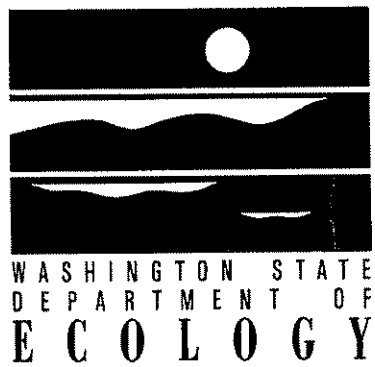

River and Stream Ambient Monitoring Report for Wateryear 1996

Final Report

June 1998

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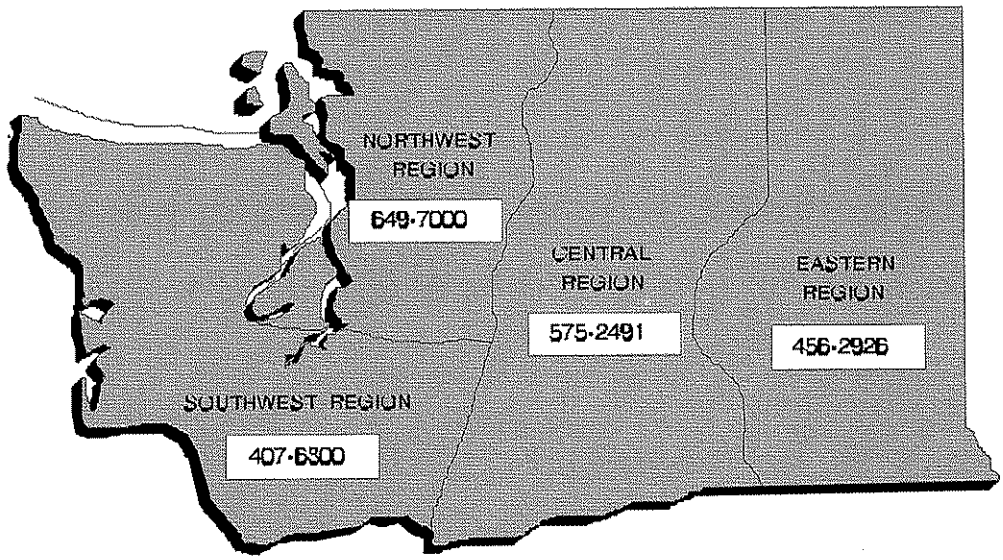

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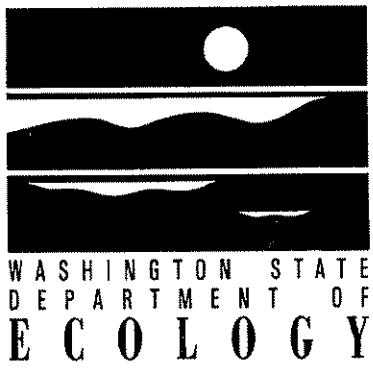

River and Stream Ambient Monitoring Report for Wateryear 1996

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Environmental Investigations and Laboratory Services Program
Olympia, Washington 98504-7710

June 1998

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- Will White was the sample courier.

Abstract

The Washington State Department of Ecology collected monthly water quality information at 84 river and stream monitoring stations during Wateryear (WY) 1996 (October 1, 1995 through September 30, 1996). 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 1996 was similar to that measured in previous years based on number of results exceeding water quality criteria. The fecal coliform bacteria geometric mean was the most frequently exceeded criterion based on individual samples. The geometric mean criterion was exceeded 153 times and 74 samples exceeded the "10 percent not to exceed" criterion, out of about 1000 samples collected. Fifty-two of 84 stations had at least one sample that exceeded the geometric mean criterion. Thirty-three stations were west of the Cascades and 24 were stations on streams that drain to Puget Sound. Temperature standards were exceeded 66 times at 40 stations on both sides of the Cascades, though most were in eastern Washington. Dissolved oxygen and pH standards were violated 38 and 83 times, respectively, at 13 and 33 stations, also most frequently east of the Cascades. A description of this long-term monitoring program and access to historical data can also be found on Ecology's internet web site at http://www.wa.gov/ecology.

Introduction

The Washington State Department of Ecology (Ecology) has operated a long-term Ambient Water Quality Monitoring Program since 1970. The 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 Wateryear (WY) 1996 monitoring program,
- provide a brief overview of water quality in Washington State in WY 1996,
- discuss data quality, and
- present results.

More detailed analyses and interpretations of ambient monitoring data are reported elsewhere. The Ambient Monitoring Section (AMS) 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, 1996a). (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 basins, 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 AMS analyzes data from four hydrologic basins annually to support the scoping phase of the basin approach to water quality management.

AMS data were analyzed from the following basins in 1996 during the scoping phase: Upper and Lower Snake (Greg Pelletier et. al, 1995), Wenatchee (William Ehinger et. al, 1995), Nooksack/San Juan (Karol Erickson et. al, 1995), and Western Olympics (Art Johnson et. al, 1995). Additional data collection was focused in these basins in 1997.

Methods

Sampling Network

The ambient monitoring network in WY 1996 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 basin approach to water quality management, the waste discharge permitting process, and to allow expanded coverage over an all-core network. Basin stations are often selected to target known problems and may not necessarily be representative of water quality conditions in the state.

The locations of ambient stations monitored during WY 1996 are presented in Figure 1 and Table 1. As a subset of the statewide monitoring network, four WQMAs were scheduled for more intensive monitoring in WY 1996: Esquatzel/Crab Creek (Figure 2), Okanogan (Figure 3), Island/Snohomish (Figure 4), and South Puget Sound (Figure 5). Most, but not all, "basin stations" were located in these WQMAs (Table 1). Appendix A 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 Ambient Monitoring 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 using a stainless steel sampler similar to the dissolved oxygen (DO) sampler design presented in Figure 4500-O:1 of the 18th Edition of Standard Methods (APHA, 1992). Water samples for fecal coliform bacteria, total suspended solids (TSS), and metals analyses were collected as discrete samples directly in the sample containers. Samples for fecal coliform bacteria and metals determination were collected in flow orienting samplers specifically designed to hold the sample bottles. The TSS bottle was attached as a passenger to the DO sampler. Twelve water quality constituents were monitored at all stations monthly in WY 1996 (Table 2) and eight metals plus total hardness were monitored bimonthly at selected stations (Table 3). All water samples were collected approximately 15 cm below the water surface.

Concurrent with collection of water samples, on-site measurements were taken for barometric pressure, time of day, *in-situ* temperature, pH, conductivity, and, if required, stage height (for flow determination).

Water samples not used for on-site measurements were submitted to Ecology's Manchester Environmental Laboratory (MEL) for analysis. Laboratory methods, detection limits, holding times, and other information for each of the monitored parameters is presented in Table 4. Specific details on methods are available from the references cited in Table 4 and in MEL's Laboratory 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. In WY 1996, the only procedural change we made was that we collected discharge information at certain sites ourselves, rather than contracting to the U.S. Geological Survey for the data. All other known and suspected changes to methods and procedures during the history of the River and Stream Ambient Monitoring Program are documented in Appendix B.

Metals Monitoring

During WY 1994 and 1995, the Freshwater Ambient Monitoring Unit and MEL made great strides in improving Ecology's low-level metals monitoring capabilities. The Freshwater Unit completed a pilot metals monitoring project and implemented improved field methods accompanied by improved analytical methods at MEL (Hopkins, 1996). These efforts have allowed Ecology to lower the detection limits for select metals to at least a factor of 20 below the Washington State Water Quality Chronic Criteria without compromising data quality.

For WY 1996, bimonthly metals and hardness information was collected starting in October and ending in August at 13 stations statewide (Table 3). Metals analyses were performed for dissolved nickel, cadmium, copper, zinc and lead, total mercury, and, at five stations, for several total recoverable metals. For additional information regarding the metals portion of the Freshwater Ambient Monitoring Program, see Hopkins (1996).

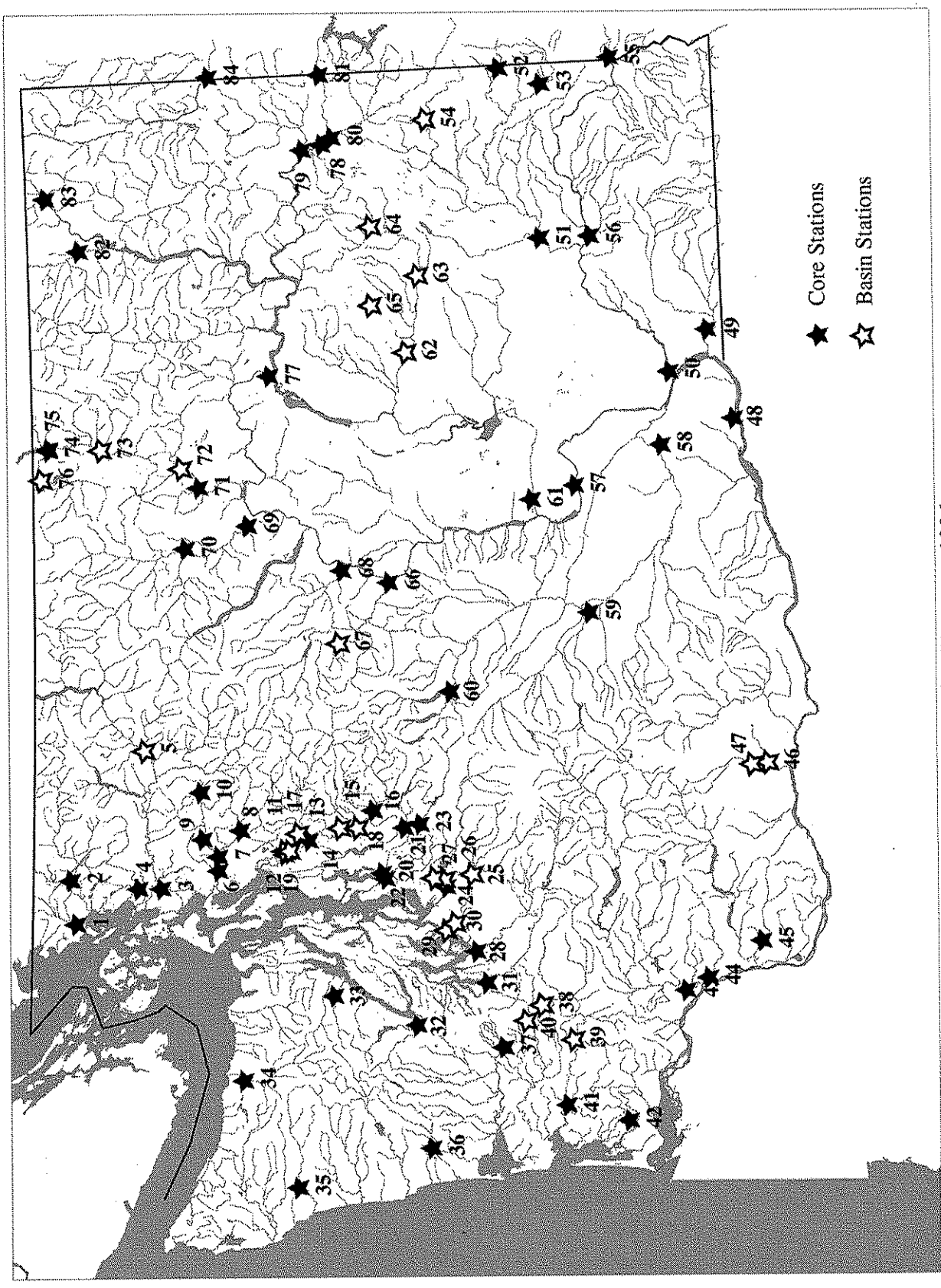

Figure 1. Ecology's river and stream monitoring stations for Wateryear 1996.

Table 1. Ecology river and stream ambient monitoring stations for wateryear 1996. Stations in WQMAs scheduled for data collection are shown in bold type.

Map	Station	Station Name	Map	Station	Station Name
1	01A050	Nooksack R @ Brennan	43	26B070	Cowlitz R @ Kelso
2	01A120	Nooksack R @ No Cedarville	44	27B070	Kalama R nr Kalama
3	03A060	Skagit R nr Mount Vernon	45	27D090	EF Lewis R nr Dollar Corner
4	03B050	Samish R nr Burlington	46	29D070	Rattlesnake Cr. nr Mouth
5	04A100	Skagit R @ Marblemount	47	29E070	Gilmer Cr nr Mouth
6	05A070	Stillaguamish R nr Silvana	48	31A070	Columbia R @ Umatilla
7	05A090	SF Stillaguamish @ Arlington	49	32A070	Walla Walla R nr Touchet
8	05A110	SF Stilly nr Granite Falls	50	33A050	Snake R nr Pasco
9	05B070	NF Stillaguamish @ Cicero	51	34A070	Palouse R @ Hooper
10	05B110	NF Stilly nr Darrington	52	34A170	Palouse R @ Palouse
11	**07A090**	**Snohomish R @ Snohomish**	53	34B110	SF Palouse R @ Pullman
12	**07B055**	**Pilchuck R @ Snohomish**	54	34F090	Pine Cr @ Rosalia
13	**07C070**	**Skykomish R @ Monroe**	55	35A150	Snake R @ Interstate Br
14	**07D050**	**Snoqualmie R nr Monroe**	56	35B060	Tucannon R @ Powers
15	**07D070**	**Snoqualmie R nr Carnation**	57	36A070	Columbia R nr Vernita
16	**07D130**	**Snoqualmie R @ Snoqualmie**	58	37A090	Yakima R @ Kiona
17	**07F055**	**Woods Cr @ Monroe**	59	37A205	Yakima R @ Knob Hill
18	**07P070**	**Patterson Ck nr Fall City**	60	39A090	Yakima R nr Cle Elum
19	**07R050**	**French Cr nr Mouth**	61	41A070	Crab Cr nr Beverly
20	08C070	Cedar R @ Logan St/Renton	**62**	**43A070**	**Crab Cr @ Irby**
21	08C110	Cedar R nr Landsburg	**63**	**43A100**	**Crab Ck @ Marcelus Road**
22	09A080	Green R @ Tukwila	**64**	**43A150**	**Crab Ck @ Bluestem Road**
	09A190	Green R @ Kanaskat	**65**	**43B090**	**Lake Ck @ Coffeepot Road**
24	**10A070**	**Puyallup R @ Meridian St**	66	45A070	Wenatchee R @ Wenatchee
25	**10A110**	**Puyallup R @ Orting**	67	45A110	Wenatchee R nr Leavenworth
26	**10C070**	**White R @ Sumner**	68	46A070	Entiat R nr Entiat
27	**10C085**	**White R nr Sumner**	**69**	**48A070**	**Methow R nr Pateros**
28	**11A070**	**Nisqually R @ Nisqually**	**70**	**48A140**	**Methow R @ Twisp**
29	**12A070**	**Chambers Cr nr Steilacoom**	**71**	**49A070**	**Okanogan R @ Malott**
30	**12A110**	**Clover Cr abv Steilacoom Lk**	**72**	**49A090**	**Okanogan R @ Okanogan**
31	13A060	Deschutes R @ E St Bridge	**73**	**49A180**	**Okanogan R @ Tonaskat**
32	16A070	Skokomish R nr Potlatch	**74**	**49A190**	**Okanogan R @ Oroville**
33	16C090	Duckabush R nr Brinnon	**75**	**49B070**	**Similkameen R @ Oroville**
34	18B070	Elwha R nr Port Angeles	**76**	**49B090**	**Similkameen R @ Nighthawk**
35	20B070	Hoh R @ DNR Campground	77	53A070	Columbia R @ Grand Coulee
36	22A070	Humptulips R nr Humptulips	78	54A120	Spokane R @ Riverside St Pk
37	23A070	Chehalis R @ Porter	79	55B070	Little Spokane R nr Mouth
38	23A100	Chehalis R @ Prather Rd	80	56A070	Hangman Cr @ Mouth
39	23A160	Chehalis R @ Dryad	81	57A150	Spokane R @ Stateline Br
40	23E070	Black River @ Moon Road Bridge	82	60A070	Kettle R nr Barstow
41	24B090	Willapa R nr Willapa	83	61A070	Columbia R @ Northport
42	24F070	Naselle R nr Naselle	84	62A150	Pend Oreille R @ Newport

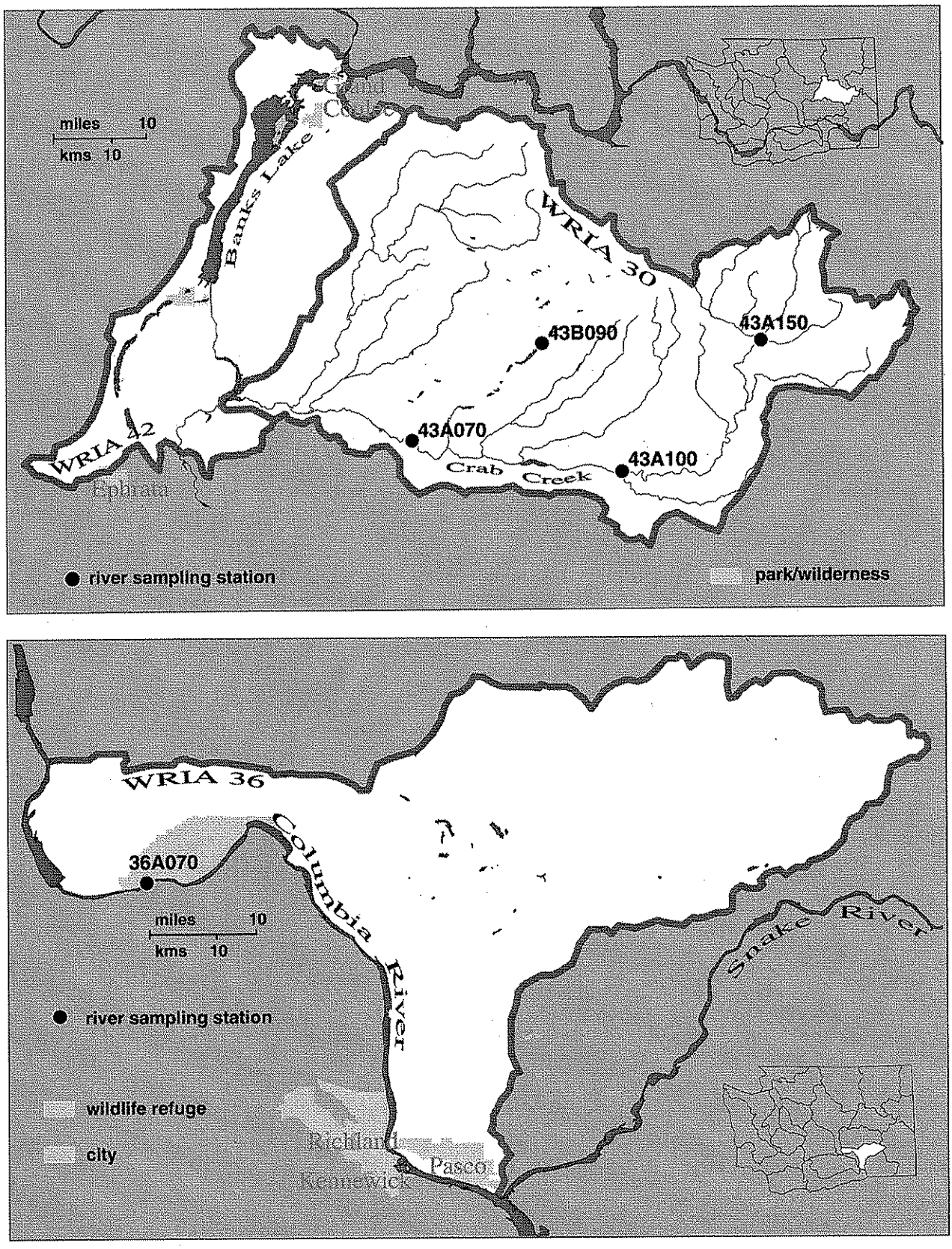

Figure 2. Esquatzel/Crab Creek Water Quality Management Areas

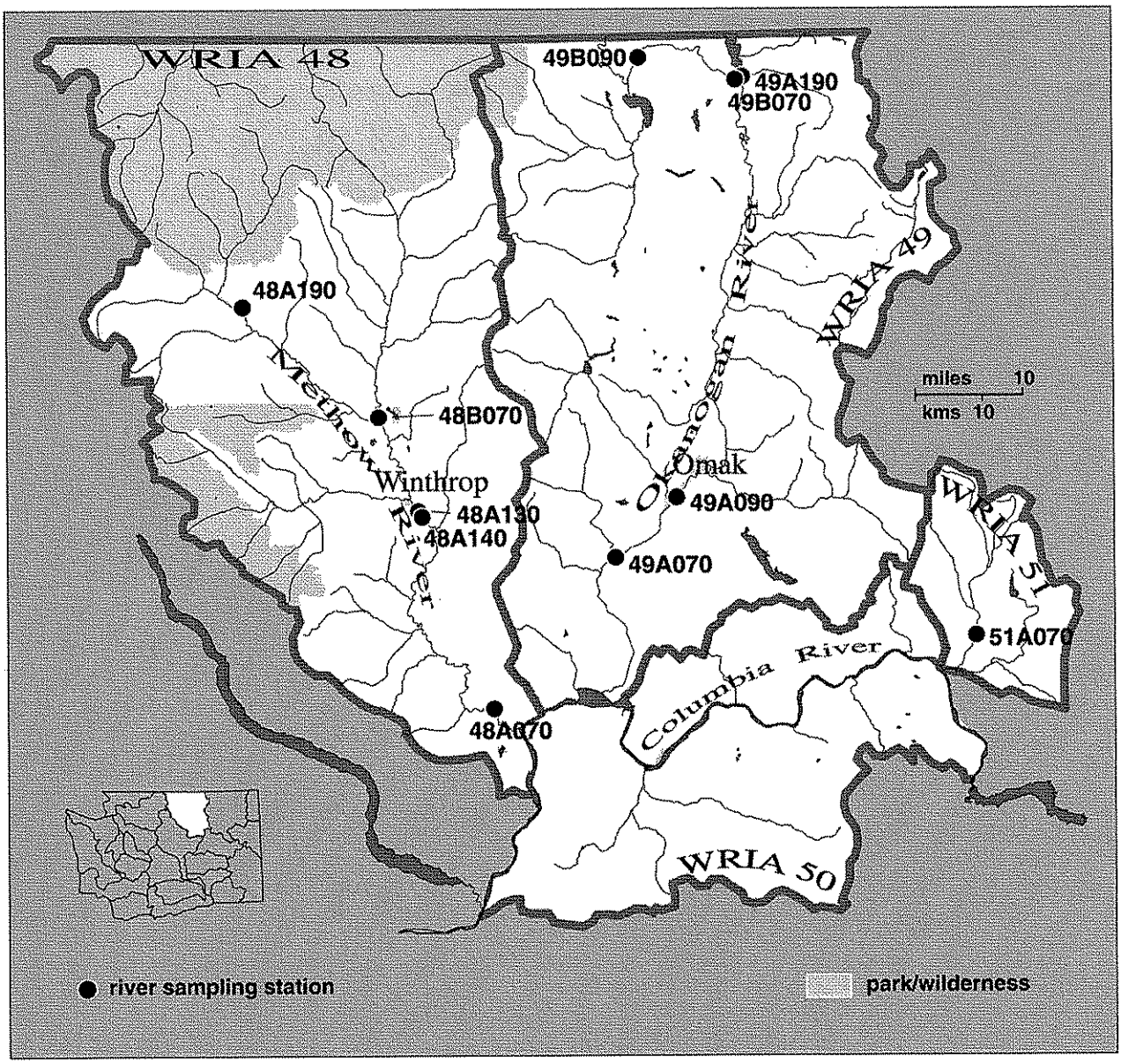

Figure 3. Okanogan Water Quality Management Area.

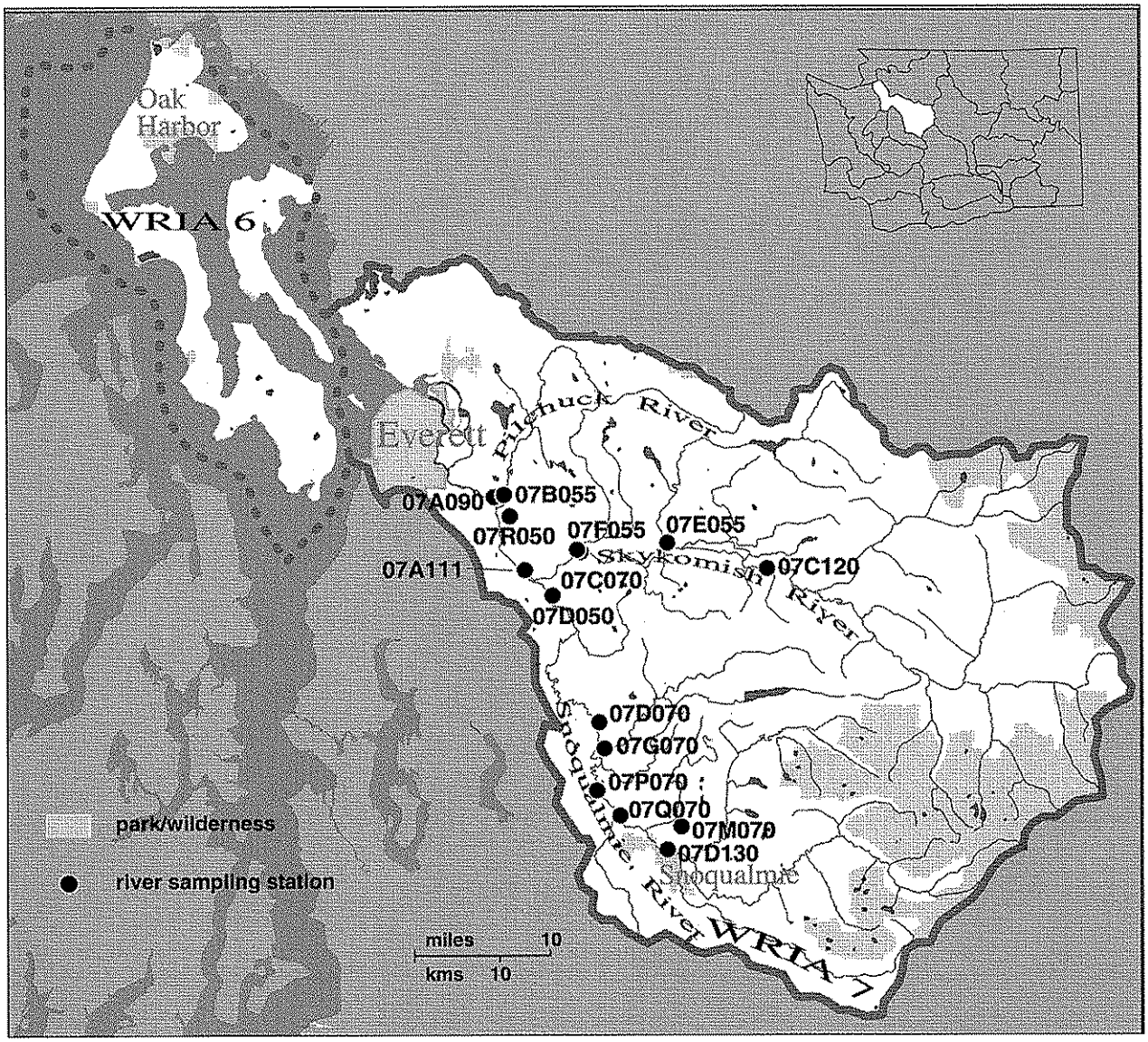

Figure 4. Island/Snohomish Water Quality Management Areas.

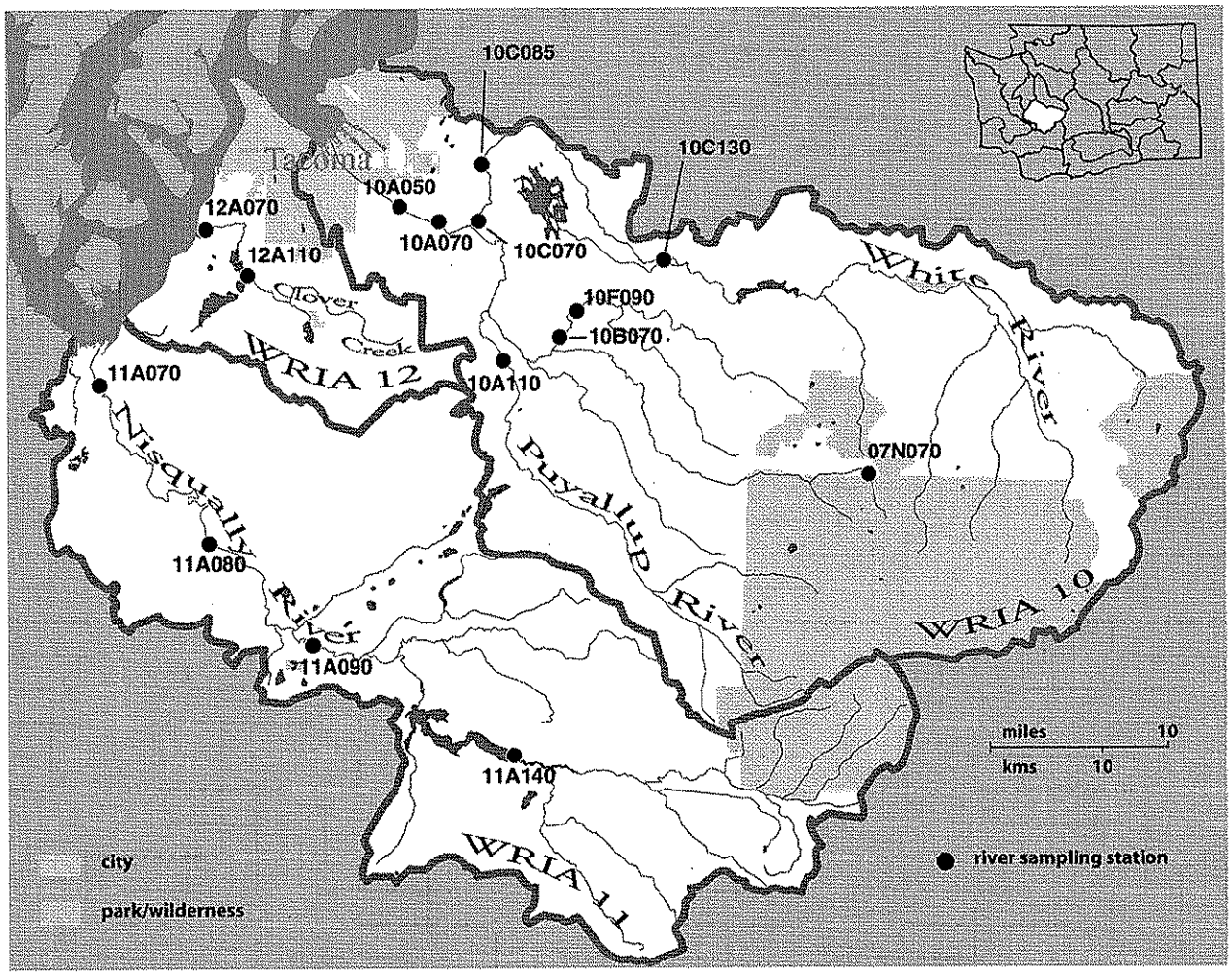

Figure 5. South Puget Sound Water Quality Management Area.

Table 2. Water quality constituents monitored monthly in Wateryear 1996 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 and stations monitored bi-monthly. Listed dissolved and total metals were sampled at all stations, total recoverable metals only at the stations indicated. Total Hardness was also sampled at all metals stations.

METALS	
Dissolved: cadmium, copper, lead, and nickel, zinc	
Total: mercury	
Total Recoverable: arsenic, cadmium, chromium, copper, and lead, zinc	
STATIONS	
01A050	Nooksack R @ Brennan
05A070	Stillaguamish R nr Silvana
07A090[a]	Snohomish R @ Snohomish
10A070	Puyallup R @ Meridian St
12A110	Clover Cr abv Steilacoom Lk
23A070	Chehalis R @ Porter
26B070[a]	Cowlitz R @ Kelso
36A070	Columbia R nr Vernita
49B070[a]	Similkameen R @ Oroville
49B090	Similkameen R @ Nighthawk
54A120	Spokane R @ Riverside State Pk
57A150[a]	Spokane R @ Stateline Br
61A070[a]	Columbia R @ Northport

[a]Total recoverable metals were also measured bi-monthly at these stations.

Table 4. Analytical procedures used in WY 1996 in Ecology's River and Stream Ambient Monitoring Program. (NA = Not applicable)

Parameter	Storet Parameter Code	Volume Req'd	Field Prepare/ Preserve[a]	Analytical Method	Limit of Detection	Holding Time
Conductivity	95	NA	NA	SM[b] 2510-B	NA (µS)	NA
Dissolved Oxygen	300	NA	Waterseal, Store in dark	SM 4500-OC	0 mg/L	72 hours[c]
pH	400	NA	NA	SM 4500-H	NA (Std Units)	NA
Temperature	10	NA	NA	Thermistor	NA (°C)	NA
Total Suspended Solids	530	1000 mL		SM 2540D,E	1 mg/L	7 days
Turbidity	82079	500 mL		SM 2130	0.5 NTU	48 hours
Fecal Coliform Bacteria	31616	250 mL		SM 9222D	1 colony/ 100 mL	30 hours
Soluble Reactive Phosphorus	671	125 mL	Filter	SM 4500-PF	10 µg/L	48 hours
Total Phosphorus	665	125 mL to pH<2	H2SO4	SM 4500-PF	10 µg/L	28 days
Ammonia Nitrogen	610	125 mL to pH<2	H2SO4	SM 4500D	10 µg/L	28 days
Nitrate + Nitrite Nitrogen	630	125 mL to pH<2	H2SO4	SM 4500F	10 µg/L	28 days

Table 4
Page 2

Parameter	Storet Parameter Code	Volume Req'd	Field Prepare/ Preserve[a]	Analytical Method	Limit of Detection[e]	Holding Time
Total Nitrogen	600	125 mL	H2SO4 to pH<2	Valderrama 1981	25 µg/L	28 days
Total Hardness	900	100 mL	HNO_3 to pH<2	SM 2340C	1 mg/L	6 months
Arsenic (total recoverable - ICP)	978	1 L	HNO_3 to pH<2	EPA[d] 200.7	0.2 µg/L	6 months
Cadmium (total recoverable - ICP)	1113	1 L	HNO_3 to pH<2	EPA 200.7	0.1 µg/L	6 months
Cadmium (dissolved - ICP/MS)	1025	1 L	HNO_3 to pH<2	EPA 200.8	0.03 µg/L	6 months
Chromium (total recoverable - ICP)	1118	1 L	HNO_3 to pH<2	EPA 200.7	.4 µg/L	6 months
Copper (total recoverable - ICP)	1119	1 L	HNO_3 to pH<2	EPA 200.7	0.1 µg/L	6 months
Copper (dissolved - ICP/MS)	1040	1 L	HNO_3 to pH<2	EPA 200.8	0.05 µg/L	6 months

Parameter	Storet Parameter Code	Volume Req'd	Field Prepare/ Preserve[a]	Analytical Method	Limit of Detection[e]	Holding Time
Lead (total recoverable - ICP)	1114	1 L	HNO_3 to pH<2	EPA 200.7	0.1 µg/L	6 months
Lead (dissolved - ICP/MS)	1049	1 L	HNO_3 to pH<2	EPA 200.8	0.02 µg/L	6 months
Mercury (total - Cold Vapor AF)	71900	1 L	HNO_3 to pH<2	EPA 245.7	0.001 µg/L	28 days
Nickel (dissolved - ICP/MS)	1065	1 L	HNO_3 to pH<2	EPA 200.8	0.05 µg/L	6 months
Zinc (total recoverable - ICP/MS)	1094	1 L	HNO_3 to pH<2	EPA 200.7	1.0 µg/L	6 months
Zinc (dissolved - ICP/MS)	1090	1 L	HNO_3 to pH<2	EPA 200.8	0.4 µg/L	6 months

[a] All lab samples are kept on ice or stored at 4°C prior to analysis
[b] Standard Methods (APHA, 1992).
[c] Standard Methods specifies analysis within a few hours, however, longer holding times do not greatly affect results (Crane, 1996)
[d] EPA, 1983.
[e] Detection limits for metals vary; many decreased during the year. Values shown were accurate at the end of the wateryear.

