0.017	17	0.014	0.005	18	0.016	0.006	18	0.023	0.016	18	0.079	0.006	
HG	P71900	ug/L	0.000	0.000	0	0.000	0.000	0	0.003	0.002	2	0.000	0.000	0	0.004	0.001U	
COLOR	P80	Pt-Co	64.000	6.557	3	39.000	17.776	3	27.500	9.192	2	32.333	20.033	3	71.000	17.000	
TURB	P82079	NTU	10.233	14.982	18	10.261	5.924	18	4.911	7.981	18	1.756	1.161	18	65.000	0.900	
HARD	P900	mg/L	26.500	7.778	2	0.000	0.000	0	27.000	9.899	2	0.000	0.000	0	38.000	20.000	
COND	P95	umhos/25c	86.944	21.248	18	70.000	10.192	18	87.111	18.639	18	102.056	10.973	18	132.000	53.000	

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		Water Years Sampled:		JULY - SEPTEMBER		APRIL - JUNE		JANUARY - MARCH		OCTOBER - DECEMBER		P-CODE UNITS		VARIABLE							
Location:	PRATHER ROAD BRIDGE NEAR ROCHESTER	5	6	7	8	9	9	9	9	9	9	8	8	8	7	6	5	4	3	2	1	0	1	2	3	4	5	6	X X X
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													
PCITSAT	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: 23A130		Name: CHEHALIS R @ CLAQUATO		Class: A		Elevation: 201		River Mile: 77.70		Water Years Sampled:						Water Years Sampled:					
Location: Beginning of state hwy 603 off of state hwy 6										5 6		7		8		9		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	5.600	1.044	3	5.733	1.704	3	12.633	3.855	3	16.867	4.290	3	20.100	4.700					
PRESS	P25	mm/Hg	773.100	5.524	3	773.433	3.993	3	760.300	2.805	3	761.467	3.325	3	778.300	757.400					
OXYGEN	P300	mg/L	11.333	0.306	3	11.367	0.777	3	9.633	0.513	3	8.400	1.308	3	12.000	7.500					
PCTSAT	P301	%	88.367	0.702	3	88.767	2.761	3	89.967	4.148	3	85.100	4.957	3	94.600	81.800					
FC	P31616	#/100ml	145.333	161.868	3	51.667	41.861	3	46.000	23.431	3	263.667	403.864	3	730.000	19.000					
PH	P400	pH	7.400	0.346	3	6.633	0.058	3	7.300	0.721	3	7.000	0.100	3	7.900	6.500					
SUSSOL	P530	mg/L	44.333	51.033	3	22.667	20.207	3	6.333	4.041	3	7.333	4.933	3	102.000	4.000					
TPN	P600	mg/L	0.966	0.310	3	0.768	0.038	3	0.344	0.163	3	0.388	0.200	3	1.310	0.199					
NH3_N	P610	mg/L	0.011	0.002	3	0.021	0.011	3	0.026	0.012	3	0.022	0.012	3	0.039	0.010U					
NO2_NO3	P630	mg/L	0.750	0.133	3	0.631	0.013	3	0.195	0.136	3	0.254	0.230	3	0.866	0.108					
TP_P	P665	mg/L	0.057	0.036	3	0.077	0.032	3	0.049	0.031	3	0.166	0.213	3	0.412	0.020					
OP_DIS	P671	mg/L	0.009	0.003	3	0.007	0.003	3	0.010	0.006	3	0.008	0.005	3	0.016	0.005U					
TURB	P82079	NTU	20.033	21.895	3	10.833	7.112	3	4.000	2.512	3	4.900	4.162	3	45.000	2.300					
COND	P95	umhos/25c	60.333	4.933	3	56.000	3.606	3	68.000	6.928	3	76.000	13.454	3	87.000	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: 23A160 Name: CHEHALIS R @ DRYAD

## 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 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	
CU	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: 23B070 Name: NEWAUKUM R NR CHEHALIS

Location:  
STATION LOCATED 1 MILE SW OF CHEHALIS AT THE LABREE ROAD BRIDGE ON THE  
NEWAUKUM RIVER

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	6.733	1.450	3	6.567	3.553	3	12.833	3.496	3	17.167	2.730	3	20.100	3.100	
PRESS	P25	mm/Hg	770.033	7.267	3	763.367	6.309	3	759.833	0.289	3	757.000	2.452	3	777.000	754.600	
OXYGEN	P300	mg/L	11.133	0.757	3	11.467	0.808	3	10.200	0.529	3	9.133	0.208	3	12.200	8.900	
PCSAT	P301	%	89.567	2.754	3	92.500	2.600	3	95.767	2.747	3	94.433	2.802	3	98.000	86.900	
FC	P31616	#/100ml	242.000	264.295	3	60.667	60.252	3	153.333	5.774	3	159.333	191.858	3	540.000	21.000	
PH	P400	pH	7.100	0.400	3	7.067	0.252	3	7.600	0.000	3	7.500	0.265	3	7.700	6.700	
SUSSOL	P530	mg/L	31.667	11.060	3	17.667	5.859	3	8.333	5.859	3	9.667	9.815	3	42.000	4.000	
TPN	P600	mg/L	1.127	0.110	3	0.839	0.073	3	0.414	0.169	3	0.316	0.047	3	1.240	0.236	
NH3_N	P610	mg/L	0.016	0.010	3	0.014	0.006	3	0.020	0.005	3	0.011	0.002	3	0.027	0.010U	
NO2_NO3	P630	mg/L	0.877	0.010	3	0.716	0.032	3	0.241	0.127	3	0.200	0.053	3	0.887	0.128	
TP_P	P665	mg/L	0.049	0.005	3	0.064	0.030	3	0.049	0.027	3	0.040	0.008	3	0.098	0.026	
OP_DIS	P671	mg/L	0.011	0.004	3	0.006	0.001	3	0.007	0.002	3	0.006	0.002	3	0.015	0.005U	
TURB	P82079	NTU	21.000	8.718	3	9.933	4.429	3	5.567	3.350	3	4.133	2.574	3	27.000	2.500	
COND	P95	umhos/25c	53.000	2.000	3	51.333	4.041	3	60.667	9.452	3	76.667	0.577	3	77.000	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 |

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

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

X	X
X	X
X	X
X	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	Water Years Sampled:			---JULY-SEPTEMBER---			---SIX YEAR---		
VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			---JANUARY-MARCH---			---APRIL-JUNE---			---		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	
TEMP	P10	deg C	5.367	0.751	3	5.267	1.069	3	12.033	4.188	3	15.300	3.064	3
PRESS	P25	mm/Hg	771.367	6.752	3	772.233	3.972	3	758.800	2.621	3	760.067	3.201	3
OXYGEN	P300	mg/L	11.500	0.361	3	11.833	0.764	3	10.233	0.115	3	8.567	1.069	3
PCTSAT	P301	%	89.333	0.764	3	91.533	3.951	3	94.800	9.536	3	84.500	4.504	3
FC	P31616	#/100ml	181.000	169.479	3	128.333	122.859	3	100.000	105.148	3	351.000	238.523	3
PH	P400	pH	7.167	0.153	3	7.067	0.058	3	7.500	0.200	3	7.300	0.200	3
SUSSOL	P530	mg/L	33.000	41.388	3	15.333	11.150	3	2.667	2.887	3	4.333	2.517	3
TPN	P600	mg/L	1.175	0.436	3	0.844	0.057	3	0.329	0.192	3	0.420	0.353	3
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
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
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
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
TURB	P82079	NTU	17.167	19.951	3	8.800	3.704	3	2.600	1.217	3	3.300	2.339	3
COND	P95	umhos/25c	64.333	7.095	3	57.333	3.055	3	71.667	8.737	3	81.000	14.933	3

Location:  
3 Miles on Boistfort Road (beginning of Beaver Creek Road)

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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: 24B090 Name: WILLAPA R NR WILLAPA

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Location: LOCATED AT THE BRIDGE ON BULLARD ROAD ABOUT ONE MILE NORTH OF STATE HIGHWAY 6 EAST OF RAYMOND

VARIABLE	P-CODE	UNITS	--OCTOBER-DECEMBER--			--JANUARY-MARCH--			--APRIL-JUNE--			--JULY-SEPTEMBER--		
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N
TEMP	P10	deg C	7.825	2.215	12	6.125	2.675	12	13.942	4.099	12	22.200	3.104	12
PRESS	P25	mm/Hg	767.925	8.269	12	767.208	7.792	12	763.708	3.759	12	780.500	5.428	12
OXYGEN	P300	mg/L	11.325	0.669	12	11.942	0.604	12	10.100	0.874	12	9.250	0.745	12
PCTSAT	P301	%	92.783	3.754	12	94.700	3.347	12	96.258	3.992	12	92.275	7.416	12
FC	P31616	#/100ml	318.833	499.383	12	50.000	97.075	11	125.167	70.097	12	327.167	320.966	12
PH	P400	pH	7.083	0.292	12	7.092	0.202	12	7.400	0.160	12	7.458	0.124	12
SUSSOL	P530	mg/L	92.167	161.130	12	11.417	14.507	12	4.917	3.476	12	6.250	5.011	12
FLOW	P60	CFS	2239.667	2771.900	9	771.444	594.112	9	291.556	257.742	9	38.778	16.836	9
TPN	P600	mg/L	1.057	0.326	9	0.867	0.118	9	0.530	0.160	9	0.426	0.192	9
NH3_N	P610	mg/L	0.014	0.006	12	0.014	0.007	12	0.018	0.008	12	0.018	0.010	11
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
NO2_N	P615	mg/L	0.010	0.000	2	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3
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
NO3_N	P620	mg/L	0.817	0.290	3	0.690	0.082	3	0.325	0.106	2	0.223	0.021	3
NO2_NO3	P630	mg/L	0.812	0.270	12	0.793	0.159	12	0.401	0.194	12	0.298	0.155	12
TP_P	P665	mg/L	0.056	0.059	12	0.033	0.030	12	0.022	0.014	12	0.026	0.011	12
OP_DIS	P671	mg/L	0.007	0.002	12	0.008	0.002	12	0.006	0.002	12	0.007	0.002	12
COLOR	P80	Pt-Co	52.667	30.436	3	19.667	2.309	3	25.000	0.000	2	47.667	33.858	3
TURB	P82079	NTU	36.442	66.057	12	4.625	3.405	12	2.350	1.830	12	2.183	0.744	12
COND	P95	umhos/25c	59.917	8.989	12	55.917	7.645	12	65.083	15.997	12	71.750	7.111	12

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								
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	P520	mg/L	122.533	258.207	12	17.417	50.015	12	2.833	2.038	12	5.417	11.882	12	791.000	1.0000	
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	0.058	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	

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

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: 268070      Name: COWLITZ R @ KELSO