Data Management

Data generated by the River and Stream Ambient Monitoring Program were entered into two independent computer systems by monitoring staff and laboratory personnel. Monitoring staff entered field data (temperature, dissolved oxygen, barometric pressure, pH, conductivity, and discharge) directly into the ambient monitoring database and verified the data manually for transcription errors. Laboratory data were entered into the laboratory computer by laboratory personnel and verified by double entry for transcription errors. Laboratory data were then sent via electronic mail and combined with field data in the ambient monitoring database management system. All laboratory data were screened through a series of quality control (QC) filters (see the Quality Assurance section). Data exceeding QC standards were evaluated manually. Data of acceptable quality were uploaded to EPA's STORET database. For more detail on data management, see Hallock (1996b).

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 QA program for field sampling consisted of three parts: (1) adherence to a procedures manual for sample/data collection and periodic evaluation of sampling personnel, (2) instrument calibration methods and schedules, and (3) the collection of a field 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 as follows:

- 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 Blanks - 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.

In all, 96 field QC samples were processed: 68 field split samples, 21 duplicate (sequential) field samples, and seven field blanks. In addition, the laboratory analyzed some field QC samples in duplicate (*i.e.*, lab-split samples). The central tendency of the variability 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). Because this weights the higher values, 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. 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 meet all QA requirements, nine = data are unusable). Data with quality codes greater than four are generally not distributed outside the agency.

The metals portion of the of the Ambient Freshwater Program relies on four main areas to ascertain data quality. These four areas are 1) splits (field and laboratory), 2) blanks (laboratory, filter and bottle), 3) reference material and 4) laboratory spikes. Information from these samples is used to provide an ongoing evaluation of data quality and completeness.

Results and Discussion

The primary purpose of this report is to present the results of Ecology's river and stream monitoring in WY 1996. Appendix C contains results for each station monitored in WY 1996. Appendix D 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. The next section discusses general water quality, particularly 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 Table 6. 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 somewhat biased toward worse water quality than a true statewide average.

Weather

Weather in WY 1996 was wetter than usual. From October, 1995 through May, 1996, precipitation at Seattle was greater than normal for every month except March. Precipitation was about twice normal in November, February, and April. After May, rainfall amounts were more typical (Seattle Times, 1996; Seattle Times, 1997). Runoff at two sample streams, the Snohomish River in western Washington and the Palouse River in eastern Washington, was also higher than usual during most months (Figure 6). High precipitation, runoff, and discharge can result in higher than normal concentrations for parameters positively correlated with flow, such as fecal coliform bacteria, total phosphorus, and suspended sediment. Detailed evaluations of water quality data, including ambient data, should consider the impacts of precipitation and discharge.

General Water Quality in Wateryear 1996

This discussion is largely based on comparisons to state water quality criteria. Exceeding a criterion usually indicates a violation of the water quality standards, but not always. For example, temperature standards specify that the criterion shall not be exceeded *due to human activities*. Some of the reported exceedences of the temperature criterion may not be due to human activities; for example, the Okanogan River at Oroville is immediately downstream of a lake. However, the ambient monitoring program is not specifically designed to identify causes of water quality degradation.. Final determination of whether or not a station is in violation of water quality standards is made by Ecology's Water Quality Program in their biennial updates of Washington's 305(b) report and 303(d) list to EPA (e.g., Ecology, 1996).

Temperature

Statewide, 40 stations (48 percent of all stations) exceeded the temperature criterion at least once in WY 1996 (Table 5). Sixty-five percent of eastern Washington stations and 34 percent of western Washington stations exceeded the criterion at least once. Streams which exceeded the temperature criterion most often were the Okanogan (due to the influence of Lake Osoyoos), Tucannon, Kettle, and upper Spokane Rivers, and Hangman Creek.

Oxygen

Statewide, 13 stations (15 percent of all stations) dropped below the oxygen criterion at least once (Table 5). Stations which most frequently exceeded this criterion were either class AA streams (Yakima and Kettle Rivers) which have more restrictive oxygen requirements, or streams which are (presumably) organically enriched (Black, Palouse, and South Fork Palouse Rivers, Pine and French Creeks) (Table 6). French Creek had the greatest number of samples exceeding the criterion (82 percent).

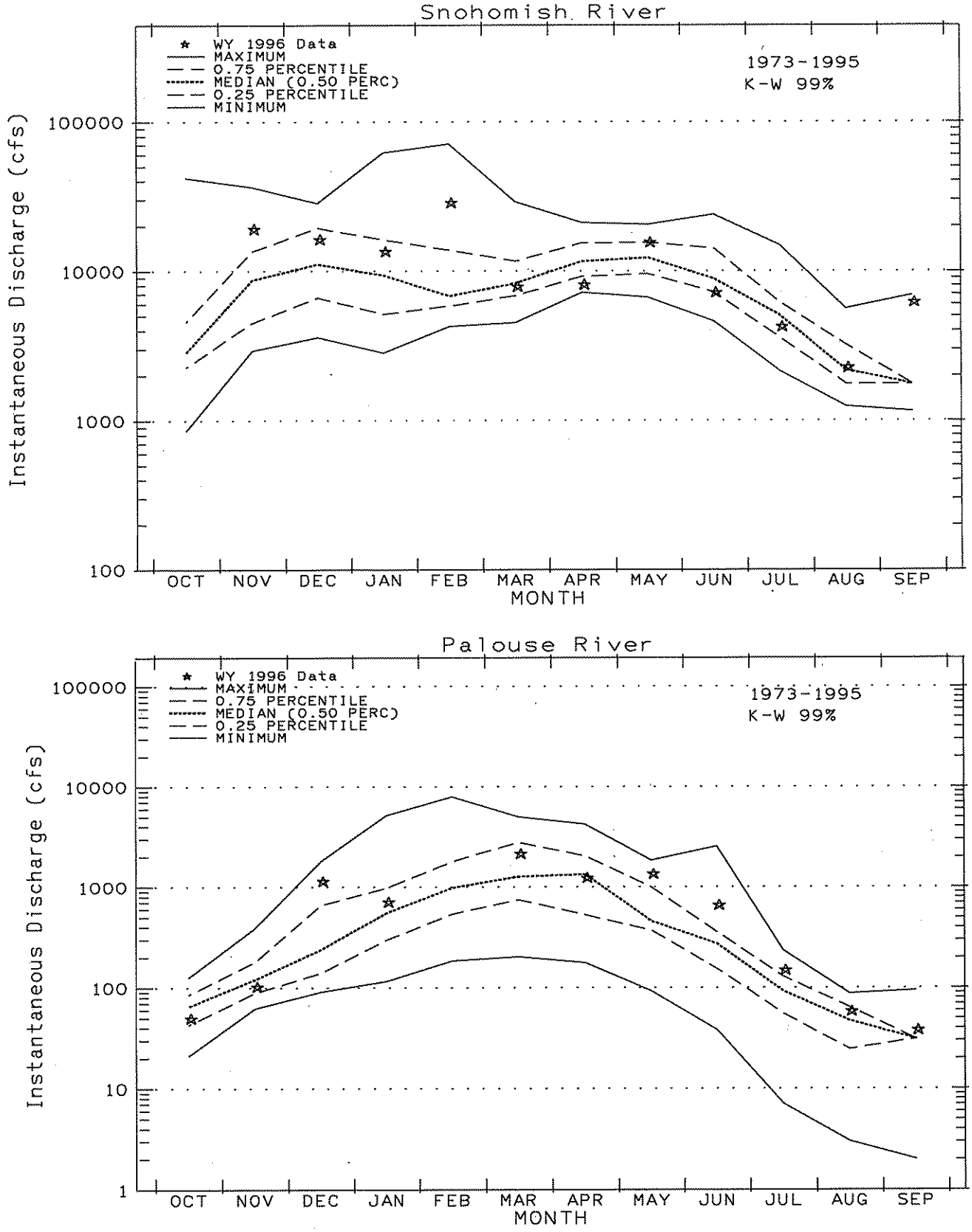

Figure 6. Instantaneous discharge in WY 1996 (*) compared to monthly distribution of instantaneous discharge from WY 1973 through WY 1995 for an eastern and a western Washington stream.

Table 5. Spatial distribution of results exceeding water quality criteria for temperature, dissolved oxygen, pH, and fecal coliform bacteria (FC), and high values of total phosphorus (TP) and total suspended solids (TSS) in WY 1996.

Region	No. of Stations or Samples[a]	Parameter						
		Temp	Oxygen	pH	FC[b] (%)	FC[c] (gm)	TP[d]	TSS[e]
BY STATION								
Ecology Region								
Central	17	10	3	14	1	3	5	8
Eastern	20	14	5	16	9	16	15	14
Northwest	23	4	3	1	11	17	8	12
Southwest	24	12	2	2	11	16	9	16
East of Cascades	37	24	8	30	10	19	20	22
West of Cascades	47	16	5	3	22	33	17	28
Puget Sound Basin	34	9	3	1	17	24	14	18
All stations	84	40	13	33	32	52	37	50
BY SAMPLE								
Ecology Region								
Central	204	19	4	28	1	8	12	14
Eastern	240	28	17	52	20	43	58	30
Northwest	276	4	11	1	26	59	14	28
Southwest	288	15	6	2	27	43	16	26
East of Cascades	444	47	21	80	21	51	70	44
West of Cascades	564	19	17	3	53	102	30	54
Puget Sound Basin	408	9	11	1	46	85	26	40
All stations	1008	66	38	83	74	153	100	98

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

[b] Based on individual results greater than the "10 percent not to exceed" criteria. See text.

[c] Based on individual results greater than the "geometric mean" criteria. See text.

[d] There are no state water quality standards for total phosphorus. The number shown is the number of results (or stations with at least one result) that exceeded the 90th percentile of all results in WY 96 (0.106 mg/L).

[e] There are no state water quality standards for total suspended solids. The number shown is the number of results (or stations with at least one result) that exceeded the 90th percentile of all results in WY 96 (73 mg/L).

Table 6. Number of results exceeding water quality criteria in Wateryear 1996 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 1996 are shown in bold. (Some basin stations were outside the Water Quality Management Areas ("basins") designated for data collection in 1996.)

CENTRAL REGION

STATION			TEMPERATURE			OXYGEN			pH			FECAL COLIFORM			
Number	Name	Class	No	Exceed	Pct	No	Exceed	Pct	No	Exceed	Pct	No	Exceed	Pct	GM
Core Stations															
31A070	Columbia R @ Umatilla	A	12	[a]		12	[c]		12	2	17	11			1
36A070	Columbia R nr Vernita	A	12	[a]		12			12	1	8	11			
37A090	Yakima R @ Kiona	A	12	1[b]	8	12	1	8	12			11	1	9	6
37A205	Yakima R @ Knob Hill	A	12	[b]		12			12			11			1
39A090	Yakima R nr Cle Elum	AA	12	1	8	12	2	17	12	1	8	11			
45A070	Wenatchee R @ Wenatchee	A	11			12			12	1	8	11			
45A110	Wenatchee R nr Leavenworth	AA	10			11			11			11			
46A070	Entiat R nr Entiat	A	12	1	8	12			12	2	17	10			
48A070	**Methow R nr Pateros**	A	11	1	9	11			11	2	18	10			
48A140	**Methow R @ Twisp**	A	12			11			11	1		10			
49A070	**Okanogan R @ Malott**	A	11	3	27	11			11	2		10			
49A190	**Okanogan R @ Oroville**	A	12	3	25	12	1	8	12	10	83	12			
49B070	**Similkameen R @ Oroville**	A	12	2	17	12			12	1	8	11			
53A070	Columbia R @ Grand Coulee	A	12	[a]		11			12	1	8	12			
Basin Stations															
49A090	**Okanogan R @ Okanogan**	A	11	2	18	11			11	2	18	11			
49A180	**Okanogan R @ Tonaskat**	A	12	3	25	12			12	1	8	12			
49B090	**Similkameen R @ Nighthawk**	A	10	2	20	10			10	1	10	10			

[a]Special temperature criterion of "shall not exceed 20°C" was applied.
[b]The lower Yakima has a special temperature criterion of "shall not exceed 21°C" which was considered.
[c]Additional oxygen criterion, "dissolved oxygen shall exceed 90 percent of saturation," was also evaluated.

Table 6.
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EASTERN REGION

STATION Number	Name	Class	TEMPERATURE No	Exceed	Pct	OXYGEN No	Exceed	Pct	pH No	Exceed	Pct	FECAL COLIFORM No	Exceed	Pct	GM
Core Stations															
32A070	Walla Walla R nr Touchet	B	10	2	20	10			10	3	30	8			1
33A050	Snake R nr Pasco	A	12	2[a]	17	12			12	2	17	10			1
34A070	Palouse R @ Hooper	B	11	1	9	11			11	3	27	10			1
34A170	Palouse R @ Palouse	A	11	1[a]	9	11	4	36	11			11	1	9	4
34B110	SF Palouse R @ Pullman	A	11			11	5	45	11			11	7	64	8
35A150	Snake R @ Interstate Br	A	12	2[a]	17	12			12	1	8	11			
35B060	Tucannon R @ Powers	A	12	3	25	12			12	5	42	11			1
41A070	Crab Cr nr Beverly	B	12	1	8	12			12	4	33	11	1	9	4
54A120	Spokane R @ Riverside State Pk	A	12	[a]		12			12	2	17	12	1	8	1
55B070	Little Spokane R nr Mouth	A	11			11			11	1	9	11			
56A070	Hangman Cr @ Mouth	A	11	3	27	11			11	6	55	10	1	10	2
57A150	Spokane R @ Stateline Br	A	12	3[a]	25	12	1	8	11			12			
60A070	Kettle R nr Barstow	AA	11	3	27	11	3	27	11	1	9	11			2
61A070	Columbia R @ Northport	AA	12			12			12			12	1	8	2
62A150	Pend Oreille R @ Newport	A	11	2[a]	18	11			11	1	9	11			
Basin Stations															
34F090	Pine Cr @ Rosalia	A	11	2	18	11	4	36	11			11	4	36	7
43A070	**Crab Cr @ Irby**	B	12	1	8	12			12	7	58	12			1
43A100	**Crab Ck @ Marcelus Road**	B	12			12			12			12			1
43A150	**Crab Ck @ Bluestem Road**	B	12			12			12	1	8	12	3	25	6
43B090	**Lake Ck @ Coffeepot Road**	B	7	2	29	7			7	1	14	7	1	14	1

[a]Special temperature criterion of "shall not exceed 20°C" was applied.

Table 6.
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NORTHWEST REGION

STATION			TEMPERATURE			OXYGEN			pH			FECAL COLIFORM			
Number	Name	Class	No	Exceed	Pct	No	Exceed	Pct	No	Exceed	Pct	No	Exceed	Pct	GM
Core Stations															
01A050	Nooksack R @ Brennan	A	12	1	8	12			12			12	1	8	3
01A120	Nooksack R @ No Cedarville	A	12			12			12			12			2
03A060	Skagit R nr Mount Vernon	A	12			12			12			12			
03B050	Samish R nr Burlington	A	12			12			12			12	5	42	8
04A100	Skagit R @ Marblemount	AA	12			12			12			12			1
05A070	Stillaguamish R nr Silvana	A	12	1	8	12			12			12			1
05A090	SF Stillaguamish @ Arlington	A	12			12			12			12	1	8	2
05A110	SF Stilly nr Granite Falls	AA	12	1	8	12			12			12	1	8	3
05B070	NF Stillaguamish @ Cicero	A	12			12			12			12	1	8	1
05B110	NF Stilly nr Darrington	A	12			12			12			12			1
07A090	**Snohomish R @ Snohomish**	A	12			12			12			11			3
07C070	**Skykomish R @ Monroe**	A	12			12			12			11			
07D050	**Snoqualmie R nr Monroe**	A	12			12			12			11	2	18	5
07D130	**Snoqualmie R @ Snoqualmie**	A	12			12			12			11			
08C070	Cedar R @ Logan St/Renton	A	12			12			12			12	1	8	5
08C110	Cedar R nr Landsburg	AA	10			10			10			9			
09A080	Green R @ Tukwila	A	12	1	8	12	1	8	12			12	3	25	6
09A190	Green R @ Kanaskat	AA	12			12			12			11			
Basin Stations															
07B055	**Pilchuck R @ Snohomish**	A	12			12			12			11			1
07D070	**Snoqualmie R nr Carnation**	A	11			11			11			10			
07F055	**Woods Cr @ Monroe**	A	12			12			12			11	1	9	3
07P070	**Patterson Ck nr Fall City**	A	12			12	1	8	12			11	3	27	5
07R050	**French Cr nr Mouth**	A	11			11	9	82	11			10	7	70	9

Table 6.
Page 4

SOUTHWEST REGION

STATION			TEMPERATURE			OXYGEN			pH			FECAL COLIFORM			
Number	Name	Class	No	Exceed	Pct	No	Exceed	Pct	No	Exceed	Pct	No	Exceed	Pct	GM
Core Stations															
10A070	**Puyallup R @ Meridian St**	A	12			12			12			12	4	33	6
11A070	**Nisqually R @ Nisqually**	A	12			12			12			12			
13A060	Deschutes R @ E St Bridge	A	12	1	8	12			12			12	1	8	2
16A070	Skokomish R nr Potlatch	AA	12			12			12			12			
16C090	Duckabush R nr Brinnon	AA	12			11			11			11			
18B070	Elwha R nr Port Angeles	AA	12			12			12			12			
20B070	Hoh R @ DNR Campground	AA	12			12			12			12			
22A070	Humptulips R nr Humptulips	A	12			12			12			12	1	8	2
23A070	Chehalis R @ Porter	A	12	2	17	12	1	8	12			12			2
23A160	Chehalis R @ Dryad	A	12	1	8	12			12	1	8	12			
24B090	Willapa R nr Willapa	A	12	1	8	12			12			12	3	25	4
24F070	Naselle R nr Naselle	A	12			12			12	1	8	12			1
26B070	Cowlitz R @ Kelso	A	12			12			12			12			
27B070	Kalama R nr Kalama	A	12			12			12			12			
27D090	EF Lewis R nr Dollar Corner	A	12	2	17	12			12			12	1	8	2
Basin Stations															
10A110	**Puyallup R @ Orting**	A	12			12			12			12			2
10C070	**White R @ Sumner**	A	12	1	8	12			12			12	5	42	6
10C085	**White R nr Sumner**	A	12	1	8	12			12			12	3	25	3
12A070	**Chambers Cr nr Steilacoom**	A	12	1	8	12			12			12	1	8	1
12A110	**Clover Cr abv Steilacoom Lk**	A	12	1	8	12			12			12	6	50	6
23A100	Chehalis R @ Prather Rd	A	12	2	17	12			12			12	1	8	2
23E070	Black River @ Moon Rd Bridge	A	12	1	8	12	5	42	12			12			2
29D070	Rattlesnake Cr nr Mouth	A	12	1	8	11			12			11			1
29E070	Gilmer Cr nr Mouth	A	12			11			11			10	1	10	1

pH

Thirty-three stations (39 percent of all stations) exceeded the pH criterion, all but three of which were east of the Cascade Mountains (Table 5). The Okanogan and Tucannon Rivers and Crab and Hangman Creeks exceeded the criterion more frequently than other stations (Table 6). High pH in the Okanogan is likely due to the influences of Lake Osoyoos. Riparian clearing, nutrient enrichment, and the natural geology of the region may all have contributed to high pH in the other streams.

Fecal Coliform Bacteria

Out of about 1000 samples collected statewide, 153 samples (15 percent) from 52 stations (62 percent of all stations) exceeded the geometric mean criterion for fecal coliform bacteria (Table 5). A strict interpretation of the fecal coliform bacteria standards could consider all of these stations in violation of water quality standards although 19 of the stations had only a single result greater than the criterion. This is because the geometric mean cannot be based on a period longer than 30 days and no minimum number of samples is specified (Washington Administrative Code, Chapter 173-201A-060 paragraph (3)). Our samples were collected at approximately 30-day intervals.

Stations in western Washington were more likely to exceed the fecal coliform geometric mean criterion than were eastern Washington stations (70 percent of western Washington stations exceeded the criterion compared to 31 percent of eastern Washington stations). However, the distribution among individual samples was a little more even: 18 percent of samples west of the Cascades, 11 percent on the east side, and 21 percent in Puget Sound exceeded the criterion.

There were 10 streams where 50 percent or more of the samples exceeded the geometric mean criterion: Yakima River at Kiona, South Fork Palouse River, **Pine Creek**, **Crab Creek at Bluestem Road**, Samish River, Green River at Tukwila, **French Creek**, Puyallup River at Meridian Street, **White River**, and **Clover Creek** ("basin stations" are indicated by bold type; Table 6). French Creek had by far the highest overall geometric mean (614 colonies/100 mL) followed by the South Fork of the Palouse River (240 colonies/100 mL).

Unionized Ammonia

Unionized ammonia is not normally tabulated with the other criteria discussed above because standards violations are so rare in ambient data. Out of about 979 ammonia samples collected statewide in WY 1996, only one resulted in a calculated unionized ammonia concentration which exceeded the chronic criterion: French Creek (Dec 17, 1995; NH_3-N: 2.78 mg/L, unionized ammonia: 2.0 µg/L, chronic criteria: 1.6 µg/L).

Summary of Results Exceeding Water Quality Criteria

In WY 1996, few stations exceeded all four of the usual water quality criteria which we can evaluate with data collected by our program. On the other hand, only 14 stations (17 percent) had no water quality criteria exceedences at all. East of the Cascades, temperature and pH were the most frequently exceeded criteria. In western Washington, bacteria was the biggest problem. Only a few stations exceeded the oxygen criterion. It is worth restating here that exceeding criteria does not necessarily indicate a water quality standard violation, nor, with the possible exception of fecal bacteria, does it necessarily indicate a human-influenced degradation of quality.

The percent of samples exceeding water quality standards criteria at core stations in 1996 was very similar to the percent exceeding criteria from WY 1991 through 1995 (Table 7).

Table 7. Percent of samples exceeding water quality standards criteria (special conditions such as exceptions to the temperature criterion at some eastern Washington stations were not applied). Only core stations with samples collected during four or more years from WY 1991 through WY 1996 are included to allow a more fair comparison between years. Sixty-one of 64 core stations met this criterion.

Parameter	WY 1996	WY 1991-1995
Temperature	8.0	9.7
Oxygen	2.7	2.9
pH	8.8	7.2
Bacteria (geometric mean criteria)	13.6	12.9

Turbidity

Stations in eastern Washington were slightly more likely to have high turbidities than in western Washington, in spite of the influence of glacial meltwater on a number of western Washington streams. Thirty-eight percent of stations in eastern Washington had a maximum turbidity exceeding 100 NTUs compared to 34 percent in all of western Washington and 32 percent in Puget Sound. Of the 10 highest turbidities measured statewide in WY 1996, 4 were from western Washington and three of those were from streams receiving glacial meltwater. The remaining six highest turbidity results all exceeded 1000 NTUs and all were from eastern Washington. The Walla Walla River near Touchet and Pine Creek at Rosalia had the two highest single measurements (9,500 and 5,100 NTUs, respectively).

Water quality was not evaluated against the turbidity standard because the standard requires a comparison to background turbidity and this information is not available at most stations.

Other Parameters

Although there are no state water quality standards for total phosphorus (TP) or total suspended solids (TSS), these parameters are important to stream ecology. Streams with relatively high values were determined by comparing concentrations to an arbitrary criterion defined as the 90th percentile of all samples collected in WY 1996. The 90th percentiles were 0.106 mg/L for TP and 73 mg/L for TSS.

For TSS, the distribution of stations with high results was similar to that for turbidity: eastern Washington stations were slightly more likely to have high results than western Washington stations. However, stations in eastern Washington were considerably more likely to exceed the 90th percentiles for TP than were stations in western Washington. Statewide, 37 and 50 stations had at least one sample which exceeded the 90th percentile for TP and TSS, respectively. However, only ten stations for TP and eight for TSS had chronically high concentrations (*i.e.*, were represented by more than three samples) (Table 8).

Streams such as the Walla Walla and Yakima Rivers and Pine and Crab Creeks, where both TP and TSS are chronically high, may be particularly good candidates for the application of watershed Best Management Practices (BMPs).

Table 8. Stations with more than three samples exceeding the 90th percentile of all samples collected in WY 1996.

Station		Number of samples exceeding "criteria" TP	TSS
01A120	Nooksack River @ North Cedarville	<4	4
05A110	SF Stillaguamish nr Granite Falls	<4	4
05B070	NF Stillaguamish @ Cicero	<4	4
07R050	French Cr nr Mouth	5	<4
10C085	White R nr Sumner	4	<4
26B070	Cowlitz R @ Kelso	<4	4
32A070	Walla Walla River near Touchet	5	4
34A070	Palouse River @ Hooper	6	<4
34B110	SF Palouse River @ Pullman	10	<4
34F090	Pine Cr @ Rosalia	7	4
37A090	Yakima River @ Kiona	8	5
41A070	Crab Creek near Beverly	7	4
43A070	Crab Creek @ Irby	6	<4
43A100	Crab Creek @ Marcelus Road	4	<4

Metals Monitoring

Most metals results were at or near the detection limits of the analytical methods. Of the 509 metal analyses performed in WY 1996 (from 13 stations) only 21 results on four rivers violated water quality criteria. The 21 concentrations and their corresponding acute and chronic water quality criteria are listed in Table 9. Eighteen of the 21 violations were from the Spokane River (Stateline Bridge and Riverside State Park Stations). Ten of the violations on the Spokane River were violations of the acute zinc criterion. The remaining eight violations included two results that exceeded the chronic cadmium criterion and six violations of the chronic lead criterion. The Spokane River has a well-documented problem with metals enrichment largely due to historical mining practices in Idaho (Pelletier, 1994). Violations of metals criteria in the Spokane River are likely to continue.

Of the three metals criteria violations outside the Spokane River system, two were on the Stillaguamish at Silvana and one on Clover Creek above Lake Steilacoom. The mercury concentrations of 0.014 µg/L on the Stillaguamish River at Silvana and 0.015 µg/L in Clover Creek above Lake Steilacoom on December 1996 violated the chronic criterion of 0.012 µg/L. Both of these results were qualified at MEL with a "J" qualifier indicating the data were estimated and, therefore, there is some uncertainty concerning those results. The only other metals violation was the October copper concentration of 3.26 µg/L on the Stillaguamish River at Silvana that violated both the acute and chronic criteria for copper. It should be noted, however, that the corresponding total hardness result used in the calculation of the criteria was unusually low and was qualified as an estimated concentration. The fact that this datum is only an estimated value is important because copper criteria are very sensitive to hardness and small differences can greatly affect the criteria. Using the October data as an example, if the hardness was 24 mg/L instead of 16 mg/L the corresponding acute criteria and chronic criteria would be 4.44 and 3.35µg/L and the concentration of 3.26µg/L would not be a violation.

Table 9. Wateryear 1996 metals concentrations at Ecology's freshwater ambient monitoring sites that exceeded Washington water quality criteria.

Station Name	Date	Metal	Hardness (mg/L)	Concentration (µg/L)	Acute Criteria	Chronic Criteria
Spokane R @ Stateline	10/02/95	Zinc	21	51.2	30.5	27.8
Spokane R. @ Stateline	12/04/95	Zinc	22	92.1	31.7	29.0
Spokane R. @ Stateline	02/05/96	Cadmium	21	0.38	0.68	0.32
Spokane R. @ Stateline	02/05/96	Lead	21	1.2	11.4	0.4
Spokane R. @ Stateline	02/05/96	Zinc	21	94.5	30.5	27.9
Spokane R. @ Stateline	04/09/96	Cadmium	17	0.37	0.54	0.28
Spokane R. @ Stateline	04/09/96	Lead	17	3.9	9.0	0.4
Spokane R. @ Stateline	04/09/96	Zinc	17	86.1	25.5	23.3
Spokane R. @ Stateline	06/03/96	Lead	19	1.6	10.2	0.4
Spokane R. @ Stateline	06/03/96	Zinc	19	66.5	28.0	25.6
Spokane R. @ Stateline	08/05/96	Zinc	21	46.1	30.5	27.8
Spokane R. @ Riverside	10/04/95	Zinc	24	80.9	34.2	31.2
Spokane R. @ Riverside	02/05/96	Lead	42	1.0	24.8	1.0
Spokane R. @ Riverside	02/05/96	Zinc	42	73	54.9	50.1
Spokane R. @ Riverside	04/09/96	Lead	30	4.3	17.0	0.7
Spokane R. @ Riverside	04/09/96	Zinc	30	66.8	41.3	37.7
Spokane R. @ Riverside	06/03/96	Lead	29	1.6	10.2	0.4
Spokane R. @ Riverside	06/03/96	Zinc	29	53.8	40.1	36.6
Stillaguamish R @ Silvana	10/18/95	Copper	16 E	3.26	3.03	2.37
Stillaguamish R @ Silvana	12/12/95	Mercury	20	0.014 J	2.4	0.012
Clover Ck abv Steila. Lke	12/19/95	Mercury	47	0.015 J	2.4	0.012

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 10). 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, 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.

In order to clarify this, during WY 1997, a field split and a sequential sample will be collected at the same station. (Lab splits will also be done on one of these samples.) This will eliminate bias due to stations/events with extremely high variability that were included in one QA sample type but not the other in WY 1996. In addition, uncensored nutrient data will be examined to estimate the true variability at very low concentrations.

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, fecal coliform bacteria and pH were not measured on blanks. All soluble reactive phosphorus, ammonia, nitrate/nitrite, fecal coliform, and suspended solids concentration results were reported as 'less than the reporting limits' (Table 11). Total persulfate nitrogen and total phosphorus were each detected in one of six blanks. Turbidity values above the reporting limit were reported in three of seven blanks. Mean conductivity of blank samples was 2.2 µS (standard error=1.0 µS).

The remaining elements of the laboratory QA program were assessed by laboratory staff through 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 10. Root mean square of the standard deviation of sequential samples, field splits, and laboratory splits. *n* = number of sample pairs.

		sequential samples		field splits		lab splits	
Variable	Range	RMS	sample size, *n*	RMS	sample size, *n*	RMS	sample size, *n*
Temperature (C)	all	0.2	*21*	NA	-	NA	-
PH	all	.01	*21*	0.0	*55*	NA	-
Dissolved oxygen	all	.02	*21*	0.1	*64*	NA	-
Specific conductivity (mS)	all	1.2	*21*	1.2	*55*	NA	-
Turbidity (NTU)	≤10	0.2	*15*	0.4	*46*	0.1	*116*
	>10	2.1	*6*	4.4	*22*	1.4	*49*
Suspended solids (mg L^{-1})	≤10	0.7	*15*	NA	-	0.6	*72*
	>10	1.8	*6*			9.3	*54*
Total phosphorus (µg L^{-1})	≤50	2.1	*15*	2.8	*48*	2.7	*99*
	>50	16.0	*6*	13.1	*20*	7.4	*43*
Soluble reactive P (µg L^{-1})	≤50	0.4	*20*	1.4	*60*	0.6	*158*
	>50	0.7	*1*	3.7	*8*	11.2	*22*
Total Nitrogen (µg L^{-1})	≤500	5.3	*15*	20.2	*44*	3.6	*94*
	>500	50.8	*6*	15.5	*24*	138.9*	*47*
NO_3/NO_2-N (µg L^{-1})	≤500	3.5	*18*	4.1	*48*	2.4	*109*
	>500	48.0	*3*	14.1	*20*	10.8	*34*
NH_3-N (µg L^{-1})	≤20	0	*21*	1.7	*59*	1.0	*131*
	>20			7.9	*9*	2.5	*12*
Fecal coliform (# 100 mL^{-1})	≤50	2.5	*7*	NA	-	3.2	*126*
	>50	83.6	*17*			34.3	*26*

* primarily a result of one sample pair of 2000 and 677 µg L^{-1}. RMS= 9.9 µg L^{-1} excluding this pair.

Table 11. Results of blind blank (deionized water) sample submission.

Variable	reporting limit	# above reporting limit (conc.)	sample size, *n*
Specific conductivity (µS)	NA	mean= 2.2 sd= 1.0	6
Turbidity (NTU)	0.5	3 (0.6, 0.9, 1.8)	7
Suspended solids (mg L^{-1})	1.0	1 (2.0)	7
Total phosphorus (µg L^{-1})	10	1 (13)	6
Soluble reactive P (µg L^{-1})	5	0	7
Total Nitrogen (µg L^{-1})	10	1 (34)	6
NO_3/NO_2-N (µg L^{-1})	10	0	6
NH_3-N (µg L^{-1})	10	0	6

For WY 1996, the overall quality of metals data was good. Contamination of laboratory blanks was minimal except for total recoverable copper and zinc that showed detectable concentrations in three of the eight copper blanks and eight of the 11 zinc blanks. These copper and zinc concentrations were, however, at or near the detection limit of the analytical method. If the datum in question was within 10 times the concentration detected in the blank, the datum was qualified with a B qualifier code to denote blank contamination. Filter blanks also showed some minor contamination with most concentrations, save two, within a factor of 2 of the detection limit. Both of the exceptions did not appear to impact any data. (This was concluded because the water samples concentrations were lower than those of the filter blanks: zinc filter blank of 2.3 µg/L compared to in-stream concentration of 0.69µg/L and lead filter blank of 0.063 µg/L compared to in-stream concentration of 0.025 µg/L). All but two of the field splits were within the acceptable range. The field splits in question were low, a nickel split with concentrations of 1.52 µg/L and 2.72µg/L with a detection limit of 0.05 -1.0 µg/L and a lead split with concentrations of 0.053 µg/L and 0.18 µg/L with a detection limit of 0.02 µg/L. The remaining elements of the metals quality control, laboratory splits, bottle blanks, reference material and laboratory spikes, were all within acceptable ranges or results were qualified with a 'J' code to denote an estimated value.

Conclusions

1. Overall, a typical number of water quality standards criteria was exceeded in WY 1996. Almost all pH and most temperature exceedences occurred 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.

2. Stations with moderately high total suspended solids concentrations were evenly distributed, east and west. However, all extraordinarily high results were from eastern Washington streams except for one result from the Puyallup River. Stations in Ecology's Eastern Region were more likely than stations in other regions to have chronically high total phosphorus concentrations.

3. Individual stations worthy of note include the following:

   a) French Creek (07R050) - Nine of 11 samples were below the oxygen criterion and 70 percent of samples exceeded the fecal coliform bacteria "10% not to exceed" criterion. Total phosphorus was also chronically high. One of 12 samples exceeded the unionized ammonia criteria--the only such exceedence out of nearly 1000 samples collected statewide. A restoration project is currently underway on French Creek.

   b) White River (10C070 and 10C085) - At both White River stations, at Sumner and near Sumner, 42 and 25 percent of samples, respectively, exceeded the fecal coliform bacteria "10% not to exceed" criterion. Total phosphorus was chronically high at the "near Sumner" station. A nutrient Total Maximum Daily Load study (TMDL) by Ecology is scheduled for completion in 1998.

   c) Walla Walla River (32A070) - Although temperature and pH exceeded criteria two and three times, respectively, total phosphorus and total suspended solids were more chronic problems. Suspended solids and turbidity in March, 1996, were the highest recorded in the state in the last six years. The Walla Walla River may be a particularly good candidate for the application of watershed BMPs.

   d) South Fork Palouse River (34B110) - Results indicated chronically low dissolved oxygen, high bacteria, and very high nutrients. An earlier study (Hallock, 1993) pointed to sources in both Washington and Idaho. Restoration projects are underway in the watershed.

   e) Pine Creek (34F090) - Water quality problems at Pine Creek were similar to those at South Fork Palouse River, although not quite so pronounced. Pine Creek also had chronically high suspended solids and several exceptionally high turbidities. Pine Creek may be a particularly good candidate for the application of watershed BMPs.

f) Spokane River (57A150) - Both Spokane River stations have well-documented metals problems--specifically for lead, cadmium, and zinc--that are likely to continue. The primary source of the metals contamination is outside of Washington state. A cross-state TMDL is currently in progress to address this issue.

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Appendix A

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

Station description and monitoring history for EILS freshwater monitoring program.

Station		Water Year Sampled																																							
Number	Name	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
01A050	Nooksack R @ Brennan													X		X	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
01A070	Nooksack R @ Ferndale				X	X	X	X	X	X	X	X	X	X			X			X																					
01A090	Nooksack R nr Lynden													X			X			X																					
01A120	Nooksack R @ No Cedarville	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	
01A140	Nooksack R above the MF																																							X	
01B050	Silver Cr nr Brennan																																		X	X					
01D070	Sumas R nr Huntingdon BC													X			X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					X	
01D090	Sumas R @ Sumas													X			X																								
01D120	Sumas R nr Nooksack																																							X	
01E050	Whatcom Cr @ Bellingham															X				X																	X				
01E070	Whatcom Cr @ Lake Outlet															X																									
01E090	Whatcom Lake nr Bellingham							X	X	X		X	X																												
01F070	SF Nooksack @ Potter Rd																																							X	
01G070	MF Nooksack R																																							X	
03A050	Skagit R @ Conway													X			X																								
03A060	Skagit R nr Mount Vernon	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	
03A070	Skagit R nr Sedro Woolley													X			X			X																					
03B045	Samish R. nr Mouth																																					X			
03B050	Samish R nr Burlington	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	
03B070	Samish R nr Hoogdal													X																											
03B080	Samish R. nr Prairie																																					X			
03C060	Friday Cr Blw Hatchery																X																			X		X			
03C080	Friday Cr at Alger																X																								
03D050	Nookachamp Ck nr Mouth																																					X			
04A060	Skagit R @ Concrete													X			X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X					
04A100	Skagit R @ Marblemount	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	
04A140	Skagit R @ Newhalem																X			X																					
04B070	Baker R @ Concrete				X	X	X	X												X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X					
04B150	Baker Lake @ Boulder Cr																	X	X	X	X	X	X																		
04C070	Sauk R nr Rockport																			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X					
04C110	Sauk R @ Darrington	X	X	X																																					
04E050	Finney Cr near Birdsview																																					X			
05A050	Stillaguamish R @ Stanwood													X																											
05A055	Hat Slough nr Stanwood																			X																					
05A070	Stillaguamish R nr Silvana	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	
05A090	SF Stillaguamish @ Arlington													X			X				X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X	X	
05A110	SF Stilly nr Granite Falls	X	X	X	X	X	X	X	X								X																			X		X	X	X	
05B070	NF Stillaguamish @ Cicero				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	
05B090	NF Stillaguamish R @ Oso																X																								

Station description and monitoring history for EILS freshwater monitoring program.

Station Number	Name	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
05B110	NF Stilly nr Darrington																X																			X		X	X	X	
07A090	Snohomish R @ Snohomish	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	
07A109	Snohomish R nr Monroe NE													X																											
07A110	Snohomish R nr Monroe SW													X																											
07A111	Snohomish R nr Monroe (USGS)																	X	X			X	X	X	X	X	X	X	X	X	X	X									
07B055	Pilchuck R @ Snohomish													X			X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				X		
07B090	Pilchuck R nr Lake Stevens																			X																					
07C070	Skykomish R @ Monroe													X			X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	
07C090	Skykomish R @ Sultan													X			X																								
07C120	Skykomish R nr Gold Bar	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						
07C170	Skykomish R nr Miller R																			X																					
07D050	Snoqualmie R nr Monroe																			X															X	X		X	X	X	
07D070	Snoqualmie R nr Carnation													X		X	X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				X		
07D130	Snoqualmie R @ Snoqualmie	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	
07D150	M F Snoqualmie R nr Ellisville																																	X							
07E055	Sultan R @ Sultan		X	X	X	X	X	X	X	X		X	X	X			X																		X						
07F055	Woods Cr @ Monroe													X			X																		X				X		
07G070	Tolt R nr Carnation		X	X	X	X	X	X	X	X	X	X	X																						X						
07M070	S F Snoqualmie R at North Bend																																	X							
07N070	N F Snoqualmie R nr Ellisville																																	X							
07P070	Patterson Ck nr Fall City																																		X				X		
07Q070	Raging R @ Fall City																																		X						
07R050	French Cr nr Mouth																																						X		
08A070	McAleer Cr nr Mouth														X																										
08A090	Upper McAleer Cr														X																										
08B070	Sammamish R @ Bothell	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				
08B110	Sammamish R @ Redmond																		X																		X				
08B130	Issaquah Cr nr Issaquah							X	X	X		X	X	X			X		X																		X				
08C070	Cedar R @ Logan St/Renton	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	
08C080	Cedar R @ Maplewood																																				X				
08C090	Cedar R @ Maple Valley															X																					X				
08C110	Cedar R nr Landsburg	X	X	X	X											X					X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	
08D070	Mercer Slough nr Bellevue														X																										
08E090	Kelsey Cr @ Monitor Site														X																										
08E110	Upper Kelsey Cr														X																										
08F070	May Cr nr Mouth														X																										
08G070	Valley Cr nr Mouth														X																										
08H070	Thornton Cr nr Mouth														X																										
08H100	North Branch Thornton Cr														X																										

(Year columns 59–98: Water Year Sampled)

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
08J070	West Branch Thornton Cr														X																										
08K090	Ship Canal @ Freemont																																				X				
09A060	Duwamish R @ Allentown Br																						X	X	X	X	X	X	X	X	X	X	X	X							
09A070	Duwamish R @ Foster	X	X	X	X	X	X	X	X	X																															
09A080	Green R @ Tukwila																																	X	X	X	X	X	X	X	
09A090	Green R @ 212th St nr Kent													X				X	X				X	X	X	X	X	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	X	X	X	X																								X				
09A150	Green R nr Auburn														X																										
09A170	Green R nr Black Diamond																		X																						
09A190	Green R @ Kanaskat	X	X	X															X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
09B070	Big Soos Cr blw Hatchery														X				X																						
09B090	Big Soos Cr nr Auburn					X	X	X	X					X	X																						X				
09C070	Des Moines Cr nr Mouth														X																						X				
09C090	Des Moines Cr @ So 200th														X																										
09D070	Miller Cr nr Mouth														X																										
09D090	Miller Cr @ Ambaum Blvd SW														X																										
09E070	Mill Creek @ Orillia																											X	X	X	X	X	X				X				
09E090	Mill Creek - Kent on W Valley Hwy																											X	X	X	X	X	X								
09H090	Black R @ Renton																																				X				
10A050	Puyallup R @ Puyallup (USGS)	X	X	X	X	X	X	X	X	X		X	X	X	X			X	X	X	X	X	X	X	X	X	X	X													
10A070	Puyallup R @ Meridian St													X				X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
10A090	Puyallup R @ McMillin													X					X																						
10A110	Puyallup R @ Orting	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		
10B070	Carbon R nr Orting						X	X						X	X																					X					
10B090	Carbon R @ Fairfax																		X																						
10C070	White R @ Sumner													X	X						X	X	X	X	X	X	X	X	X	X	X	X	X	X		X			X		
10C085	White R nr Sumner											X	X					X																					X		
10C090	White R @ Auburn				X	X	X	X	X					X		X																									
10C110	White R blw Buckley															X																									
10C130	White R @ Buckley																																			X					
10C140	White R nr Buckley															X																									
10C150	White R nr Greenwater															X																									
10D070	Boise Cr @ Buckley					X	X	X								X																									
10D090	Boise Cr nr Enumclaw					X	X	X																																	
10E070	Salmon Cr @ Sumner													X																											
10F070	So Prairie Cr nr Crocker																		X																						
10F090	South Prairie Ck nr S. Prairie																																			X					
11A070	Nisqually R @ Nisqually															X			X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

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
11A080	Nisqually R @ McKenna	X	X	X	X	X	X	X	X	X	X	X	X																				X	X		X					
11A090	Nisqually R abv Powell Cr															X					X	X	X	X	X	X	X	X	X	X	X	X	X								
11A110	Nisqually R @ LaGrande															X																									
11A140	Nisqually R @ Elbe															X			X		X	X	X																		
12A070	Chambers Cr nr Steilacoom					X	X	X	X	X					X	X			X								X	X	X	X	X	X	X	X		X			X		
12A100	Chambers Cr blw Steilacoom Lk																		X																						
12A110	Clover Cr abv Steilacoom Lk					X	X	X											X																				X		
12A130	Clover Cr nr Parkland					X	X																																		
12B070	Leach Cr nr Steilacoom					X	X	X											X																						
12C070	Flett Cr @ Custer Rd					X	X	X											X																						
13A050	Deschutes R @ Tumwater					X	X	X	X	X		X	X							X																					
13A060	Deschutes R @ E St Bridge																				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	
13A080	Deschutes R nr Olympia														X			X		X																					
13A150	Deschutes R nr Rainier														X			X			X	X	X	X	X	X	X	X	X	X	X	X	X	X		X					
14A060	Goldsborough Cr @ Shelton																																				X				
14A070	Goldsborough Cr nr Shelton							X	X	X		X	X																												
15A070	Dewatto R nr Dewatto														X	X	X																								
15B070	Chico Cr nr Bremerton							X	X	X	X	X	X																												
16A070	Skokomish R nr Potlatch		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	
16B070	Hamma Hamma R nr Mouth				X	X	X	X	X	X		X	X			X																									
16B110	Hamma Hamma R nr Eldon															X	X																				X				
16C070	Duckabush R @ Mouth		X	X	X	X	X	X	X	X		X	X			X																									
16C090	Duckabush R nr Brinnon														X	X	X																				X	X	X	X	
16D070	Dosewallips R @ Brinnon	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X																				X				
16E070	Finch Cr @ Hoodsport																																				X				
17A070	Big Quilcene R nr Quilcene	X	X	X	X	X	X	X	X			X			X	X	X																				X				
17B070	Chimacum Cr nr Irondale																																				X				
17B090	Chimacum Cr @ Hadlock															X																									
17B100	Chimacum Cr @ Chimacum																																				X				
17B110	Chimacum Cr nr Chimacum															X																									
18A070	Dungeness R nr Sequim	X	X	X	X	X	X	X	X						X	X	X																				X				
18B070	Elwha R nr Port Angeles	X	X	X	X	X	X	X	X			X			X	X	X																				X	X	X	X	
18B080	Elwha R @ McDonald Br (USGS)																	X	X	X	X	X	X	X	X	X	X	X													
19A070	Pysht R nr Pysht														X	X	X																								
19B070	Hoko R nr Mouth														X																										
19B090	Hoko R nr Sekiu															X	X																								
20A090	Soleduck R nr Forks														X	X	X																				X				
20A130	Soleduck R nr Fairholm		X	X	X	X	X	X	X	X		X	X																												
20B070	Hoh R @ DNR Campground		X	X	X	X	X	X	X	X	X	X	X		X	X	X				X	X	X														X	X	X	X	

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
20C070	Ozette R @ Ozette	X	X	X																																					
20D070	Dickey R nr La Push																																							X	
21A070	Queets R @ Queets		X	X	X	X	X	X	X	X	X	X	X		X																					X					
21A080	Queets R nr Clearwater (USGS)																				X	X	X	X	X	X	X	X													
21A090	Queets R abv Clearwater															X	X																								
21B090	Quinault R @ Lake Quinault	X	X				X	X	X	X	X	X	X		X	X	X				X	X	X														X				
21C070	Clearwater R nr Queets															X	X																								
21D070	NF Quinault R @ Amanda (USGS)													X	X	X	X	X	X	X	X	X	X	X	X	X	X	X													
22A070	Humptulips R nr Humptulips	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	
22B070	WF Hoquiam R nr Hoquiam					X	X	X	X	X						X	X																				X				
22C050	Chehalis R nr Montesano													X							X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
22C070	Chehalis R nr Fuller													X				X																							
22D070	Wishkah R nr Wishkah					X	X	X	X	X						X	X			X																					
22F090	Wynoochee R nr Montesano	X	X	X	X	X	X	X	X	X		X	X			X	X			X																				
22G070	Satsop R nr Satsop		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				
22H070	Cloquallum Cr nr Elma				X	X	X	X							X			X		X																X				
22J070	Wildcat Cr nr McCleary													X																										
23A070	Chehalis R @ Porter	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	
23A100	Chehalis R @ Prather Rd																																					X	X	X	
23A110	Chehalis R @ Galvin														X			X		X																X					
23A120	Chehalis R @ Centralia																				X	X	X	X	X	X	X	X	X	X	X	X	X	X		X				
23A130	Chehalis R @ Claquato																																						X	
23A140	Chehalis R @ Adna														X			X		X																					
23A160	Chehalis R @ Dryad	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	
23B050	Newaukum @ Mouth																																			X					
23B070	Newaukum R nr Chehalis		X	X	X	X	X	X	X	X						X		X		X																				X	
23B090	SF Newaukum R @ Forest																	X																							
23C070	NF Newaukum R @ Forest																	X																							
23D055	Skookumchuck R @ Centralia																																			X				X	
23E070	Black River @ Moon Road Bridge																																X	X		X		X	X	X	
23F070	Mill Ck nr Bordeaux																																			X					
23G070	SF Chehalis R @ Curtis																																							X	
24B090	Willapa R nr Willapa								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	
24B130	Willapa R @ Lebam	X	X	X								X									X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
24C070	SF Willapa R @ South Bend															X																								
24D070	North R nr Raymond															X			X	X																				
24D090	North R @ Artic																																		X					
24E070	North Nemah R @ Nemah															X				X																				
24F040	Naselle R @ Mouth															X																								

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
24F055	Naselle R @ Naselle									X																															
24F070	Naselle R nr Naselle								X	X		X	X			X			X	X	X	X	X												X			X	X	X
24G070	Bear Branch nr Naselle								X											X																					
24H070	Middle Nemah R nr Nemah																			X																					
24J070	South Namah R nr Nemah																			X																					
25A070	Columbia R @ Cathlamet										X	X	X						X																					
25A075	Columbia R @ Bradwood																X	X	X	X	X	X																		
25A110	Columbia R @ Fisher Is Lt					X	X	X	X	X																														
25A115	Columbia R nr Longview										X	X	X						X																					
25A150	Columbia R blw Longview Br										X				X																									
25B070	Grays R nr Grays River															X			X	X																				
25C070	Elochoman R nr Cathlamet	X														X			X	X																				
26B070	Cowlitz R @ Kelso		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
26B100	Cowlitz R @ Castle Rock (USGS)									X	X	X	X					X	X	X	X																			
26B150	Cowlitz R @ Toledo				X	X	X	X	X						X			X			X	X	X												X						
26B180	Cowlitz nr Kosmos B Cispus	X	X	X	X	X	X	X	X	X																															
26B190	Cowlitz R nr Randle											X	X					X																							
26B200	Cowlitz R nr Kosmos														X																									
26C070	Coweeman R @ Kelso				X	X	X	X	X					X	X			X									X	X	X	X	X	X	X	X	X						
26C090	Coweeman R nr Rose Valley													X				X																							
26D070	Toutle R nr Castle Rock		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						
26E070	Cispus R nr Kosmos														X								X	X	X															
27A070	Columbia R @ Kalama										X	X	X						X	X																				
27B070	Kalama R nr Kalama		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
27B090	Kalama R @ Upper Hatchery															X																								
27B110	Kalama R @ Pigeon Springs															X																								
27C070	Lewis R @ Woodland @ I-5					X	X	X	X	X		X	X		X	X																									
27C080	Lewis R @ Co Rd 16																																		X						
27C110	Lewis R @ Ariel (USGS)		X	X																X	X	X	X					X												
27D090	EF Lewis R nr Dollar Corner																			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X
27E070	Cedar Cr nr Etna																																					X			
27F070	Gee Cr @ Ridgefield																																					X			
28A090	Columbia blw Vancouver WA										X	X	X																											
28A091	Columbia blw Vancouver OR										X	X	X																											
28A165	Columbia R @ Warrendale															X	X	X	X	X	X	X																		
28A170	Columbia R blw Bonneville										X	X								X																				
28A175	Columbia R @ Bonneville Dam										X	X	X						X																					
28B070	Washougal R @ Washougal											X	X		X	X			X	X															X						
28B090	Washougal R nr Washougal				X	X	X	X	X	X	X	X	X																												

Station description and monitoring history for EILS freshwater monitoring program.

Station Number	Name	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
		Water Year Sampled																																							
28B110	Washougal R blw Canyon Ck																																					X			
28C070	Burnt Br Cr @ Mouth															X																									
28C110	Burnt Br Cr @ Vancouver															X																									
28D070	Salmon Cr @ Salmon Creek															X																									
28D110	Salmon Cr nr Battle Ground															X																									
28E070	Weaver Cr nr Battle Ground															X																									
28F070	Lake R nr Ridgefield																																		X						
28G070	Gibbons Ck nr Washougal																																		X						
29B070	White Salmon R nr Underwood		X	X	X	X	X	X	X	X	X	X	X		X	X			X	X	X	X	X	X	X	X												X			
29C070	Wind R nr Carson															X			X	X	X	X	X	X	X	X												X			
29D070	Rattlesnake Cr nr Mouth																																					X	X	X	
29E070	Gilmer Cr nr Mouth																																					X	X	X	
30A070	Columbia R @ The Dalles										X	X		X	X	X	X	X	X	X	X																	X			
30A090	Columbia R @ The Dalles Dam										X																														
30B060	Klickitat R nr Lyle																																				X	X			
30B070	Klickitat R nr Pitt (USGS)									X	X	X	X			X	X	X	X	X	X	X	X																		
30C070	Little Klickitat nr Wahkiacus																			X																	X	X			
31A070	Columbia R @ Umatilla										X							X	X	X	X	X												X	X	X	X	X	X	X	
31A090	Columbia R @ McNary Dam	X	X	X	X	X	X	X	X	X	X	X																													
31A130	Columbia R nr Yakima R Mouth										X																														
32A070	Walla Walla R nr Touchet	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	
32A090	Walla Walla R nr Lowden													X	X																										
32A110	Walla Walla R @ College Pl													X	X		X	X																							
32B070	Touchet R @ Touchet														X		X	X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					X	
32B100	Touchet R @ Bolles																X	X																							
32B120	Touchet R nr Dayton																X	X																							
32B130	Touchet R @ Dayton	X	X																															X	X						
32B140	Touchet R above Dayton																																							X	
32C070	Mill Cr @ Mission St														X		X	X																							
32C110	Mill Cr @ Tausick Way														X		X																			X					
33A010	Snake R nr Mouth										X																														
33A050	Snake R nr Pasco		X	X	X	X	X	X	X		X					X																		X	X	X	X	X	X	X	
33A070	Snake R blw Ice Harbor Dam											X			X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
34A070	Palouse R @ Hooper	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	
34A085	Palouse R @ Shields Rd Bridge																																		X						
34A090	Palouse R nr Diamond													X			X																								
34A110	Palouse R abv Buck Canyon													X			X	X																							
34A170	Palouse R @ Palouse																	X																	X	X	X	X	X	X	
34B070	SF Palouse R nr Colfax													X			X	X																							

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
34B090	SF Palouse R nr Pullman													X			X																								
34B110	SF Palouse R @ Pullman													X			X				X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	
34B130	SF Palouse R blw Sunshine																	X																							
34B140	SF Palouse R @ Busby																																		X						
34C060	Paradise Cr at Mouth																																		X						
34C070	Paradise Cr nr Pullman																	X																						
34C100	Paradise Cr @ Border																																		X						
34D070	SF Palouse Trib Whitman Fm																	X																						
34E070	Rock Creek at Revere																																		X						
34F090	Pine Cr @ Rosalia																																					X			
35A100	Snake R blw Lwr Granite Dam																				X																			
35A150	Snake R @ Interstate Br				X	X	X	X	X		X	X																						X	X	X	X	X	X	X	
35A200	Snake R nr Anatone														X	X	X	X	X	X	X	X																			
35B060	Tucannon R @ Powers																X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	
35B110	Tucannon R nr Delaney	X	X																																						
35B150	Tucannon R nr Marengo																																							X	
35C070	Grande Ronde R nr Anatone																			X			X	X	X											X					
35D070	Asotin Cr @ Asotin																			X																X				X	
35E070	Clearwater R @ US12/95																																			X					
35F070	Pataha Ck @ Archer Rd																																							X	
36A055	Columbia R @ Port of Pasco														X																									
36A060	Columbia R @ Pasco										X	X																													
36A065	Columbia R @ Richland																					X																		
36A070	Columbia R nr Vernita				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	
37A060	Yakima R @ VanGiesen Br														X		X	X																						
37A070	Yakima R nr Richland													X																										
37A090	Yakima R @ Kiona	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	
37A095	Yakima 2 mi blw Prosser																																			X					
37A100	Yakima below Prosser																																			X					
37A110	Yakima R @ Prosser													X			X	X																						
37A130	Yakima R @ Mabton													X			X	X																			X				
37A149	Yakima R @ Granger No Side													X																										
37A150	Yakima R @ Granger So Side													X																										
37A170	Yakima R nr Toppenish													X			X	X																			X				
37A190	Yakima R @ Parker													X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
37A200	Yakima R abv Ahtanum Cr (USGS)																	X	X			X	X	X																
37A205	Yakima R @ Knob Hill																																					X	X	X	
37A210	Yakima R nr Terrace Height													X	X		X	X																				X			
37B060	Satus Cr @ Satus																X	X																						

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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
37C060	Toppenish Cr nr Satus																X	X																							
37D080	Marion Drin nr Granger																X	X																							
37E070	Wide Hollow Cr @ Union Gap													X			X																		X						
37E090	Wide Hollow Cr @ Goodman													X			X																				X				
37F070	Sulfer Ck Wasteway @ McGee Rd																																			X					
38A050	Naches R @ Yakima on US HWY 97		X	X	X	X	X	X	X																										X						
38A070	Naches R @ Yakima															X		X																							
38A110	Naches R @ Naches	X	X															X																							
38A130	Naches R nr Naches					X	X	X	X																																
38B070	Tieton R @ Oak Creek					X	X	X	X																										X						
38C070	Rattlesnake Cr nr Nile					X	X																																		
38D070	Bumping R @ American R					X	X																																		
38E070	American R @ American R					X	X																																		
38F070	Little Naches nr Cliffdell					X	X	X																											X						
39A070	Yakima R nr Thorp														X			X																							
39A080	Yakima R @ Cle Elum	X	X	X	X	X	X	X	X	X	X	X	X																												
39A090	Yakima R nr Cle Elum														X			X															X	X	X			X	X	X	
39B070	Cle Elum R nr Cle Elum														X			X																							
39B090	Cle Elum R nr Roslyn																																		X						
39C070	Wilson Cr @ Thrall								X	X	X	X	X			X		X																			X				
39D070	Teanaway R nr Cle Elum				X	X	X	X	X																										X						
41A070	Crab Cr nr Beverly	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	
41A075	Crab Cr nr Smyrna					X	X	X																																	
41A090	Crab Cr nr Othello													X																											
41A110	Crab Cr nr Moses Lake				X																		X	X	X	X											X				
43A070	Crab Cr @ Irby				X																																	X			
43A100	Crab Ck @ Marcelus Road																																						X		
43A150	Crab Ck @ Bluestem Road																																						X		
43B090	Lake Ck @ Coffeepot Road																																						X		
44A070	Columbia R blw Rock Is Dam														X			X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X						
45A070	Wenatchee R @ Wenatchee		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
45A085	Wenatchee R nr Dryden																		X																						
45A100	Wenatchee R @ Leavenworth																		X																						
45A110	Wenatchee R nr Leavenworth																				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
45B070	Icicle Cr nr Leavenworth																		X																		X				
45C070	Columbia R abv Wenatchee R																																							X	
45C070	Chumstick Cr nr Leavenworth																																							X	
45D070	Brender Cr nr Cashmere																																							X	
45E070	Mission Cr nr Cashmere																																							X	

Station description and monitoring history for EILS freshwater monitoring program.

Station		Water Year Sampled																																						
Number	Name	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
46A070	Entiat R nr Entiat	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	
47A070	Chelan R @ Chelan		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				
47B070	Columbia R @ Chelan Station																																	X		X					
48A070	Methow R nr Pateros	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	
48A130	Methow R nr Twisp																		X		X	X	X	X	X	X	X	X	X	X	X										
48A140	Methow R @ Twisp																															X	X	X		X		X	X	X	
48A170	Methow R @ Weeman Br																		X																						
48A190	Methow R blw Gate Cr																		X		X	X	X																		
48B070	Chewack R @ Winthrop																		X																						
49A050	Okanogan R nr Brewster	X	X	X	X	X	X	X	X	X	X																														
49A070	Okanogan R @ Malott									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	
49A090	Okanogan R @ Okanogan																		X		X	X	X	X	X	X	X	X	X	X	X								X		
49A170	Okanogan R @ Janis																		X																						
49A180	Okanogan R @ Tonaskat																																						X		
49A190	Okanogan R @ Oroville		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	
49B070	Similkameen R @ Oroville		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	
49B090	Similkameen R @ Nighthawk																																						X		
50A070	Columbia R nr Brewster										X																														
51A070	Nespelem R @ Nespelem																						X	X	X	X	X	X	X	X	X	X	X	X		X					
52A070	Sanpoil R @ Keller		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					
52A110	Sanpoil R 13 mi S. Republic																																					X			
52A170	Sanpoil R blw Republic																		X																						
52A190	Sanpoil R abv Republic																		X																	X					
53A070	Columbia R @ Grand Coulee														X			X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X	X	
54A050	Spokane R @ Mouth																																	X	X	X	X				
54A070	Spokane R @ Long Lake (USGS)	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													
54A090	Spokane R @ Ninemile Br													X		X																									
54A120	Spokane R @ Riverside State Pk														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	
54A130	Spokane R @ Fort Wright Br													X		X																									
55B070	Little Spokane R nr Mouth													X		X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	
55B080	Little Spokane R nr Griffith Spring																																X	X							
55B082	Little Spokane R abv Dartford Creek																																X	X							
55B085	Little Spokane nr Dartford		X	X	X	X	X	X	X																																
55B090	Little Spokane R abv Wandermere															X																									
55B100	Little Spokane R abv Deadman Creek																																X	X			X				
55B200	Little Spokane @ Chattaroy																																				X				
55C065	Deadman Cr nr Mouth																																				X				
55C070	Peone (Deadman) Creek abv L Deep Cr																																X	X							
55E070	Dragoon Cr nr Chattaroy																																				X				

Station description and monitoring history for EILS freshwater monitoring program.

Station Number	Name	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
		Water Year Sampled																																							
56A070	Hangman Cr @ Mouth															X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X	X	
57A120	Spokane R @ Spokane															X																									
57A130	Spokane R @ Mission St Br													X		X																									
57A145	Spokane R @ Trent Br															X																									
57A150	Spokane R @ Stateline Br	X	X	X	X	X	X	X				X	X	X		X				X														X	X	X	X	X	X	X	
57A190	Spokane R nr Post Falls															X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
59A070	Colville R @ Kettle Falls		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				
59A080	Colville R abv Kettle Falls																																					X			
59A110	Colville R @ Blue Creek																		X																						
59A130	Colville R @ Chewelah																		X																						
60A050	Kettle R @ Hedlund Bridge										X																														
60A070	Kettle R nr Barstow		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	
61A070	Columbia R @ Northport (USGS)	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	
61B070	Deep Ck nr Mouth																																			X					
61C070	Onion Cr nr Northport																																					X			
61D070	Sheep Cr nr Northport																																					X			
62A070	Pend Oreille R @ Waneta BC (USGS)					X	X	X																																	
62A080	Pend Oreille R @ Border (USGS)																X	X	X	X	X	X	X	X	X	X	X	X													
62A090	Pend Oreille @ Metaline Falls	X	X	X	X																																X	X			
62A150	Pend Oreille R @ Newport	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	

Appendix B

Historical Changes in Sampling and Laboratory Procedures, and Large-Scale Environmental Changes Potentially Affecting Water Quality

This appendix is intended to record changes in methods and procedures used by the Ambient Monitoring 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.

NUTRIENTS

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

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

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

1973: Lab moved from Tacoma to Salt Lake City.

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

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

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

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

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

converted to 0.01K (K-below the detection limit) but a few null values remain in the older data.

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

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

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

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

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

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

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

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

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

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

Feb 1991: All nutrients went to contract lab.

Mar 1991: All nutrients went to contract lab.

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

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

TOTAL SUSPENDED SOLIDS

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

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

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

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

Apr 1991: Began collecting 1000 ml of sample.

CONDUCTIVITY

Feb 1978: Began calibrating twice monthly using 40, 70, 140, and 200 µmho/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 µmhos/cm (and could not be calibrated). This meter had last been calibrated about 1 year earlier. Most meters read higher than the 100 µmhos/cm standard.

Oct 1994: Switched from Beckman model ___ (which could not be field calibrated) to Orion Model ___ 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, model ___.

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 liquid probe. Calibrate daily and check calibration thrice daily.

TEMPERATURE
Feb 1978: Switched from thermometer in bucket to thermistor in river. (Source: memo from Bill Yake, Jan 30, 1978)
Spring 1994: Switched to YSI 300 meter (accuracy +/- 0.4C)

OXYGEN
Oct 1, 1977 Began measuring barometric pressure to calculate percent saturation. Previous saturation calculations were presumably based on elevation.
March 1989: Began applying correction factor to results of Winkler analyses based on titration with sodium biodate to correct sodium thiosulfate normality to 0.025. Previously, thiosulfate was standardized upon preparation, but not during use.