Location:  
LOCATED IN KELSO AT THE ALLEN (MAIN) STREET BRIDGE CROSSING THE COWLITZ

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	7.794	2.200	18	6.394	1.812	18	11.589	2.905	18	14.128	2.275	18	19.000	2.600	
ZN	P1094	ug/L	7.350	6.576	2	8.500	6.364	2	4.850	2.758	2	0.000	0.000	0	13.000	2.700B	
CD	P1113	ug/L	0.100	0.000	2	1.570	2.022	2	0.145	0.064	2	0.000	0.000	0	3.000	0.100U	
PB	P1114	ug/L	0.400	0.283	2	10.650	13.223	2	0.550	0.354	2	0.000	0.000	0	20.000	0.200B	
CR	P1118	ug/L	1.000	0.000	2	5.000	0.000	3	2.110	2.517	3	3.467	2.656	3	5.000	0.400U	
CU	P1119	ug/L	3.200	2.687	2	9.900	1.697	2	4.900	2.687	2	0.000	0.000	0	11.100	1.300	
PRESS	P25	mm/Hg	765.978	12.210	18	767.417	6.170	18	765.094	8.738	18	765.600	4.443	18	795.000	724.400	
OXYGEN	P300	mg/L	11.300	0.743	18	11.872	0.675	18	10.739	0.560	18	10.211	0.392	18	13.000	9.100	
PCTSAT	P301	%	93.967	7.201	18	95.100	5.000	18	97.383	3.502	18	97.956	3.653	18	105.700	76.100	
FC	P31616	#/100ml	60.875	80.851	16	28.500	76.662	18	17.611	13.439	18	28.389	32.690	18	330.000	2.000	
COD	P340	mg/L	9.667	4.041	3	10.667	4.726	3	10.667	1.528	3	5.000	1.414	2	16.000	4.000	
PH	P400	pH	7.456	0.342	18	7.239	0.245	18	7.550	0.409	18	7.494	0.180	18	8.500	6.700	
SUSSOL	P530	mg/L	121.875	231.358	16	56.889	61.727	18	43.667	39.968	18	22.444	38.525	18	794.000	3.000	
FLOW	P60	CFS	8547.500	6933.690	12	9841.667	5319.581	12	7292.500	2530.653	12	3433.333	543.697	12	28000.000	2880.000	
TPN	P600	mg/L	0.309	0.181	10	0.333	0.057	12	0.179	0.068	12	0.114	0.064	12	0.640	0.044	
NH3_N	P610	mg/L	0.013	0.005	16	0.014	0.006	18	0.016	0.014	18	0.011	0.004	18	0.069	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	0.010	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	13	0.000	0.000	13	0.000	0.000	10	0.000	0.000	9	0.000	0.000	
NO3_N	P620	mg/L	0.163	0.012	3	0.290	0.020	3	0.080	0.014	2	0.030	0.010	3	0.310	0.020	
NO2_NO3	P630	mg/L	0.214	0.157	16	0.253	0.114	18	0.113	0.064	18	0.043	0.020	18	0.627	0.010U	
TP_P	P665	mg/L	0.048	0.043	16	0.068	0.080	18	0.041	0.031	18	0.020	0.013	18	0.339	0.010U	
OP_DIS	P671	mg/L	0.008	0.002	16	0.009	0.003	18	0.009	0.005	17	0.008	0.003	18	0.025	0.005U	
HG	P71900	ug/L	0.007	0.004	2	0.006	0.007	2	0.001	0.001	3	0.001	0.000	3	0.011	0.001U	
COLOR	P80	Pt-Co	47.333	21.502	3	36.333	10.599	3	14.333	12.220	3	36.333	13.429	3	71.000	1.000	
TURB	P82079	NTU	41.763	74.125	16	37.378	43.535	18	21.928	24.326	18	5.717	6.188	18	290.000	1.500	
HARD	P900	mg/L	24.500	2.121	2	30.333	0.577	3	28.000	4.359	3	32.333	1.528	3	34.000	23.000	
COND	P95	umhos/25c	84.444	17.369	18	80.444	14.089	18	93.444	22.372	18	111.111	13.877	18	165.000	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: 27B070		Name: KALAMA R NR KALAMA		Class: A	Elevation:	40	River Mile:	2.80									
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	7.583	1.744	12	6.042	2.236	12	12.467	3.353	12	14.400	2.645	12	19.400	1.200	
PRESS	P25	mm/Hg	768.933	7.221	12	766.433	7.014	12	761.408	4.672	12	762.900	4.286	12	779.500	754.400	
OXYGEN	P300	mg/L	12.092	0.672	12	12.600	0.455	12	11.383	0.736	12	10.675	0.483	12	13.600	9.500	
PCTSAT	P301	%	99.458	3.819	12	100.133	3.522	12	105.667	4.786	12	103.275	3.288	12	112.900	95.000	
FC	P31616	#/100ml	22.100	18.339	10	3.583	5.648	12	8.333	7.703	12	23.667	24.507	12	82.000	1.000U	
COD	P340	mg/L	11.000	8.185	3	8.333	3.215	3	7.000	1.732	3	54.000	67.882	2	102.000	4.000K	
PH	P400	pH	7.492	0.275	12	7.300	0.249	12	7.783	0.333	12	7.767	0.172	12	8.400	6.800	
SUSSOL	P530	mg/L	46.700	124.236	10	12.000	26.894	12	4.500	2.576	12	2.917	2.065	12	400.000	1.000K	
FLOW	P60	CFS	876.667	254.231	3	2233.333	1709.776	3	837.500	493.854	4	186.667	23.094	3	4700.000	160.000	
TPN	P600	mg/L	0.441	0.217	7	0.407	0.109	9	0.223	0.080	9	0.156	0.052	9	0.741	0.082	
NH3_N	P610	mg/L	0.011	0.003	10	0.012	0.005	12	0.014	0.005	12	0.019	0.014	12	0.052	0.010U	
N02_D1S	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	
N02_N	P615	mg/L	0.010	0.000	2	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	13	0.000	0.000	13	0.000	0.000	10	0.000	0.001	9	0.002	0.000	
N03_N	P620	mg/L	0.247	0.059	3	0.220	0.157	3	0.075	0.007	2	0.023	0.006	3	0.330	0.020	
N02_N03	P630	mg/L	0.340	0.165	10	0.345	0.102	12	0.145	0.093	12	0.068	0.042	12	0.542	0.017	
TP_P	P665	mg/L	0.026	0.020	10	0.032	0.031	12	0.023	0.019	12	0.021	0.009	12	0.108	0.010U	
OP_DIS	P671	mg/L	0.008	0.003	10	0.008	0.003	12	0.007	0.002	12	0.007	0.003	12	0.014	0.005U	
COLOR	P80	Pt-Co	18.000	13.229	3	15.333	8.737	3	5.667	4.041	3	31.000	8.888	3	38.000	1.000	
TURB	P82079	NTU	21.300	55.826	10	4.808	5.739	12	2.400	2.187	12	1.717	1.730	12	180.000	0.500	
HARD	P900	mg/L	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	
COND	P95	umhos/25c	44.167	9.989	12	41.167	5.340	12	45.500	6.749	12	58.167	7.069	12	70.000	32.000	

Location:  
LOCATED ON THE KALAMA RIVER 2.3 MILES NE OF KALAMA ON KALAMA RIVER ROAD

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	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

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: 270090		Name: EF LEWIS R NR DOLLAR CORNER		Class: A		Elevation:	68	River Mile:	10.20	Water Years Sampled:							
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	7.267	1.961	12	6.325	2.697	12	14.067	4.149	12	17.450	3.448	12	22.500	0.200	
PRESS	P25	mm/Hg	767.917	7.144	12	765.450	7.289	12	760.275	4.647	12	761.717	4.277	12	778.500	753.100	
OXYGEN	P300	mg/L	12.000	0.609	12	12.400	0.589	12	10.600	0.874	12	9.867	0.602	12	14.000	8.900	
PCTSAT	P301	%	98.058	2.943	12	99.036	3.328	11	101.758	2.645	12	101.742	4.433	12	111.600	94.300	
FC	P31616	#/100ml	97.500	241.830	12	10.167	25.936	12	12.000	9.592	12	86.917	198.943	12	850.000	1.0000	
PH	P400	pH	7.400	0.316	12	7.450	0.387	12	7.858	0.219	12	7.683	0.127	12	8.300	6.900	
SUSSOL	P530	mg/L	10.417	26.383	12	3.917	4.144	12	2.500	1.382	12	5.000	10.153	12	94.000	1.0000	
FLOW	P60	CFS	1067.167	877.007	6	1009.167	913.822	6	272.500	183.214	6	163.833	260.258	6	2730.000	35.000	
TPN	P600	mg/L	0.540	0.123	9	0.440	0.106	9	0.274	0.062	9	0.245	0.075	9	0.717	0.145	
NH3_N	P610	mg/L	0.014	0.011	12	0.011	0.002	12	0.012	0.004	12	0.015	0.009	12	0.049	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_N	P615	mg/L	0.010	0.000	2	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	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	0.427	0.068	3	0.317	0.064	3	0.140	0.028	2	0.067	0.015	3	0.480	0.050	
NO2_NO3	P630	mg/L	0.460	0.085	12	0.373	0.102	12	0.201	0.067	12	0.149	0.076	12	0.614	0.059	
TP_P	P665	mg/L	0.019	0.018	12	0.027	0.037	12	0.016	0.013	12	0.019	0.010	12	0.140	0.010U	
OP_DIS	P671	mg/L	0.008	0.005	12	0.007	0.002	12	0.006	0.002	12	0.007	0.003	12	0.023	0.005U	
COLOR	P80	Pt-Co	22.333	17.616	3	9.667	2.887	3	12.000	10.149	3	28.000	8.888	3	42.000	1.000	
TURB	P82079	NTU	5.142	10.727	12	2.083	1.193	12	1.675	1.157	12	2.408	4.323	12	39.000	0.500U	
COND	P95	umhos/25c	36.750	7.617	12	33.750	5.956	12	38.000	6.822	12	54.917	8.554	12	67.000	27.000	

## Location:

LOCATED AT THE LEWIS RIVER BOTTOM ROAD BRIDGE, APPROXIMATELY THREE MILES NORTHWEST OF BATTLE GROUND, AND APPROXIMATELY 2.75 MILES NORTH AND EAST OF DOLLAR CORNER PAST KING CORNER, .6 MILE ABOVE MILL CREEK AT DAYBREAK

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		Water Years Sampled:		---JULY-SEPTEMBER---		---APRIL-JUNE---		---JANUARY-MARCH---		---OCTOBER-DECEMBER---		P-CODE UNITS		Location:	
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	HIGHWAY 141 BRIDGE	
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
VARIABLE	P-CODE UNITS	---OCTOBER-DECEMBER---	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN
		MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.
TEMP	deg C	7.113	2.370	8	4.800	1.756	9	11.100	2.574
PRESS	mm/Hg	742.275	7.395	8	746.578	9.512	9	741.956	7.535
OXYGEN	mg/L	11.350	0.907	8	12.233	1.128	9	10.989	0.504
PCTSAT	%	95.750	7.939	8	96.700	7.251	9	101.856	6.138
FC	P31616 #/100ml	77.000	74.708	7	236.333	624.391	9	62.444	67.921
PH	pH	7.725	0.266	8	7.789	0.285	9	7.833	0.240
SUSSOL	mg/L	13.750	24.691	8	20.000	29.146	9	4.889	3.586
FLOW	CFS	43.840	92.901	5	53.917	33.693	6	13.683	11.222
TPN	mg/L	2.961	1.481	8	1.885	0.784	9	3.303	1.000
NH3_N	mg/L	0.020	0.027	8	0.012	0.007	9	0.015	0.009
NO2_NO3	mg/L	2.872	1.594	8	1.764	0.317	9	3.316	1.141
TP_P	mg/L	0.036	0.017	7	0.066	0.048	9	0.091	0.143
OP_DIS	mg/L	0.016	0.007	8	0.018	0.007	9	0.010	0.004
TURB	NTU	9.813	12.111	8	14.489	17.417	9	3.378	1.598
COND	umhos/25c	114.000	29.961	7	79.444	8.293	9	110.889	19.726

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: 31A070 Name: COLUMBIA R @ UMATILLA		Class: A Elevation: 240 River Mile: 290.50		Water Years Sampled:		---JULY-SEPTEMBER---		---APRIL-JUNE---		---JANUARY-MARCH---		---OCTOBER-DECEMBER---		Location: LOCATED BELOW MCNARY DAM UNDER THE UMATILLA INTERSTATE BRIDGE		
				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 X X X X	X X X X X X X X				
VARIABLE	P-CODE UNITS	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N
TEMP	deg C	11.494	4.437	18	3.833	1.415	18	11.494	2.884	18	19.200	1.208	18	21.500	0.800	
ZN	ug/L	6.753	4.562	3	6.000	1.633	4	7.000	2.646	3	5.667	2.082	3	12.000	4.000K	
CD	ug/L	0.100	0.000	2	0.197	0.167	3	0.000	0.000	0	0.000	0.000	0	0.390	0.100K	
PB	ug/L	1.000	0.000	2	1.000	0.000	3	0.000	0.000	0	0.000	0.000	0	1.000	1.000K	
CR	ug/L	0.543	0.335	3	3.433	2.714	3	2.875	3.005	2	5.000	0.000	2	5.000	0.300K	
CU	ug/L	3.000	0.000	2	2.250	0.500	4	0.000	0.000	0	0.000	0.000	0	3.000	3.000K	
PRESS	mm/Hg	757.856	7.746	18	758.759	6.042	17	753.989	4.114	18	754.417	5.903	18	769.400	745.000	
OXYGEN	mg/L	10.744	1.221	18	13.622	1.318	18	12.417	0.692	18	9.778	0.609	18	16.100	8.900	
PCTSAT	%	97.672	6.329	18	103.389	8.313	18	114.206	7.634	18	105.711	6.167	18	128.600	90.500	
FC	P31616 #/100ml	34.625	97.680	16	14.944	30.683	18	6.889	6.305	18	3.389	2.953	18	400.000	1.000U	
PH	pH	8.117	0.313	18	7.956	0.331	18	8.161	0.259	18	8.244	0.138	18	8.700	7.100	
SUSSOL	P530 mg/L	8.882	12.267	17	31.389	92.111	18	8.778	3.507	18	7.167	2.358	18	394.000	2.000	
FLOW	P60 CFS	131700.000	58549.625	15	163886.667	76867.566	15	221780.000	95919.886	15	130533.333	54694.184	15	476300.000	62900.000	
TPN	P600 mg/L	0.303	0.062	12	0.553	0.217	12	0.297	0.145	12	0.220	0.101	12	1.020	0.112	
NH3_N	P610 mg/L	0.013	0.005	18	0.013	0.007	18	0.016	0.009	18	0.014	0.007	18	0.043	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	0.186	0.084	18	0.376	0.135	18	0.190	0.153	18	0.062	0.052	18	0.627	0.010U	
TP_P	P665 mg/L	0.024	0.007	17	0.041	0.043	18	0.036	0.023	18	0.021	0.009	18	0.181	0.010U	
OP_DIS	P671 mg/L	0.013	0.009	17	0.025	0.044	18	0.009	0.004	18	0.009	0.008	18	0.199	0.005U	
HG	P71900 ug/L	0.034	0.028	3	0.026	0.028	4	0.041	0.032	4	0.002	0.001	2	0.050	0.001U	
TURB	P82079 NTU	2.971	2.215	17	12.339	27.647	18	5.800	3.393	18	3.656	1.419	18	120.000	0.500	
HARD	P900 mg/L	72.000	8.185	3	76.667	3.512	3	63.500	5.066	4	61.500	3.536	2	80.000	59.000	
COND	P95 umhos/25c	159.294	14.021	17	173.278	30.772	18	140.333	23.073	18	132.611	12.580	18	246.000	105.000	

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: 32A070		Name: WALLA WALLA R NR TOUCHET		Class: B		Elevation: 370		River Mile: 15.30		Water Years Sampled:						
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	8.635	4.798	17	5.138	2.970	16	15.061	5.259	18	21.528	2.886	18	26.900	-0.200	
PRESS	P25 mm/Hg	756.135	5.240	17	755.347	6.629	15	750.717	5.883	18	751.178	5.112	18	765.800	736.600	
OXYGEN	P300 mg/L	11.529	1.348	17	12.450	1.053	16	10.250	1.126	18	9.989	2.052	18	15.400	6.500	
PCTSAT	P301 %	98.329	8.669	17	98.075	7.868	16	101.828	10.189	18	113.811	25.383	18	183.700	76.500	
FC	P31616 #/100ml	131.333	179.822	15	80.000	60.362	15	294.556	656.582	18	110.000	81.548	18	2900.000	1.000	
COD	P340 mg/L	9.000	7.071	2	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	
PH	P400 pH	8.076	0.299	17	7.706	0.326	16	8.089	0.457	18	8.428	0.379	18	9.200	6.900	
SUSSOL	P530 mg/L	53.063	45.367	16	886.188	2333.483	16	202.333	399.799	18	35.278	22.394	18	9200.000	4.000	
FLOW	P60 CFS	253.688	334.686	17	980.214	630.874	14	673.200	681.241	15	26.453	24.895	15	2690.000	2.100	
TPN	P600 mg/L	1.109	0.187	11	1.578	0.798	11	1.189	0.627	12	0.944	0.200	12	3.480	0.569	
NH3_N	P610 mg/L	0.029	0.017	17	0.048	0.061	16	0.033	0.030	18	0.026	0.016	18	0.268	0.010U	
NO2_DIS	P613 mg/L	0.013	0.005	6	0.010	0.000	5	0.011	0.002	6	0.012	0.005	6	0.023	0.010K	
NO2_N	P615 mg/L	0.017	0.012	3	0.010	0.000	3	0.015	0.007	2	0.017	0.006	3	0.030	0.010	
NH3_UN	P619 mg/L	0.001	0.001	13	0.000	0.000	12	0.001	0.002	11	0.005	0.003	9	0.011	0.000	
NO3_N	P620 mg/L	1.115	0.403	2	1.013	0.441	3	0.637	0.271	3	0.260	0.305	3	1.500	0.170	
NO2_NO3	P630 mg/L	0.791	0.249	17	1.103	0.356	16	0.781	0.531	18	0.557	0.330	18	2.120	0.010U	
TP_P	P665 mg/L	0.118	0.051	16	0.211	0.140	16	0.152	0.092	18	0.121	0.041	18	0.579	0.038	
OP_DIS	P671 mg/L	0.062	0.030	15	0.073	0.013	16	0.055	0.018	18	0.054	0.031	18	0.129	0.010K	
HG	P71900 ug/L	0.004	0.003	2	0.000	0.000	0	0.002	0.000	2	0.000	0.000	0	0.038	0.002U	
COLOR	P80 Pt-Co	30.429	9.554	7	32.333	26.858	3	44.714	47.923	7	31.167	5.879	6	63.000	4.000	
TURB	P82079 NTU	26.975	30.321	16	693.956	2357.609	16	172.022	631.152	18	15.867	9.833	18	9500.000	2.700	
HARD	P900 mg/L	93.500	62.933	2	0.000	0.000	0	81.500	19.092	2	0.000	0.000	0	150.000	49.000	
COND	P95 umhos/25c	264.588	166.216	17	132.875	30.809	16	172.333	71.206	18	448.111	132.537	18	757.000	80.000	

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:	32B070	Name:	TOUCHET R @ TOUCHET	Class: A	Elevation:	425	River Mile:	0.50	Water Years Sampled:	5 6	7	8	9	10	11	12	13	14	15	16
VARIABLE	P-CODE	UNITS	--OCTOBER-DECEMBER--	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN
TEMP	P10	deg C	7.733	4.724	6	4.000	2.700	6	14.550	5.696	6	20.267	3.124	6	24.300	-0.800				
PRESS	P25	mm/Hg	756.267	3.891	6	754.460	4.528	5	752.700	6.154	6	750.833	3.555	6	760.500	741.400				
OXYGEN	P300	mg/L	11.633	1.608	6	12.433	0.700	6	9.950	1.097	6	7.767	1.159	6	13.600	6.100				
PCTSAT	P301	%	97.480	9.820	5	95.350	3.625	6	97.333	6.958	6	85.933	11.754	6	110.600	70.000				
FC	P31616	#/100ml	67.833	18.541	6	49.333	37.206	6	223.167	308.898	6	371.333	287.963	6	810.000	5.000				
PH	P400	pH	7.850	0.187	6	7.550	0.321	6	7.933	0.242	6	8.100	0.167	6	8.200	6.900				
SUSSOL	P530	mg/L	42.667	55.432	6	793.667	1545.460	6	217.167	363.705	6	51.500	50.820	6	3920.000	4.000				
FLOW	P60	CFS	84.867	121.636	3	165.733	134.995	3	59.667	52.729	3	1.033	0.635	3	315.000	0.300				
TPN	P600	mg/L	0.735	0.225	3	2.157	0.408	3	1.957	0.652	3	0.731	0.204	3	2.670	0.500				
NH3_N	P610	mg/L	0.015	0.005	6	0.024	0.022	6	0.043	0.043	6	0.051	0.035	6	0.116	0.010U				
NO2_DIS	P613	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.015	0.009	3	0.026	0.010K				
NO2_N	P615	mg/L	0.013	0.006	3	0.010	0.000	3	0.010	0.000	2	0.010	0.000	3	0.020	0.010K				
NH3_UN	P619	mg/L	0.000	0.000	13	0.000	0.001	13	0.001	0.002	11	0.004	0.002	9	0.009	0.000				
NO3_N	P620	mg/L	0.435	0.488	2	0.743	0.227	3	0.270	0.199	3	0.167	0.142	3	0.930	0.040				
NO2_NO3	P630	mg/L	0.480	0.291	6	1.241	0.731	6	0.812	0.908	6	0.432	0.172	6	2.410	0.024				
TP_P	P665	mg/L	0.098	0.047	6	0.200	0.156	6	0.181	0.158	6	0.115	0.035	6	0.478	0.041				
OP_DIS	P671	mg/L	0.040	0.007	6	0.052	0.008	6	0.048	0.018	6	0.059	0.020	6	0.090	0.017				
COLOR	P80	Pt-Co	29.714	8.381	7	39.000	24.249	3	48.857	58.678	7	34.833	18.978	6	67.000	8.000				
TURB	P82079	NTU	16.900	21.663	6	193.667	333.776	6	235.733	521.669	6	20.667	23.257	6	1300.000	1.900				
COND	P95	umhos/25c	163.833	93.047	6	107.000	24.033	6	119.333	27.449	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 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		MEAN		STD. DEV.	N	MEAN	STD. DEV.	N	--APRIL-JUNE--	MEAN	STD. DEV.	N	--JULY-SEPTEMBER--	MEAN	STD. DEV.	N	--SIX YEAR--	MEAN	STD. DEV.	N
VARIABLE	P-CODE	UNITS	--OCTOBER-DECEMBER--	MEAN	STD. DEV.	N	--JANUARY-MARCH--	MEAN	STD. DEV.	N	--APRIL-JUNE--	MEAN	STD. DEV.	N	--JULY-SEPTEMBER--	MEAN	STD. DEV.	N	--SIX YEAR--	MEAN	STD. DEV.	N
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	48.000U						

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: 34A070 Name: PALOUSE R @ HOOPER