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

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

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

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

Appendix C

Wateryear 1996 Raw Data for Ecology's River and Stream Ambient Monitoring Program

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

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

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

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

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

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

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/17	1320	9.8	4500.0	82	10.8	93.7	7.4	66.0	0.361	0.010 U	0.072	0.005 U	36	50.0	100 S
95/11/20	1345	5.9	6290.0	106	11.7	91.4	7.4	144.0	0.757	0.036	0.101	0.015		75.0	57 S
95/12/18	1250	6.0	7500.0	94	11.6	92.8	7.5	53.0	0.725	0.045	0.091	0.011	50	65.0	160 S
96/01/23	1345	3.8	3520.0	114	12.4	94.4	7.4	27.0	1.020	0.031	0.029	0.010		14.0	21 S
96/02/20	1410	6.0	5950.0	86	11.5	94.1	7.5	45.0	0.780	0.049	0.085	0.011	39	55.0	80 S
96/03/19	1300	8.7	2610.0	114	11.3	96.4	7.4	14.0	0.629	0.010 U	0.024	0.005 U		8.4	28
96/04/23	1320	8.9	5300.0	96	10.7	93.5	7.2	131.0	0.815	0.060	0.157	0.009	43	45.0	1100 J
96/05/21	1350	9.0	4840.0	80	11.2	97.2	7.5	57.0	0.406	0.015	0.030	0.005 U		28.0	37
96/06/18	1410	12.6	2450.0	93	10.7	98.9	7.6	9.0	0.278	0.010 U	0.030	0.005 U	50	6.0	8
96/07/23	1345	18.4	2385.0	93	9.5	100.3	7.4	25.0	0.205	0.010 U	0.033	0.005 U		17.0	75 X
96/08/20	1315	15.7	1200.0	108	10.0	99.1	7.7	15.0	0.250	0.010 U	0.040	0.013	50	6.6	46
96/09/17	1320	10.2	2700.0	84	10.8	94.4	7.6	36.0	0.410	0.010 U	0.051	0.005 U		26.0	120

01A050 Nooksack R @ Brennan continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/17	1320	0.245						0.0060	0.040 U	0.908	0.030 U	2.300		1.000 U	
95/11/20	1345	0.530													
95/12/18	1250	0.572						0.0070 J	0.040 U	0.958	0.100	2.500		5.000 U	
96/01/23	1345	0.715													
96/02/20	1410	0.532						0.0050 J	0.020 U	1.170	0.045	2.740		2.300 B	
96/03/19	1300	0.529													
96/04/23	1320	0.442						0.0010 U	0.020 U	0.865	0.023	2.130		0.810	
96/05/21	1350	0.317													
96/06/18	1410	0.241						0.0010	0.020 U	0.480	0.020 U	1.420		1.600	
96/07/23	1345	0.157													
96/08/20	1315	0.215						0.0010 U	0.020 U	0.855	0.038	1.240		1.800	
96/09/17	1320	0.320													

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

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/17	1240	8.8	6600.0	66	11.2	95.3	7.3	332.0	0.306	0.010 U	0.195	0.005 U		140.0	110
95/11/20	1255	5.4	5400.0	81	12.3	95.2	7.8	78.0	0.285	0.010 U	0.069	0.005 U		55.0	14
95/12/18	1210	6.0	6030.0	64	12.1	97.2	7.6	205.0	0.251	0.044	0.077 J	0.005 U		110.0	27 S
96/01/23	1300	3.5	2160.0	87	12.6	95.6	7.4	14.0	0.346	0.010 U	0.022	0.006		8.6	11
96/02/20	1200	5.5	5000.0	65	11.9	96.6	7.5	66.0	0.280	0.010 U	0.053	0.005		29.0	9
96/03/19	1225	7.7	2120.0	85	11.8	98.9	7.5	13.0	0.240	0.010 U	0.017	0.005 U		9.9	1
96/04/23	1230	7.4	6530.0	54	11.5	97.2	7.5	582.0	0.369	0.010 U	0.182 J	0.005 U		240.0	190
96/05/21	1230	8.3	4630.0	67	11.4	97.7	7.6	31.0	0.191	0.010 U	0.010 U	0.005 U		23.0	9
96/06/18	1320	9.3	2100.0	78	11.3	97.3	7.4	5.0	0.096	0.010 U	0.010 U	0.005 U		6.5	8
96/07/23	1245	15.0		77	10.4	102.8	7.4	21.0	0.095	0.010 U	0.032	0.005 U		21.0	29
96/08/20	1220	13.0		92	10.8	101.5	7.4	16.0	0.098	0.010 U	0.034	0.008		11.0	6
96/09/17	1240	10.0		77	11.0	96.2	7.4	16.0	0.261	0.010 U	0.024	0.005 U		15.0	31

01A120 Nooksack R @ No Cedarville continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/17	1240	0.177													
95/11/20	1255	0.217													
95/12/18	1210	0.186													
96/01/23	1300	0.261													
96/02/20	1200	0.212													
96/03/19	1225	0.189													
96/04/23	1230	0.172													
96/05/21	1230	0.148													
96/06/18	1320	0.080													
96/07/23	1245	0.054													
96/08/20	1220	0.081													
96/09/17	1240	0.217													

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

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

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/18	0745	8.9	32800.0	39	11.2	93.6	7.4	100.0	0.227	0.010 U	0.076	0.005 U		45.0	40
95/11/21	0745	7.0	34500.0	58	11.6	93.5	7.2	90.0	0.185	0.010 U	0.079	0.005 U		26.0	7 S
95/12/19	0735	6.2	25100.0	52	12.0	96.0	7.5	38.0	0.159	0.010 U	0.020	0.005 U		19.0	4
96/01/24	0810	4.1	19200.0	58	12.4	95.2	7.3	7.0	0.208	0.010 U	0.016	0.005 U		8.0	22
96/02/21	0735	5.6	26200.0	47	12.2	97.9	7.7	36.0	0.160	0.010 U	0.037	0.005 U		25.0	2
96/03/20	0745	6.3	16000.0	60	12.2	97.5	7.1	11.0	0.119	0.010 U	0.014	0.005 U		5.8	10
96/04/24	0705	6.9	36100.0	41	11.7	96.0	7.4	340.0	0.245	0.010 U	0.252	0.005 U		120.0	59
96/05/22	0800	8.5	17700.0	52	11.6	98.6	7.3	10.0	0.121	0.010 U	0.010 U	0.005 U		5.8	20
96/06/19	0715	10.3	16800.0	46	11.3	99.2	7.6	8.0	0.074	0.010 U	0.015	0.005 U		7.6	5
96/07/24	0750	14.6	15500.0	44	10.2	99.5	7.6	11.0	0.033	0.010 U	0.014	0.005 U		6.5	13 X
96/08/21	0725	13.5	7280.0	53	10.1	94.9	7.5	9.0	0.068	0.010 U	0.022	0.005 U		4.7	15
96/09/18	0740	11.6	9960.0	76	10.8	97.3	7.4	10.0	0.077	0.010 U	0.014	0.005 U		5.0	14

03A060 Skagit R nr Mount Vernon continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/18	0745	0.104													
95/11/21	0745	0.117													
95/12/19	0735	0.120													
96/01/24	0810	0.134													
96/02/21	0735	0.106													
96/03/20	0745	0.085													
96/04/24	0705	0.087													
96/05/22	0800	0.086													
96/06/19	0715	0.048													
96/07/24	0750	0.013													
96/08/21	0725	0.038													
96/09/18	0740	0.056													

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

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/18	0710	9.7	204.0	85	10.7	91.2	7.2	12.0	0.899	0.010 U	0.034	0.005 U		12.0	210
95/11/21	0710	7.0	301.0	86	11.6	93.5	6.8	13.0	0.841	0.019	0.025	0.005 U		8.1	31
95/12/19	0700	7.5	470.0	68	11.6	95.9	7.2	16.0	0.892	0.027	0.017	0.005 U		11.0	76
96/01/24	0735	4.2	546.0	65	12.4	95.5	7.8	11.0	1.310	0.010 U	0.025	0.005 U		10.0	130 S
96/02/21	0705	6.1	310.0	65	12.0	97.5	7.1	9.0	0.952	0.010 U	0.024	0.005 U		8.5	31
96/03/20	0715	7.2	161.0	79	11.6	94.8	7.0	5.0	0.826	0.010 U	0.016	0.008		6.2	43
96/04/24	0640	9.2	440.0	58	10.8	93.7	6.9	29.0	0.920	0.010 U	0.058	0.010		23.0	430
96/05/22	0725	10.0	401.0	63	10.6	93.5	7.1	23.0	0.735	0.095	0.029	0.007		19.0	800
96/06/19	0645	11.0	74.9	94	10.4	92.8	6.9	3.0	0.758	0.010 U	0.034	0.005 U		4.2	170
96/07/24	0710	14.5	29.0	118	9.4	91.6	7.2	3.0	0.841	0.010 U	0.015	0.005 U		1.3	210
96/08/21	0655	12.7	29.0	114	10.1	93.2	7.3	4.0	0.811	0.010 U	0.028	0.010		3.9	190
96/09/18	0700	10.1	73.5	92	10.6	92.2	7.3	6.0	0.744	0.010	0.030	0.007		5.5	250

03B050 Samish R nr Burlington continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/18	0710	0.629													
95/11/21	0710	0.632													
95/12/19	0700	0.688													
96/01/24	0735	0.866													
96/02/21	0705	0.756													
96/03/20	0715	0.661													
96/04/24	0640	0.624													
96/05/22	0725	0.455													
96/06/19	0645	0.684													
96/07/24	0710	0.715													
96/08/21	0655	0.739													
96/09/18	0700	0.523													

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

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

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/17	1055	8.7	7740.0	35	11.2	95.4	6.9	5.0	0.110	0.010 U	0.010 U	0.005 U		2.3	57
95/11/20	1100	7.3	17900.0	56	12.3	100.3	7.6	13.0	0.129	0.010 U	0.016	0.005 U		7.0	3
95/12/18	1025	5.8	7850.0	51	12.1	97.1	7.4	3.0	0.082	0.010 U	0.010 U	0.005 U		3.3	1 U
96/01/23	1120	3.9	8550.0	55	12.3	94.6	7.4	18.0	0.088	0.010 U	0.010 U	0.005 U		2.3	1 U
96/02/20	1010	4.2	7590.0	42	12.5	98.4	7.3	2.0	0.085	0.010 U	0.010 U	0.005 U		1.7	1 U
96/03/19	1045	4.4	7810.0	60	12.8	99.1	6.8	1.0	0.078	0.010 U	0.010 U	0.005 U		0.8	1 U
96/04/23	1035	5.7	8180.0	52	12.1	98.2	7.2	3.0	0.094	0.010 U	0.016	0.005 U		1.7	6
96/05/21	1000	6.8	7090.0	52	12.0	99.5	7.3	1.0 U	0.074	0.010 U	0.010 U	0.005 U		0.9	1
96/06/18	1135	8.3	7270.0	45	11.8	99.9	7.4	2.0	0.057	0.010 U	0.010 U	0.005 U		3.1	4
96/07/23	1100	10.6	5820.0	41	11.3	102.0	7.4	2.0	0.049	0.010 U	0.010 U	0.005 U		1.8	1 U
96/08/20	1035	10.6	3900.0	44	11.0	98.5	7.3	1.0	0.047	0.010 U	0.021	0.005 U		1.1	3
96/09/17	1100	9.3	4080.0	42	11.4	98.6	7.3	1.0 U	0.050	0.010 U	0.010 U	0.005 U		1.1	1

04A100 Skagit R @ Marblemount continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/17	1055	0.061													
95/11/20	1100	0.067													
95/12/18	1025	0.060													
96/01/23	1120	0.056													
96/02/20	1010	0.062													
96/03/19	1045	0.054													
96/04/23	1035	0.054													
96/05/21	1000	0.061													
96/06/18	1135	0.046													
96/07/23	1100	0.023													
96/08/20	1035	0.040													
96/09/17	1100	0.045													

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 STILLAGUAMISH R NR SILVANA Water Class: A Latitude: 48 11 50.0
Water Body No.: WA-05-1010 River Mile: 11.10 Longitude: 122 12 34.0

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/18	0830	8.9	10100.0	34	11.4	95.2	7.3	134.0	0.344	0.010 U	0.098	0.005 U	16 E	70.0	31
95/11/21	0845	6.2	4380.0	58	12.0	94.9	7.4	27.0	0.374	0.010 U	0.025	0.005 U		20.0	8
95/12/19	0825	6.4	5960.0	44	12.0	96.5	7.4	39.0	0.321	0.015	0.037	0.005 U	20	38.0	12
96/01/24	0850	3.8	3050.0	58	12.5	95.3	7.5	13.0	0.619	0.010 U	0.013	0.006		13.0	39 S
96/02/21	0835	5.6	6130.0	39	12.1	97.1	7.4	66.0	0.310	0.010 U	0.050	0.005 U	20	55.0	35
96/03/20	0830	7.5	2540.0	54	11.7	96.3	7.0	19.0	0.302	0.010 U	0.018	0.005 U		25.0	3
96/04/24	0800	7.1	19400.0	25	12.0	98.8	7.5	441.0	0.323	0.010 U	0.253	0.005 U	21	260.0	100
96/05/22	0845	8.8	4140.0	48	11.2	95.9	7.4	22.0	0.261	0.010 U	0.010 U	0.005 U		19.0	71
96/06/19	0805	11.2	1760.0	56	10.5	94.2	7.5	18.0	0.314	0.010 U	0.022	0.005 U	26	23.0	140
96/07/24	0830	19.5	930.0	78	8.3	89.5	7.4	10.0	0.287	0.010 U	0.023	0.005 U		6.2	71 X
96/08/21	0820	16.4	542.0	96	9.0	89.9	7.5	4.0	0.229	0.010 U	0.035	0.005	43	3.0	53
96/09/18	0815	10.5	2140.0	48	10.6	93.2	7.4	13.0	0.390	0.010 U	0.022	0.006		13.0	53

05A070 Stillaguamish R nr Silvana continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/18	0830	0.209						0.0020	0.040 U	3.260	0.040	1.900		2.400	
95/11/21	0845	0.313													
95/12/19	0825	0.250						0.0140 J	0.040 U	0.716	0.030 U	1.400		5.000 U	
96/01/24	0850	0.437													
96/02/21	0835	0.238						0.0050 J	0.020 U	0.977	0.053	1.520		1.200 B	
96/03/20	0830	0.241													
96/04/24	0800	0.145						0.0010	0.020 U	1.520	0.048	1.600		0.400 U	
96/05/22	0845	0.200													
96/06/19	0805	0.159						0.0030	0.020 U	0.899	0.039	1.170		0.450	
96/07/24	0830	0.180													
96/08/21	0820	0.161						0.0010 U	0.020 U	0.547	0.020 U	1.420		1.200	
96/09/18	0815	0.306													

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

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

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/17	0835	9.6	6720.0	36	11.3	97.5	7.2	524.0	0.314	0.010 U	0.105	0.005 U		450.0	71
95/11/20	0830	5.9	2610.0	44	12.3	96.0	7.5	25.0	0.335	0.010 U	0.024	0.005 U		26.0	6
95/12/18	0820	6.4	2610.0	43	12.1	98.0	7.4	19.0	0.378	0.010 U	0.016	0.005 U		27.0	23
96/01/23	0850	3.9	1340.0	49	12.7	96.8	7.6	10.0	0.546	0.010 U	0.019	0.005		11.0	10
96/02/20	0805	5.3	3450.0	30	12.1	97.2	7.2	40.0	0.256	0.010 U	0.037	0.006		40.0	9
96/03/19	0825	7.2	1050.0	49	11.9	97.9	7.3	6.0	0.291	0.010 U	0.010 U	0.005 U		6.8	3
96/04/23	0820	7.9	3200.0	40	11.4	96.9	7.7	97.0	0.238	0.010 U	0.082	0.005 U		50.0	250 J
96/05/21	0750	8.7	1900.9 J	39	11.2	96.3	7.4	29.0	0.196	0.010 U	0.017	0.005 U		35.0	20
96/06/18	0905	10.9	1080.0	51	10.9	97.0	6.7	12.0	0.185	0.010 U	0.022	0.005 U		8.5	120
96/07/23	0830	17.5	428.0	58	9.1	94.1	7.4	7.0	0.190	0.010 U	0.010 U	0.005 U		5.5	63
96/08/20	0810	15.8	147.0	77	9.3	92.3	7.6	4.0	0.200	0.010 U	0.018	0.007		1.7	32
96/09/17	0815	9.9	1860.0	33	10.9	94.6	7.2	26.0	0.369	0.010 U	0.031	0.005 U		22.0	51

05A090 SF Stillaguamish @ Arlington continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/17	0835	0.166													
95/11/20	0830	0.267													
95/12/18	0820	0.308													
96/01/23	0850	0.407													
96/02/20	0805	0.188													
96/03/19	0825	0.256													
96/04/23	0820	0.139													
96/05/21	0750	0.170													
96/06/18	0905	0.133													
96/07/23	0830	0.136													
96/08/20	0810	0.148													
96/09/17	0815	0.271													

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

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

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/17	0740	9.1		28	11.7	100.6	7.2	397.0	0.255	0.010 U	0.054	0.005 U		280.0	92
95/11/20	0750	5.4		37	12.8	99.6	7.1	49.0	0.147	0.010 U	0.032	0.005 U		39.0	3
95/12/18	0730	5.9		37	12.6	101.9	7.1	134.0	0.157	0.061	0.041	0.005 U		120.0	3
96/01/23	0755	3.0		40	13.3	100.0	7.5	29.0	0.186	0.010 U	0.027	0.005 U		31.0	4
96/02/20	0715	4.7		25	12.7	101.7	7.1	48.0	0.125	0.010 U	0.034	0.005		37.0	3
96/03/19	0730	6.3		41	12.4	100.9	7.1	8.0	0.101	0.010 U	0.010	0.005 U		9.9	2
96/04/23	0730	7.0		30	11.9	99.9	7.0	387.0	0.173	0.010 U	0.225	0.005 U		220.0	72
96/05/21	0705	7.5		32	11.9	100.4	7.2	50.0	0.084	0.010 U	0.022	0.005 U		40.0	6
96/06/18	0805	9.2		42	11.5	99.7	7.0	571.0	0.198	0.010 U	0.105	0.005 U		850.0	460
96/07/23	0740	17.2		50	9.6	99.8	7.2	5.0	0.054	0.010 U	0.010 U	0.005 U		5.3	26
96/08/20	0725	14.7		67	10.0	98.2	7.4	5.0	0.048	0.010 U	0.022	0.005 U		7.0	4
96/09/17	0725	9.0		29	11.4	98.1	7.4	31.0	0.251	0.010 U	0.042	0.005 U		23.0	31

05A110 SF Stilly nr Granite Falls continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/17	0740	0.114													
95/11/20	0750	0.100													
95/12/18	0730	0.117													
96/01/23	0755	0.130													
96/02/20	0715	0.082													
96/03/19	0730	0.080													
96/04/23	0730	0.080													
96/05/21	0705	0.059													
96/06/18	0805	0.087													
96/07/23	0740	0.024													
96/08/20	0725	0.020													
96/09/17	0725	0.190													

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

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

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/17	0905	9.2	4600.0	38	11.1	95.0	7.3	407.0	0.337	0.032	0.324	0.005 U		230.0	84 S
95/11/20	0855	5.7	2700.0	52	12.2	95.0	7.4	37.0	0.291	0.010 U	0.034	0.005 U		30.0	6
95/12/18	0850	6.2	3050.0	44	12.1	97.5	7.4	77.0	0.259	0.018	0.058	0.005 U		45.0	12
96/01/23	0915	3.3	1460.0	54	12.9	96.9	7.6	33.0	0.362	0.010 U	0.034	0.007		32.0	29
96/02/20	0830	5.1	3050.0	37	12.1	97.0	7.2	139.0	0.231	0.010 U	0.074	0.007		110.0	23
96/03/19	0850	6.9	985.0	56	11.8	96.5	7.4	19.0	0.214	0.010 U	0.022	0.005 U		14.0	6
96/04/23	0855	7.2	3400.0	34	11.5	96.3	7.4	590.0	0.280	0.010 U	0.423	0.005 U		280.0	280
96/05/21	0820	7.9	1620.0	46	11.5	97.2	7.5	15.0	0.163	0.010 U	0.010 U	0.005 U		13.0	9
96/06/18	0940	10.1	742.0	62	11.4	99.8	7.2	14.0	0.134	0.010 U	0.024	0.005 U		13.0	92
96/07/23	0900	16.0	552.0	76	9.7	97.6	7.5	13.0	0.151	0.010 U	0.010 U	0.005 U		6.3	43
96/08/20	0840	14.5	346.0	93	9.7	94.0	7.6	3.0	0.111	0.010 U	0.026	0.012		1.5	44
96/09/17	0845	9.3	1240.0	47	11.0	94.3	7.2	27.0	0.401	0.010 U	0.028	0.005 U		20.0	53

05B070 NF Stillaguamish @ Cicero continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/17	0905	0.182													
95/11/20	0855	0.222													
95/12/18	0850	0.203													
96/01/23	0915	0.259													
96/02/20	0830	0.157													
96/03/19	0850	0.177													
96/04/23	0855	0.148													
96/05/21	0820	0.127													
96/06/18	0940	0.087													
96/07/23	0900	0.087													
96/08/20	0840	0.061													
96/09/17	0845	0.315													

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

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

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/17	0940	8.6	1350.0	30	11.1	94.6	7.2	29.0	0.201	0.010 U	0.031	0.005 U		11.0	30
95/11/20	0945	5.6	780.0	41	12.0	94.0	7.0	7.0	0.230	0.010 U	0.010 U	0.005 U		4.5	6
95/12/18	0920	5.8	960.0	35	11.9	95.9	7.3	12.0	0.178	0.010 U	0.010 U	0.005 U		8.1	3
96/01/23	0950	3.0	480.0	43	12.6	94.9	7.4	3.0	0.237	0.010 U	0.010 U	0.005 U		2.2	8
96/02/20	0905	4.8	1050.0	30	11.9	95.5	7.2	10.0	0.150	0.010 U	0.015	0.006		6.8	9
96/03/19	0925	5.8	403.0	42	11.9	95.8	7.4	2.0	0.145	0.010 U	0.010 U	0.005 U		1.1	1 U
96/04/23	0930	6.4	1230.0	25	11.6	96.1	7.4	39.0	0.143	0.010 U	0.045	0.005 U		14.0	110
96/05/21	0855	7.1	540.0	36	11.5	96.4	7.5	2.0	0.102	0.010 U	0.010 U	0.005 U		1.3	33
96/06/18	1015	9.0	205.0	44	11.2	96.7	7.5	2.0	0.141	0.010 U	0.017	0.005 U		1.2	18
96/07/23	0955	12.9	118.0	54	10.2	97.1	7.5	2.0	0.138	0.010 U	0.011	0.005 U		1.3	12
96/08/20	0915	12.1	52.0	74	10.2	94.9	7.6	4.0	0.139	0.010 U	0.021	0.007		0.5 U	30
96/09/17	0925	8.7	230.0	40	11.1	95.0	7.4	2.0	0.180	0.010 U	0.010 U	0.005 U		1.7	17

05B110 NF Stillaguamish nr Darrington continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/17	0940	0.110													
95/11/20	0945	0.178													
95/12/18	0920	0.150													
96/01/23	0950	0.182													
96/02/20	0905	0.120													
96/03/19	0925	0.117													
96/04/23	0930	0.047													
96/05/21	0855	0.091													
96/06/18	1015	0.071													
96/07/23	0955	0.075													
96/08/20	0915	0.107													
96/09/17	0925	0.140													

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

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

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/16	1350	10.6		41	10.6	92.8	7.1	17.0	0.365	0.010 U	0.010 U	0.005 U	15	5.2	130 S
95/11/19	1440	7.8	18448.0	37	11.5	93.9	7.1	23.0	0.374	0.021	0.032	0.012		17.0	34 S
95/12/17	1425	6.0	15677.0		11.8	94.4	7.2	21.0	0.592	0.103	0.037	0.018	17	14.0	120
96/01/22	1320	4.2	13019.0	43	12.3	93.8	7.0	14.0	0.715	0.032	0.026	0.008		11.0	110 S
96/02/19	1235	5.8	27530.0	27	12.2	98.7	7.1	77.0	0.278	0.010 U	0.059	0.005 U	13	50.0	21
96/03/18	1345	7.3	7567.0	43	12.0	99.0	7.1	7.0	0.381	0.026	0.018	0.009		6.6	32
96/04/22	1350	9.2	7813.0	39	11.1	95.9	7.1	7.0	0.273	0.010 U	0.010 U	0.005 UJ	16	4.0	21
96/05/20	1410	9.2	14950.0	30	11.6	100.1	7.2	25.0	0.191	0.010 U	0.010 U	0.005 U		17.0	23
96/06/17	1400	12.7	6900.0	38	10.7	99.7	7.4	9.0	0.132	0.010 U	0.010 U	0.005 U	16	4.7	40
96/07/22	1345	16.6	4075.0	46	10.0	101.8	7.4	4.0	0.182	0.010 U	0.069	0.005		3.8	66
96/08/19	1335	16.1	2175.0	53	9.8	98.3	7.6	4.0	0.208	0.010 U	0.022	0.009	22	1.6	23
96/09/16	1325	12.8	5943.0	48	10.2	95.1	7.4	15.0	0.322	0.010 U	0.021	0.005 UJ		12.0	

07A090 Snohomish R @ Snohomish continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/16	1350	0.258	1.00	1.6	0.4	8.7 B	0.10 U	0.0010 U	0.040 U	0.713	0.039	1.000 U		3.400	
95/11/19	1440	0.238													
95/12/17	1425	0.393	1.20	2.2	0.4	12.0 B	0.10 U	0.0040 J	0.040 U	0.733	0.030 U	1.000 U		5.000 U	1.100
96/01/22	1320	0.438													
96/02/19	1235	0.177	5.00 U	5.9	1.4	22.0 J	0.10 U	0.0010 U	0.030	0.942	0.051	0.400		1.100 B	1.900
96/03/18	1345	0.245													
96/04/22	1350	0.190	0.40 U	1.1	0.1 J	2.2 B	0.05 U	0.0020	0.020 U	0.642	0.026	0.382		0.690	0.730
96/05/20	1410	0.136													
96/06/17	1400	0.116	0.40 U	1.0	0.3	1.9 B	0.10 U	0.0010	0.020 U	0.500	0.022	0.270		0.900	0.750
96/07/22	1345	0.126													
96/08/19	1335	0.165	0.40 U	0.8	0.1	10.1 B	0.10 U	0.0010 U	0.020 U	0.490	0.020 U	0.410		1.200	0.910
96/09/16	1325	0.227													

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

Station No.: 07B055 PILCHUCK R @ SNOHOMISH Water Class: A Latitude: 47 54 47.0
Water Body No.: WA-07-1030 River Mile: 1.90 Longitude: 122 04 56.0

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/16	1245	11.5	631.0	65	10.3	92.2	7.0	35.0	0.590	0.010 U	0.012	0.005 U		6.9	140 S
95/11/19	1335	8.9	865.0	51	11.3	94.7	7.3	19.0	0.562	0.010 U	0.022	0.007		9.9	51
95/12/17	1345	6.8	888.0	55	11.5	93.9	7.1	14.0	0.811	0.010 U	0.013	0.008		7.3	17
96/01/22	1230	4.6	830.0	54	12.2	93.9	7.0	9.0	0.974	0.010 U	0.020	0.005 U		4.5	21
96/02/19	1155	7.0	1240.0	39	11.5	95.9	7.1	74.0	0.559	0.010 U	0.055	0.005 U		36.0	29
96/03/18	1305	8.1	327.0	63	11.9	100.1	7.4	7.0	0.562	0.010 U	0.014	0.005 U		2.9	1 U
96/04/22	1245	10.0	373.0	55	11.1	97.7	7.4	3.0	0.410	0.010 U	0.010 U	0.005 UJ		1.9	32
96/05/20	1325	11.9	760.0	53	10.7	98.2	7.4	9.0	0.368	0.010 U	0.010 U	0.005 U		3.2	24
96/06/17	1320	13.9	250.0	75	10.9	104.5	7.9	3.0	0.266	0.010 U	0.010 U	0.005 U		1.4	24
96/07/22	1300	16.0	105.0	83	10.1	101.6	7.6	4.0	0.369	0.010 U	0.010 U	0.005 U		2.0	44
96/08/19	1240	15.8	75.0	88	10.8	107.6	7.8	6.0	0.341	0.010 U	0.022	0.008		0.7	30
96/09/16	1250	11.2	567.0	38	10.4	93.7	7.5	45.0	0.746	0.010 U	0.061	0.005 UJ		33.0	

07B055 Pilchuck R @ Snohomish continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/16	1245	0.404													
95/11/19	1335	0.393													
95/12/17	1345	0.649													
96/01/22	1230	0.699													
96/02/19	1155	0.387													
96/03/18	1305	0.474													
96/04/22	1245	0.288													
96/05/20	1325	0.304													
96/06/17	1320	0.266													
96/07/22	1300	0.300													
96/08/19	1240	0.264													
96/09/16	1250	0.517													

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 SKYKOMISH R @ MONROE Water Class: A Latitude: 47 51 08.0
Water Body No.: WA-07-1160 River Mile: 25.60 Longitude: 121 57 29.0

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/16	1200	10.0	20800.0	33	11.0	95.2	6.9	35.0	0.253	0.010 U	0.021	0.005 U		12.0	97
95/11/19	1250	6.9	11700.0	30	12.2	97.4	7.2	19.0	0.178	0.010 U	0.014	0.006		16.0	48
95/12/17	1230	5.4	9410.0	31	12.5	98.7	7.1	16.0	0.203	0.020	0.010 U	0.005 U		15.0	3
96/01/22	1140	3.9	7980.0	31	12.8	96.7	7.1	8.0	0.223	0.010 U	0.011	0.005 U		9.0	1
96/02/19	1105	5.0	14500.0	22	12.4	98.4	7.1	45.0	0.155	0.010 U	0.044	0.005 U		37.0	8
96/03/18	1220	6.2	4520.0	31	12.6	101.0	7.2	5.0	0.119	0.010 U	0.010 U	0.005 U		5.4	1 U
96/04/22	1155	7.9	4330.0	31	11.7	98.0	7.3	4.0	0.114	0.010 U	0.010 U	0.005 UJ		3.4	23
96/05/20	1240	8.5	8410.0	25	12.0	101.8	7.3	12.0	0.090	0.010 U	0.010 U	0.005		10.0	5
96/06/17	1235	11.3	4360.0	27	11.3	102.2	7.4	3.0	0.043	0.010 U	0.010 U	0.005 U		3.5	1
96/07/22	1210	15.4	2600.0	36	10.5	104.0	7.4	11.0	0.045	0.010 U	0.010 U	0.005 U		3.2	5
96/08/19	1145	14.9	1240.0	40	10.1	98.7	7.4	9.0	0.107	0.010 U	0.026	0.005 U		2.7	7
96/09/16	1205	11.4	2580.0	33	10.7	96.9	7.4	9.0	0.194	0.010 U	0.013	0.005 UJ		8.4	

07C070 Skykomish R @ Monroe continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/16	1200	0.159													
95/11/19	1250	0.126													
95/12/17	1230	0.162													
96/01/22	1140	0.175													
96/02/19	1105	0.103													
96/03/18	1220	0.095													
96/04/22	1155	0.081													
96/05/20	1240	0.071													
96/06/17	1235	0.034													
96/07/22	1210	0.026													
96/08/19	1145	0.068													
96/09/16	1205	0.142													

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 SNOQUALMIE R NR MONROE Water Class: A Latitude: 47 48 14.0
Water Body No.: WA-07-1060 River Mile: 2.70 Longitude: 122 00 06.0

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/16	1120	10.6	4160.0	45	10.4	91.3	7.6	6.0	0.476	0.010 U	0.010 U	0.005 U		3.6	180 S
95/11/19	1205	8.4	6250.0	41	10.9	90.2	6.9	27.0	0.515	0.048	0.041	0.021		13.0	120 S
95/12/17	1150	6.2	5670.0	48	11.4	91.7	7.0	16.0	0.780	0.146	0.035	0.023		12.0	100 S
96/01/22	1100	4.2	4240.0	47	11.9	90.5	7.1	15.0	0.822	0.060	0.034	0.011		11.0	230 S
96/02/19	1030	6.3	11800.0	25	12.3	100.9	7.2	90.0	0.310	0.010 U	0.059	0.005 U		55.0	42 S
96/03/18	1140	7.3	2710.0	47	11.7	96.3	7.1	8.0	0.368	0.015	0.015	0.008		5.9	24
96/04/22	1120	9.4	3140.0	42	10.8	93.7	7.2	9.0	0.318	0.010 U	0.010 U	0.005 UJ		5.0	20
96/05/20	1200	9.4	5910.0	30	11.3	97.9	7.2	28.0	0.243	0.014	0.010 U	0.008		16.0	50 S
96/06/17	1200	13.6	2300.0	44	10.1	96.0	7.4	6.0	0.166	0.010 U	0.010 U	0.005 U		4.4	460
96/07/22	1130	16.0	1380.0	47	9.7	97.2	7.3	6.0	0.255	0.010 U	0.014	0.005		4.3	110
96/08/19	1105	16.4	872.0	61	9.4	94.7	7.3	4.0	0.290	0.010 U	0.025	0.006		2.6	43
96/09/16	1125	13.2	2730.0	55	9.9	93.3	7.4	7.0	0.286	0.010 U	0.017	0.005 UJ		4.9	

07D050 Snoqualmie R nr Monroe continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/16	1120	0.355													
95/11/19	1205	0.296													
95/12/17	1150	0.460													
96/01/22	1100	0.545													
96/02/19	1030	0.216													
96/03/18	1140	0.295													
96/04/22	1120	0.247													
96/05/20	1200	0.164													
96/06/17	1200	0.164													
96/07/22	1130	0.187													
96/08/19	1105	0.235													
96/09/16	1125	0.209													

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

Station No.: 07D070 SNOQUALMIE R NR CARNATION Water Class: A Latitude: 47 39 58.0
Water Body No.: WA-07-1060 River Mile: 23.01 Longitude: 121 55 27.0

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/16	1040	10.5	3030.0	43	10.8	94.6	7.2	8.0	0.359	0.010 U	0.010 U	0.005 U		4.3	48
95/11/19	1125	7.9	5810.0	35	11.9	97.3	7.2	13.0	0.318	0.010 U	0.016	0.007		7.7	36
95/12/17	1110	6.0	5250.0	40	12.2	97.7	7.2	14.0	0.418	0.010 U	0.010 U	0.005 U		9.0	2 S
96/01/22	1000	4.0	4210.0	43	12.5	94.7	7.2	10.0	0.553	0.010 U	0.015	0.005 U		7.5	29
96/03/18	1100	7.0	2710.0	44	11.8	96.4	7.1	6.0	0.318	0.010 U	0.010	0.005 U		5.5	1
96/04/22	1045	8.9	3010.0	40	11.0	94.3	7.4	6.0	0.278	0.010 U	0.012	0.005 UJ		4.2	11
96/05/20	1120	8.9	5400.0	29	11.5	98.5	7.5	18.0	0.197	0.010 U	0.010 U	0.005 U		12.0	10
96/06/17	1115	12.1	2110.0	41	10.5	96.6	7.8	4.0	0.159	0.010 U	0.010 U	0.005 U		3.2	20
96/07/22	1055	15.2	1290.0	51	9.9	97.6	7.4	4.0	0.255	0.010 U	0.010 U	0.005 U		2.9	25
96/08/19	1030	15.2	850.0	59	9.9	97.3	7.4	2.0	0.269	0.010 U	0.016	0.007		1.7	25
96/09/16	1050	12.0	2130.0	38	10.2	93.6	7.4	16.0	0.309	0.010 U	0.026	0.005 UJ		19.0	

07D070 Snoqualmie R nr Carnation continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/16	1040	0.281													
95/11/19	1125	0.243													
95/12/17	1110	0.357													
96/01/22	1000	0.427													
96/03/18	1100	0.279													
96/04/22	1045	0.227													
96/05/20	1120	0.168													
96/06/17	1115	0.155													
96/07/22	1055	0.188													
96/08/19	1030	0.218													
96/09/16	1050	0.222													

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

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

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/16	0935	10.1	2520.0	33	10.8	95.1	7.2	5.0	0.286	0.010 U	0.010 U	0.005 U		2.5	17
95/11/19	1025	6.9	4210.0	27	12.0	96.8	7.4	11.0	0.226	0.010 U	0.010 U	0.006		5.5	7
95/12/17	1005	5.4	3620.0	33	12.1	96.6	7.2	14.0	0.289	0.016	0.010 U	0.005 U		6.5	7
96/01/22	0900	3.8	2780.0	36	12.4	94.7	7.3	11.0	0.366	0.010 U	0.016	0.005 U		9.1	19
96/02/19	0905	5.1	7760.0	21	12.2	98.4	7.1	49.0	0.204	0.010 U	0.036	0.005 U		37.0	6 S
96/03/18	0955	5.5	1950.0	35	12.2	97.2	7.2	6.0	0.250	0.010 U	0.010 U	0.006		5.7	1
96/04/22	0940	7.6	2130.0	32	11.3	95.2	7.5	6.0	0.215	0.010 U	0.010 U	0.005 UJ		4.0	4
96/05/20	1010	7.4	4100.0	23	11.7	98.0	7.6	17.0	0.136	0.010 U	0.010 U	0.005 U		11.0	11
96/06/17	1015	10.3	1710.0	32	10.8	96.7	7.4	6.0	0.123	0.010 U	0.012	0.005 U		3.3	10
96/07/22	0945	14.0	947.0	43	9.7	94.2	7.4	5.0	0.180	0.010 U	0.010 U	0.005 U		3.7	33 X
96/08/19	0930	12.8	554.0	49	9.6	90.7	7.2	4.0	0.220	0.010 U	0.016	0.005 U		1.8	44
96/09/16	0950	10.6	1680.0	30	10.5	94.7	7.5	20.0	0.266	0.010 U	0.017	0.005 UJ		13.0	

07D130 Snoqualmie R @ Snoqualmie continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/16	0935	0.210													
95/11/19	1025	0.176													
95/12/17	1005	0.255													
96/01/22	0900	0.278													
96/02/19	0905	0.155													
96/03/18	0955	0.193													
96/04/22	0940	0.167													
96/05/20	1010	0.112													
96/06/17	1015	0.113													
96/07/22	0945	0.131													
96/08/19	0930	0.186													
96/09/16	0950	0.210													

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

Station No.: 07F055 WOODS CR @ MONROE Water Class: A Latitude: 47 51 16.0
Water Body No.: WA-07-1163 River Mile: 0.50 Longitude: 121 57 50.0