Class: B Elevation: 1060 River Mile: 19.50

**Location:**  
LOCATED IN "DOWNTOWN" HOOPER NEAR TRAIN TRACKS AT BRIDGE ON OLD HIGHWAY 26

5	6	7	8	9														
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	X	X	X	X	X	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	6.878	4.985	18	3.133	2.204	15	13.561	4.838	18	20.806	3.225	18	26.400	0.000	
ZN	P1094	ug/L	11.000	4.243	2	78.000	43.841	2	15.333	19.630	3	9.333	2.309	3	109.000	4.000K	
CD	P1113	ug/L	0.100	0.000	2	0.425	0.505	4	0.125	0.050	4	0.100	0.000	4	0.120	0.100K	
PB	P1114	ug/L	1.600	0.707	2	7.525	8.791	4	2.733	2.421	3	1.300	0.600	4	9.390	0.820V	
CR	P1118	ug/L	0.820	0.234	4	5.103	3.332	4	2.773	3.291	4	0.715	0.595	4	9.390	0.200J	
CU	P1119	ug/L	6.000	5.657	2	31.100	18.526	2	4.100	3.013	4	4.400	1.625	4	44.200	2.000V	
PRESS	P25	mm/Hg	736.711	6.458	18	736.314	6.859	14	735.078	4.015	18	733.372	4.568	18	751.100	724.200	
OXYGEN	P300	mg/L	12.044	1.242	18	12.527	0.756	15	10.167	1.273	18	9.665	1.623	17	13.900	7.300	
PCTSAT	P301	%	101.161	8.465	18	96.140	2.196	15	99.744	9.136	18	111.765	22.906	17	158.000	83.400	
FC	P31616	#/100ml	184.471	292.340	17	178.429	445.866	14	54.722	47.855	18	99.941	113.241	17	1700.000	1.000	
COND	P340	mg/L	13.667	5.132	3	19.500	13.435	2	14.667	4.509	3	13.667	5.033	3	29.000	8.000	
PH	P400	pH	8.311	0.421	18	7.827	0.349	15	8.267	0.445	18	8.822	0.440	18	9.700	6.800	
SUSSOL	P530	mg/L	53.611	59.873	18	534.933	1188.351	15	67.889	77.457	18	37.000	17.727	18	4380.000	2.000	
FLOW	P60	CFS	171.933	272.776	15	806.917	736.840	12	649.733	657.481	15	52.933	48.333	15	2540.000	2.000	
TPN	P600	mg/L	2.325	1.607	12	4.391	1.875	10	2.708	1.467	11	1.138	0.684	12	7.370	0.386	
NH3_N	P610	mg/L	0.048	0.048	18	0.069	0.088	15	0.036	0.052	17	0.028	0.022	18	0.361	0.010U	
NO2_DIS	P613	mg/L	0.010	0.000	6	0.015	0.006	5	0.015	0.010	6	0.010	0.000	6	0.035	0.010K	
NO2_N	P615	mg/L	0.013	0.006	3	0.023	0.015	3	0.010	0.000	2	0.013	0.006	3	0.020	0.010K	
NH3_UN	P619	mg/L	0.006	0.013	11	0.001	0.001	9	0.002	0.002	12	0.004	0.003	9	0.046	0.000	
NO3_N	P620	mg/L	2.650	2.051	2	3.633	1.607	3	0.907	0.519	3	0.060	0.087	3	4.800	0.160	
NO2_NO3	P630	mg/L	1.586	1.349	18	3.637	1.542	15	1.923	1.363	17	0.415	0.546	18	6.260	0.010U	
TP_P	P665	mg/L	0.183	0.122	18	0.225	0.104	15	0.170	0.094	17	0.134	0.058	18	0.419	0.024	
OP_DIS	P671	mg/L	0.116	0.126	18	0.120	0.028	15	0.086	0.042	18	0.047	0.043	18	0.386	0.005U	
HG	P71900	ug/L	0.050	0.013	2	0.040	0.000	2	0.040	0.000	2	0.049	0.017	4	0.075	0.040K	
COLOR	P80	Pt-Co	73.286	48.462	7	104.500	106.773	2	26.333	4.619	3	130.000	0.000	2	180.000	21.000	
TURB	P82079	NTU	50.772	67.584	18	660.067	1973.984	15	35.828	35.249	18	24.183	14.294	18	7700.000	1.200	
HARD	P900	mg/L	94.333	37.018	3	65.500	19.092	2	73.667	4.509	3	116.333	23.007	3	139.000	52.000	
COND	P95	umhos/25c	301.111	80.123	18	209.600	67.082	15	233.778	50.678	18	332.444	41.144	18	414.000	97.000	

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: 34A170 Name: PALOUSE R @ PALOUSE

**Location:**

LOCATED AT THE EASTERLY MOST BRIDGE IN PALOUSE NEAR THE GRAVEL PIT, .4 MILE EAST OF THE INTERSECTION OF STATE HIGHWAYS 6, 27, AND 272 ON STATE HIGHWAY 6 -- STATION MOVED 10/01/90 TO THE HIGHWAY 27 BRIDGE ENTERING

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	4.806	4.106	18	1.238	1.711	16	11.194	5.656	18	18.900	3.693	18	25.400	-0.800	
PRESS	P25	mm/Hg	703.244	4.811	18	709.633	27.886	15	704.750	14.199	18	701.967	5.097	18	808.500	690.100	
OXYGEN	P300	mg/L	11.500	1.397	18	12.375	0.701	16	10.172	1.591	18	8.317	1.543	18	14.000	5.900	
PCTSAT	P301	%	95.883	6.943	18	93.913	5.721	16	99.011	17.399	18	96.406	20.219	18	154.400	70.200	
FC	P31616	#/100ml	94.412	144.718	17	170.600	368.133	15	285.333	742.520	18	368.111	1090.297	18	4700.000	1.000	
PH	P400	pH	7.828	0.252	18	7.581	0.261	16	7.878	0.375	18	8.528	0.461	18	9.200	7.100	
SUSSOL	P530	mg/L	3.778	3.422	18	119.188	366.879	16	53.389	146.769	18	7.833	15.405	18	1490.000	1.0000	
FLOW	P60	CFS	71.500	121.171	18	347.688	336.106	16	356.056	418.190	18	15.667	12.904	15	1280.000	2.000	
TPN	P600	mg/L	0.472	0.509	12	1.236	0.962	11	0.345	0.181	11	0.288	0.127	12	3.380	0.113	
NH3_N	P610	mg/L	0.017	0.011	18	0.028	0.024	16	0.019	0.020	17	0.013	0.005	18	0.089	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_NO3	P630	mg/L	0.205	0.408	18	0.869	0.714	16	0.161	0.210	17	0.076	0.276	18	2.460	0.010U	
TP_P	P665	mg/L	0.049	0.029	18	0.096	0.067	16	0.085	0.081	17	0.063	0.074	18	0.344	0.010K	
OP_DIS	P671	mg/L	0.021	0.011	18	0.040	0.025	16	0.024	0.012	18	0.027	0.030	18	0.141	0.005U	
TURB	P82079	NTU	8.083	9.032	18	149.025	467.919	16	29.633	57.019	18	5.917	11.858	18	1900.000	1.100	
COND	P95	umhos/25c	81.833	16.169	18	75.500	21.747	16	60.056	12.216	18	82.944	17.685	18	142.000	35.000	

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

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: 34B110 Name: SF PALOUSE R @ PULLMAN		Class: A Elevation: 2320 River Mile: 22.20		Water Years Sampled:		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	MAX
TEMP	P10 deg C	6.083	3.414	12	3.027	2.086	11	12.458	4.217	12	23.300
PRESS	P25 mm/Hg	704.467	3.500	12	713.880	34.210	10	703.225	2.704	12	809.800
OXYGEN	P300 mg/L	9.850	1.656	12	11.673	0.750	11	10.067	2.323	12	15.800
PCTSAT	P301 %	85.283	14.331	12	92.591	5.865	11	100.767	19.634	12	140.500
FC	P31616 #/100ml	668.250	808.092	12	2226.600	5901.376	10	739.333	1300.159	12	19000.000
PH	P400 pH	7.825	0.218	12	7.764	0.216	11	7.950	0.421	12	8.600
SUSSOL	P530 mg/L	10.167	8.809	12	175.727	314.584	11	327.583	1074.694	12	3740.000
FLOW	P60 CFS	15.333	15.764	9	122.625	171.889	8	32.111	28.140	9	520.000
TPN	P600 mg/L	6.703	1.467	9	7.803	1.881	8	5.898	1.150	8	9.430
NH3_N	P610 mg/L	0.533	1.181	12	0.214	0.147	11	0.177	0.225	11	4.240
NO2_DIS	P613 mg/L	0.074	0.014	3	0.114	0.091	3	0.032	0.008	3	0.019
NO2_N	P615 mg/L	0.117	0.125	3	0.100	0.017	3	0.100	0.042	2	0.080
NH3_UN	P619 mg/L	0.004	0.004	13	0.003	0.002	11	0.008	0.011	12	0.006
NO3_N	P620 mg/L	9.850	4.455	2	7.833	3.308	3	3.900	1.778	3	4.100
NO2_NO3	P630 mg/L	5.479	1.875	12	6.625	1.602	11	4.917	0.968	11	3.365
TP_P	P665 mg/L	1.877	1.421	12	0.491	0.352	10	0.791	0.611	11	1.502
OP_DIS	P671 mg/L	1.586	1.145	12	0.312	0.197	11	0.658	0.566	12	1.179
COLOR	P80 Pt-Co	75.286	79.115	7	121.000	111.723	2	28.333	13.429	3	119.000
TURB	P82079 NTU	22.450	26.419	12	236.364	493.668	11	682.642	2306.408	12	14.475
COND	P95 umhos/25c	504.500	131.622	12	293.545	88.351	11	348.833	81.801	12	516.167

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: 35A150		Name: SNAKE R @ INTERSTATE BR		Class: A		Elevation: 705		River Mile: 139.60		Water Years Sampled:	
Location: LOCATED AT THE WASHINGTON-IDAHO INTERSTATE BRIDGE ON U S HIGHWAY 12 AT CLARKSTON				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 X					
VARIABLE	P-CODE	UNITS	--OCTOBER-DECEMBER--	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.
			--JANUARY-MARCH--	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.
			--APRIL-JUNE--	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.
			--JULY-SEPTEMBER--	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.
			--SIX YEAR--	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.
TEMP	P10	deg C	10.794	4.832	18	3.644	1.595	18	11.794	2.500	17
PRESS	P25	mm/Hg	745.689	6.138	18	745.382	6.502	17	740.961	5.512	18
OXYGEN	P300	mg/L	10.600	1.304	18	12.856	0.614	18	10.683	0.623	18
PCTSAT	P301	%	96.100	2.136	18	98.939	2.591	18	99.050	5.589	18
FC	P31616	#/100ml	3.889	8.152	18	3.222	2.734	18	24.389	33.872	18
CHL	P32211	ug/L	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0
PHEO	P32218	ug/L	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0
PH	P400	pH	8.306	0.135	18	8.122	0.193	18	8.100	0.305	18
SUSSOL	P530	mg/L	5.167	8.053	18	7.000	6.088	18	22.222	22.967	18
FLOW	P60	CFS	17850.000	7084.635	18	28292.857	15093.833	14	54200.000	33899.199	15
TPN	P600	mg/L	0.894	0.162	15	1.149	0.141	15	0.612	0.313	14
NH3_N	P610	mg/L	0.016	0.011	17	0.021	0.012	18	0.026	0.024	17
NO2_DIS	P613	mg/L	0.010	0.000	6	0.011	0.001	6	0.010	0.000	6
NO2_N03	P630	mg/L	0.712	0.163	18	0.984	0.160	18	0.375	0.215	17
TP_P	P665	mg/L	0.065	0.018	18	0.074	0.036	18	0.073	0.063	17
OP_DIS	P671	mg/L	0.050	0.012	18	0.049	0.011	18	0.023	0.017	18
TURB	P82079	NTU	2.633	4.374	18	7.906	9.821	18	11.039	8.626	18
COND	P95	umhos/25c	358.111	58.869	18	338.111	70.382	18	185.333	53.359	18

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: 35B060		Name: TUCANNON R @ POWERS	Class: A	Elevation: 600	River Mile: 2.30	Water Years Sampled:	5 6	7	8	9					
Location:	LOCATED .2 MILES SOUTHEAST OF HIGHWAY 261, 1.5 MILES WEST OF STARBUCK										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
TEMP	P10	deg C	9.100	3.695	12	5.325	2.607	12	13.083	3.363	12	19.867	3.297	12	25.300
PRESS	P25	mm/Hg	748.750	6.160	12	748.036	6.690	11	747.250	5.024	12	744.875	6.315	12	758.200
OXYGEN	P300	mg/L	11.542	0.749	12	12.100	0.736	12	10.550	0.679	12	9.292	0.592	12	13.800
PCTSAT	P301	%	101.100	8.213	12	96.708	2.664	12	101.258	5.460	12	102.983	6.795	12	117.100
FC	P31616	#/100ml	101.909	189.637	11	53.727	38.696	11	437.167	1280.777	12	291.273	572.456	11	4500.000
COD	P340	mg/L	4.000	0.000	2	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000
PH	P400	pH	8.083	0.338	12	7.667	0.253	12	8.233	0.261	12	8.492	0.370	12	9.100
SUSSOL	P530	mg/L	37.333	61.149	12	220.833	525.699	12	215.583	619.169	12	55.167	148.348	12	2180.000
FLOW	P60	CFS	161.600	151.939	10	309.091	287.747	11	220.000	114.913	9	62.667	20.688	9	1080.000
TPN	P600	mg/L	0.428	0.225	9	1.141	0.556	9	0.729	0.379	8	0.418	0.330	9	2.190
NH3_N	P610	mg/L	0.021	0.026	12	0.015	0.008	12	0.024	0.033	11	0.015	0.008	12	0.121
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
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
NH3_UN	P619	mg/L	0.000	0.000	13	0.000	0.000	12	0.000	0.000	12	0.001	0.001	9	0.003
NO3_N	P620	mg/L	0.265	0.106	2	0.317	0.165	3	0.103	0.067	3	0.137	0.046	3	0.480
NO2_NO3	P630	mg/L	0.270	0.151	12	0.767	0.484	12	0.392	0.336	11	0.195	0.093	12	1.730
TP_P	P665	mg/L	0.078	0.035	12	0.132	0.089	12	0.146	0.124	10	0.072	0.028	12	0.396
OP_DIS	P671	mg/L	0.038	0.010	12	0.051	0.012	12	0.039	0.021	12	0.050	0.021	12	0.100
COLOR	P80	Pt-Co	14.571	5.287	7	15.333	8.737	3	11.667	10.066	3	72.000	53.740	2	110.000
TURB	P82079	NTU	13.933	30.486	12	74.408	154.588	12	148.700	488.562	12	40.842	128.858	12	1700.000
COND	P95	umhos/25c	137.917	20.496	12	127.833	26.215	12	121.167	18.502	12	154.000	13.545	12	187.000

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: 35B150 Name: TUCANNON R NR MARENGO

Location:  
Turner Road Bridge at Marengo

			Class: A	Elevation: 1475	River Mile: 24.80
		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	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	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	
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Station Number: 35D070 Name: ASOTIN CR @ ASOTIN		Class: A Elevation: 760 River Mile: 0.40		Water Years Sampled:		---APRIL-JUNE---		---JULY-SEPTEMBER---		----SIX YEAR----	
				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	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX MIN
TEMP	deg C	7.817	3.247	6	2.367	2.298	6	9.033	3.222	6	16.567 21.400
PRESS	mm/Hg	750.050	7.733	6	756.250	12.981	6	744.933	2.708	6	744.050 781.100
OXYGEN	mg/L	11.800	0.841	6	13.133	0.683	6	10.983	1.025	6	9.833 14.300
PCTSAT	%	99.883	3.732	6	96.283	5.786	6	96.233	4.514	6	102.183 105.700
FC	#/100ml	36.333	37.623	6	83.167	80.148	6	325.167	675.478	6	106.667 105.700
PH	pH	8.083	0.147	6	7.883	0.306	6	7.817	0.147	6	8.383 8.600
SUSSOL	mg/L	5.000	3.521	6	38.667	69.810	6	195.000	448.276	6	10.167 8.600
FLOW	CFS	34.000	4.000	3	31.667	2.887	3	268.000	194.548	3	30.000 460.000
TPN	mg/L	0.193	0.108	3	0.854	0.159	3	0.362	0.091	3	0.174 1.030
NH3_N	mg/L	0.010	0.000	6	0.010	0.000	6	0.015	0.004	6	0.010 0.020
N02_DIS	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010 0.010
N02_N03	mg/L	0.087	0.087	6	0.452	0.265	6	0.184	0.095	6	0.090 0.869
TP_P	mg/L	0.061	0.022	6	0.117	0.076	6	0.157	0.135	6	0.083 0.415
OP_DIS	mg/L	0.035	0.013	6	0.065	0.024	6	0.057	0.016	6	0.053 0.093
TURB	NTU	1.550	0.771	6	12.317	18.991	6	51.267	107.207	6	2.767 270.000
COND	umhos/25c	123.833	4.401	6	119.667	23.192	6	90.000	14.381	6	126.000 155.000

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:		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	0.010U			
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		Water Years Sampled:							
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	
N02_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	
N02_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	
N03_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	
N02_N03	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	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:				Water Years Sampled:												
LOCATED .1 MILE NORTHWEST OF HIGHWAY 12 AND KIONA AND SOUTHEAST OF BENTON CITY				5 6		7	8	9	9							
				X X X X	X X X X	X X X X	X X X X	X X X X	X X X X							
VARIABLE	P-CODE	UNITS	--OCTOBER-DECEMBER--	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N							
			--JANUARY-MARCH--	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N							
			--APRIL-JUNE--	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N							
			--JULY-SEPTEMBER--	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N							
			--SIX YEAR--	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 X X X X	8	9	MEAN	7	8	9					
VARIABLE	P-CODE	UNITS	--OCTOBER-DECEMBER--	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
PRESS	P25	mm/Hg	738.278	12.137	9	735.744	5.109	9	733.589	5.456	9	737.633	6.038	9
OXYGEN	P300	mg/L	11.778	1.464	9	13.111	1.185	9	10.900	0.658	9	9.856	0.849	9
PCTSAT	P301	%	96.344	5.648	9	99.611	3.004	9	99.989	3.923	9	102.289	10.217	9
FC	P31616	#/100ml	19.000	14.233	8	17.333	14.124	9	65.889	41.241	9	59.875	46.348	8
PH	P400	pH	7.925	0.238	8	7.656	0.336	9	7.778	0.549	9	8.244	0.313	9
SUSSOL	P530	mg/L	13.667	13.500	9	33.111	42.280	9	44.000	62.580	9	16.000	8.155	9
FLOW	P60	CFS	4351.667	4744.940	6	11568.000	14316.362	5	5622.000	1432.121	5	3478.333	386.493	6
TPN	P600	mg/L	0.271	0.066	9	0.417	0.190	9	0.214	0.086	9	0.398	0.421	9
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
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
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
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
TURB	P82079	NTU	7.744	7.995	9	23.367	34.430	9	23.089	31.327	9	8.022	6.000	9
COND	P95	umhos/25c	114.000	21.441	8	116.000	33.030	9	85.667	11.011	9	89.444	9.515	9

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: 39A090		Name: YAKIMA R NR CLE ELUM		Class: AA		Elevation: 2022		River Mile: 191.00		Water Years Sampled:							
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	6.325	3.389	12	2.267	1.312	12	7.075	2.478	12	13.700	2.270	12	16.300	0.100	
PRESS	P25	mm/Hg	711.517	6.158	12	708.075	8.362	12	710.625	4.004	12	710.400	5.605	12	721.600	689.900	
OXYGEN	P300	mg/L	11.058	0.979	12	12.450	0.373	12	11.192	0.663	12	9.308	0.440	12	13.100	8.800	
PCTSAT	P301	%	94.950	2.471	12	97.233	2.395	12	98.342	2.510	12	95.425	3.597	12	103.100	89.300	
FC	P31616	#/100ml	6.333	3.525	12	2.182	2.676	11	6.750	9.808	12	36.273	43.918	11	160.000	1.0000	
PH	P400	pH	7.308	0.385	12	7.275	0.475	12	7.192	0.385	12	7.133	0.320	12	8.200	6.400	
SUSSOL	P530	mg/L	7.917	20.518	12	3.250	2.958	12	8.833	15.438	12	2.750	1.055	12	73.000	1.0000	
FLOW	P60	CFS	667.556	609.088	9	1075.778	985.659	9	1519.444	1123.255	9	2475.222	1398.173	9	4310.000	150.000	
TPN	P600	mg/L	0.075	0.036	9	0.099	0.025	9	0.067	0.041	8	0.045	0.021	9	0.158	0.015	
NH3_N	P610	mg/L	0.014	0.010	12	0.011	0.002	12	0.013	0.005	11	0.011	0.002	12	0.044	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	0.024	0.016	11	0.045	0.023	12	0.024	0.024	11	0.014	0.008	12	0.108	0.010U	
TP_P	P665	mg/L	0.019	0.023	11	0.017	0.012	12	0.028	0.036	11	0.013	0.006	12	0.124	0.010U	
OP_DIS	P671	mg/L	0.007	0.003	11	0.006	0.002	12	0.006	0.002	12	0.007	0.002	12	0.010	0.005U	
TURB	P82079	NTU	7.808	22.742	12	1.975	1.867	12	4.942	8.279	12	1.467	0.375	12	80.000	0.500	
COND	P95	umhos/25c	61.333	7.785	12	60.167	8.569	12	53.417	7.879	12	61.083	43.398	12	197.000	36.000	

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	
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Station Number: 41A070 Name: CRAB CR NR BEVERLY

## Location:

LOCATED 6 MILES FROM THE MOUTH OF CRAB CREEK AT THE BRIDGE ON LOWER  
CRAB CREEK ROAD, ABOUT 5.6 MILES FROM BEVERLY

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	
N02_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	
N02_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	
N03_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	
N02_N03	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	Water Years Sampled:	5 6	7	8	9											
VARIABLE	P-CODE	UNITS	--OCTOBER-DECEMBER--	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	--APRIL-JUNE--	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	--JULY-SEPTEMBER--	MEAN	STD. DEV.	N	MAX	MIN	--SIX YEAR--
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									
PCISAT	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	P230	mg/L	10.059	27.399	17	13.067	26.075	15	16.833	20.039	18	3.7778	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: 45A110 Name: WENATCHEE R NR LEAVENWORTH		Class: AA Elevation: 1665 River Mile: 35.60		Water Years Sampled:		Water Years Sampled:		Water Years Sampled:		Water Years Sampled:		Water Years Sampled:		Water Years Sampled:		
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	5.869	3.873	16	2.261	1.544	18	7.094	2.156	18	14.365	2.384	17	19.200	0.000	
PRESS	P25 mm/Hg	720.382	7.900	17	720.550	5.399	18	717.389	3.136	18	719.212	4.377	17	735.100	704.100	
OXYGEN	P300 mg/L	11.918	1.115	17	13.033	0.549	18	11.489	0.755	18	9.850	0.421	16	14.400	9.200	
PCISAT	P301 %	98.982	5.008	17	99.928	1.977	18	99.794	2.961	18	101.550	1.693	16	108.400	84.400	
FC	P31616 #/100ml	1.941	1.519	17	1.250	0.577	16	1.722	1.179	18	3.235	2.862	17	10.000	1.0000	
PH	P400 pH	7.613	0.560	15	7.622	0.408	18	7.724	0.393	17	7.835	0.346	17	8.600	6.500	
SUSSOL	P530 mg/L	2.059	1.784	17	7.889	12.160	18	10.722	12.924	18	2.647	1.498	17	44.000	1.0000	
FLOW	P60 CFS	851.143	1390.117	14	1136.538	742.914	13	4258.667	2022.371	15	1294.357	1350.958	14	8670.000	243.000	
TPN	P600 mg/L	0.075	0.040	11	0.106	0.020	12	0.125	0.067	12	0.047	0.028	10	0.261	0.010U	
NH3_N	P610 mg/L	0.011	0.002	16	0.011	0.003	18	0.013	0.004	18	0.011	0.002	17	0.022	0.010U	
NO2_DIS	P613 mg/L	0.010	0.000	5	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	2	0.010	0.000	3	0.010	0.010K	
NH3_UN	P619 mg/L	0.000	0.000	12	0.000	0.000	12	0.000	0.000	8	0.000	0.001	10	0.003	0.000	
NO3_N	P620 mg/L	0.030	0.028	2	0.043	0.006	3	0.045	0.007	2	0.015	0.007	2	0.050	0.010K	
NO2_NO3	P630 mg/L	0.024	0.018	17	0.056	0.025	18	0.051	0.023	18	0.012	0.005	16	0.139	0.010U	
TP_P	P665 mg/L	0.012	0.004	16	0.014	0.009	18	0.027	0.027	18	0.012	0.005	16	0.089	0.010U	
OP_DIS	P671 mg/L	0.009	0.002	16	0.008	0.003	17	0.007	0.003	17	0.007	0.003	17	0.010	0.005U	
COLOR	P80 Pt-Co	4.000	0.000	2	6.667	2.309	3	5.000	6.928	3	15.000	19.799	2	29.000	1.000	
TURB	P82079 NTU	0.772	0.453	17	1.428	1.518	18	2.667	2.948	18	1.141	0.621	17	12.000	0.020	
COND	P95 umhos/25c	38.882	7.785	17	41.889	23.075	18	30.667	6.240	18	33.824	5.736	17	131.000	20.000	