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/16	1215	11.6		60	10.1	90.5	7.0	22.0	0.963	0.012	0.040	0.005 U		7.2	520 S
95/11/19	1305	8.9		58	11.3	94.7	7.2	6.0	0.872	0.010 U	0.020	0.009		4.0	29
95/12/17	1245	7.1		49	11.6	95.5	7.1	14.0	1.210	0.025	0.011	0.007		6.7	35
96/01/22	1200	4.7		46	12.4	95.7	7.1	8.0	1.150	0.010 U	0.019	0.005 U		5.2	36
96/02/19	1125	7.3		46	11.4	95.7	7.0	19.0	0.892	0.010 U	0.030	0.005		14.0	45
96/03/18	1235	7.9		62	12.1	101.2	7.3	5.0	0.747	0.010 U	0.017	0.009		2.5	31
96/04/22	1210	10.2		58	11.4	100.8	7.3	5.0	0.656	0.010 U	0.025	0.005 UJ		2.9	80
96/05/20	1255	11.6		52	10.9	99.4	7.2	10.0	0.628	0.010 U	0.012	0.005 U		4.3	76
96/06/17	1255	12.5		77	12.1	112.5	7.5	3.0	0.494	0.010 U	0.024	0.005 U		2.0	69
96/07/22	1225	15.9		101	11.1	111.2	7.7	4.0	0.509	0.010 U	0.010 U	0.006		1.9	190
96/08/19	1210	13.9		102	12.0	114.8	7.7	3.0	0.594	0.010 U	0.030	0.009		1.3	110
96/09/16	1220	12.0		70	10.3	94.5	7.4	16.0	1.050	0.010 U	0.080	0.005 UJ		26.0	

07F055 Woods Cr @ Monroe continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/16	1215	0.589													
95/11/19	1305	0.673													
95/12/17	1245	0.926													
96/01/22	1200	0.890													
96/02/19	1125	0.709													
96/03/18	1235	0.665													
96/04/22	1210	0.474													
96/05/20	1255	0.512													
96/06/17	1255	0.519													
96/07/22	1225	0.441													
96/08/19	1210	0.474													
96/09/16	1220	0.671													

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

Station No.: 07P070 PATTERSON CK NR FALL CITY Water Class: A Latitude: 47 35 30.0
Water Body No.: River Mile: 0.70 Longitude: 121 55 32.0

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/16	1000	10.8	10.0	158	7.9	69.7	7.1	4.0	1.130	0.010 U	0.057	0.036		2.3	550
95/11/19	1055	9.1	27.0	121	8.4	70.7	6.9	3.0	1.430	0.016	0.061	0.039		3.0	23
95/12/17	1040	6.3	250.0	78	9.5	76.6	7.0	4.0	1.480	0.023	0.026	0.018		3.6	47 S
96/01/22	0930	4.1	1100.0	62	11.1	84.1	7.1	6.0	1.620	0.010 U	0.035	0.013		6.7	80 S
96/02/19	0935	7.7	1300.0	74	9.5	80.7	7.0	10.0	1.260 J	0.010 U	0.054	0.019		11.0	130 S
96/03/18	1030	7.2	24.0	108	11.0	90.2	7.1	4.0	1.140	0.010 U	0.038	0.025		3.3	31
96/04/22	1005	9.6	28.0	97	9.7	84.6	7.1	3.0	0.984	0.010 U	0.036	0.014 J		2.8	39
96/05/20	1040	10.8	63.0	85	9.3	83.2	7.1	5.0	0.900	0.012	0.021	0.022		4.5	84 S
96/06/17	1040	11.3	12.0	132	10.8	97.6	7.3	2.0	0.859	0.010 U	0.045	0.016		2.2	310
96/07/22	1015	13.0	10.0	154	9.3	87.3	7.4	5.0	1.060	0.010 U	0.048	0.032		2.6	160
96/08/19	0955	11.8	8.3	145	9.9	90.3	7.3	4.0	1.080	0.010 U	0.049	0.021		2.6	450
96/09/16	1015	11.3	11.0	147	9.0	81.4	7.2	5.0	0.984	0.010 U	0.047	0.019 J		3.4	

07P070 Patterson Ck nr Fall City continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/16	1000	0.696													
95/11/19	1055	0.890													
95/12/17	1040	1.160													
96/01/22	0930	1.120													
96/02/19	0935	0.925													
96/03/18	1030	0.878													
96/04/22	1005	0.723													
96/05/20	1040	0.613													
96/06/17	1040	0.902													
96/07/22	1015	0.873													
96/08/19	0955	0.908													
96/09/16	1015	0.710													

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

Station No.: 07R050 FRENCH CR NR MOUTH Water Class: A Latitude: 47 53 23.7
Water Body No.: WA-07-1052 River Mile: 1.30 Longitude: 122 04 18.9

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/16	1325	12.4		224	3.3	30.1	6.5	16.0	4.040	0.151	0.089	0.029		18.0	510
95/11/19	1405	10.0		218	3.0	25.8	6.6	9.0	5.010	0.792	0.132	0.063		11.0	43 S
95/12/17	1400	6.7		193	6.2	50.5	6.7	42.0	6.930	2.780	0.362	0.203		39.0	9800 J
96/01/22	1300	4.5		121	8.9	68.3	6.8	14.0	3.930	0.588	0.153	0.069		24.0	200 S
96/03/18	1325	8.7		191	7.7	65.8	7.7	14.0	3.360	1.010	0.064	0.071		22.0	700
96/04/22	1315	11.5		170	7.4	67.4	6.8	10.0	1.910	0.400	0.127	0.061 J		22.0	200
96/05/20	1350	12.6		159	7.1	66.2	6.7	10.0	2.350	0.677	0.050	0.072		14.0	630
96/06/17	1335	14.6		212	6.1	59.4	8.1	18.0	1.020	1.010	0.198	0.022		28.0	1100 S
96/07/22	1325	17.6		225	7.3	75.7	7.2	9.0	0.956	0.181	0.010	0.032		18.0	5200
96/08/19	1305	15.9		203	8.8	87.9	7.3	10.0	1.180	0.083	0.090	0.022		14.0	350
96/09/16	1310	14.1		191	6.0	57.6	7.0	6.0	1.240	0.127	0.104	0.022 J		26.0	

07R050 French Cr nr Mouth continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/16	1325	2.830													
95/11/19	1405	3.280													
95/12/17	1400	2.160													
96/01/22	1300	1.780													
96/03/18	1325	0.964													
96/04/22	1315	0.689													
96/05/20	1350	0.693													
96/06/17	1335	0.981													
96/07/22	1325	0.557													
96/08/19	1305	0.570													
96/09/16	1310	0.650													

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

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

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/18	1020	10.1	553.0	66	11.1	95.3	7.2	4.0	0.323	0.010 U	0.011	0.005 U		1.8	140
95/11/21	1025	8.0	1280.0	51	11.4	94.1	7.3	6.0	0.264	0.010 U	0.010 U	0.005 U		3.3	14
95/12/19	1015	6.8	1820.0	48	11.9	96.6	7.4	30.0	0.365	0.010 U	0.017	0.005 U		14.0	6
96/01/24	1020	5.5	1510.0	59	12.0	95.6	7.4	21.0	0.702	0.010 U	0.022	0.006		10.0	16 S
96/02/21	1005	5.0	2630.0	39	12.3	97.2	7.2	96.0	0.335	0.010 U	0.054	0.005 U		45.0	9 S
96/03/20	1030	8.0	392.0	78	12.2	101.6	7.5	2.0	0.408	0.010 U	0.010 U	0.006		1.2	25
96/04/24	0935	8.7	2090.0	45	11.1	94.8	7.3	87.0	0.489	0.010 U	0.084	0.005 U		36.0	160 J
96/05/22	1040	9.8	765.0	60	11.2	98.0	7.2	7.0	0.545	0.010 U	0.037	0.005 U		2.9	74
96/06/19	0935	11.4	376.0	68	12.0	108.4	7.5	4.0	0.195	0.010 U	0.011	0.005 U		2.7	110
96/07/24	1000	15.4	234.0	87	10.3	102.3	7.6	4.0	0.272	0.010 U	0.016	0.005 U		1.7	680 J
96/08/21	1010	13.0	136.0	88	12.4	115.5	8.1	3.0	0.170	0.010 U	0.024	0.005 U		1.3	160
96/09/18	0930	10.1	202.0	83	11.2	97.6	7.3	109.0	0.282	0.010 U	0.067	0.005 U		29.0	96

08C070 Cedar R @ Logan St/Renton continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/18	1020	0.245													
95/11/21	1025	0.210													
95/12/19	1015	0.307													
96/01/24	1020	0.521													
96/02/21	1005	0.268													
96/03/20	1030	0.368													
96/04/24	0935	0.336													
96/05/22	1040	0.266													
96/06/19	0935	0.157													
96/07/24	1000	0.223													
96/08/21	1010	0.132													
96/09/18	0930	0.238													

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

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

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/16	0850	10.6	599.0	53	10.6	95.1	7.4	2.0	0.238	0.010 U	0.010 U	0.005 U		0.6	6
95/11/19	0935	8.0	1350.0	42	11.6	96.8	7.4	4.0	0.206	0.010 U	0.010 U	0.007		1.7	2
95/12/17	0915	6.4	1480.0	38	12.1	99.9	7.3	5.0	0.167	0.010 U	0.010 U	0.005 U		3.2	1
96/03/18	0900	7.6	452.0	64	11.8	99.7	7.3	15.0	0.247	0.010 U	0.011	0.006		1.1	1 U
96/04/22	0845	8.3	565.0	52	11.4	98.3	7.4	2.0	0.215	0.010 U	0.014	0.005 UJ		0.7	1 U
96/05/20	0920	9.1	885.0	43	11.3	99.1	7.6	4.0	0.145	0.010 U	0.010 U	0.005		1.8	5
96/06/17	0920	10.0	471.0	56	11.0	98.4	7.3	1.0	0.161	0.010 U	0.010 U	0.005 U		1.3	6
96/07/22	0855	11.7	401.0	65	10.5	97.5	7.5	3.0	0.175	0.010 U	0.014	0.006		1.7	5
96/08/19	0840	10.6	315.0	62	10.8	97.9	7.3	1.0 U	0.195	0.010 U	0.010 U	0.005 U		0.5 U	8
96/09/16	0900	9.4	272.0	66	11.0	97.1	7.6	1.0 U	0.196	0.010 U	0.010 U	0.005 UJ		0.6	

08C110 Cedar R nr Landsburg continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/16	0850	0.167													
95/11/19	0935	0.147													
95/12/17	0915	0.150													
96/03/18	0900	0.236													
96/04/22	0845	0.184													
96/05/20	0920	0.136													
96/06/17	0920	0.170													
96/07/22	0855	0.157													
96/08/19	0840	0.188													
96/09/16	0900	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.: 09A080 GREEN R @ TUKWILA Water Class: A Latitude: 47 27 52.0
Water Body No.: River Mile: 12.40 Longitude: 122 14 49.0

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/18	1050	10.4	1120.0	74	10.1	87.3	7.4	8.0	0.470	0.010 U	0.037	0.007		5.0	47 S
95/11/21	1100	7.2	1190.0	75	11.0	89.1	7.1	9.0	0.531	0.011	0.045	0.026		4.5	28 S
95/12/19	1045	6.6	2260.0	78	11.3	91.3	6.9	12.0	0.984	0.098	0.071	0.042		9.1	460 S
96/01/24	1050	5.1	2600.0	78	11.6	91.4	7.3	12.0	1.090	0.056	0.061	0.037		7.6	180 S
96/02/21	1045	6.0	4500.0	53	11.5	93.3	7.2	60.0	0.596	0.011	0.066	0.012		40.0	280 S
96/03/20	1055	8.3	1370.0	88	10.9	91.5	7.0	13.0	0.585	0.010 U	0.030	0.015		6.3	71
96/04/24	1005	9.7	2200.0	75	9.9	86.5	7.4	100.0	1.060	0.087	0.207	0.065		45.0	2700 J
96/05/22	1120	9.6	1400.0	83	10.2	88.8	7.3	16.0	0.295	0.054	0.010 U	0.020		5.5	74
96/06/19	1005	13.7	558.0	129	9.1	86.5	7.5	12.0	0.558	0.023	0.036	0.013		5.2	37
96/07/24	1030	20.0	270.0	171	7.9	86.3	7.3	12.0	0.628	0.052	0.066	0.025		5.0	110
96/08/21	1040	16.1	255.0	153	9.0	89.6	7.5	4.0	0.451	0.020	0.058	0.024		2.9	55
96/09/18	0955	13.0	290.0	129	9.4	87.5	7.4	6.0	0.505	0.023	0.048	0.019		4.3	150

09A080 Green R @ Tukwila continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/18	1050	0.329													
95/11/21	1100	0.424													
95/12/19	1045	0.638													
96/01/24	1050	0.702													
96/02/21	1045	0.425													
96/03/20	1055	0.470													
96/04/24	1005	0.526													
96/05/22	1120	0.366													
96/06/19	1005	0.440													
96/07/24	1030	0.474													
96/08/21	1040	0.315													
96/09/18	0955	0.350													

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

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

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/16	0810	10.2	1750.0	50	10.9	97.7	7.2	2.0	0.262	0.010 U	0.010 U	0.005 U		1.5	9
95/11/19	0855	7.5	1610.0	48	12.0	99.7	7.5	3.0	0.225	0.010 U	0.012	0.011		2.6	3
95/12/17	0825	5.0	1620.0	40	12.5	100.3	7.4	7.0	0.231	0.010 U	0.010 U	0.009		5.7	9
96/01/22	0810	3.5	1320.0	39	12.9	98.9	7.4	3.0	0.204	0.010 U	0.014	0.005		2.5	3
96/02/19	0805	5.7	3480.0	32	12.3	102.0	7.0	38.0	0.230	0.010 U	0.046	0.007		36.0	6
96/03/18	0820	5.6	961.0	41	12.5	101.1	7.3	6.0	0.119	0.010 U	0.011	0.008		4.0	21
96/04/22	0810	7.4	692.0	38	11.6	98.7	7.1	2.0	0.101	0.010 U	0.010 U	0.005 UJ		1.3	8
96/05/20	0820	8.7	1050.0	39	11.6	101.4	8.0	3.0	0.062	0.010 U	0.010 U	0.005 U		1.6	4
96/06/17	0845	11.4	325.0	44	10.7	99.4	7.6	3.0	0.030	0.010 U	0.019	0.005 U		2.7	4
96/07/22	0810	13.4	142.0	55	10.2	99.0	7.4	2.0	0.138	0.010 U	0.010 U	0.005 U		1.5	8
96/08/19	0800	14.5	131.0	54	9.8	97.5	7.6	2.0	0.107	0.010 U	0.014	0.005 U		1.1	18
96/09/16	0810	13.4	135.0	60	9.9	96.2	7.1	2.0	0.093	0.010 U	0.010 U	0.005 UJ		1.2	

09A190 Green R @ Kanaskat continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/16	0810	0.191													
95/11/19	0855	0.185													
95/12/17	0825	0.203													
96/01/22	0810	0.187													
96/02/19	0805	0.155													
96/03/18	0820	0.091													
96/04/22	0810	0.050													
96/05/20	0820	0.020													
96/06/17	0845	0.028													
96/07/22	0810	0.071													
96/08/19	0800	0.052													
96/09/16	0810	0.061													

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

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

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/18	1330	10.6	4240.0	60	10.9	94.8	7.6	72.0	0.244	0.010 U	0.060	0.012	20	45.0	44
95/11/21	1430	7.3	2320.0	78	11.7	95.1	7.2	22.0	0.528	0.021	0.045	0.016		7.3	160
95/12/19	1320	6.0	6790.0	64	12.0	95.6	7.5	54.0	0.583	0.023	0.031	0.013	24	13.0	80
96/01/24	1415	4.8	4520.0	68	11.8	92.3	7.2	14.0	0.826	0.030	0.039	0.021		7.5	330
96/02/21	1335	5.7	8110.0	55	11.9	95.9	7.3	84.0	0.432	0.010 U	0.059	0.013	24	34.0	330
96/03/20	1330	7.7	2710.0	69	12.0	99.4	7.2	19.0	0.317	0.010 U	0.024	0.010		4.9	37
96/04/24	1255	8.3	9640.0	53	11.2	94.5	7.4	487.0	0.577	0.036	0.375	0.022	26	130.0	1200 J
96/05/22	1345	10.2	4050.0	61	10.9	96.3	7.6	15.0	0.274	0.013	0.012	0.010		5.8	43
96/06/19	1300	12.9	2190.0	63	10.4	97.7	7.7	26.0	0.160	0.010 U	0.041	0.009	26	7.5	30 X
96/07/24	1310	17.9	2500.0	62	9.4	99.0	7.5	61.0	0.123	0.010 U	0.092	0.008		55.0	220 J
96/08/21	1320	14.8	1450.0	71	10.2	99.1	7.7	37.0	0.176	0.012	0.104	0.015	30	60.0	60
96/09/18	1315	9.8	1380.0	82	11.4	99.0	7.6	26.0	0.264	0.010 U	0.051	0.017		20.0	180

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

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/18	1330	0.148						0.0020	0.040 U		0.030 U	1.000 U		1.700	
95/11/21	1430	0.400													
95/12/19	1320	0.396						0.0040 J	0.040 U	0.708	0.030 U	1.000 U		5.000 U	
96/01/24	1415	0.515													
96/02/21	1335	0.270						0.0050 J	0.020 U	0.878	0.031	0.400		1.000 U	
96/03/20	1330	0.206													
96/04/24	1255	0.219						0.0010 U	0.020 U	1.370	0.042	0.495		0.560	
96/05/22	1345	0.189													
96/06/19	1300	0.087						0.0010	0.020 U	0.571	0.022	0.270		0.510	
96/07/24	1310	0.058													
96/08/21	1320	0.111						0.0030	0.020 U	0.490	0.020 U	0.350		0.870	
96/09/18	1315	0.194													

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

Station No.: 10A110 PUYALLUP R @ ORTING Water Class: A Latitude: 47 05 21.0
Water Body No.: WA-10-1060 River Mile: 22.20 Longitude: 122 12 44.0

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/18	1140	8.1	1100.0	50	11.9	97.9	7.6	69.0	0.207	0.010 U	0.088	0.005 U		25.0	9
95/11/21	1215	7.1	785.0	58	11.9	96.6	7.4	12.0	0.272	0.010 U	0.020	0.006		4.2	1
95/12/19	1145	6.1	2030.0	48	12.2	97.8	7.6	7.0	0.316	0.010 U	0.010 U	0.005 U		3.4	6
96/01/24	1220	4.1	1640.0	52	12.6	97.3	7.5	12.0	0.459	0.010 U	0.022	0.007		5.8	12 S
96/02/21	1145	5.3	1150.0	44	12.2	97.8	7.4	30.0	0.311	0.010 U	0.036	0.005 U		11.0	19
96/03/20	1155	7.2	428.0	57	12.3	101.2	7.3	1.0	0.136	0.010 U	0.010 U	0.005		3.0	4
96/04/24	1100	7.6	2340.0	39	11.7	97.7	7.6	310.0	0.289	0.010 U	0.272	0.010		110.0	120
96/05/22	1215	8.9	1020.0	47	11.5	99.1	7.3	20.0	0.165	0.010 U	0.010 U	0.005 U		5.9	17
96/06/19	1115	11.8	382.0	56	11.1	102.1	7.8	4.0	0.034	0.010 U	0.026	0.005 U		3.9	2
96/07/24	1140	15.4	550.0	47	10.2	102.3	7.6	203.0	0.020	0.010 U	0.211	0.006		140.0	110
96/08/21	1145	12.2	281.0	65	11.1	102.3	7.7	68.0	0.031	0.010 U	0.120	0.021		80.0	6
96/09/18	1100	8.2	297.0	69	12.0	100.9	7.7	32.0	0.065	0.010 U	0.053	0.009		26.0	10

10A110 Puyallup R @ Orting continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/18	1140	0.116													
95/11/21	1215	0.200													
95/12/19	1145	0.228													
96/01/24	1220	0.287													
96/02/21	1145	0.222													
96/03/20	1155	0.063													
96/04/24	1100	0.144													
96/05/22	1215	0.087													
96/06/19	1115	0.010 U													
96/07/24	1140	0.010 U													
96/08/21	1145	0.010													
96/09/18	1100	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.: 10C070 WHITE R @ SUMNER Water Class: A Latitude: 47 12 14.0
Water Body No.: WA-10-1030 River Mile: 0.70 Longitude: 122 14 41.0

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/18	1225	10.8	1754.0	68	10.0	87.3	7.4	7.0	0.216	0.010 U	0.023	0.005 U		11.0	27
95/11/21	1345	8.4	606.0	103	11.4	95.1	7.1	22.0	0.682	0.046	0.057	0.030		7.4	490 J
95/12/19	1220	9.0	356.0	67	12.1	103.7	7.4	90.0	0.562	0.027	0.106	0.014		22.0	91
96/01/24	1250	5.9	1995.0	65	11.5	92.6	7.2	19.0	0.806	0.038	0.047	0.021		10.0	350 S
96/02/21	1220	5.6	7460.0	51	12.0	96.5	7.2	100.0	0.367	0.010 U	0.084	0.009		36.0	280
96/03/20	1235	7.6	1889.0	61	11.8	97.5	7.5	17.0	0.240	0.010 U	0.027	0.008		6.0	49
96/04/24	1135	8.6	5870.0	61	11.0	93.7	7.4	490.0	0.626	0.057	0.381	0.031		170.0	2600 J
96/05/22	1300	10.9	1753.0	65	10.6	95.2	7.4	12.0	0.243	0.016	0.015	0.011		4.1	80
96/06/19	1155	12.8	1372.0	56	10.5	98.4	7.7	40.0	0.119	0.010 U	0.045	0.005		9.7	14
96/07/24	1215	20.2	1456.0	60	8.9	98.0	7.5	22.0	0.102	0.010 U	0.059	0.007		25.0	180 J
96/08/21	1215	16.3	794.0	65	9.6	96.0	7.6	18.0	0.123	0.010 U	0.071	0.018		37.0	21
96/09/18	1140	11.8	675.0	84	11.1	100.7	7.5	39.0	0.254	0.013	0.074	0.020		25.0	250 J

10C070 White R @ Sumner continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/18	1225	0.111													
95/11/21	1345	0.514													
95/12/19	1220	0.364													
96/01/24	1250	0.478													
96/02/21	1220	0.221													
96/03/20	1235	0.135													
96/04/24	1135	0.212													
96/05/22	1300	0.134													
96/06/19	1155	0.040													
96/07/24	1215	0.023													
96/08/21	1215	0.059													
96/09/18	1140	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.: 10C085 WHITE R NR SUMNER Water Class: A Latitude: 47 15 02.0
Water Body No.: WA-10-1030 River Mile: 4.90 Longitude: 122 14 33.0

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/18	1300	10.3	234.0	99	11.8	101.9	7.8	4.0	0.489	0.010 U	0.049	0.028		6.8	27
95/11/21	1400	8.1	557.0	86	11.6	96.1	7.4	20.0	0.540	0.013	0.046	0.018		6.9	18
95/12/19	1255	6.0	330.0	60	12.2	97.3	7.5	155.0	0.508	0.018	0.113	0.014		28.0	74
96/01/24	1350	5.5	325.0	111	11.9	94.9	7.0	12.0	2.200	0.163	0.150	0.097		8.7	1900 J
96/02/21	1255	6.1	5600.0	47	9.5	77.4	7.3	118.0	0.328	0.010 U	0.142	0.008		50.0	300
96/03/20	1300	9.0	270.0	92	12.5	106.9	7.4	2.0	0.579	0.010 U	0.030	0.018		2.0	33
96/04/24	1215	7.9	4120.0	53	11.6	97.1	7.6	897.0	0.628	0.048	0.546	0.023		260.0	1000 J
96/05/22	1320	10.5	670.0	71	11.4	101.5	7.5	27.0	0.348	0.010 U	0.033	0.020		7.0	34
96/06/19	1220	13.1	813.0	59	11.0	103.8	7.7	26.0	0.123	0.010 U	0.043	0.005		12.0	2
96/07/24	1245	20.9	354.0	75	9.8	109.4	7.6	35.0	0.167	0.010 U	0.066	0.017		28.0	26 X
96/08/21	1245	15.2	348.0	85	10.7	104.8	7.9	31.0	0.186	0.016	0.088	0.028		39.0	10
96/09/18	1250	10.8	709.0	79	11.4	101.3	7.6	59.0	0.227	0.010 U	0.063	0.014		26.0	49

10C085 White R nr Sumner continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/18	1300	0.354													
95/11/21	1400	0.430													
95/12/19	1255	0.309													
96/01/24	1350	1.340													
96/02/21	1255	0.178													
96/03/20	1300	0.446													
96/04/24	1215	0.172													
96/05/22	1320	0.254													
96/06/19	1220	0.043													
96/07/24	1245	0.082													
96/08/21	1245	0.128													
96/09/18	1250	0.145													

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

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/24	1440	10.7	1250.0	62	11.3	100.6	7.6	9.0	0.210	0.010 U	0.034	0.006		17.0	7
95/11/28	1435	9.5	13100.0	44	11.1	95.4	7.0	1120.0	1.050	0.010 U	0.123	0.005 U		850.0	43
95/12/19	1425	6.9	3950.0	62	11.9	95.3	7.6	35.0	0.518	0.011	0.061	0.007		45.0	11
96/01/30	1515	3.2	2440.0	61	12.6	92.9	7.4	9.0	0.577	0.010 U	0.036	0.015		13.0	7
96/02/27	1425	5.3	1960.0	66	12.2	95.6	7.4	57.0	0.759	0.010 U	0.084	0.006		80.0	5
96/03/26	1430	7.1	1270.0	68	12.0	98.9	7.6	10.0	0.575	0.010 U	0.032	0.007		17.0	2
96/04/29	1355	9.5	3460.0	57	11.4	97.9	7.4	16.0	0.399	0.010 U	0.027	0.008		15.0	8
96/05/28	1510	11.9	2120.0	63	11.0	100.9	7.6	5.0	0.315	0.010 U	0.015	0.008		3.7	4
96/06/24	1410	12.3	1090.0	65	11.6	108.1	7.7	4.0	0.286	0.010 U	0.019	0.005 U		2.3	21
96/07/30	1510	16.5	1020.0	68	10.5	106.9	7.8	5.0	0.173	0.010 U	0.017	0.005		2.5	6
96/08/27	1650	13.3	943.0	68	9.9	93.9	7.8	14.0	0.207	0.010 U	0.036	0.007		12.0	36
96/09/24	1525	13.0	977.0	73	9.6	89.8	7.6	6.0	0.208	0.010 U	0.035	0.008		17.0	5

11A070 Nisqually R @ Nisqually continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/24	1440	0.121													
95/11/28	1435	0.254													
95/12/19	1425	0.331													
96/01/30	1515	0.415													
96/02/27	1425	0.569													
96/03/26	1430	0.453													
96/04/29	1355	0.256													
96/05/28	1510	0.246													
96/06/24	1410	0.184													
96/07/30	1510	0.140													
96/08/27	1650	0.143													
96/09/24	1525	0.170													

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

Station No.: 12A070 CHAMBERS CR NR STEILACOOM Water Class: A Latitude: 47 11 32.0
Water Body No.: WA-12-1110 River Mile: 0.90 Longitude: 122 34 20.0

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/18	1530	12.4		182	10.8	97.6	7.9	5.0	1.320	0.010 U	0.059	0.038		1.5	30
95/11/21	1600	10.5	75.0	177	10.5	91.9	7.5	4.0	1.480	0.047	0.084	0.039		1.2	19
95/12/19	1515	8.9	220.0	128	10.9	93.1	7.7	9.0	1.760	0.023	0.034	0.027		2.5	13
96/01/24	1540	6.9		123	11.3	93.1	7.0	8.0	1.900	0.010	0.043	0.020		4.5	50 S
96/02/21	1520	9.1		127	10.9	95.1	7.5	11.0	2.410	0.010 U	0.044	0.012		6.0	16
96/03/20	1500	11.7		140	11.0	99.8	7.6	10.0	1.680	0.026	0.027	0.009		3.0	7
96/04/24	1440	12.4		105	10.2	94.3	7.3	16.0	1.200	0.018	0.065	0.015		9.8	530 J
96/05/22	1515	14.0		133	10.1	97.0	7.5	10.0	1.340	0.013	0.076	0.005 U		3.5	37
96/06/19	1455	17.0		146	10.9	111.7	7.7	3.0	1.140	0.017	0.043	0.006		2.0	5
96/07/24	1450	19.7		164	9.0	98.0	7.6	7.0	1.070	0.014	0.050	0.010		2.3	9
96/08/21	1505	15.7		166	10.6	104.9	7.9	6.0	1.380	0.012	0.075	0.034		1.1	29
96/09/18	1450	12.5		164	10.7	98.7	7.8	3.0	1.190	0.010 U	0.050	0.035		1.3	44

12A070 Chambers Cr nr Steilacoom continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/18	1530	1.080													
95/11/21	1600	1.090													
95/12/19	1515	1.360													
96/01/24	1540	1.350													
96/02/21	1520	1.770													
96/03/20	1500	1.540													
96/04/24	1440	0.898													
96/05/22	1515	1.160													
96/06/19	1455	0.975													
96/07/24	1450	0.919													
96/08/21	1505	1.270													
96/09/18	1450	1.160													

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

Station No.: 12A110 CLOVER CR ABV STEILACOOM LK Water Class: A Latitude: 47 09 19.0
Water Body No.: River Mile: 7.10 Longitude: 122 31 17.0

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/18	1430	11.6	4.6	138	10.2	91.3	7.5	9.0	1.500	0.010 U	0.020	0.005 U	47	4.5	810 J
95/11/21	1510	9.8	4.6	156	10.7	92.9	7.2	8.0	1.860	0.010 U	0.031	0.008		3.2	270
95/12/19	1420	8.8	78.0	126	9.5	81.0	7.2	4.0	2.220	0.010 U	0.031	0.021	47	2.2	29
96/01/24	1505	6.6	155.0	119	10.3	84.3	6.8	5.0	2.530	0.010 U	0.037	0.020		3.0	77
96/02/21	1425	7.8	130.0	114	10.1	86.4	7.0	3.0	3.460	0.010 U	0.037	0.013	43	2.2	47
96/03/20	1405	9.7	105.0	117	11.7	102.5	7.2	4.0	2.180	0.010 U	0.024	0.009		1.6	33
96/04/24	1345	10.9	175.0	91	9.4	84.9	7.1	9.0	1.680	0.014	0.067	0.022	34	8.4	1100 J
96/05/22	1425	11.6	78.0	115	10.1	93.0	7.2	3.0	1.460	0.010 U	0.010 U	0.010		1.7	49
96/06/19	1345	14.8	41.0	103	10.2	100.7	7.5	5.0	1.460	0.010 U	0.032	0.010	42	2.3	90
96/07/24	1405	19.8	46.0	127	10.3	112.5	7.4	8.0	1.440	0.010 U	0.039	0.005 U		3.2	240
96/08/21	1415	17.0	10.0	123	10.4	106.7	7.8	14.0	1.440	0.010	0.058	0.007	47	6.5	240
96/09/18	1355	13.2	8.2	124	10.8	102.1	7.6	5.0	1.360	0.010 U	0.025	0.005 U		3.4	220

12A110 Clover Cr abv Steilacoom Lk continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/18	1430	1.260						0.0020	0.040 U	0.809	0.328	1.000 U		7.040	
95/11/21	1510	1.760													
95/12/19	1420	1.820						0.0150 J	0.040 U	0.861	0.256	1.000 U		6.100 B	
96/01/24	1505	1.930													
96/02/21	1425	2.110						0.0010 U	0.020 U	0.742	0.167	0.450		9.600 B	
96/03/20	1405	1.980													
96/04/24	1345	1.120						0.0060	0.026	1.500	0.264	0.823		7.180	
96/05/22	1425	1.410													
96/06/19	1345	1.250						0.0010	0.020 U	0.776	0.160	0.370		4.220	
96/07/24	1405	1.010													
96/08/21	1415	1.180						0.0070	0.020 U	0.651	0.200	0.350		0.950	
96/09/18	1355	1.190													

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

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/24	1400	10.0	134.0	107	11.2	98.4	7.7	3.0	0.628	0.015	0.032	0.017		1.4	6
95/11/28	1350	9.8	1010.0	78	10.6	92.0	7.1	14.0	0.669	0.010 U	0.036	0.009		9.9	120 S
95/12/19	1350	8.2	914.0	92	11.0	91.1	7.1	14.0	0.848	0.013	0.039	0.013		8.8	23 S
96/01/30	1440	3.2	565.0	98	12.2	90.2	7.1	5.0	1.030	0.013	0.033	0.022		4.1	27
96/02/27	1350	5.5	819.0	88	11.9	94.1	7.2	15.0	0.909	0.010 U	0.029	0.009		7.6	18 S
96/03/26	1355	8.4	473.0	108	11.5	98.2	7.4	3.0	0.938	0.010 U	0.027	0.006		2.3	3
96/04/29	1315	10.8	704.0	77	10.7	95.0	7.1	17.0	0.710	0.014	0.032	0.013		12.0	26
96/05/28	1425	12.8	377.0	96	10.5	98.5	7.3	7.0	0.653	0.010 U	0.014	0.012		3.1	21
96/06/24	1335	14.1	234.0	112	10.9	106.0	7.4	9.0	0.854	0.010 U	0.037	0.005 U		4.0	440 J
96/07/30	1435	18.6	152.0	129	9.6	102.1	7.5	7.0	0.726	0.010 U	0.029	0.014		2.6	12
96/08/27	1615	14.7	111.0	128	11.4	111.9	7.7	4.0	0.777	0.010 U	0.036	0.006		2.1	38 S
96/09/24	1450	11.2	113.0	127	11.2	100.9	7.3	5.0	1.020	0.012	0.031	0.009		2.9	17

13A060 Deschutes R @ E St Bridge continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/24	1400	0.528													
95/11/28	1350	0.493													
95/12/19	1350	0.622													
96/01/30	1440	0.834													
96/02/27	1350	0.790													
96/03/26	1355	0.830													
96/04/29	1315	0.548													
96/05/28	1425	0.633													
96/06/24	1335	0.651													
96/07/30	1435	0.878													
96/08/27	1615	0.663													
96/09/24	1450	0.805													

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

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

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/24	1040	8.4	536.0	68	10.7	90.1	7.9	4.0	0.112	0.010 U	0.013	0.005 U		1.6	12
95/11/28	1040	8.8	2960.0	60	11.3	95.6	7.4	40.0	0.095	0.010 U	0.039	0.005 U		45.0	9
95/12/19	1040	7.8	12500.0	62	11.7	95.7	7.4	76.0	0.103	0.010 U	0.036	0.005 U		40.0	5
96/01/30	1130	3.8	690.0	65	12.0	89.5	7.4	12.0	0.122	0.010 U	0.017	0.012		6.3	4
96/02/27	1110	5.5	1140.0	60	12.1	95.2	7.5	7.0	0.091	0.010 U	0.012	0.005 U		7.8	2
96/03/26	1005	6.9	588.0	69	11.6	94.8	7.4	3.0	0.073	0.010 U	0.010 U	0.005 U		1.6	18
96/04/29	1035	8.5	1450.0	54	11.3	94.7	7.6	14.0	0.069	0.010 U	0.013	0.005 U		18.0	3
96/05/28	1055	10.1	696.0	65	11.1	97.7	7.6	3.0	0.025	0.050	0.010 U	0.006		1.6	5
96/06/24	1035	10.9	390.0	70	10.7	96.6	7.6	2.0	0.059	0.010 U	0.011	0.005 U		2.3	8
96/07/30	1115	11.8	246.0	76	10.0	91.5	7.8	1.0 U	0.058	0.010 U	0.014	0.008		1.3	6
96/08/27	1155	15.8	191.0	76	10.0	100.2	7.6	1.0 U	0.085	0.010 U	0.019	0.006		1.3	21
96/09/24	1135	9.1	230.0	75	10.3	87.9	7.5	1.0	0.091	0.010 U	0.010 U	0.006		0.7	3