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		Water Years Sampled:		---APRIL-JUNE---		---JULY-SEPTEMBER---		---SIX YEAR---		
Location: Chumstick Hwy to North Road to Motteler Rd to Bridge										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 XX		MEAN STD. DEV.		MEAN STD. DEV.		MAX MIN		
VARIABLE	P-CODE	UNITS	--OCTOBER-DECEMBER--	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N
TEMP	P10	deg C	6.367	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	1.000U		
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	0.010U		
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	0.005U		
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 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	XX	
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	9.700 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	9.500 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 0.010U
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
Water Years Sampled:									
5	6	7	8	9	0	1	2	3	4
9	0	1	2	3	4	5	6	7	8
9	0	1	2	3	4	5	6	7	8
X	X	X	X	X	X	X	X	X	X
VARIABLE	P-CODE	UNITS	--OCTOBER-DECEMBER--	MEAN	STD. DEV.	N	---JANUARY-MARCH---	MEAN	STD. DEV.
							APRIL-JUNE	MEAN	STD. DEV.
							JULY-SEPTEMBER	MEAN	STD. DEV.
								MAX	MIN
TEMP	P10	deg C	6.633	3.691	3	3.067	3.050	3	11.467
PRESS	P25	mm/Hg	738.800	9.475	3	747.600	3.372	3	759.733
OXYGEN	P300	mg/L	10.867	1.563	3	13.700	1.044	3	11.233
PCTSAT	P301	%	90.467	6.997	3	103.267	3.350	3	104.233
FC	P31616	#/100ml	541.000	917.160	3	5.500	4.950	2	10.333
PH	P400	pH	8.233	0.115	3	8.500	0.173	3	8.233
SUSSOL	P530	mg/L	6.667	7.234	3	5.333	4.041	3	19.000
TPN	P600	mg/L	1.471	0.677	3	0.641	0.074	3	0.375
NH3_N	P610	mg/L	0.056	0.080	3	0.010	0.000	3	0.012
NO2_NO3	P630	mg/L	1.190	0.335	3	0.494	0.078	3	0.294
TP_P	P665	mg/L	0.385	0.553	3	0.053	0.021	3	0.103
OP_DIS	P671	mg/L	0.019	0.024	3	0.005	0.000	3	0.005
TURB	P82079	NTU	6.900	8.747	3	1.700	0.436	3	5.167
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**

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Station Number:	46A070	Name:	ENTIAT R NR ENTIAT	Class:	A	Elevation:	660	River Mile:	1.50	Water Years Sampled:	5 6	7	8	9							
VARIABLE	P-CODE	UNITS	--OCTOBER-DECEMBER--	MEAN	STD. DEV.	N	--JANUARY-MARCH--	MEAN	STD. DEV.	N	--APRIL-JUNE--	MEAN	STD. DEV.	N	--JULY-SEPTEMBER--	MEAN	STD. DEV.	N	--SIX YEAR--	MAX	MIN
TEMP	P10	deg C	4.825	4.480	12	2.400	2.310	12	7.925	1.783	12	14.892	2.777	12	19.400	0.000					
PRESS	P25	mm/Hg	744.017	7.142	12	743.608	5.721	12	738.808	4.261	12	741.375	7.327	12	755.700	725.900					
OXYGEN	P300	mg/L	12.925	1.347	12	13.825	0.963	12	11.583	0.562	12	10.342	0.579	12	15.400	9.100					
PCTSAT	P301	%	101.883	3.440	12	102.917	3.141	12	100.017	1.857	12	104.075	4.662	12	115.000	96.100					
FC	P31616	#/100ml	8.818	12.505	11	8.636	13.930	11	21.333	26.606	12	6.333	3.916	12	72.000	1.0000					
PH	P400	pH	8.120	0.257	10	8.042	0.396	12	7.950	0.291	12	8.200	0.322	12	9.000	7.400					
SUSSOL	P530	mg/L	2.083	1.929	12	5.667	6.746	12	40.333	58.699	12	4.167	3.512	12	198.000	1.0000					
FLOW	P60	CFS	232.250	226.115	8	310.778	190.119	9	1484.750	787.876	8	553.333	555.148	6	2640.000	53.000					
TPN	P600	mg/L	0.204	0.074	12	0.233	0.069	12	0.176	0.154	12	0.121	0.071	12	0.552	0.010U					
NH3_N	P610	mg/L	0.010	0.000	12	0.010	0.000	12	0.013	0.005	12	0.011	0.003	12	0.022	0.010U					
NO2_D1S	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_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	12	0.001	0.001	8	0.001	0.001	10	0.003	0.000					
NO3_N	P620	mg/L	0.100	0.014	2	0.120	0.066	3	0.020	0.014	2	0.140	0.099	2	0.210	0.010					
NO2_NO3	P630	mg/L	0.148	0.064	12	0.176	0.058	12	0.098	0.123	12	0.070	0.052	12	0.394	0.010U					
TP_P	P665	mg/L	0.011	0.003	11	0.023	0.014	12	0.062	0.075	12	0.016	0.008	12	0.238	0.010U					
OP_DIS	P671	mg/L	0.007	0.002	12	0.007	0.002	12	0.007	0.003	12	0.006	0.002	12	0.013	0.005U					
COLOR	P80	Pt-Co	8.000	0.000	2	12.333	11.150	3	3.333	4.041	3	11.000	14.142	2	25.000	1.000					
TURB	P82079	NTU	0.775	0.452	12	2.233	2.231	12	10.142	14.364	12	1.467	1.323	12	50.000	0.400					
COND	P95	umhos/25c	94.000	17.193	11	109.917	23.095	12	62.667	28.311	12	71.333	23.098	12	152.000	32.000					

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								
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	4.971	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	
PCSAT	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	1.0000	
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	1.0000	
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	

## 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	10	11	12	13	14	15	16	17	18	19	20
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

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:	48A140	Name:	METHOW R @ TWISP	Class:	A	Elevation:	1552	River Mile:	39.40	Water Years Sampled:	5 6	7	8	9								
VARIABLE	P-CODE	UNITS	--OCTOBER-DECEMBER--	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	--APRIL-JUNE--	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	--JULY-SEPTEMBER--	MEAN	STD. DEV.	N	MAX	MIN
TEMP	P10	deg C	4.482	3.408	11	2.458	2.503	12	7.225	1.575	12	12.325	1.908	12	15.400	0.000	736.600	698.500				
PRESS	P25	mm/Hg	722.064	10.516	11	723.383	5.161	12	720.083	4.566	12	722.183	6.107	12								
OXYGEN	P300	mg/L	12.255	0.952	11	13.092	1.003	12	11.392	0.434	12	10.325	0.293	12	15.200	9.800						
PCTSAT	P301	%	99.100	3.256	11	102.150	6.897	12	99.333	2.745	12	101.108	3.325	12	119.800	93.300						
FC	P31616	#/100ml	4.200	4.158	10	5.000	7.640	12	14.750	23.022	12	11.273	14.058	11	68.000	1.000U						
PH	P400	pH	8.130	0.157	10	7.992	0.264	12	7.917	0.170	12	8.183	0.229	12	8.500	7.400						
SUSSOL	P530	mg/L	1.273	0.467	11	4.083	8.522	12	22.833	34.709	12	1.417	0.669	12	103.000	1.000U						
FLOW	P60	CFS	313.125	140.226	8	372.778	166.160	9	3841.556	2629.528	9	1125.556	1171.661	9	7620.000	192.000						
TPN	P600	mg/L	0.202	0.032	8	0.190	0.044	9	0.159	0.098	9	0.170	0.096	9	0.349	0.015						
NH3_N	P610	mg/L	0.010	0.000	11	0.012	0.003	12	0.011	0.003	12	0.010	0.000	12	0.021	0.010U						
NO2_DIS	P613	mg/L	0.010	0.000	2	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	3	0.000	0.000	0	0.000	0.000	2	0.000	0.000	0	0.001	0.000						
NO2_N03	P630	mg/L	0.168	0.032	11	0.144	0.034	12	0.069	0.064	12	0.132	0.079	12	0.287	0.010U						
TP_P	P665	mg/L	0.010	0.000	10	0.014	0.009	12	0.035	0.037	12	0.013	0.007	12	0.110	0.010U						
OP_DIS	P671	mg/L	0.007	0.003	10	0.006	0.002	12	0.006	0.002	12	0.006	0.002	12	0.010	0.005U						
TURB	P82079	NTU	0.527	0.200	11	0.667	0.419	12	7.850	12.277	12	0.633	0.352	12	40.000	0.200						
COND	P95	umhos/25c	142.182	12.734	11	140.417	22.480	12	91.250	34.738	12	116.667	30.200	12	194.000	56.000						

## Location:

THE INTERSECTION WITH WAGNER RD (GAGE HOUSE .5 MILE UP WAGNER RD). THIS STATION WAS ACTIVATED 881001 IN LIEU OF STATION 48A130. THIS SITE WAS NOT USED PREVIOUSLY DUE TO A WARM OUTFALL FROM THE NOW DEFUNCT PINE

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: 49A070 Name: OKANOGAN R @ MALOTT

## Location:

LOCATED AT THE MALOTT BRIDGE CROSSING THE OKANOGAN RIVER, JUST WEST OF  
HIGHWAY 97

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	5.156	4.866	18	2.707	2.661	14	11.667	2.754	18	19.350	2.544	18	22.300	0.000	
PRESS	P25	mm/Hg	742.856	8.964	18	742.450	5.045	14	739.656	5.008	18	741.844	5.466	18	759.000	718.800	
OXYGEN	P300	mg/L	11.889	1.629	18	12.843	1.079	14	10.217	0.826	18	8.544	0.665	18	14.700	7.700	
PCTSAT	P301	%	94.228	3.611	18	96.479	2.853	14	95.956	4.701	18	94.072	4.794	18	109.600	85.000	
FC	P31616	#/100ml	16.389	12.994	18	10.000	12.396	13	29.056	22.349	18	41.556	23.385	18	96.000	1.000	
PH	P400	pH	8.194	0.236	17	8.064	0.279	14	8.006	0.269	18	8.283	0.176	18	8.500	7.400	
SUSSOL	P530	mg/L	5.278	4.921	18	12.000	11.800	14	52.833	43.454	18	10.611	9.531	18	153.000	1.0000	
FLOW	P60	CFS	1726.800	2731.987	15	1556.750	700.693	12	6351.333	4486.752	15	2126.733	1408.056	15	18400.000	530.000A	
TPN	P600	mg/L	0.195	0.062	12	0.220	0.032	10	0.168	0.056	12	0.157	0.053	12	0.334	0.039	
NH3_N	P610	mg/L	0.010	0.000	18	0.011	0.002	14	0.012	0.004	18	0.011	0.003	18	0.023	0.010U	
NO2_DIS	P613	mg/L	0.010	0.000	5	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	0.000	0.000	12	0.001	0.001	6	0.000	0.001	8	0.001	0.000	10	0.002	0.000	
NO3_N	P620	mg/L	0.035	0.021	2	0.043	0.021	3	0.030	0.014	2	0.025	0.021	2	0.060	0.010K	
NO2_NO3	P630	mg/L	0.055	0.033	18	0.064	0.029	14	0.014	0.007	18	0.024	0.021	18	0.134	0.010U	
TP_P	P665	mg/L	0.016	0.007	17	0.031	0.023	14	0.060	0.055	18	0.018	0.009	18	0.241	0.010U	
OP_DIS	P671	mg/L	0.008	0.002	17	0.008	0.003	14	0.008	0.003	18	0.008	0.003	18	0.010	0.005U	
COLOR	P80	Pt-Co	6.000	2.828	2	24.000	20.704	4	10.333	8.327	3	15.000	19.799	2	46.000	1.000	
TURB	P82079	NTU	2.922	4.663	18	3.843	4.400	14	18.300	18.208	18	3.072	2.161	18	65.000	0.800	
COND	P95	umhos/25c	245.889	44.443	18	266.214	52.633	14	156.333	50.290	18	225.056	45.355	18	396.000	86.000	