16A070 Skokomish R nr Potlatch continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/24	1040	0.085													
95/11/28	1040	0.075													
95/12/19	1040	0.033													
96/01/30	1130	0.083													
96/02/27	1110	0.072													
96/03/26	1005	0.057													
96/04/29	1035	0.057													
96/05/28	1055	0.043													
96/06/24	1035	0.038													
96/07/30	1115	0.062													
96/08/27	1155	0.060													
96/09/24	1135	0.070													

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

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

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/24	0920	7.2	157.0	78	12.1	99.8	7.6	1.0 U	0.041	0.010 U	0.010 U	0.005 U		0.6	1 U
95/11/28	0935	6.7	820.0	69	12.1	98.3	7.5	9.0	0.046	0.010 U	0.011	0.005 U		8.0	1
95/12/19	0935	5.2	962.0	71	12.5	96.6	7.7	5.0	0.042	0.010 U	0.010 U	0.005 U		4.3	2
96/01/30	0000	0.0	221.0												
96/02/27	0945	3.3	344.0	76	13.2	99.0	7.6	1.0	0.032	0.010 U	0.010 U	0.005 U		1.5	1 U
96/03/26	0905	3.9	218.0	81	12.8	97.8	6.9	1.0 U	0.019	0.010 U	0.010 U	0.005 U		0.5 U	1 U
96/04/29	0855	6.0	455.0	67	12.2	97.1	7.8	3.0	0.031	0.010 U	0.010 U	0.005 U		1.9	1
96/05/28	0945	7.1	431.0	63	12.2	100.7	7.8	2.0	0.010 U	0.010 U	0.010 U	0.005 U		1.2	10
96/06/24	0930	8.5	398.0	59	11.8	101.6	7.8	2.0	0.021	0.010 U	0.010 U	0.005 U		2.2	6
96/07/30	1000	12.1	175.0	76	10.8	100.2	7.9	1.0 U	0.010 U	0.010 U	0.010 U	0.005 U		1.1	4
96/08/27	1015	11.1	100.0	82	10.8	98.5	7.8	1.0 U	0.010 U	0.010 U	0.013	0.005 U		0.7	1
96/09/24	1000	7.9		82	11.8	98.7	7.7	1.0 U	0.025	0.010 U	0.118	0.005 U		0.6	2

16C090 Duckabush R nr Brinnon continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/24	0920	0.016													
95/11/28	0935	0.025													
95/12/19	0935	0.014													
96/01/30	0000														
96/02/27	0945	0.016													
96/03/26	0905	0.010 U													
96/04/29	0855	0.013													
96/05/28	0945	0.010 U													
96/06/24	0930	0.010 U													
96/07/30	1000	0.010 U													
96/08/27	1015	0.010 U													
96/09/24	1000	0.018													

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

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

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/23	1545	9.2	760.0	84	11.5	99.8	8.0	2.0	0.047	0.010 U	0.015	0.005 U		6.5	1 U
95/11/27	1500	6.7	4110.0	79	12.4	100.9	7.2	71.0	0.049	0.010 U	0.063	0.005 U		95.0	2
95/12/18	1540	5.8	4180.0	90	12.1	95.2	7.3	42.0	0.052	0.010 U	0.044	0.005 U		55.0	3
96/01/29	1610	2.6	1540.0	89	12.9	94.1	7.4	5.0	0.056	0.010 U	0.013	0.005		8.0	1 U
96/02/26	1530	4.1	1690.0	76	13.3	102.0	7.4	9.0	0.043	0.010 U	0.010 U	0.005 U		13.0	1 U
96/03/25	1545	6.5	875.0	94	12.2	98.6	7.5	1.0	0.021	0.010 U	0.010 U	0.005 U		1.5	1 U
96/04/28	1700	6.3	2150.0	72	12.2	97.4	7.4	11.0	0.031	0.010 U	0.011	0.005 U		14.0	6
96/05/27	1435	9.6	1700.0	85	11.6	101.5	7.4	2.0	0.010 U	0.010 U	0.010 U	0.005 U		2.1	1 U
96/06/23	1525	10.3	1180.0	81	11.2	100.6	7.6	2.0	0.010 UJ	0.010 UJ	0.010 UJ	0.005 U		1.5	4
96/07/29	1650	15.7	809.0	89	10.1	101.2	7.7	1.0	0.010 U	0.010 U	0.010 U	0.005 U		1.5	1
96/08/26	1630	15.1	398.0	98	10.0	99.8	7.8	1.0 U	0.010 U	0.010 U	0.010 U	0.005 U		0.6	1 U
96/09/23	1620	12.6	345.0	100	10.8	100.8	7.6	1.0 U	0.027	0.010 U	0.010 U	0.006		1.2	1

18B070 Elwha R nr Port Angeles continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/23	1545	0.010 U													
95/11/27	1500	0.022													
95/12/18	1540	0.023													
96/01/29	1610	0.022													
96/02/26	1530	0.020													
96/03/25	1545	0.010 U													
96/04/28	1700	0.010 U													
96/05/27	1435	0.010 U													
96/06/23	1525	0.010 UJ													
96/07/29	1650	0.010 U													
96/08/26	1630	0.010 U													
96/09/23	1620	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.: 20B070 HOH R @ DNR CAMPGROUND Water Class: AA Latitude: 47 48 25.0
Water Body No.: WA-20-2010 River Mile: 16.50 Longitude: 124 14 59.0

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/23	1400	8.7	2300.0	77	11.8	100.9	7.7	3.0	0.166	0.010 U	0.010 U	0.005 U		3.5	12
95/11/27	1310	7.5	9100.0	71	11.6	95.9	7.2	84.0	0.139	0.010 U	0.050	0.005 U		45.0	13
95/12/18	1405	7.2	5030.0	74	11.8	96.0	7.2	88.0	0.121	0.010 U	0.043	0.005 U		45.0	6
96/01/29	1405	3.7	1640.0	73	12.7	96.0	7.3	6.0	0.116	0.010 U	0.012 J	0.006		5.8	2
96/02/26	1340	4.7	1935.0	68	12.7	98.9	7.2	7.0	0.131	0.010 U	0.010 U	0.005 U		7.4	1
96/03/25	1335	6.8	1150.0	77	12.3	99.9	7.4	4.0	0.046	0.010 U	0.010 U	0.005 U		3.6	1 U
96/04/28	1450	7.5	3240.0	65	11.7	96.4	7.3	19.0	0.104	0.010 U	0.017	0.005 U		15.0	9
96/05/27	1300	10.1	2120.0	77	11.5	101.6	7.5	6.0	0.010 U	0.010 U	0.010 U	0.005 U		5.9	1
96/06/23	1335	10.7	1225.0	78	11.1	100.5	7.4	5.0	0.017	0.010 U	0.010 U	0.005 U		3.8	9
96/07/29	1420	15.0	1235.0	71	10.3	101.8	7.9	6.0	0.010 U	0.010 U	0.013	0.005 U		13.0	4
96/08/26	1320	13.2	907.0	73	10.4	99.5	7.4	6.0	0.010 U	0.010 U	0.010 U	0.005 U		11.0	11
96/09/23	1320	9.9	695.0	81	11.5	101.0	7.4	1.0	0.042	0.010 U	0.010 U	0.007		2.2	2

20B070 Hoh R @ DNR Campground continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/23	1400	0.141													
95/11/27	1310	0.090													
95/12/18	1405	0.064													
96/01/29	1405	0.089													
96/02/26	1340	0.091													
96/03/25	1335	0.029													
96/04/28	1450	0.082													
96/05/27	1300	0.021													
96/06/23	1335	0.010 U													
96/07/29	1420	0.010 U													
96/08/26	1320	0.010 U													
96/09/23	1320	0.029													

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

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/23	1125	9.0	779.0	56	11.2	96.1	7.9	2.0	0.260	0.010 U	0.010	0.005 U		2.4	10
95/11/27	1050	8.2	2440.0	52	11.7	97.6	6.7	31.0	0.213	0.010 U	0.036	0.005 U		31.0	14
95/12/18	1140	7.6	3590.0	46	11.7	95.9	7.2	89.0	0.187	0.010 U	0.072	0.005 U		75.0	10
96/01/29	1115	4.1	821.0	48	12.4	94.4	7.4	3.0	0.206	0.010 U	0.011	0.007		2.9	3
96/02/26	1050	4.7	1160.0	45	12.7	98.7	7.0	3.0	0.177	0.010 U	0.010 U	0.005 U		5.1	1 U
96/03/25	1010	5.8	443.0	52	12.6	99.2	7.7	1.0 U	0.081	0.010 U	0.010 U	0.005 U		0.8	1
96/04/28	1225	8.1	1710.0	44	11.7	97.4	7.3	12.0	0.174	0.010 U	0.014	0.005 U		14.0	290
96/05/27	1035	10.9	664.0	52	11.7	104.8	7.5	2.0	0.040	0.010 U	0.010 U	0.005 U		1.7	3
96/06/23	1050	12.6	204.0	58	10.6	99.9	7.5	1.0	0.054	0.010 U	0.010 U	0.005 U		1.3	190 J
96/07/29	1115	17.0	100.0	67	9.6	98.3	7.7	2.0	0.074	0.010 U	0.010 U	0.005 U		0.8	47
96/08/26	1055	16.3	118.0	68	9.0	91.6	7.5	1.0 U	0.057	0.010 U	0.010 U	0.005 U		1.1	33
96/09/23	1050	9.3	207.0	60	11.4	98.2	7.6	1.0	0.116	0.010 U	0.010 U	0.005		0.9	8

22A070 Humptulips R nr Humptulips continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/23	1125	0.232													
95/11/27	1050	0.179													
95/12/18	1140	0.115													
96/01/29	1115	0.179													
96/02/26	1050	0.160													
96/03/25	1010	0.069													
96/04/28	1225	0.148													
96/05/27	1035	0.061													
96/06/23	1050	0.016													
96/07/29	1115	0.061													
96/08/26	1055	0.030													
96/09/23	1050	0.092													

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

Station No.: 23A070 CHEHALIS R @ PORTER Water Class: A Latitude: 46 56 17.0
Water Body No.: WA-23-1010 River Mile: 33.30 Longitude: 123 18 45.0

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/23	0845	10.3	1520.0	101	10.1	89.1	7.5	4.0	0.794	0.021	0.052	0.032	32	3.4	13
95/11/27	0910	9.1	13000.0	74	10.8	91.4	6.7	29.0	1.040	0.018	0.062	0.014		19.0	170 S
95/12/18	0935	7.4	19800.0	73	10.2	83.0	6.6	24.0	1.220	0.033	0.055	0.014	21	16.0	170 S
96/01/29	0905	4.3	6800.0	71	11.4	87.0	8.1	11.0	1.060	0.018	0.040	0.019		7.4	45
96/02/26	0835	4.9	9355.0	62	11.8	91.3	6.8	21.0	0.997	0.015	0.045	0.012	20	18.0	43
96/03/25	0840	7.9	2620.0	87	10.9	89.9	7.0	9.0	0.945	0.021	0.037	0.013		8.0	29
96/04/28	1025	10.1	16850.0	54	9.8	85.1	6.8	48.0	0.937	0.026	0.079	0.013	20	36.0	1 U
96/05/27	0900	14.1	3690.0	69	9.9	94.7	7.8	9.0	0.705	0.014	0.018	0.011		5.9	28
96/06/23	0845	15.6	1200.0	89	9.2	92.2	6.9	6.0	0.730 J	0.010 UJ	0.027 J	0.007	34	2.4	24
96/07/29	0925	21.2	581.0	101	8.0	88.7	6.9	3.0	0.671	0.010 U	0.032	0.015		2.4	15
96/08/26	0840	19.2	327.0	110	8.5	91.2	7.8	2.0	0.849	0.012	0.037	0.007	38	1.9	7
96/09/23	0900	12.0	490.0	97	9.7	88.3	7.0	4.0	0.805	0.010 U	0.032	0.027		2.7	9

23A070 Chehalis R @ Porter continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/23	0845	0.623							0.040 U	1.440	0.037	1.000 U		2.500	
95/11/27	0910	0.795													
95/12/18	0935	0.829						0.0020 J	0.040 U	1.330	0.030 U	1.000 U		5.000 U	
96/01/29	0905	0.824													
96/02/26	0835	0.853						0.0020	0.020 U	0.890	0.030 UJ	0.560		5.000 U	
96/03/25	0840	0.764													
96/04/28	1025	0.674						0.0040	0.020 U	1.100	0.020 U	0.451		0.750	
96/05/27	0900	0.631													
96/06/23	0845	0.539 J						0.0010 U	0.020 U	0.995	0.022	0.420		0.950	
96/07/29	0925	0.570													
96/08/26	0840	0.670						0.0020	0.030 U	1.180	0.024	0.380		1.100	
96/09/23	0900	0.609													

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

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

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/24	1230	10.2	981.0	96	10.3	91.0	7.3	2.0	0.660	0.044	0.056	0.027		3.1	17
95/11/28	1230	9.6	15500.0	66	10.6	91.6	7.0	118.0	1.190	0.019	0.110	0.015		60.0	1500 S
95/12/19	1310	7.8	8220.0	84	10.4	85.4	7.0	22.0	1.190	0.034	0.043	0.014		15.0	120
96/01/30	1400	2.9	3290.0	80	12.1	89.0	7.1	7.0	0.988	0.031	0.042	0.018		7.1	12
96/02/27	1300	5.0	4400.0	71	12.0	93.8	7.1	18.0	0.951	0.025	0.063	0.006		19.0	23 S
96/03/26	1140	8.1	1360.0	92	10.9	92.3	7.4	4.0	0.734	0.039	0.032	0.013		6.7	6
96/04/29	1235	10.6	6800.0	67	10.0	88.5	6.9	34.0	0.864	0.024	0.055	0.010		25.0	48
96/05/28	1350	14.4	2470.0	78	10.3	100.1	7.4	6.0	0.549	0.018	0.036	0.016		5.1	23
96/06/24	1255	16.7	1070.0	94	9.7	99.7	7.5	9.0	0.530	0.042	0.058	0.022		5.2	72
96/07/30	1350	22.1	290.0	95	9.7	110.3	7.4	3.0	0.491	0.010 U	0.034	0.013		2.3	20
96/08/27	1530	18.8	200.0	102	8.6	92.0	7.5	4.0	0.675	0.023	0.080	0.046		2.1	12
96/09/24	1405	13.2	346.0	91	10.3	97.1	7.5	2.0	0.591	0.031	0.052	0.028		2.9	6

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

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/24	1230	0.462													
95/11/28	1230	0.820													
95/12/19	1310	0.804													
96/01/30	1400	0.757													
96/02/27	1300	0.778													
96/03/26	1140	0.555													
96/04/29	1235	0.641													
96/05/28	1350	0.459													
96/06/24	1255	0.295													
96/07/30	1350	0.329													
96/08/27	1530	0.491													
96/09/24	1405	0.408													

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

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

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/25	0845	9.1	276.0	69	11.2	97.4	7.7	1.0 U	0.499	0.010 U	0.019	0.005 U		1.0	29
95/11/29	0805	10.1	10000.0	51	11.6	102.5	6.8	380.0	0.802	0.010 U	0.063 J	0.005		140.0	96
95/12/20	0835	7.5	1460.0	67	11.8	96.4	7.5	7.0	0.772	0.010 U	0.017	0.007		3.4	96
96/01/31	0845	0.3	764.0	67	13.6	94.0	7.7	2.0	0.646	0.010 U	0.020	0.012		2.1	13
96/02/28	0815	3.1	961.0	57	13.2	98.6	6.3	5.0	0.591	0.010 U	0.015	0.005 U		3.8	52
96/03/27	0845	5.2	332.0	64	12.3	97.8	6.8	2.0	0.342	0.010 U	0.010 U	0.005 U		1.3	17
96/04/30	0840	8.8	1210.0	54	11.5	98.0	7.5	9.0	0.567	0.010 U	0.016	0.006		5.9	16
96/05/29	0905	10.6	1040.0	59	11.3	101.6	7.7	3.0	0.283	0.010 U	0.010 U	0.005 U		2.0	39
96/06/25	0850	13.6	235.0	65	10.1	97.3	6.6	4.0	0.199	0.010 U	0.011	0.005 U		3.0	63
96/07/31	1005	18.1	64.3	78	8.9	93.6	7.7	4.0	0.240	0.010 U	0.017	0.005 U		2.8	51
96/08/28	0945	16.0	48.4	78	9.0	90.7	7.6	3.0	0.149	0.010 U	0.033	0.005 U		1.6	61
96/09/25	0850	9.3	59.8	75	10.6	91.3	7.5	1.0	0.135	0.010 U	0.011	0.005 U		1.6	27

23A160 Chehalis R @ Dryad continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/25	0845	0.417													
95/11/29	0805	0.573													
95/12/20	0835	0.579													
96/01/31	0845	0.553													
96/02/28	0815	0.537													
96/03/27	0845	0.278													
96/04/30	0840	0.506													
96/05/29	0905	0.268													
96/06/25	0850	0.059													
96/07/31	1005	0.118													
96/08/28	0945	0.045													
96/09/25	0850	0.034													

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

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/24	1150	10.4		96	6.3	55.8	7.2	2.0	1.070	0.025	0.090	0.043		1.5	6
95/11/28	1155	9.4		63	8.0	68.7	7.4	6.0	0.863	0.013	0.058	0.024		4.7	84
95/12/19	1235	7.3		68	7.5	60.8	7.3	2.0	1.070	0.017	0.034	0.020		2.1	120
96/01/30	1320	2.3		68	10.4	75.1	7.3	3.0	1.140	0.010	0.039	0.024		2.3	40
96/02/27	1235	4.7		69	9.9	76.7	7.2	3.0	1.110	0.014	0.037	0.015		2.6	22
96/03/26	1220	8.8		84	9.3	80.0	7.2	5.0	1.140	0.028	0.034	0.017		2.7	7
96/04/29	1205	11.2		48	7.8	69.8	7.4	4.0	0.680	0.018	0.050	0.023		4.0	77
96/05/28	1315	14.7		81	9.1	88.9	7.6	3.0	0.969	0.018	0.033	0.023		2.7	27
96/06/24	1225	15.1		96	7.7	76.4	7.5	3.0	1.190	0.089	0.054	0.026		2.5	120 S
96/07/30	1315	19.2		107	9.4	101.0	7.5	1.0	0.836	0.010 U	0.032	0.017		2.2	100
96/08/27	1445	16.5		106	9.8	99.9	7.5	1.0 U	0.890	0.010 U	0.033	0.013		1.2	39
96/09/24	1330	12.5		107	9.9	91.8	7.4	1.0	1.110	0.010 U	0.047	0.017		0.8	14

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

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/24	1150	0.659													
95/11/28	1155	0.488													
95/12/19	1235	0.637													
96/01/30	1320	0.840													
96/02/27	1235	0.873													
96/03/26	1220	0.895													
96/04/29	1205	0.364													
96/05/28	1315	0.810													
96/06/24	1225	0.928													
96/07/30	1315	0.903													
96/08/27	1445	0.804													
96/09/24	1330	0.876													

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 WILLAPA R NR WILLAPA Water Class: A Latitude: 46 39 00.0
Water Body No.: WA-24-2020 River Mile: 17.70 Longitude: 123 39 10.0

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/25	0945	9.8	290.0	65	10.8	94.7	7.1	3.0	0.699	0.011	0.019	0.005 U		1.7	120
95/11/29	0900	10.9	7390.0	48	10.9	97.2	7.2	453.0	1.180	0.027	0.073	0.006		210.0	270 S
95/12/20	0930	8.3	1000.0	64	11.4	94.2	7.4	11.0	1.130	0.010 U	0.015	0.005 U		4.9	100
96/01/31	0955	1.5	694.0	62	13.2	93.4	7.4	5.0	0.990	0.010 U	0.019	0.010		3.0	45
96/02/28	0910	4.0	806.0	54	12.7	96.2	7.2	8.0	0.874	0.010 U	0.011	0.005 U		3.6	7
96/03/27	0945	6.2	231.0	61	12.0	97.0	7.2	2.0	0.568	0.010 U	0.010 U	0.005 U		2.0	20
96/04/30	0940	9.7	850.0	53	10.9	94.0	7.3	15.0	0.840	0.010 U	0.015	0.005 U		7.7	47
96/05/29	1000	11.4	416.0	58	10.8	97.7	7.6	4.0	0.552	0.010 U	0.010 U	0.005 U		1.9	32
96/06/25	1005	14.8	160.0	62	9.8	96.0	7.5	5.0	0.395	0.010 U	0.019	0.005 U		2.4	100 G
96/07/31	1120	19.1	39.0	73	9.0	95.8	7.3	2.0	0.365	0.010 U	0.020	0.005 U		1.7	95
96/08/28	1045	16.8	29.0	77	8.9	90.4	7.4	5.0	0.451	0.010 U	0.025	0.005 U		2.0	220
96/09/25	0955	10.0	42.0	71	10.2	88.6	7.5	3.0	0.115		0.010 U	0.005 U		2.4	230

24B090 Willapa R nr Willapa continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/25	0945	0.603													
95/11/29	0900	0.770													
95/12/20	0930	0.857													
96/01/31	0955	0.847													
96/02/28	0910	0.841													
96/03/27	0945	0.501													
96/04/30	0940	0.766													
96/05/29	1000	0.573													
96/06/25	1005	0.222													
96/07/31	1120	0.232													
96/08/28	1045	0.296													
96/09/25	0955	0.202													

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 NASELLE R NR NASELLE Water Class: A Latitude: 46 22 23.0
Water Body No.: WA-24-3010 River Mile: 17.40 Longitude: 123 44 44.0

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/25	1105	9.5	288.0	55	11.3	98.4	6.8	3.0	0.564	0.010 U	0.016	0.005 U		1.5	71
95/11/29	1030	10.3	7180.0	41	12.1	106.5	7.0	791.0	0.742	0.010 U	0.077	0.005 U		310.0	120
95/12/20	1055	8.3	641.0	56	11.8	97.5	7.5	5.0	0.667	0.010 U	0.010 U	0.006		3.2	23
96/01/31	1115	1.6	429.0	54	13.9	96.8	7.0	2.0	0.565	0.010 U	0.016	0.011		1.6	16
96/02/28	1030	3.8	409.0	48	13.0	98.2	7.2	2.0	0.513	0.010 U	0.011	0.005 U		1.8	5
96/03/27	1055	6.0	137.0	52	12.6	101.6	7.3	2.0	0.313	0.010 U	0.010 U	0.005 U		0.9	14
96/04/30	1145	9.1	487.0	47	11.7	99.8	7.2	4.0	0.489	0.010 U	0.019	0.005		3.3	4
96/05/29	1130	10.3	233.0	51	11.7	103.4	7.5	2.0	0.280	0.010 U	0.010 U	0.005 U		1.0	10
96/06/25	1125	13.2	94.0	52	10.8	102.4	6.4	4.0	0.251	0.010 U	0.013	0.005 U		2.2	52
96/07/31	1240	17.8	40.0	61	10.0	104.0	7.5	3.0	0.201	0.010 U	0.015	0.005 U		1.1	24
96/08/28	1215	15.3	32.0	60	10.0	98.8	7.5	1.0	0.149	0.010 U	0.033	0.005 U		0.7	15
96/09/25	1135	9.6	32.0	58	11.0	95.1	7.5	1.0	0.226	0.014	0.010 U	0.005 U		0.8	12

24F070 Naselle R nr Naselle continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/25	1105	0.502													
95/11/29	1030	0.490													
95/12/20	1055	0.523													
96/01/31	1115	0.508													
96/02/28	1030	0.492													
96/03/27	1055	0.279													
96/04/30	1145	0.469													
96/05/29	1130	0.319													
96/06/25	1125	0.139													
96/07/31	1240	0.152													
96/08/28	1215	0.096													
96/09/25	1135	0.156													

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

Station No.: 26B070 COWLITZ R @ KELSO Water Class: A Latitude: 46 08 44.0
Water Body No.: WA-26-1040 River Mile: 4.90 Longitude: 122 54 47.0

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/25	1255	10.0		83	11.1	97.8	7.4	11.0	0.177	0.010 U	0.025	0.005 U	26	6.1	36
95/11/29	1215	10.3		56	11.4	100.2	6.9	609.0	0.640	0.010 U	0.165 J	0.005 U		290.0	65 S
95/12/20	1240	7.5		66	12.2	98.9	7.5	57.0	0.401	0.010 U	0.046	0.005 U	23	45.0	14
96/01/31	1250	3.0		75	12.5	92.3	7.1	38.0	0.403	0.010 U	0.040	0.010		25.0	5
96/02/28	1215	3.8		75	13.0	98.1	7.2	125.0	0.398	0.010 U	0.127 J	0.005 U	30	160.0	8
96/03/27	1235	6.4		104	12.0	97.7	7.2	192.0	0.237	0.010 U	0.065	0.005 U		130.0	9
96/04/30	1340	8.5		66	11.4	95.9	7.3	104.0	0.282	0.010 U	0.078	0.006	23	80.0	12
96/05/29	1300	10.0		79	11.1	97.5	7.4	46.0	0.180	0.010 U	0.049	0.005 U		50.0	18
96/06/25	1315	12.3		89	10.8	100.5	7.2	35.0	0.156	0.010 U	0.054	0.025	30	31.0	30
96/07/31	1440	16.3		117	10.4	105.1	7.4	17.0	0.089	0.010 U	0.029	0.005 U		17.0	16
96/08/28	1405	13.4		110	10.4	98.7	7.4	12.0	0.078	0.010 U	0.035	0.005 U	31	8.4	16
96/09/25	1320	11.4		107	11.0	99.1	7.4	15.0	0.082	0.010 U	0.014	0.005 U		9.3	5

26B070 Cowlitz R @ Kelso continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/25	1255	0.105	1.00 U	1.3	0.2	2.7 B	0.10 U	0.0100 J	0.040 U	0.649	0.030 U	2.800		1.000 U	
95/11/29	1215	0.327													
95/12/20	1240	0.247	1.00 U	5.1	0.6	12.0 B	0.10 U	0.0040 J	0.040 U	0.728	0.030 U	1.000 U		5.000 U	1.000 U
96/01/31	1250	0.304													
96/02/28	1215	0.270	5.00 U	11.1	1.3	13.0 J	0.14	0.0110	0.020 U	0.910	0.030 UJ	0.370		5.000 U	1.510
96/03/27	1235	0.170													
96/04/30	1340	0.204	0.93	6.8	0.8 B	6.8 B	0.19	0.0020	0.020 U	0.981	0.021	0.353		0.600	0.840
96/05/29	1300	0.149													
96/06/25	1315	0.074	0.40 U	3.0	0.3	2.9 B	0.10 U	0.0010 U	0.020 U	1.250	0.047	0.340		1.500	0.400
96/07/31	1440	0.059													
96/08/28	1405	0.051	0.40 U	1.5 B	0.2 B	3.7 J	0.10 U	0.0010 U	0.030 U	0.666	0.020 U	0.240		1.900	0.370
96/09/25	1320	0.034													

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

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/25	1550	9.0		48	11.8	101.9	7.3	3.0	0.199	0.010 U	0.016	0.005 U		1.3	64
95/11/29	1315	9.6		33	12.0	103.6	7.2	400.0	0.741	0.010 U	0.077 J	0.005 U		180.0	41
95/12/20	1440	7.4		47	12.4	100.3	7.5	10.0	0.548	0.010 U	0.010 U	0.008		5.0	6
96/01/31	1340	1.2		49	13.6	95.8	7.3	4.0	0.534	0.010 U	0.015	0.014		3.3	1
96/02/28	1400	3.7		41	13.3	100.2	7.4	9.0	0.427	0.010 U	0.016	0.008		7.7	5
96/03/27	1410	6.1		46	12.4	100.4	7.5	3.0	0.233	0.010 U	0.020	0.005		2.3	1 U
96/04/30	1520	9.3		39	11.7	100.6	7.5	11.0	0.352	0.010 U	0.015	0.006		7.8	1
96/05/29	1445	9.9		44	11.9	104.4	7.7	2.0	0.199	0.010 U	0.010 U	0.005 U		2.6	14
96/06/25	1525	13.2		48	11.8	112.6	7.8	7.0	0.280	0.010 U	0.015	0.005 U		4.8	13
96/07/31	1525	17.1		59	10.3	106.1	7.6	2.0	0.104	0.010 U	0.018	0.005 U		1.2	4
96/08/28	1600	14.7		61	10.6	103.9	7.8	1.0	0.114	0.010 U	0.027	0.008		1.2	12
96/09/25	1400	9.4		56	11.7	101.0	7.7	9.0	0.169	0.052	0.027	0.005 U		7.1	9

27B070 Kalama R nr Kalama continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/25	1550	0.132													
95/11/29	1315	0.542													
95/12/20	1440	0.387													
96/01/31	1340	0.470													
96/02/28	1400	0.406													
96/03/27	1410	0.198													
96/04/30	1520	0.320													
96/05/29	1445	0.213													
96/06/25	1525	0.190													
96/07/31	1525	0.068													
96/08/28	1600	0.069													
96/09/25	1400	0.095													

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

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/25	1505	9.6		40	11.4	99.7	7.4	1.0	0.379	0.010 U	0.012	0.005 U		1.1	14
95/11/29	1400	9.9		30	11.3	98.3	6.9	94.0	0.717	0.049	0.075	0.023		39.0	850
95/12/20	1520	7.5		40	11.9	96.6	7.4	3.0	0.651	0.017	0.010 U	0.005 U		2.0	180
96/01/31	1425	0.2		41	14.0	96.1	7.3	2.0	0.618	0.010 U	0.015	0.009		2.2	2
96/02/28	1445	3.4		35	13.3	99.5	7.3	3.0	0.500	0.010 U	0.010 U	0.005 U		2.9	1
96/03/27	1455	8.1		37	11.7	99.7	7.4	1.0	0.293	0.010 U	0.011	0.005 U		1.1	1
96/04/30	1600	10.6		31	11.5	102.2	7.5	3.0	0.350	0.010 U	0.010 U	0.005 U		2.1	1 U
96/05/29	1530	10.4		34	11.7	103.9	7.7	6.0	0.268	0.010 U	0.010 U	0.005 U		2.6	7
96/06/25	1610	14.9		35	10.3	102.1	7.9	3.0	0.339	0.010 U	0.010 U	0.005 U		2.8	22
96/07/31	1615	22.5		55	8.9	102.2	7.6	3.0	0.214	0.010 U	0.021	0.005 U		1.4	7
96/08/28	1655	19.0		60	9.6	103.0	7.7	1.0 U	0.166	0.010 U	0.019	0.005 U		0.6	5
96/09/25	1445	12.3		53	11.0	101.7	7.5	2.0	0.217	0.010 U	0.010 U	0.005 U		0.6	13

27D090 EF Lewis R nr Dollar Corner continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/25	1505	0.289													
95/11/29	1400	0.509													
95/12/20	1520	0.454													
96/01/31	1425	0.542													
96/02/28	1445	0.465													
96/03/27	1455	0.228													
96/04/30	1600	0.298													
96/05/29	1530	0.269													
96/06/25	1610	0.252													
96/07/31	1615	0.183													
96/08/28	1655	0.201													
96/09/25	1445	0.171													

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

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

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/11	1105	11.6	3.0	148	10.0	92.9	7.8	2.0	0.117	0.010 U	0.041	0.028		0.6	
95/11/15	1045	9.5	10.0	127	11.4	98.9	7.9	2.0	0.382	0.010 U	0.058	0.021		6.7	16
95/12/13	1115	4.9	330.0	63			6.9	21.0	0.388	0.010 U	0.089	0.024		25.0	120 S
96/01/15	1430	6.4	205.0	60	12.2	102.3	7.7	9.0	0.198	0.010 U	0.047	0.020		16.0	73
96/02/14	1200	3.8	740.0	56	13.4	101.6	8.2	13.0	0.509	0.010 U	0.059	0.032		15.0	12
96/03/13	1130	5.4	260.0	59	12.7	100.7	8.1	4.0	0.102	0.010 U	0.041	0.017		8.0	1
96/04/17	1300	9.2	11.0	79	11.6	103.7	8.0	1.0	0.063	0.010 U	0.016	0.018		3.7	1
96/05/12	1600	11.7	11.0	79	10.6	98.3	8.2	3.0	0.029	0.010 U	0.033	0.016		3.9	16
96/06/09	1740	14.9	3.7	100	10.0	99.4	8.0	1.0	0.116	0.010 U	0.042	0.029		2.5	98
96/07/17	1000	16.9	2.5	131	9.4	98.3	7.9	1.0	0.178	0.010 U	0.047	0.038		1.5	50
96/08/11	1345	19.0	1.3	138	9.6	105.2	8.4	1.0 U	0.159	0.010 U	0.061	0.035		0.5	23
96/09/08	1445	15.6	1.5	131	11.5	116.4	8.1	1.0 U	0.180	0.010 U	0.056	0.041		2.5	7

29D070 Rattlesnake Cr nr Mouth continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/11	1105	0.017													
95/11/15	1045	0.211													
95/12/13	1115	0.109													
96/01/15	1430	0.059													
96/02/14	1200	0.083													
96/03/13	1130	0.041													
96/04/17	1300	0.010 U													
96/05/12	1600	0.010 U													
96/06/09	1740	0.021													
96/07/17	1000	0.062													
96/08/11	1345	0.141													
96/09/08	1445	0.089													

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

Station No.: 29E070 GILMER CR NR MOUTH Water Class: A Latitude: 45 51 56.0
Water Body No.: WA-29-1010 River Mile: 1.50 Longitude: 121 29 50.0