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:	49A190	Name:	OKANOGAN R @ OROVILLE	Class:	A	Elevation:	1040	River Mile:	78.00	Water Years Sampled:	5 6	7	8	9		
VARIABLE	P-CODE	UNITS	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN
TEMP	P10	deg C	7.450	5.568	12	1.550	1.088	12	12.425	4.164	12	20.717	1.818	12	23.700	0.000
PRESS	P25	mm/Hg	740.400	11.226	12	742.400	5.958	12	738.242	3.976	12	740.833	6.165	12	756.400	717.600
OXYGEN	P300	mg/L	10.550	1.893	12	14.317	1.289	12	11.008	1.826	12	8.636	0.361	11	17.700	7.200
PCTSAT	P301	%	88.308	6.983	12	104.858	11.493	12	103.158	9.447	12	97.982	5.910	11	135.500	70.800
FC	P31616	#/100ml	11.917	21.977	12	1.417	0.900	12	2.167	1.586	12	9.750	12.857	12	80.000	1.000U
PH	P400	pH	8.400	0.300	11	8.408	0.261	12	8.367	0.352	12	8.483	0.204	12	9.100	7.800
SUSSOL	P530	mg/L	3.083	1.564	12	3.833	2.167	12	4.250	1.422	12	2.583	0.669	12	9.000	1.000
FLOW	P60	CFS	302.778	103.437	9	642.778	410.292	9	1634.556	948.571	9	1062.333	576.355	9	3390.000	109.000
TPN	P600	mg/L	0.265	0.057	9	0.253	0.050	9	0.253	0.122	9	0.228	0.071	9	0.567	0.110
NH3_N	P610	mg/L	0.016	0.013	12	0.011	0.002	12	0.013	0.005	12	0.011	0.003	12	0.054	0.010U
NO2_DIS	P613	mg/L	0.010	0.000	2	0.010	0.000	3	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	2	0.010	0.000	3	0.010	0.010
NH3_UN	P619	mg/L	0.001	0.001	12	0.001	0.001	12	0.002	0.001	8	0.002	0.003	10	0.010	0.000
NO3_N	P620	mg/L	0.020	0.014	2	0.023	0.023	3	0.020	0.000	2	0.010	0.000	2	0.050	0.010K
NO2_NO3	P630	mg/L	0.027	0.020	12	0.066	0.028	12	0.019	0.018	12	0.015	0.017	12	0.105	0.010U
TP_P	P665	mg/L	0.017	0.007	11	0.017	0.009	12	0.021	0.017	12	0.015	0.007	12	0.062	0.010U
OP_DIS	P671	mg/L	0.007	0.003	11	0.006	0.002	12	0.006	0.002	12	0.006	0.002	12	0.010	0.005U
COLOR	P80	Pt-Co	12.500	6.364	2	14.333	2.309	3	7.333	6.028	3	9.000	11.314	2	17.000	1.000
TURB	P82079	NTU	1.542	0.408	12	1.308	0.704	12	1.617	0.490	12	1.425	0.411	12	3.300	0.600
COND	P95	umhos/25c	273.333	18.143	12	286.083	50.812	12	265.667	16.267	12	248.250	16.587	12	426.000	204.000

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: 49B070 Name: SIMILKAMEEN R @ OROVILLE

Location:  
LOCATED .2 MILES WEST OF HIGHWAY 97 AT THE BRIDGE ON 12TH AVENUE  
(WANNACUT LAKE ROAD) IN OROVILLE

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	4.856	4.395	18	2.971	2.509	14	9.756	3.137	18	16.994	2.347	18	19.700	0.000	
ZN	P1094	ug/L	6.875	4.926	4	0.000	0.000	0	10.800	4.293	4	2.800	0.849	2	14.600	2.200	
CD	P1113	ug/L	0.100	0.000	4	0.000	0.000	0	0.100	0.000	4	0.100	0.000	2	0.100	0.100	
PB	P1114	ug/L	0.475	0.685	4	0.000	0.000	0	0.675	0.320	4	0.600	0.566	2	1.500	0.1000	
CR	P1118	ug/L	1.450	1.723	4	0.000	0.000	0	1.143	0.584	4	0.300	0.141	2	5.000	0.2000	
CU	P1119	ug/L	3.150	4.637	4	0.000	0.000	0	5.625	2.655	4	1.200	0.141	2	10.100	0.700	
PRESS	P25	mm/Hg	741.117	8.821	18	740.743	6.166	14	738.139	4.267	18	739.617	6.529	18	756.400	718.300	
OXYGEN	P300	mg/L	12.717	1.681	18	13.293	1.203	14	11.600	0.907	18	9.683	0.450	18	15.400	8.900	
PCTSAT	P301	%	100.033	3.072	18	100.743	3.033	14	104.467	5.289	18	102.167	4.232	18	113.700	93.300	
FC	P31616	#/100ml	3.611	3.852	18	1.231	0.439	13	16.667	20.987	18	15.353	13.973	17	92.000	1.0000	
PH	P400	pH	8.071	0.341	17	8.107	0.305	14	8.078	0.491	18	8.194	0.204	18	8.600	7.200	
SUSSOL	P530	mg/L	5.944	15.607	18	4.786	2.966	14	55.333	74.297	18	5.333	4.201	18	293.000	1.0000	
FLOW	P60	CFS	891.944	886.085	18	1031.615	635.681	13	5942.500	4500.519	18	1417.733	999.638	15	16500.000	159.000	
TPN	P600	mg/L	0.099	0.066	12	0.098	0.028	10	0.149	0.089	12	0.081	0.042	12	0.336	0.016	
NH3_N	P610	mg/L	0.010	0.000	18	0.010	0.001	14	0.012	0.006	18	0.010	0.001	18	0.033	0.010U	
NO2_DIS	P613	mg/L	0.010	0.000	5	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	0.000	0.000	12	0.001	0.001	7	0.001	0.001	8	0.001	0.001	10	0.003	0.000	
NO3_N	P620	mg/L	0.025	0.021	2	0.010	0.000	3	0.025	0.007	2	0.010	0.000	2	0.040	0.010K	
NO2_NO3	P630	mg/L	0.026	0.021	18	0.029	0.019	14	0.011	0.003	18	0.015	0.014	18	0.073	0.010U	
TP_P	P665	mg/L	0.015	0.012	17	0.013	0.006	14	0.055	0.078	18	0.012	0.004	18	0.334	0.010U	
OP_DIS	P671	mg/L	0.008	0.002	17	0.008	0.003	14	0.008	0.003	18	0.008	0.002	18	0.011	0.005U	
HG	P71900	ug/L	0.001	0.001	4	0.000	0.000	0	0.003	0.001	4	0.002	0.001	2	0.004	0.001U	
COLOR	P80	Pt-Co	4.000	0.000	2	19.857	12.602	7	15.333	10.599	3	21.500	28.991	2	80.000	1.000	
TURB	P82079	NTU	3.339	6.749	18	2.421	2.192	14	20.267	28.038	18	2.561	2.300	18	110.000	0.500	
HARD	P900	mg/L	90.250	7.500	4	0.000	0.000	0	61.500	24.076	4	82.500	6.364	2	98.000	43.000	
COND	P95	umhos/25c	182.167	27.618	18	202.000	43.776	14	118.611	34.988	18	163.778	34.693	18	316.000	80.000	

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: 53A070 Name: COLUMBIA R @ GRAND COULEE		Class: A Elevation: 950 River Mile: 596.00		Water Years Sampled:		8		9		----SIX YEAR----	
Location: LOCATED AT THE COULEE DAM BRIDGE .5 MILES BELOW GRAND COULEE DAM		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		MAX MIN	
VARIABLE	P-CODE UNITS	---OCTOBER-DECEMBER---		----JANUARY-MARCH----		----APRIL-JUNE----		----JULY-SEPTEMBER----			
		MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN
TEMP	deg C	13.767	3.678	12	2.967	1.272	12	7.667	2.875	12	17.308
PRESS	mm/Hg	735.517	10.667	12	738.775	8.071	12	734.292	3.857	12	734.700
OXYGEN	mg/L	9.308	0.814	12	12.658	0.668	12	12.164	0.845	11	9.617
PCTSAT	%	91.917	3.882	12	96.617	6.290	12	104.373	3.688	11	102.817
FC	P31616 #/100ml	2.636	5.104	11	1.333	0.778	12	1.000	0.000	12	1.333
PH	pH	7.942	0.417	12	7.992	0.227	12	7.975	0.196	12	8.150
SUSSOL	mg/L	1.583	0.996	12	1.417	0.515	12	2.083	0.996	12	1.057
FLOW	CFS	111122.222	40443.101	9	140833.333	31921.779	9	143966.667	41617.905	9	126744.444
TPN	mg/L	0.263	0.323	9	0.245	0.066	9	0.218	0.053	9	0.132
NH3_N	mg/L	0.013	0.007	12	0.013	0.004	12	0.015	0.007	12	0.016
NO2_DIS	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010
NO2_N	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010
NH3_UN	mg/L	0.000	0.000	14	0.000	0.000	12	0.000	0.001	8	0.000
NO3_N	mg/L	0.093	0.012	3	0.093	0.029	3	0.075	0.049	2	0.060
NO2_NO3	mg/L	0.163	0.255	12	0.168	0.056	12	0.111	0.050	12	0.071
TP_P	mg/L	0.020	0.026	12	0.014	0.006	12	0.031	0.048	12	0.083
OP_DIS	mg/L	0.014	0.023	12	0.007	0.002	12	0.007	0.003	12	0.007
COLOR	Pt-Co	5.333	2.309	3	9.000	11.314	2	9.000	11.314	2	13.333
TURB	NTU	0.592	0.358	12	2.033	1.505	12	2.825	2.049	12	0.368
COND	umhos/25c	122.250	14.913	12	134.250	17.062	12	126.667	13.076	12	124.917

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		Water Years Sampled:							
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	
N02_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	
N02_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	
N03_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	
N02_N03	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:	55B070	Name:	LITTLE SPOKANE R NR MOUTH	Class:	A	Elevation:	1525	River Mile:	1.10	Water Years Sampled:	5 6 7 8 9								
VARIABLE	P-CODE	UNITS	--OCTOBER-DECEMBER--	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	--APRIL-JUNE--	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN	--JULY-SEPTEMBER--
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	82.033	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	3.368	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_N03	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		Water Years Sampled:												
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	6.136	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	12.227	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: 57A150 Name: SPOKANE R @ STATELINE BR

Location:

LOCATED AT THE BRIDGE ON STATELINE VILLAGE ROAD, .1 MILE WEST OF THE WASHINGTON-IDAHO BORDER, .01 MILE NORTH OF I-90.