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/11	1035	9.8	1.0	134	10.9	98.5	7.8	3.0	4.370	0.010 U	0.030	0.016		1.3	
95/11/15	1010	10.1	2.8	122	11.4	101.8	8.0	4.0	2.090	0.010 U	0.056	0.021		7.6	30
95/12/13	0000	0.0													
96/01/15	1350	7.1	24.0	93	11.8	100.7	7.4	96.0	1.370	0.030	0.138	0.026		60.0	1900 J
96/02/14	1220	5.1	100.0	75	12.8	100.4	7.8	22.0	3.290 J	0.010 U	0.057	0.030		15.0	6
96/03/13	1140	6.2	54.0	79	12.3	99.5	7.7	13.0	1.830	0.010 U	0.039	0.016		7.8	2
96/04/17	1230	8.6	27.0	107	11.5	101.4	8.0	3.0	3.110	0.010 U	0.010 U	0.007		3.4	47
96/05/12	1630	11.7	21.0	109	10.6	98.3	8.0	2.0	3.130	0.010 U	0.023	0.009		3.2	70 S
96/06/09	1800	12.6	23.0	128	10.5	99.4	8.0	4.0	3.820	0.010 U	0.036	0.012		3.0	51
96/07/17	0930	11.8		126	10.7	101.9	7.7	5.0	4.360	0.010 U	0.019	0.017		2.1	18
96/08/11	1400	13.9	3.5	117	10.6	104.6	8.1	1.0 U	3.820	0.010 U	0.030	0.014		1.1	11
96/09/08	1500	12.3	3.0	118	10.7	100.9	7.8	1.0 U	4.020	0.010 U	0.035	0.020		1.3	24

29E070 Gilmer Cr nr Mouth continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/11	1035	4.110													
95/11/15	1010	1.880													
95/12/13	0000														
96/01/15	1350	1.080													
96/02/14	1220	1.930													
96/03/13	1140	1.760													
96/04/17	1230	3.080													
96/05/12	1630	3.040													
96/06/09	1800	4.130													
96/07/17	0930	4.280													
96/08/11	1400	4.640													
96/09/08	1500	3.930													

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 COLUMBIA R @ UMATILLA Water Class: A Latitude: 45 55 53.0
Water Body No.: WA-CR-1020 River Mile: 290.50 Longitude: 119 19 24.0

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/11	0720	16.4	136600.0	163	9.4	96.5	7.9	8.0	0.287	0.010 U	0.024	0.008		3.2	
95/11/15	0705	10.7	172300.0	183	10.8	95.8	7.7	5.0	0.392	0.010 U	0.028	0.015		4.0	13
95/12/13	0735	5.8	294000.0	134	14.4	117.2	7.5	8.0	0.312	0.010 U	0.027	0.006		9.9	13
96/01/15	1700	4.1	259500.0	157	13.7	106.2	8.0	5.0	0.365	0.010 U	0.024	0.014		5.9	5
96/02/14	0840	2.6	330000.0	144	16.1	117.5	8.1	77.0	1.020	0.039	0.181 J	0.199		120.0	130 S
96/03/13	0830	4.4	308400.0	143	15.4	118.6	7.1	9.0	0.376	0.010 U	0.031	0.012		10.0	6
96/04/17	0820	8.8	349500.0	153	13.7	118.9	8.5	11.0	0.366	0.010 U	0.014	0.008		9.6	5
96/05/12	1950	10.9	247000.0	144	12.9	117.5	8.5	11.0	0.218	0.010 U	0.025	0.005 U		7.3	2 S
96/06/09	2040	14.4	476300.0	116	12.8	125.5	8.0	14.0	0.190	0.010 U	0.022	0.005 U		8.7	15
96/07/17	0630	18.7	264400.0	127	10.6	114.7	8.0	9.0	0.140	0.010 U	0.012	0.005 U		4.5	7
96/08/11	1730	20.0	140400.0	128	10.2	113.2	8.2	8.0	0.112	0.010 U	0.022	0.007		5.2	1
96/09/08	1845	18.8	116900.0	127	10.0	108.1	8.2	6.0	0.209	0.010 U	0.023	0.005 U		4.7	1 U

31A070 Columbia R @ Umatilla continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/11	0720	0.173													
95/11/15	0705	0.260													
95/12/13	0735	0.188													
96/01/15	1700	0.261													
96/02/14	0840	0.511													
96/03/13	0830	0.285													
96/04/17	0820	0.259													
96/05/12	1950	0.123													
96/06/09	2040	0.082													
96/07/17	0630	0.010 U													
96/08/11	1730	0.044													
96/09/08	1845	0.093													

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

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

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/10	1455	12.8	58.0	267	9.7	92.7	7.9	105.0	1.210	0.053	0.048			120.0	
95/11/14	1335	12.0	302.0	101	10.9	100.2	7.9	122.0	0.865	0.020	0.207	0.062		60.0	150 S
96/01/15	1820	8.1	1150.0	113	11.2	96.2	8.0	131.0	0.962	0.033	0.176	0.060		35.0	100
96/03/12	1730	9.9	2690.0	103	14.1	126.0	7.6	9200.0 J	3.480	0.268	0.223 J	0.086		9500.0 J	
96/04/16	1630	13.8	875.0	173	10.1	100.2	8.2	51.0	1.680	0.010 U	0.068	0.043		15.0	110
96/05/12	2040	15.3	591.0	211	9.6	96.3	8.0	46.0	1.980	0.010 U	0.104	0.053		18.0	84 S
96/06/09	2140	21.0	256.0	263	9.7	109.0	9.2	35.0	0.959	0,012	0.069	0.018		11.0	33
96/07/16	1320	22.3	56.0	504	10.0	116.6	8.4	29.0	1.210	0.013	0.092	0.024		14.0	89 S
96/08/11	1905	24.0	22.0	485	15.4	183.7	9.2	47.0	0.704	0.012	0.106	0.012		15.0	80
96/09/08	1950	20.5	30.0	449	11.9	133.1	9.0	58.0	0.867	0.010 U	0.124	0.016		27.0	280

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

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/10	1455	0.757													
95/11/14	1335	0.487													
96/01/15	1820	0.745													
96/03/12	1730	1.280													
96/04/16	1630	1.500													
96/05/12	2040	1.850													
96/06/09	2140	0.716													
96/07/16	1320	0.502													
96/08/11	1905	0.010 U													
96/09/08	1950	0.424													

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

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/10	1355	17.1	38600.0	242	8.7	91.1	8.0	6.0	0.529	0.010 U	0.050	0.037		4.0	
95/11/14	1240	12.6	37000.0	341	10.4	97.0	8.1	4.0	0.869	0.010 U	0.134	0.056		2.9	1
95/12/12	1450	5.5	73600.0	110	14.0	116.1	8.3	12.0	0.789	0.010 U	0.090			28.0	13
96/01/15	1900	6.8	64400.0	256	12.2	101.6	8.2	23.0	1.190	0.059	0.097	0.056		31.0	5
96/02/13	1445	3.0	98700.0	180	17.8	132.7	7.7	279.0	2.830 J	0.073				450.0	200 S
96/03/12	1630	5.6	117800.0	182	13.9	112.0	8.0	12.0	0.865	0.010	0.049	0.041		16.0	
96/04/16	1540	10.6	96000.0	182	13.1	121.0	8.3	15.0	0.590	0.010 U	0.030	0.020		13.0	14
96/05/12	2130	10.9	76000.0	145	13.1	119.4	8.3	19.0	0.398	0.010 U	0.041	0.005 U		13.0	1
96/06/09	2220	14.5	205000.0	96	13.0	128.2	8.6	29.0	0.235	0.010 U	0.059 J	0.007		15.0	13
96/07/16	1215	20.2	45300.0	106	10.2	113.9	7.8	10.0	0.214	0.010 U	0.027	0.012		8.8	2
96/08/11	1950	21.9	30300.0	150	9.7	111.2	8.6	9.0	0.186	0.012	0.045	0.005		6.9	4
96/09/08	2045	19.3	38200.0	159	9.4	102.6	8.1	7.0	0.353	0.010 U	0.035	0.013		6.5	2

33A050 Snake R nr Pasco continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/10	1355	0.386													
95/11/14	1240	0.693													
95/12/12	1450	0.441													
96/01/15	1900	0.930													
96/02/13	1445	1.650													
96/03/12	1630	0.699													
96/04/16	1540	0.393													
96/05/12	2130	0.231													
96/06/09	2220	0.074													
96/07/16	1215	0.086													
96/08/11	1950	0.095													
96/09/08	2045	0.195													

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 PALOUSE R @ HOOPER Water Class: B Latitude: 46 45 33.0
Water Body No.: WA-34-1010 River Mile: 19.50 Longitude: 118 08 49.0

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/01	1250	14.1	47.0	390	9.9	98.4	8.3	65.0	1.240	0.084	0.182	0.074		60.0	190
95/11/05	1200	3.0	97.0	332	13.3	103.0	8.3	9.0	2.670	0.010 U	0.332	0.289		11.0	14
95/12/03	1200	4.8	1080.0	97	11.9	96.2	7.8	240.0	1.630	0.075	0.118	0.069		150.0	320 S
96/01/07	1250	1.9	672.0	176	13.0	97.1	7.7	116.0	4.270	0.038	0.236 J	0.099		200.0	57
96/03/03	1255	3.1	2020.0	268	12.5	97.5	7.7	77.0	6.630	0.041	0.045	0.106		50.0	18
96/04/08	1210	13.9	1170.0	230	9.8	98.4	7.9	35.0	3.820	0.010 U	0.060	0.074		31.0	27
96/05/05	1240	10.6	1280.0	239	10.6	98.1	8.1	26.0	4.520	0.010 U	0.148	0.091		28.0	27
96/06/02	1105	19.2	624.0	258	9.3	103.3	8.5	20.0	3.160	0.010 U	0.097	0.048		11.0	22
96/07/07	1550	24.3	141.0	297	12.2	150.8	9.6	15.0	1.250	0.010	0.074	0.005 U		11.0	4
96/08/04	1215	18.8	55.0	291	10.8	119.9	9.5	46.0	0.939	0.010 U	0.139	0.005 U		22.0	37 X
96/09/02	1410	18.9	36.0	297	11.4	126.3	9.7	39.0	0.478	0.010 U	0.073	0.005 U		22.0	

34A070 Palouse R @ Hooper continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/01	1250	0.865													
95/11/05	1200	2.470													
95/12/03	1200	0.839													
96/01/07	1250	3.710													
96/03/03	1255	6.040													
96/04/08	1210	3.590													
96/05/05	1240	4.070													
96/06/02	1105	2.550													
96/07/07	1550	0.527													
96/08/04	1215	0.010 U													
96/09/02	1410	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.: 34A170 PALOUSE R @ PALOUSE Water Class: A Latitude: 46 54 37.0
Water Body No.: WA-34-1030 River Mile: 121.20 Longitude: 117 04 08.0

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/02	0745	9.0	27.0	76	9.6	89.3	7.6	2.0	0.215	0.044	0.034	0.013		2.4	92
95/11/06	0715	1.7	24.0	73	12.0	93.7	7.9	2.0	0.113	0.010 U	0.034	0.019		3.5	14
95/12/04	0735	3.6	507.0	42	11.4	93.7	8.3	15.0	0.358	0.013	0.066	0.024		18.0	49
96/01/08	0800	2.1	471.0	79	11.9 J	93.1	7.5	1490.0	3.380	0.086	0.155 J	0.078		1900.0	1400 S
96/03/04	0720	0.5	248.0	89	12.3	94.0	7.8	98.0	2.600	0.026	0.038	0.045		100.0	130 S
96/04/09	0740	10.8	443.0	52	9.6	94.2	7.5	21.0	0.361	0.010 U	0.045	0.026		16.0	66
96/05/06	0740	8.0	340.0	64	9.8 J	89.3	7.8	15.0	0.442	0.010 U	0.050	0.031		16.0	31
96/06/03	0740	16.7	174.0	68	8.0	88.5	8.0	8.0	0.193	0.010 U	0.026	0.016		11.0 J	140
96/07/08	0815	20.1	28.0	86	7.0	83.7	8.2	4.0	0.276	0.011	0.030	0.012		3.4	96
96/08/05	0800	15.2	12.0	87	7.8	84.3	8.2	1.0	0.223	0.010 U	0.029	0.005 U		2.2	150 X
96/09/03	0830	16.3	6.0	96	7.8	86.1	8.4	1.0	0.323	0.010 U	0.026	0.005 U		1.7	37

34A170 Palouse R @ Palouse continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/02	0745	0.010 U													
95/11/06	0715	0.010 U													
95/12/04	0735	0.125													
96/01/08	0800	2.460													
96/03/04	0720	1.760													
96/04/09	0740	0.172													
96/05/06	0740	0.342													
96/06/03	0740	0.061													
96/07/08	0815	0.010 U													
96/08/05	0800	0.010 U													
96/09/03	0830	0.010 U													

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

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

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/02	0705	9.5	2.0	581	8.2	77.1	7.9	3.0	6.610	0.077	1.870	1.750		15.0	20
95/11/06	0630	4.9	3.0	636	7.4	62.9	7.8	6.0	7.760	0.688	2.190	2.020		8.3	300
95/12/04	0645	4.2	51.0	374	10.3	86.0	7.7	7.0	6.450	0.110	0.589 J	0.562		70.0	140 S
96/01/08	0715	3.4	520.0	198	11.2 J	90.4	7.8	1090.0	9.180	0.134	0.238 J	0.135		1700.0	700 S
96/03/04	0640	1.9	205.0	240	11.7	92.7	8.1	217.0	9.420	0.139	0.086	0.176		290.0	460
96/04/09	0655	13.3	61.0	349	8.3	85.9	8.0	24.0	7.390	0.820	0.227	0.347		29.0	83
96/05/06	0700	8.1	86.0	305	9.8	89.3	7.9	18.0	5.990	0.210	0.313	0.255		31.0	43
96/06/03	0700	17.2	46.0	342	7.6	84.7	7.5	38.0	5.100	0.088	0.434	0.323		24.0 J	480
96/07/08	0730	17.3	6.0	480	7.0	79.0	7.7	5.0	3.290	0.024	0.796	0.688		4.5	2200
96/08/05	0700	14.6	3.0	617	6.5	69.3	8.2	6.0	4.610	0.010 U	1.220	1.040		8.3	230
96/09/03	0705	15.0		604	6.1	65.4	8.2	8.0	3.160	0.033		1.730		4.5	660

34B110 SF Palouse R @ Pullman continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/02	0705	6.560													
95/11/06	0630	5.640													
95/12/04	0645	5.570													
96/01/08	0715	9.000													
96/03/04	0640	8.010													
96/04/09	0655	6.210													
96/05/06	0700	5.520													
96/06/03	0700	4.110													
96/07/08	0730	2.940													
96/08/05	0700	4.080													
96/09/03	0705	2.500													

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

Station No.: 34F090 PINE CR @ ROSALIA Water Class: A Latitude: 47 14 28.5
Water Body No.: WA-34-1017 River Mile: 22.40 Longitude: 117 22 25.5

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/02	0850	9.2	0.9	330	5.3	49.2	7.4	588.0	5.000	0.555	0.239	0.162		1900.0 J	1100
95/11/06	0820	2.1	1.6	353	10.7	84.0	8.4	27.0	3.510	0.031	0.186	0.066		120.0	60
95/12/04	0830	2.7	12.5	337	11.2	89.2	7.9	74.0	2.900	0.030	0.230	0.124		90.0	120
96/01/08	0855	2.7	108.0	255	10.5 J	83.0	7.3	2240.0	8.700	0.070	0.443 J	0.112		2800.0 J	250
96/03/04	0830	1.1	300.0	241	11.7	90.2	7.3	6050.0	13.200	0.116	0.211	0.097		5100.0 J	250 J
96/04/09	0835	13.7	53.0	388	8.3	86.4	7.9	32.0	9.410	0.010 U	0.095	0.084		40.0	84
96/05/06	0840	9.7	58.0	342	9.5	89.6	7.9	19.0	8.830	0.010	0.112	0.074		31.0	130
96/06/03	0915	18.2	17.0	377	7.9	89.6	7.8	10.0	6.320	0.017	0.074	0.024		8.2 J	130
96/07/08	0920	19.3	0.1	385	6.8	79.7	8.2	13.0 J	3.540	0.016	0.066	0.005 U		8.8	270
96/08/05	0900	15.0	0.9	422	6.5	69.6	7.8	11.0	2.040	0.010 U	0.139	0.045		10.0	49
96/09/03	0945	15.9	1.0	428	9.7	105.6	8.1	9.0	1.230	0.010 U	0.095	0.027		9.6	17

34F090 Pine Cr @ Rosalia continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/02	0850	3.260													
95/11/06	0820	3.010													
95/12/04	0830	2.230													
96/01/08	0855	7.540													
96/03/04	0830	9.790													
96/04/09	0835	9.440													
96/05/06	0840	8.470													
96/06/03	0915	5.690													
96/07/08	0920	1.610													
96/08/05	0900	1.150													
96/09/03	0945	0.446													

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

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/01	1600	17.2	19500.0	386	9.3	97.8	8.3	3.0	0.860	0.047	0.078	0.056		2.0	1
95/11/05	1505	8.4	14800.0	364	11.2	98.2	8.7	2.0	1.010	0.010 U	0.065	0.053		1.5	1
95/12/03	1505	6.3	43800.0	170	11.8	98.0	8.1	37.0	0.688	0.012	0.094	0.036		20.0	36 S
96/01/07	1550	5.0	40000.0	323	12.2	97.3	8.0	5.0	1.140	0.050	0.064	0.051		5.0	4
96/02/04	1630	1.6	28000.0	350	13.6	99.0	8.0	3.0	1.320	0.014	0.072	0.064		3.1	2
96/03/03	1405	5.0	57700.0	275	12.7	102.8	8.0	9.0	0.932	0.023	0.078	0.052		9.8	2
96/04/08	1520	10.6	53700.0	220	11.0	101.9	8.2	17.0	0.504	0.010 U	0.048	0.021		10.0	7
96/05/05	1435	10.9	49000.0	181	11.2	103.1	8.2	13.0	0.570	0.010 U	0.054	0.013		8.4	1 U
96/06/02	1425	13.6	137000.0	141	11.1	108.8	8.2	28.0	0.368	0.010 U	0.044	0.005 U		12.0	12
96/07/07	1950	19.0	51300.0	132	9.2	101.9	8.2	9.0	0.190	0.010 U	0.010 U	0.005 U		5.7	35
96/08/04	1555	20.6	29200.0	227	8.7	95.8	8.3	2.0	0.393	0.010 U	0.015	0.009		1.4	3
96/09/02	1720	20.8	13700.0	275	8.4	95.8	8.5	2.0	0.571	0.010 U	0.048	0.032		2.3	

35A150 Snake R @ Interstate Br continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/01	1600	0.654													
95/11/05	1505	0.829													
95/12/03	1505	0.421													
96/01/07	1550	0.931													
96/02/04	1630	1.180													
96/03/03	1405	0.735													
96/04/08	1520	0.318													
96/05/05	1435	0.303													
96/06/02	1425	0.127													
96/07/07	1950	0.054													
96/08/04	1555	0.237													
96/09/02	1720	0.419													

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 TUCANNON R @ POWERS Water Class: A Latitude: 46 32 18.0
Water Body No.: WA-35-2010 River Mile: 2.30 Longitude: 118 09 18.0

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/01	1355	14.9	63.0	147	11.8	117.1	8.7	6.0	0.279	0.100	0.069	0.036		2.1	14
95/11/05	1310	8.5	99.0	144	12.0	104.7	8.2	6.0	0.198	0.010 U	0.048	0.022		2.2	6
95/12/03	1315	6.6	570.0	86	11.7	97.3	8.0	218.0	0.711	0.028	0.165	0.045		110.0	71
96/01/07	1350	5.9	248.0	104	12.1	98.1	7.8	36.0	0.467	0.011	0.090	0.044		23.0	14
96/02/04	1430	0.0	113.0	135	13.8	95.3	7.7	51.0	0.997	0.010 U	0.118	0.054		20.0	82
96/03/03	1410	6.5	388.0	150	11.8	98.6	8.0	118.0	1.780	0.010 U	0.130	0.060		60.0	32
96/04/08	1320	14.7	374.0	127	10.7	107.6	8.5	45.0	0.601	0.010 U	0.080	0.032		8.1	110
96/05/05	1350	10.6	417.0	122	10.7	97.2	7.9	41.0	0.761	0.010 U	0.098	0.051		13.0	21
96/06/02	1220	17.1	247.0	117	10.7	111.9	8.7	12.0	0.224	0.010 U	0.040	0.027		2.5	30
96/07/07	1705	23.9	97.0	130	8.4	101.3	8.6	15.0	0.388	0.010	0.071	0.063		3.3	77
96/08/04	1350	19.8	77.0	155	9.8	109.3	8.6	6.0	0.198	0.010 U	0.069	0.060		2.3	39
96/09/02	1530	20.4	70.0	152	9.2	103.3	9.1	6.0	0.158	0.010 U	0.072	0.054		3.1	

35B060 Tucannon R @ Powers continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/01	1355	0.119													
95/11/05	1310	0.140													
95/12/03	1315	0.253													
96/01/07	1350	0.330													
96/02/04	1430	0.747													
96/03/03	1410	1.440													
96/04/08	1320	0.420													
96/05/05	1350	0.605													
96/06/02	1220	0.095													
96/07/07	1705	0.183													
96/08/04	1350	0.075													
96/09/02	1530	0.040													

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 COLUMBIA R NR VERNITA Water Class: A Latitude: 46 38 34.0
Water Body No.: WA-CR-1030 River Mile: 388.10 Longitude: 119 43 54.0

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/10	0825	16.1	95000.0	132	9.5	97.5	7.9	2.0	0.153	0.010 U	0.010 U	0.005 U	62	1.0	
95/11/14	0820	10.9	64500.0	138	10.5	93.7	8.3	3.0	0.211	0.010 U	0.010 U	0.005 U		1.7	3
95/12/12	0920	6.4	116700.0	146	11.6	98.3	8.6	4.0	0.242	0.010 U	0.015		66	3.5	1
96/01/16	1150	4.2	184300.0	133	14.3	112.2	8.0	3.0	0.177	0.010 U	0.010 U	0.005 U		2.0	51 S
96/02/13	1100	2.2	171500.0	136	16.0	116.3	8.2	21.0	0.257	0.010 U	0.028	0.032	60	23.0	1 U
96/03/12	1120	3.3	160000.0	125	16.1	121.8	8.4	6.0	0.238	0.010 U	0.019	0.005 U		7.0	2
96/04/16	1130	7.0	203000.0	134	14.3	121.3	8.3	4.0	0.241	0.010 U	0.010 U	0.005 U	65	5.0	1 U
96/05/13	1100	9.3	188100.0	138	12.7	112.3	8.1	4.0	0.161	0.010 U	0.027	0.005 U		3.5	3
96/06/10	1020	12.3	255500.0	112	13.0	122.2	7.8	10.0	0.153	0.010 U	0.011	0.005 U	54	9.3	6
96/07/16	0805	16.5	221300.0	131	11.3	117.5	8.1	3.0	0.079	0.010 U	0.012	0.005 U		2.7	1
96/08/12	1215	18.6	175500.0	124	11.1	119.1	8.3	3.0	0.066	0.010 U	0.023	0.005 U	61	2.4	13
96/09/09	1010	14.1	116200.0	129	10.1	98.7	8.4	3.0	0.218	0.010 U	0.016	0.005 U		2.4	1

36A070 Columbia R nr Vernita continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/10	0825	0.074						0.0010 U	0.040 U	0.854	0.030 U	1.000 U		2.500	
95/11/14	0820	0.099													
95/12/12	0920	0.123						0.0010 U	0.040 U	0.915	0.120	1.000 U		5.000 U	
96/01/16	1150	0.094													
96/02/13	1100	0.139						0.0040	0.020 U	0.978	0.051	1.560		3.100 B	
96/03/12	1120	0.185													
96/04/16	1130	0.160						0.0020	0.064	1.220	0.215	0.647		5.400	
96/05/13	1100	0.105													
96/06/10	1020	0.059						0.0010 U	0.020 U	1.160	0.075	0.493		2.000	
96/07/16	0805	0.017													
96/08/12	1215	0.043						0.0010 U	0.076	0.927	0.021	0.605		3.300	
96/09/09	1010	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.: 37A090 YAKIMA R @ KIONA Water Class: A Latitude: 46 15 13.0
Water Body No.: WA-37-1010 River Mile: 29.80 Longitude: 119 28 37.0

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/10	1245	14.0	1860.0	284	11.0	108.4	8.2	12.0	1.810	0.010 U	0.114	0.086		6.5	
95/11/14	1115	8.4	6430.0	154	11.9	100.8	7.8	88.0	0.946	0.042	0.145	0.039		45.0	170 X
95/12/12	1335	2.8	13450.0	106	12.8	99.0	8.3	129.0	0.666	0.024	0.172			65.0	240
96/01/16	0850	6.4	10900.0	119	12.0	99.3	8.4	76.0	0.587	0.010 U	0.102	0.297		23.0	37
96/02/13	1400	3.6	24000.0	130	13.0	98.4	7.7	139.0	1.190	0.053	0.308	0.223		130.0	120
96/03/12	1520	9.3	9075.0	148	11.6	102.6	8.0	77.0	0.703	0.014	0.136	0.034		50.0	17
96/04/16	1450	12.1	6960.0	142	10.9	104.2	8.2	52.0	0.528	0.010 U	0.078	0.033		16.0	57
96/05/13	0830	14.5	2935.0	221	10.0	99.3	8.3	32.0	1.050	0.010 U	0.090	0.025		13.0	110
96/06/10	0720	16.6	6310.0	127	9.5	97.9	7.8	63.0	0.601	0.014	0.105	0.027		27.0	160
96/07/16	1115	24.4	1770.0	281	9.1	110.4	8.3	24.0	1.980	0.010 U	0.116	0.080		15.0	180 J
96/08/12	0920	21.7	1550.0	283	8.7	99.1	8.4	17.0	1.740	0.010 U	0.128	0.082		9.2	59 X
96/09/09	0715	17.3	2040.0	260	7.8	81.6	8.4	24.0	1.680	0.010 U	0.130	0.068		12.0	92

37A090 Yakima R @ Kiona continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/10	1245	1.480													
95/11/14	1115	0.604													
95/12/12	1335	0.350													
96/01/16	0850	0.404													
96/02/13	1400	0.644													
96/03/12	1520	0.519													
96/04/16	1450	0.397													
96/05/13	0830	0.793													
96/06/10	0720	0.436													
96/07/16	1115	1.510													
96/08/12	0920	1.510													
96/09/09	0715	0.866													

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

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/10	1025	12.4	2350.0	110	10.9	105.6	8.0	7.0	0.233	0.010 U	0.036	0.019		3.4	
95/11/14	0940	7.6	5520.0	100	12.0	101.3	7.9	40.0	0.359	0.010 U	0.091	0.028		19.0	43
95/12/12	1150	3.9	13500.0	71	12.2	99.2	8.2	34.0	0.229	0.010 U	0.060			24.0	27 S
96/01/16	1040	3.8		86	12.6	99.6	7.8	60.0	0.394	0.010 U	0.099	0.025		39.0	40 X
96/02/13	1220	2.9	37000.0	92	13.3	100.9	7.1	136.0	0.532	0.010	0.183	0.127		110.0	39
96/03/12	1220	6.8	7630.0	100	11.8	99.9	7.6	35.0	0.282	0.010 U	0.061	0.021		22.0	10
96/04/16	1320	9.1	6390.0	92	11.6	105.7	8.1	16.0	0.119	0.010 U	0.010 U	0.011		8.9	25
96/05/13	1000	10.1		101	10.8	99.0	8.2	18.0	0.205	0.010 U	0.047	0.013		8.5	100
96/06/10	0910	11.4	5700.0	71	10.8	101.6	7.8	15.0	0.146	0.010 U	0.032	0.005 U		11.0	71
96/07/16	0925	16.3	3780.0	88	8.6	90.8	7.6	20.0	0.239	0.010 U	0.017	0.013		6.7	46
96/08/12	1050	17.0	3640.0	86	9.8	103.6	8.4	11.0	0.173	0.010 U	0.037	0.010		6.3	62
96/09/09	0900	14.5	3200.0	90	9.6	96.6	8.0	30.0	0.242	0.010 U	0.066	0.021		22.0	170

37A205 Yakima R @ Knob Hill continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/10	1025	0.127													
95/11/14	0940	0.120													
95/12/12	1150	0.108													
96/01/16	1040	0.099													
96/02/13	1220	0.259													
96/03/12	1220	0.181													
96/04/16	1320	0.051													
96/05/13	1000	0.101													
96/06/10	0910	0.045													
96/07/16	0925	0.104													
96/08/12	1050	0.105													
96/09/09	0900	0.129													

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

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

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/01	0955	12.0	556.0	59	9.7	94.9	8.1	1.0	0.102	0.044	0.016	0.005 U		0.8	13
95/11/05	0900	4.9	622.0	61	11.4	95.9	7.3	2.0	0.034	0.010 U	0.012	0.005 U		0.5	3
95/12/03	0905	4.0	2165.0	56	11.7	95.5	7.2	73.0	0.112	0.012	0.087	0.005		80.0	9
96/01/07	0945	2.4	2509.0	45	12.1	94.3	8.2	12.0	0.084	0.010	0.010 U	0.005 U		7.3	10
96/02/04	1005	0.1	1540.0	54	13.1	95.8	8.2	4.0	0.096	0.010 U	0.011	0.005 U		2.8	2
96/03/03	0940	2.5	2780.0	49	12.2	96.8	6.9	4.0	0.092	0.010 U	0.010 U	0.005 U		2.6	1 U
96/04/08	0910	6.3	2975.0	57	11.1	96.4	7.1	12.0	0.055	0.010 U	0.010 U	0.005 U		10.0	6
96/05/05	0935	5.8	1418.0	57	11.3	96.0	7.2	2.0	0.025	0.010 U	0.010 U	0.005 U		2.1	1
96/06/02	0800	10.0	2591.0	48	10.5	98.3	6.4	3.0	0.037	0.010 U	0.010 U	0.005 U		1.3	5
96/07/07	1150	16.2	3013.0	42	9.3	101.5	6.8	2.0 J	0.015	0.016	0.010 U	0.005 U		1.7	3
96/08/04	0930	13.1	3705.0	57	9.3	94.4	7.5	1.0 U	0.030	0.010 U	0.010 U	0.005 U		1.5	36
96/09/02	1110	12.3	2894.0	197	10.2	102.3	7.5	1.0	0.053	0.010 U	0.010 U	0.005 U		1.3	

39A090 Yakima R nr Cle Elum continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/01	0955	0.010 U													
95/11/05	0900	0.010 U													
95/12/03	0905	0.033													
96/01/07	0945	0.052													
96/02/04	1005	0.053													
96/03/03	0940	0.039													
96/04/08	0910	0.010 U													
96/05/05	0935	0.010 U													
96/06/02	0800	0.010 U													
96/07/07	1150	0.020													
96/08/04	0930	0.010 U													
96/09/02	1110	0.019													

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

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/10	0715	13.4	379.0	549	7.5	73.2	7.9	12.0	1.790	0.010 U	0.037	0.010		5.0	
95/11/14	0730	8.8	217.0	831	10.3	88.1	8.4	14.0	2.740	0.010	0.093	0.044		9.5	24
95/12/12	0805	2.3	224.0	763	12.8	98.2	8.6	36.0	3.960	0.057	0.145			16.0	21
96/01/16	1330	5.3	197.0	829	12.4	100.8	8.6	18.0	3.480	0.010 U	0.117	0.075		11.0	4
96/02/13	0850	1.8	234.0	957	12.7	91.6	8.3	34.0	4.120	0.071	0.176	0.107		19.0	27
96/03/12	0840	8.5	202.0	815	10.9	94.2	8.3	30.0	3.160	0.010 U	0.122	0.033		14.0	66
96/04/16	0910	13.9	225.0	613	9.0	89.6	8.7	83.0	2.070	0.010 U	0.099	0.013		30.0	2000 J
96/05/13	1140	16.3	268.0	552	9.0	93.6	8.4	122.0	1.930	0.010 U	0.160	0.019		40.0	230
96/06/10	1130	17.3	211.0	514	10.1	106.4	8.5	193.0	2.240	0.035	0.210	0.011		45.0	140
96/07/16	0715	19.8	236.0	532	7.7	86.0	8.5	70.0	0.735 J	0.010 U	0.069	0.009		38.0	210
96/08/12	1320	21.2	302.0	494	10.8	122.4	8.6	144.0	1.750	0.183	0.162	0.014		27.0	250
96/09/09	1110	18.4	362.0	521	8.3	89.1	8.3	29.0	1.470	0.010 U	0.080	0.017		11.0	120

41A070 Crab Cr nr Beverly continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/10	0715	1.320													
95/11/14	0730	2.300													
95/12/12	0805	2.930													
96/01/16	1330	2.970													
96/02/13	0850	3.040													
96/03/12	0840	2.680													
96/04/16	0910	1.680													
96/05/13	1140	1.690													
96/06/10	1130	1.930													
96/07/16	0715	1.600													
96/08/12	1320	1.490													
96/09/09	1110	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.: 43A070 CRAB CR @ IRBY Water Class: B Latitude: 47 21 38.0
Water Body No.: WA-43-1010 River Mile: 111.50 Longitude: 118 50 57.0

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/03	1320	13.6	4.0	463	12.1	122.8	9.0	12.0	1.460	0.062	0.071	0.048		6.2	47
95/11/07	1430	2.9	4.0	429	15.5	120.5	9.0	2.0	2.460	0.010 U	0.065	0.053		1.8	1
95/12/05	1355	2.0	2.0	440	14.1	106.4	9.5	16.0	2.120	0.026	0.071	0.043		9.7	50
96/01/09	1355	1.4	110.0	270	13.1	97.6	8.1	194.0	1.730	0.055	0.334 J	0.155		280.0	160
96/02/06	1350	0.0	34.0	409	12.3	89.0	8.0	13.0	3.800	0.010 U	0.167	0.142		31.0	5
96/03/05	1340	2.3	290.0	377	12.7	97.2	8.0	45.0	2.870	0.029	0.059	0.108		55.0	27
96/04/10	1405	15.3	117.0	367	11.2	117.3	8.7	39.0	1.570	0.010 U	0.068	0.018		31.0	88
96/05/07	1345	14.0	68.0	387	10.2	104.7	8.5	43.0	1.550	0.010 U	0.124	0.053		35.0	53
96/06/04	1450	20.5	36.0	403	10.8	125.4	8.5	25.0	1.730	0.010 U	0.104	0.046		16.0	180
96/07/09	1715	23.4	14.0	462	9.6	119.1	8.6	14.0	3.640	0.044	0.125	0.118		11.0	270
96/08/06	1340	17.0	11.0	444	9.9	106.4	8.6	10.0		0.010 U	0.116	0.099		7.0	80
96/09/04	1450	17.5	8.6	411	10.5	115.1	9.2	11.0	2.920	0.031	0.133	0.092		6.8	71

43A070 Crab Cr @ Irby continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/03	1320	1.210													
95/11/07	1430	2.220													
95/12/05	1355	1.720													
96/01/09	1355	1.150													
96/02/06	1350	3.750													
96/03/05	1340	1.890													
96/04/10	1405	0.922													
96/05/07	1345	0.967													
96/06/04	1450	1.130													
96/07/09	1715	3.600													
96/08/06	1340	2.780													
96/09/04	1450	2.360													

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

Station No.: 43A100 CRAB CK @ MARCELUS ROAD Water Class: B Latitude: 47 18 10.7
Water Body No.: WA-43-4000 River Mile: 137.70 Longitude: 118 22 04.7