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	9.617	4.003	18	2.450	1.300	18	9.444	4.839	18	20.072	2.257	18	25.200	0.800	
ZN	P1094	ug/L	80.317	27.002	6	93.025	12.686	4	80.133	12.096	3	45.567	1.504	3	110.000	44.000J	
CD	P1113	ug/L	0.317	0.132	6	1.135	1.255	4	0.397	0.055	3	0.283	0.146	3	3.000	0.160	
PB	P1114	ug/L	2.100	1.070	5	7.375	8.606	4	9.833	4.644	3	1.333	0.306	3	20.000	1.000K	
CR	P1118	ug/L	1.333	1.827	6	2.360	2.423	5	1.525	2.320	4	2.220	2.540	5	5.000	0.200U	
CU	P1119	ug/L	1.080	1.083	5	4.650	6.320	4	1.167	0.306	3	0.833	0.231	3	14.000	0.400	
PRESS	P25	mm/Hg	713.578	6.839	18	711.594	6.308	17	710.306	3.183	18	711.022	5.531	18	730.000	699.500	
OXYGEN	P300	mg/L	10.094	1.112	18	12.428	0.754	18	11.439	1.505	18	8.044	0.469	18	14.300	7.000	
PCTSAT	P301	%	93.461	6.259	18	97.089	5.662	18	105.444	6.050	18	93.922	5.412	18	115.600	84.100	
FC	P31616	#/100ml	9.118	18.378	17	2.529	2.294	17	6.333	12.930	18	18.176	16.474	17	79.000	1.000U	
PH	P400	pH	7.594	0.234	18	7.544	0.289	18	7.633	0.387	18	7.824	0.299	17	8.500	6.900	
SUSSOL	P530	mg/L	1.944	1.305	18	1.722	1.127	18	2.444	1.042	18	2.056	1.259	18	6.000	1.000U	
FLOW	P60	CFS	3841.667	6532.035	18	7325.556	5043.777	18	10128.750	5724.644	16	1265.000	1172.065	15	29800.000	237.000	
TPN	P600	mg/L	0.121	0.046	12	0.181	0.038	12	0.144	0.064	11	0.162	0.074	12	0.301	0.010U	
NH3_N	P610	mg/L	0.016	0.010	18	0.020	0.012	18	0.015	0.012	17	0.016	0.011	18	0.059	0.010U	
NO2_DIS	P613	mg/L	0.010	0.000	6	0.010	0.000	6	0.010	0.001	6	0.010	0.000	6	0.012	0.010K	
NO2_NO3	P630	mg/L	0.032	0.017	18	0.067	0.032	18	0.041	0.040	17	0.048	0.051	18	0.200	0.010U	
TP_P	P665	mg/L	0.014	0.008	18	0.017	0.009	18	0.022	0.030	17	0.015	0.007	18	0.126	0.010U	
OP_DIS	P671	mg/L	0.008	0.002	18	0.009	0.003	18	0.008	0.003	18	0.008	0.003	18	0.015	0.005U	
HG	P71900	ug/L	0.016	0.023	7	0.019	0.030	7	0.001	0.001	3	0.001	0.001	4	0.072	0.001U	
TURB	P82079	NTU	1.106	0.527	8	2.289	3.108	18	2.694	2.648	18	1.128	0.431	18	14.000	0.500	
HARD	P900	mg/L	21.286	1.380	7	23.000	1.414	6	19.833	3.189	6	20.800	2.864	5	25.000	16.000	
COND	P95	umhos/25c	53.944	6.375	18	53.333	5.729	18	49.833	8.706	18	51.556	6.271	18	76.000	32.000	

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	
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		Location:		Water Years Sampled:		Class: AA		Elevation: 1400		River Mile: 10.90		----SIX YEAR----	
		LOCATED 10.9 MILES FROM THE MOUTH OF THE KETTLE RIVER, .75 MILES EAST OF BARSTOW ON THE FERRY-STEVENS COUNTY LINE		5 6		7		8		9			
VARIABLE	P-CODE UNITS	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N
TEMP	deg C	5.118	5.149	11	0.475	0.645	8	7.483	1.842	12	17.850	2.303	12
PRESS	mm/Hg	726.218	5.933	11	728.688	4.036	8	727.392	4.929	12	728.883	7.917	12
OXYGEN	mg/L	12.309	1.627	11	13.638	0.250	8	12.133	0.525	12	9.142	0.414	12
PCTSAT	%	99.700	1.893	11	98.625	1.461	8	105.383	3.818	12	99.600	3.979	12
FC	P31616 #/100ml	4.900	4.771	10	1.625	1.768	8	27.500	28.389	12	11.000	10.296	12
COD	P340 mg/L	5.000	0.000	2	10.500	7.778	2	20.667	7.767	3	9.500	7.778	2
PH	P400 pH	8.118	0.289	11	8.038	0.245	8	7.742	0.382	12	8.333	0.267	12
SUSSOL	P530 mg/L	1.182	0.405	11	2.375	1.598	8	36.583	40.529	12	2.667	1.875	12
FLOW	P60 CFS	783.727	575.062	11	837.000	259.404	8	10737.778	5024.522	9	1678.667	1861.442	9
TPN	P600 mg/L	0.163	0.043	11	0.222	0.055	8	0.194	0.105	12	0.120	0.032	12
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
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
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
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
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
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
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
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
COLOR	P80 Pt-Co	15.857	4.451	7	27.000	26.870	2	31.000	8.888	3	3.333	4.041	3
TURB	P82079 NTU	0.555	0.221	11	0.850	0.256	8	11.625	11.839	12	1.133	0.679	12
HARD	P900 mg/L	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0
COND	P95 umhos/25c	167.909	38.464	11	173.500	50.268	8	90.417	60.491	12	147.750	42.732	12

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: 61A070		Name: COLUMBIA R @ NORTHPORT		Class: AA		Elevation: 1280	River Mile: 735.10	Water Years Sampled:									
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	9.428	3.880	18	2.767	1.132	18	8.094	2.862	18	16.589	1.331	18	19.400	1.100J	
ZN	P1094	ug/L	8.900	1.853	14	16.046	10.119	13	14.993	12.874	14	12.707	11.548	14	48.900	4.200P	
CD	P1113	ug/L	0.353	0.797	13	0.384	0.830	12	0.328	0.745	15	1.531	4.124	13	15.000	0.040P	
PB	P1114	ug/L	3.929	6.878	14	3.675	5.775	12	3.440	5.404	15	4.114	6.776	14	20.000	0.000P	
CR	P1118	ug/L	0.881	1.272	13	1.984	2.237	12	1.029	1.629	15	1.078	1.754	13	5.000	0.170	
CU	P1119	ug/L	2.879	2.089	14	3.669	3.191	13	4.027	3.083	15	2.679	1.103	14	14.000	0.000P	
PRESS	P25	mm/Hg	728.706	5.380	18	730.147	7.604	17	728.171	8.062	17	727.689	5.608	18	756.200	712.500	
OXYGEN	P300	mg/L	11.283	1.283	18	13.033	0.499	18	12.383	0.645	18	10.383	0.628	18	13.900	9.300	
PCTSAT	P301	%	101.761	5.667	18	100.189	5.779	18	109.017	6.539	18	110.478	5.544	18	121.100	89.400	
FC	P31616	#/100ml	26.412	34.355	17	13.647	33.320	17	15.389	26.710	18	26.529	34.083	17	139.000	1.000U	
CHL	P32211	ug/L	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	1.033	0.114	3	1.160	0.140	
PHEO	P32218	ug/L	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	1.590	0.807	3	2.740	0.960	
PH	P400	pH	8.039	0.197	18	7.867	0.191	18	7.967	0.272	18	8.061	0.311	18	8.400	7.300	
SUSSOL	P530	mg/L	1.778	0.808	18	1.778	0.808	18	5.500	8.625	18	2.056	0.873	18	39.000	1.000U	
FLOW	P60	CFS	76646.667	12158.058	15	82020.000	36397.767	15	81786.667	53543.278	15	92006.667	35507.534	15	219000.000	11400.000	
TPN	P600	mg/L	0.133	0.018	12	0.170	0.036	12	0.152	0.024	12	0.142	0.020	12	0.225	0.085	
NH3_N	P610	mg/L	0.021	0.019	18	0.019	0.013	18	0.018	0.016	18	0.015	0.007	18	0.085	0.010U	
NO2_DIS	P613	mg/L	0.010	0.000	6	0.010	0.000	6	0.010	0.000	6	0.010	0.001	6	0.012	0.010K	
NO2_N03	P630	mg/L	0.064	0.026	18	0.117	0.021	18	0.068	0.021	18	0.058	0.020	18	0.171	0.021	
TP_P	P665	mg/L	0.016	0.008	18	0.016	0.008	18	0.023	0.022	18	0.014	0.007	18	0.088	0.010U	
OP_DIS	P671	mg/L	0.010	0.006	17	0.011	0.008	18	0.011	0.009	18	0.008	0.003	18	0.033	0.005U	
HG	P71900	ug/L	0.026	0.036	14	0.028	0.026	11	0.023	0.029	16	0.020	0.024	16	0.100	0.001U	
TURB	P82079	NTU	0.806	0.267	18	1.100	0.769	18	2.217	2.454	18	1.111	0.456	18	11.000	0.400	
HARD	P900	mg/L	68.154	3.716	13	73.154	3.338	13	67.471	4.875	17	64.000	8.050	16	92.000	58.000	
COND	P95	umhos/25c	134.611	9.198	18	142.667	17.644	18	133.778	11.584	18	127.889	28.307	18	234.000	97.000	

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

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

<sup>a</sup>Special temperature criterion of “shall not exceed 20°C” was applied.

<sup>b</sup>The lower Yakima has a special temperature criterion of “shall not exceed 21°C” which was considered.

<sup>c</sup>Additional oxygen criterion, “dissolved oxygen shall exceed 90 percent of saturation,” was also evaluated.

**EASTERN REGION**

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

<sup>a</sup>Special temperature criterion of "shall not exceed 20°C" was applied.

**NORTHWEST REGION**

STATION Number	Name	Class	TEMPERATURE			OXYGEN			pH			FECAL COLIFORM		
			No	Exceed	Pct	No	Exceed	Pct	No	Exceed	Pct	No	Exceed	Pct
<b>Core Stations</b>														
01A050	Nooksack R @ Brennan	A	11			11			11	2	18	3		
01A120	Nooksack R @ No Cedarville	A	12			12			12	1	8	1		
03A060	Skagit R nr Mount Vernon	A	12			12			12			1		
03B050	Samish R nr Burlington	A	12			12			12	5	42	9		
04A100	Skagit R @ Marblemount	AA	12			12			12					
05A070	Stillaguamish R nr Silvana	A	11			11			11	1	9	1		
05A090	SF Stillaguamish @ Arlington	A	12	1	8	12			12					
05A110	SF Stilly nr Granite Falls	AA	12	1	8	12	1	8	12					
05B070	NF Stillaguamish @ Cicero	A	12			12			12					
05B110	NF Stilly nr Darrington	A	12			12			12					
07A090	Snohomish R @ Snohomish	A	12			12			12	1	8	2		
07C070	Skykomish R @ Monroe	A	12			12			12					
07D050	Snoqualmie R nr Monroe	A	12			12			12	2	17	5		
07D130	Snoqualmie R @ Snoqualmie	A	12			12			12					
08C070	Cedar R @ Logan St/Renton	A	12			12			12	1	8	5		
08C110	Cedar R nr Landsburg	AA	12			12			12					
09A080	Green R @ Tukwila	A	11			11			11	3	27	7		
09A190	Green R @ Kanasket	AA	12			12			12					
<b>Basin Stations</b>														
01A140	Nooksack R above the MF	A	12			12			12			1		
01D070	Sumas R nr Huntingdon BC	A	11	4	36	11			11	10	91	11		
01D120	Sumas R nr Nooksack	A	12			12			11	5	45	7		
01F070	SF Nooksack @ Potter Rd	A	12			12			12					
01G070	MF Nooksack R	AA	12			11			11					

**SOUTHWEST REGION**

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