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/03	1445	12.6		383	12.4	124.5	8.2	2.0	0.878	0.034	0.110	0.100		0.9	310
95/11/08	0740	9.0		343	9.1	84.1	7.9	1.0 U	0.154	0.010 U	0.010 U	0.006		0.5	1 U
95/12/06	0800	5.7		348	10.8	90.2	8.2	2.0	1.170	0.010 U	0.122	0.097		0.7	5
96/01/10	0825	1.6		149	12.4 J	92.5	8.0	1350.0	1.510	0.037		0.109		1900.0 J	200
96/02/07	0755	2.1		322	12.5	96.1	7.8	32.0	1.940	0.010 U	0.119	0.082		16.0	27
96/03/06	0810	2.2		298	12.5	95.3	8.1	200.0	2.740	0.024	0.062	0.061		230.0	130 S
96/04/11	0805	9.8		346	9.9	92.3	8.4	5.0	1.530	0.010 U	0.016	0.012		3.5	20
96/05/08	0755	7.5		346	10.5 J	92.2	8.5	5.0	1.410	0.010 U	0.037	0.010		2.7	53
96/06/05	0720	13.2		364	8.3	83.1	7.6	5.0	1.390	0.034	0.082	0.057		2.5	54
96/07/10	1055	14.3		362	10.7	110.5	8.0	4.0	1.070	0.010 U	0.061	0.075		2.7	65
96/08/07	0750	11.8		353	8.6	83.3	7.9	3.0		0.010 U	0.083	0.084		2.0	94
96/09/05	0900	10.5		296	9.7	91.8	8.1	3.0	1.180	0.010 U	0.117	0.081		1.9	28

43A100 Crab Ck @ Marcelus Road continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/03	1445	0.811													
95/11/08	0740	0.087													
95/12/06	0800	1.030													
96/01/10	0825	0.729													
96/02/07	0755	1.790													
96/03/06	0810	1.340													
96/04/11	0805	1.180													
96/05/08	0755	0.893													
96/06/05	0720	0.957													
96/07/10	1055	0.915													
96/08/07	0750	0.807													
96/09/05	0900	0.945													

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

Station No.: 43A150 CRAB CK @ BLUESTEM ROAD Water Class: B Latitude: 47 30 08.6
Water Body No.: WA-43-4000 River Mile: 171.50 Longitude: 118 02 13.6

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/03	1140	9.9		319	10.6	101.8	8.1	2.0	2.040	0.045	0.074	0.067		1.0	440
95/11/07	1225	4.1	3.1	283	11.9	98.0	8.3	1.0	2.440	0.010 U	0.071	0.056		1.4	17
95/12/05	1205	2.1	5.4	300	12.7	98.6	7.9	2.0	2.320	0.010 U	0.081	0.067		1.9	29
96/01/09	1155	1.3	54.0	130	12.3	93.9	7.7	31.0	1.410	0.023	0.193	0.100		80.0	1600 J
96/02/06	1150	3.5	8.5	269	11.6	94.9	8.0	10.0	2.490	0.010 U	0.100	0.067		12.0	4
96/03/05	1150	3.1	52.0	265	11.5	92.7	7.8	74.0	2.780	0.017	0.055	0.093		95.0	96
96/04/10	1205	10.3	28.0	284	12.6	121.3	8.7	4.0	2.070	0.010 U	0.061	0.043		2.1	14
96/05/07	1150	9.7	17.0	293	11.9	113.0	8.5	32.0	2.070	0.010 U	0.094	0.048		12.0	220 J
96/06/04	1240	14.8	8.0	299	10.4	109.9	8.2	6.0	2.120	0.043	0.076	0.053		2.9	260
96/07/09	1430	16.9	2.0	296	10.2	114.3	8.5	5.0	2.020	0.019	0.058	0.062		3.5	80
96/08/06	1155	10.4	4.4	292	11.5	105.9	8.2	2.0		0.010 U	0.061	0.049		1.6	800 J
96/09/04	1150	8.8	1.9	298	11.0	97.9	8.2	2.0	2.670	0.010 U	0.075	0.058		1.9	220

43A150 Crab Ck @ Bluestem Road continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/03	1140	1.980													
95/11/07	1225	2.240													
95/12/05	1205	2.100													
96/01/09	1155	0.787													
96/02/06	1150	2.360													
96/03/05	1150	1.910													
96/04/10	1205	1.710													
96/05/07	1150	1.750													
96/06/04	1240	1.620													
96/07/09	1430	2.040													
96/08/06	1155	2.140													
96/09/04	1150	2.330													

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

Station No.: 43B090 LAKE CK @ COFFEEPOT ROAD Water Class: B Latitude: 47 30 29.6
Water Body No.: WA-43-3500 River Mile: 18.30 Longitude: 118 32 30.0

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
96/01/09	1250	1.3	8.8	517	12.1	91.6	7.9	2.0	0.984	0.036	0.063	0.031		4.0	12
96/02/06	1255	0.0	15.0	395	12.1	88.9	7.5	5.0	1.050	0.102	0.079	0.029		3.7	3
96/03/05	1255	3.7	58.0	358	12.3	99.5	8.0	6.0	1.610	0.023	0.145	0.107		8.5	1
96/04/10	1305	14.0	32.0	361	11.4	118.1	8.9	4.0	0.667	0.010 U	0.039	0.028		1.8	2
96/05/07	1250	12.8	14.0	399	10.3	103.8	8.3	3.0	0.683	0.010 U	0.079	0.046		2.0	10
96/06/04	1350	21.3	21.0	407	9.0	107.6	8.3	5.0	1.190	0.096	0.084	0.044		3.3	940 J
96/07/09	1545	24.3	5.0	403	6.9	88.3	8.2	1.0	0.961	0.017	0.146	0.091		2.3	43

43B090 Lake Ck @ Coffeepot Road continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
96/01/09	1250	0.120													
96/02/06	1255	0.468													
96/03/05	1255	0.663													
96/04/10	1305	0.011													
96/05/07	1250	0.010 U													
96/06/04	1350	0.045													
96/07/09	1545	0.045													

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

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/08	1305	11.4	976.0	67	12.6	117.4	8.7	2.0	0.225	0.010	0.010 U	0.005 U		0.6	9
95/11/12	1240		9050.0	38	12.7	86.7	7.2	11.0	0.183 J	0.010 U	0.016 J	0.005 U		3.7	5
95/12/10	1350	1.1	4790.0	49	13.7	99.7	7.3	6.0	0.218	0.010 U	0.016	0.005		5.0	3
96/01/18	0930	1.3	4750.0	59	13.8	99.5	7.4	10.0	0.151	0.010 U	0.010 U			6.0	91
96/02/11	1910	2.2	8280.0	60	13.9	101.0	7.3	106.0	0.205	0.010 U	0.077	0.005		60.0	
96/03/10	1720	5.9	3130.0	87	12.5	102.1	7.5	10.0	0.229	0.010 U	0.022	0.006		4.2	6
96/04/14	1815	7.0	6860.0	55	12.1	101.6	7.5	14.0	0.137	0.010 U	0.010 U	0.006		6.0	29
96/05/15	0940	8.6	6475.0	48	11.3	99.3	7.8	21.0	0.095	0.010 U	0.038	0.005 U		6.9	38
96/06/12	0810	9.7	8930.0	39	11.3	101.2	7.6	14.0	0.108	0.010 U	0.017	0.005 U		5.8	9
96/07/14	1145	15.3	6780.0	35	10.1	103.3	7.5	9.0	0.104	0.010 U	0.010 U	0.005 U		3.1	23
96/08/14	0720	18.0	1830.0	54	9.4	100.6	7.9	3.0	0.124	0.010 U	0.011	0.005 U		2.1	21
96/09/11	0720	15.7	762.0	77	9.7	98.7	7.9	3.0	0.361	0.010 U	0.013	0.005 U		1.1	72

45A070 Wenatchee R @ Wenatchee continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/08	1305	0.159													
95/11/12	1240	0.076													
95/12/10	1350	0.128													
96/01/18	0930	0.092													
96/02/11	1910	0.100													
96/03/10	1720	0.168													
96/04/14	1815	0.080													
96/05/15	0940	0.067													
96/06/12	0810	0.051													
96/07/14	1145	0.033													
96/08/14	0720	0.137													
96/09/11	0720	0.287													

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

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

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/08	1145	10.3	655.0	37	11.0	103.8	7.3	3.0	0.032	0.010 U	0.010 U	0.005 U		0.5 U	4
95/11/12	1125		5630.0	29	11.9	84.4	6.8	8.0	0.151 J	0.010 U	0.019 J	0.007		2.2	6
96/01/18	1100	1.3	2920.0	36	13.1	98.2	7.4	5.0	0.099	0.010 U	0.011			3.2	2
96/02/11	1750	1.5		36	13.2	97.8	8.2	44.0	0.111	0.010 U	0.039	0.005 U		5.9	1 U
96/03/10	1610	4.2		46	12.5	101.2	8.2	6.0	0.082	0.010 U	0.017	0.005 U		2.2	1 U
96/04/14	1700	5.6	4600.0	37	12.0	100.4	7.4	9.0	0.096	0.010 U	0.010 U	0.005 U		2.9	1 U
96/05/15	1030	6.7	4730.0	33	11.2	97.3	7.6	8.0	0.093	0.010 U	0.024	0.005 U		2.3	5
96/06/12	0920	7.1	6220.0	26	11.6	101.1	7.4	8.0	0.087	0.010 U	0.012	0.005 U		3.1	1 U
96/07/14	1035	11.8	5260.0	24	10.3	100.9	6.9	6.0	0.073	0.010 U	0.011	0.005 U		2.4	9
96/08/14	0830	14.5	1320.0	31	9.7	99.7	7.6	3.0	0.010 U	0.010 U	0.010	0.005 U		2.0	10
96/09/11	0830	13.3	642.0	35	10.0	100.2	7.7	3.0	0.043	0.010 U	0.013	0.005 U		1.4	7

45A110 Wenatchee R nr Leavenworth continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/08	1145	0.010 U													
95/11/12	1125	0.065													
96/01/18	1100	0.044													
96/02/11	1750	0.049													
96/03/10	1610	0.022													
96/04/14	1700	0.036													
96/05/15	1030	0.045													
96/06/12	0920	0.038													
96/07/14	1035	0.010 U													
96/08/14	0830	0.010 U													
96/09/11	0830	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.: 46A070 ENTIAT R NR ENTIAT Water Class: A Latitude: 47 39 48.0
Water Body No.: WA-46-1010 River Mile: 1.50 Longitude: 120 14 58.0

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/09	1625	11.4	133.0	98	11.4	106.6	8.4	1.0	0.153	0.010 U	0.010 U	0.005 U		0.5 U	
95/11/13	1545	5.1	365.0	66	13.1	103.8	7.8	2.0	0.125	0.010 U	0.010 U	0.005 U		1.3	9
95/12/11	1610	0.1	740.0	58	14.2	100.8	8.5	8.0	0.132	0.010 U	0.016	0.005 U		2.0	2
96/01/17	1600	0.4	420.0	86	14.4	101.0	7.5	2.0	0.174	0.010 U	0.014	0.005 U		1.1	
96/02/12	1730	1.9	650.0	94	13.8	100.2	7.8	24.0	0.279	0.010 U	0.030	0.009		7.0	1 U
96/03/11	1630	6.4	530.0	103	12.1	100.4	8.1	10.0	0.219	0.010 U	0.021	0.005		4.7	10
96/04/15	1720	7.9	1240.0	73	11.7	102.2	7.8	23.0	0.162	0.010 U	0.010 U	0.009		5.8	2
96/05/14	1650	11.3	996.0	65	10.6	100.2	8.1	13.0	0.070	0.010 U	0.057	0.005 U		2.3	3
96/06/11	1720	10.4	2130.0	36	11.2	102.6	7.8	32.0	0.091	0.010 U	0.030	0.005 U		7.0	8
96/07/15	1350	12.8	1500.0	37	10.4	102.4	7.4	10.0	0.024	0.010 U	0.010 U	0.005 U		5.2	5
96/08/13	1655	18.2	336.0	65	10.0	108.6	8.6	1.0	0.010 U	0.010 U	0.010	0.005 U		1.1	7
96/09/10	1730	17.0	177.0	87	10.2	107.8	8.3	2.0	0.180	0.010 U	0.017	0.005 U		1.4	10

46A070 Entiat R nr Entiat continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/09	1625	0.115													
95/11/13	1545	0.064													
95/12/11	1610	0.088													
96/01/17	1600	0.110													
96/02/12	1730	0.175													
96/03/11	1630	0.166													
96/04/15	1720	0.091													
96/05/14	1650	0.049													
96/06/11	1720	0.027													
96/07/15	1350	0.010 U													
96/08/13	1655	0.014													
96/09/10	1730	0.112													

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

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

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/09	1510	11.2	424.0	179	11.0	103.0	8.3	1.0	0.299	0.010 U	0.010 U	0.005 U		0.5 U	
95/11/13	1420	3.9	687.0	155	13.7	104.9	8.0	1.0 U	0.247	0.010 U	0.010 U	0.005 U		0.5 U	1
96/01/17	1500	0.9	632.0	147	14.1	101.0	8.0	2.0	0.185	0.010 U	0.010 U	0.005 U		0.5 U	1 U
96/02/12	1600	0.0	725.0	151	14.7	101.7	7.9	2.0	0.252	0.010 U	0.010 U	0.005 U		0.8	1 U
96/03/11	1515	7.9	731.0	157	11.9	102.9	8.3	5.0	0.167	0.010 U	0.010 U	0.005 U		0.8	1
96/04/15	1550	7.6	3790.0	117	11.8	102.3	8.1	7.0	0.127	0.010 U	0.010 U	0.005		2.8	1 U
96/05/14	1500	12.0	3130.0	118	10.3	99.6	8.3	9.0	0.061	0.010 U	0.019	0.005 U		4.5	23
96/06/11	1545	9.4	7970.0	61	11.7	105.1	7.7	21.0	0.102	0.010 U	0.024	0.005 U		11.0	4
96/07/15	1230	15.3	4010.0	78	9.9	102.9	7.9	4.0	0.048	0.010 U	0.010 U	0.005 U		2.2	10
96/08/13	1510	19.0	881.0	140	9.8	109.0	8.5	1.0	0.116	0.010 U	0.018	0.005 U		0.8	3
96/09/10	1600	17.2	490.0	159	10.2	109.0	8.7	1.0 U	0.288	0.010 U	0.012	0.005 U		1.2	1 U

48A070 Methow R nr Pateros continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/09	1510	0.251													
95/11/13	1420	0.206													
96/01/17	1500	0.146													
96/02/12	1600	0.199													
96/03/11	1515	0.121													
96/04/15	1550	0.053													
96/05/14	1500	0.035													
96/06/11	1545	0.026													
96/07/15	1230	0.021													
96/08/13	1510	0.123													
96/09/10	1600	0.229													

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

Station No.: 48A140 METHOW R @ TWISP Water Class: A Latitude: 48 20 53.0
Water Body No.: WA-48-1020 River Mile: 39.40 Longitude: 120 06 21.0

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/09	1345	9.7	375.0	148	11.3	104.6	8.3	1.0 U	0.239	0.010 U	0.010 U	0.005 U		0.5 U	
95/11/13	1240	5.4	633.0	130	12.9	105.2	7.9	1.0 U	0.182	0.010 U	0.010 U	0.005 U		0.5 U	2
95/12/11	0000	0.0	1230.0												
96/01/17	1400	1.3	518.0	130	13.8	102.8	8.0	3.0	0.149	0.010 U	0.010 U	0.005 U		0.5 U	1 U
96/02/12	1450	2.5	436.0	131	13.6	103.5	8.1	1.0 U	0.178	0.010 U	0.010 U	0.005 U		0.5 U	1
96/03/11	1350	7.2	578.0	138	12.0	104.5	8.2	1.0	0.130	0.010 U	0.010 U	0.005 U		0.5 U	1
96/04/15	1440	6.8	3480.0	104	11.9	103.7	8.0	4.0	0.127	0.010 U	0.010 U	0.005 U		2.3	4
96/05/14	1400	9.0	3000.0	100	11.1	102.4	8.2	5.0	0.074	0.010 U	0.022	0.005 U		2.0	2
96/06/11	1430	9.0	7650.0	57	11.2	102.2	7.9	11.0	0.097	0.010 U	0.012	0.005 U		5.4	4
96/07/15	1120	11.9	3780.0	71	10.3	101.5	7.7	3.0	0.015	0.010 U	0.010 U	0.005 U		1.5	6
96/08/13	1320	15.4	767.0	118	10.0	105.2	8.3	1.0 U	0.089	0.010 U	0.021	0.005 U		0.8	3
96/09/10	1440	14.9	382.0	133	10.4	108.6	8.5	1.0 U	0.247	0.010 U	0.010	0.005 U		0.6	2

48A140 Methow R @ Twisp continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/09	1345	0.210													
95/11/13	1240	0.136													
95/12/11	0000														
96/01/17	1400	0.108													
96/02/12	1450	0.137													
96/03/11	1350	0.103													
96/04/15	1440	0.046													
96/05/14	1400	0.034													
96/06/11	1430	0.016													
96/07/15	1120	0.012													
96/08/13	1320	0.101													
96/09/10	1440	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.: 49A070 OKANOGAN R @ MALOTT Water Class: A Latitude: 48 16 53.0
Water Body No.: WA-49-1010 River Mile: 17.00 Longitude: 119 42 12.0

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/09	1240	12.4	1070.0	258	10.6	101.4	8.4	4.0	0.158	0.010 U	0.010	0.005 U		1.1	12
95/11/13	1125	2.6	2260.0	119	13.5	99.3	7.8	21.0	0.334	0.010 U	0.036	0.005 U		19.0	42
95/12/11	1320	0.0	11500.0	179	13.9	98.9	8.5	4.0	0.258	0.010 U	0.031	0.009		11.0	5
96/01/17	1300	0.5	2950.0	222	13.6	96.1	8.3	12.0	0.245	0.010 U	0.024	0.005 U		6.2	
96/03/11	1145	4.5	2380.0	247	12.9	102.1	8.4	21.0	0.171	0.010 U	0.022	0.005 U		6.0	1
96/04/15	1300	8.3	8260.0	180	11.8	103.3	8.2	85.0	0.145	0.010 U	0.050	0.006		32.0	19
96/05/14	1240	12.5	6110.0	211	10.2	99.4	8.4	24.0	0.162	0.010 U	0.044	0.005 U		6.4	5
96/06/11	1320	12.8	18400.0	113	10.6	102.5	7.9	103.0	0.212	0.010 U	0.124	0.005 U		40.0	46
96/07/15	0955	21.5	5740.0	176	8.2	95.7	8.0	39.0	0.119	0.010 U	0.010 U	0.005 U		9.9	64
96/08/13	1145	22.0	2450.0	235	8.1	94.4	8.4	6.0	0.062	0.010 U	0.025	0.005 U		2.5	29
96/09/10	1320	18.3	1530.0	242	10.1	109.6	8.5	4.0	0.184	0.010 U	0.019	0.005 U		2.2	13

49A070 Okanogan R @ Malott continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/09	1240	0.027													
95/11/13	1125	0.057													
95/12/11	1320	0.070													
96/01/17	1300	0.077													
96/03/11	1145	0.021													
96/04/15	1300	0.017													
96/05/14	1240	0.010 U													
96/06/11	1320	0.010 U													
96/07/15	0955	0.010 U													
96/08/13	1145	0.010 U													
96/09/10	1320	0.025													

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

Station No.: 49A090 OKANOGAN R @ OKANOGAN Water Class: A Latitude: 48 21 48.0
Water Body No.: WA-49-1020 River Mile: 26.00 Longitude: 119 34 36.0

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/09	1155	12.5	1070.0	251	10.8	103.6	8.3	4.0	0.180	0.010 U	0.010 U	0.005 U		1.5	20
95/11/13	1045	2.6	2250.0	124	13.8	101.4	7.8	20.0	0.324	0.010 U	0.050	0.005		16.0	38
95/12/11	1215	0.0	11500.0	189	13.8	98.8	8.5	8.0	0.247	0.010 U	0.030	0.009		12.0	6
96/01/17	1220	0.6	2950.0	219	13.7	97.0	8.0	12.0	0.222	0.010 U	0.022	0.005 U		8.0	2
96/03/11	1120	4.1	2380.0	243	13.2	103.4	8.3	13.0	0.188	0.010 U	0.030	0.005 U		7.2	7
96/04/15	1230	8.1	8220.0	180	11.8	103.2	8.2	83.0	0.191	0.010 U	0.076	0.007		33.0	16
96/05/14	1215	12.6	6170.0	209	10.2	99.6	8.3	21.0	0.136	0.010 U	0.037	0.005 U		7.3	21
96/06/11	1250	12.4	18400.0	111	10.6	102.0	7.9	83.0	0.209	0.010 U	0.142	0.005 U		40.0	46
96/07/15	0925	21.6	5730.0	173	8.1	94.7	8.0	33.0	0.163	0.010 U	0.032	0.005 U		9.5	55
96/08/13	1120	21.9	2450.0	233	8.7	101.2	8.4	5.0	0.052	0.010 U	0.014	0.005 U		2.4	74
96/09/10	1250	18.0	1530.0	238	9.8	105.7	8.6	6.0	0.182	0.010 U	0.022	0.005 U		3.5	10

49A090 Okanogan R @ Okanogan continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/09	1155	0.034													
95/11/13	1045	0.061													
95/12/11	1215	0.070													
96/01/17	1220	0.068													
96/03/11	1120	0.023													
96/04/15	1230	0.017													
96/05/14	1215	0.010 U													
96/06/11	1250	0.011													
96/07/15	0925	0.010 U													
96/08/13	1120	0.010 U													
96/09/10	1250	0.023													

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

Station No.: 49A180 OKANOGAN R @ TONASKAT Water Class: A Latitude: 48 42 25.1
Water Body No.: WA-49-1020 River Mile: 0.00 Longitude: 119 26 38.8

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/09	1050	12.4	1000.0	237	10.2	97.8	8.2	3.0	0.160	0.010 U	0.010 U	0.005 U		1.7	10
95/11/13	0940	2.6	2210.0	138	14.1	103.8	8.1	9.0	0.226	0.010 U	0.021	0.005 U		7.1	19
95/12/11	1055	0.0	3850.0	196	13.9	99.6	8.7	8.0	0.234	0.010 U	0.036	0.009		16.0	6
96/01/17	1140	0.5	3000.0	205	13.7	97.1	7.6	12.0	0.194	0.010 U	0.020	0.005 U		6.0	3
96/02/12	1050	0.0	3000.0	221	14.9	102.7	8.1	10.0	0.177	0.010 U	0.016	0.005 U		3.6	2
96/03/11	0955	4.1	2410.0	232	13.8	108.5	8.4	17.0	0.150	0.010 U	0.021	0.005 U		4.4	8
96/04/15	1130	7.7	7780.0	180	12.2	105.7	8.1	56.0	0.165	0.010 U	0.075	0.006		27.0	4
96/05/14	1030	11.3	5755.0	200	10.5	99.6	8.3	23.0	0.106	0.010 U	0.037	0.005 U		7.2	21
96/06/11	1130	12.4	18150.0	118	11.0	105.8	7.8	71.0	0.192	0.010 U	0.070	0.005 U		35.0	38
96/07/15	0820	21.1	5440.0	168	8.6	99.9	8.1	20.0	0.111	0.010 U	0.011	0.005 U		7.1	29
96/08/13	1020	21.3	2400.0	227	9.0	103.9	8.4	6.0	0.103	0.010 U	0.023	0.005 U		3.4	49
96/09/10	1040	18.3	1530.0	227	9.8	106.4	8.4	3.0	0.190	0.010 U	0.017	0.005 U		2.0	60

49A180 Okanogan R @ Tonaskat continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/09	1050	0.021													
95/11/13	0940	0.043													
95/12/11	1055	0.064													
96/01/17	1140	0.052													
96/02/12	1050	0.053													
96/03/11	0955	0.011													
96/04/15	1130	0.016													
96/05/14	1030	0.010 U													
96/06/11	1130	0.010 U													
96/07/15	0820	0.010 U													
96/08/13	1020	0.010 U													
96/09/10	1040	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.: 49A190 OKANOGAN R @ OROVILLE Water Class: A Latitude: 48 56 20.0
Water Body No.: WA-49-1040 River Mile: 78.00 Longitude: 119 25 36.0

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/09	0955	14.7	353.0	269	7.8	78.6	8.1	2.0	0.295	0.029	0.013	0.005 U		1.5	7
95/11/13	0850	6.6	212.0	302	11.5	94.1	8.5	3.0	0.326	0.010 U	0.032	0.005 U		1.5	2
95/12/11	0920	1.9	302.0	286	12.2	92.0	9.1	2.0	0.314	0.012	0.020	0.005 U		1.7	3
96/01/17	1020	0.1	1010.0	288	13.8	96.8	8.6	7.0	0.343	0.010 U	0.021	0.005 U		3.3	2
96/02/12	0930	1.0	1030.0	290	15.1	107.0	8.5	4.0	0.296	0.010 U	0.011	0.005 U		1.1	1 U
96/03/11	0845	3.1	1120.0	275	17.7	135.5	8.8	4.0	0.204	0.010 U	0.015	0.005 U		1.7	1 U
96/04/15	1030	7.6	2200.0	281	13.2	114.1	8.8	5.0	0.567	0.010 U	0.010 U	0.005 U		2.1	1 U
96/05/14	0720	12.3	2190.0	278	10.8	104.5	8.5	4.0	0.171	0.010 U	0.027	0.005 U		1.3	1
96/06/11	0800	16.4	3390.0	241	9.8	103.1	8.3	2.0	0.186	0.010 U	0.010 U	0.005 U		1.3	4
96/07/15	0740	23.7	1820.0	250	8.9	108.8	8.5	2.0	0.224	0.010 U	0.010 U	0.005 U		2.0	2
96/08/13	0740	22.4	1260.0	253	8.5	99.1	8.6	2.0	0.110	0.010 U	0.029	0.005 U		1.5	6
96/09/10	0900	19.6	815.0	239	8.8	97.6	8.7	2.0	0.215	0.010 U	0.018	0.005 U		1.2	9

49A190 Okanogan R @ Oroville continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/09	0955	0.015													
95/11/13	0850	0.010 U													
95/12/11	0920	0.034													
96/01/17	1020	0.077													
96/02/12	0930	0.057													
96/03/11	0845	0.010 U													
96/04/15	1030	0.010 U													
96/05/14	0720	0.010 U													
96/06/11	0800	0.010 U													
96/07/15	0740	0.010 U													
96/08/13	0740	0.010 U													
96/09/10	0900	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 SIMILKAMEEN R @ OROVILLE Water Class: A Latitude: 48 56 05.0
Water Body No.: WA-49-1030 River Mile: 5.00 Longitude: 119 26 27.0

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/09	0845	11.7	549.0	180	10.7	101.0	8.2	2.0	0.057	0.010 U	0.010 U	0.005 U	86	1.1	8
95/11/13	0825	1.6	1930.0	124	15.0	101.3	7.7	8.0	0.181	0.010 U	0.018	0.005 U		5.1	13
95/12/11	0750	0.0	3950.0	171	14.8	105.5	7.3	68.0	0.280	0.010	0.060	0.010	82	29.0	6
96/01/17	1000	0.0	1900.0	148	14.8	103.4	8.3	12.0	0.099	0.010 U	0.013	0.005 U		9.0	
96/02/12	0900	0.0	2380.0	173	15.4	106.2	7.6	8.0	0.081	0.010 U	0.013	0.005 U	76	2.7	1
96/03/11	0820	3.9	1800.0	175	13.3	104.0	8.1	6.0	0.066	0.010 U	0.018	0.005 U		3.2	2
96/04/15	0950	6.6	5850.0	138	13.1	110.4	8.1	63.0	0.147	0.010 U	0.026	0.007	63	25.0	5
96/05/14	0750	11.0	4400.0	147	10.9	102.3	8.5	21.0	0.129	0.010 U	0.043	0.005 U		8.7	20
96/06/11	0830	9.8	16500.0	91	12.5	113.7	8.3	99.0	0.186	0.010 U	0.099	0.005 U	43	40.0	19
96/07/15	0705	19.7	3950.0	116	9.3	105.5	7.9	15.0	0.073	0.010 U	0.010 U	0.005 U		6.1	18
96/08/13	0700	18.9	1100.0	175	9.5	103.6	8.3	2.0	0.016	0.010 U	0.018	0.005 U	78	2.0	11
96/09/10	0840	16.7	650.0	178	10.0	104.7	8.4	2.0	0.067	0.010 U	0.012	0.005 U		1.7	8

49B070 Similkameen R @ Oroville continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/09	0845	0.010 U	1.00 U	0.7	0.1 U	5.9 B	0.10 U	0.0010 U	0.040 U	0.609	0.030 U	1.000 U		1.100	
95/11/13	0825	0.040													
95/12/11	0750	0.062	4.00	10.1	1.5	14.1 B	0.10 U	0.0010	0.040 U	2.510	0.362	1.000 U		5.000 U	21.600
96/01/17	1000	0.029													
96/02/12	0900	0.040	5.00 U	1.5 B	0.1	5.0 U	0.10 U	0.0010 U	0.020 U	0.972	0.025	0.586		1.200 B	1.940
96/03/11	0820	0.010 U													
96/04/15	0950	0.020	1.50	5.2	0.8	4.8	0.10 U	0.0020	0.077 J	5.210 J	0.720 J	1.620 J		4.200 B	3.600
96/05/14	0750	0.010 U													
96/06/11	0830	0.018	1.40	6.3	0.8	10.8 B	0.10 U	0.0040	0.022	1.390	0.032	0.508		1.100	6.270
96/07/15	0705	0.010 U													
96/08/13	0700	0.010 U	0.40 U	1.3	1.0	3.4 B	0.10 U	0.0010 U	0.040	0.846	0.020 U	0.615		1.000	3.780
96/09/10	0840	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.: 49B090 SIMILKAMEEN R @ NIGHTHAWK Water Class: A Latitude: 48 58 01.4
Water Body No.: WA-49-1030 River Mile: 17.50 Longitude: 119 38 25.6

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/09	0710	10.1	528.0	182	10.4	95.4	8.0	4.0	0.065	0.010 U	0.010 U	0.005 U	86	1.5	15
95/11/13	0700		1870.0	127	13.5	93.6	7.2	6.0	0.179	0.010 U	0.025	0.005		5.6	6
95/12/11	0000	0.0	2800.0												
96/01/17	0930	0.0	1885.0	155	13.4	94.6	8.3	12.0	0.121	0.010 U	0.012	0.005 U		12.0	6
96/03/11	0740	4.1	1300.0	175	12.1	96.1	7.4	10.0	0.104	0.010 U	0.018	0.005 U		4.7	1 U
96/04/15	0850	5.9	5900.0	136	11.7	97.6	8.0	63.0	0.172	0.010 U	0.057	0.007	62	26.0	3
96/05/14	0845	9.3	4480.0	137	10.2	93.1	8.1	29.0	0.053	0.010 U	0.049	0.005 U		11.0	17
96/06/11	0930	9.2	13600.0	85	10.9	98.2	7.8	71.0	0.177	0.010 U	0.096	0.005 U	41	35.0	26
96/07/15	0630	18.5	3855.0	116	8.6	95.8	7.7	16.0	0.089	0.010 U	0.010 U	0.005 U		5.7	18
96/08/13	0600	18.2	1080.0	178	8.7	94.6	8.2	5.0	0.010 U	0.010 U	0.010 U	0.005 U	81	3.7	26
96/09/10	0740	14.9	670.0	182	9.6	97.2	8.5	3.0	0.071	0.010 U	0.013	0.005 U		1.8	55

49B090 Similkameen R @ Nighthawk continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/09	0710	0.010 U						0.0080 P	0.040 U	0.534	0.030 U	1.000 U		1.000 U	
95/11/13	0700	0.037													
95/12/11	0000														
96/01/17	0930	0.026													
96/03/11	0740	0.017													
96/04/15	0850	0.018						0.0010 U	0.040 U	1.590	0.059	0.745		1.700	
96/05/14	0845	0.010 U													
96/06/11	0930	0.015						0.0070	0.020 U	1.260	0.025	0.480		0.670	
96/07/15	0630	0.010 U													
96/08/13	0600	0.010 U						0.0010 U	0.025	0.735	0.020 U	0.581		1.200	
96/09/10	0740	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.: 53A070 COLUMBIA R @ GRAND COULEE Water Class: A Latitude: 47 57 56.0
Water Body No.: WA-CR-1050 River Mile: 596.00 Longitude: 118 58 54.0

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/04	0940	18.3	104000.0	129	8.7	94.5	8.2	1.0 U	0.115	0.012	0.010 U	0.005 U		0.5 U	1 U
95/11/08	1000	14.8	106200.0	128	9.1	94.2	8.0	4.0	1.120	0.010 U	0.103	0.087		1.7	18
95/12/06	1015	9.7	150000.0	138	10.5	94.5	8.6	1.0 U	0.173	0.012	0.015	0.005 U		0.6	1 U
96/01/10	1030	4.4	197000.0	135	12.9	101.3	7.9	1.0 U	0.152	0.011	0.010 U	0.005 U		2.7	1 U
96/02/07	1005	2.4	167000.0	136	13.3	101.0	8.2	2.0	0.198	0.010 U	0.010 U	0.005 U		1.7	1 U
96/03/06	1020	4.1	177000.0	137	13.7	107.4	7.9	2.0	0.271	0.010 U	0.010 U	0.005 U		4.7	1 U
96/04/11	1005	5.3	170500.0	144	12.7	104.0	8.0	2.0	0.250	0.010 U	0.010 U	0.005 U		4.4	1 U
96/05/08	1005	7.9	174200.0	136	12.1	105.2	8.1	3.0	0.230	0.010 U	0.016	0.005 U		5.3	1
96/06/05	0935	9.8	186500.0	130			8.3	2.0	0.175	0.010 U	0.010 U	0.005 U		1.9	1 U
96/07/10	1430	14.2	193500.0	134	10.7	108.6	8.4	1.0 U	0.114	0.013	0.010 U	0.005 U		1.0	1 U
96/08/07	0950	19.5	186900.0	122	9.8	109.2	8.2	1.0 U	0.116	0.010 U	0.010 U	0.010 U		1.4	1
96/09/05	1330	17.8	121000.0	113	9.5	103.4	8.2	1.0 U	0.142	0.010 U	0.010 U	0.005		1.5	1 U

53A070 Columbia R @ Grand Coulee continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/04	0940	0.068													
95/11/08	1000	0.972													
95/12/06	1015	0.093													
96/01/10	1030	0.086													
96/02/07	1005	0.149													
96/03/06	1020	0.163													
96/04/11	1005	0.171													
96/05/08	1005	0.105													
96/06/05	0935	0.074													
96/07/10	1430	0.054													
96/08/07	0950	0.043													
96/09/05	1330	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.: 54A120 SPOKANE R @ RIVERSIDE STATE PK Water Class: A Latitude: 47 41 48.0
Water Body No.: WA-54-1020 River Mile: 66.00 Longitude: 117 29 48.0

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/02	1415	12.9	1720.0	176	10.8	107.3	8.2	2.0	0.823	0.031	0.029	0.006	74	0.9	34
95/11/06	1315	8.6	3790.0	105	12.1	109.4	8.2	1.0 U	0.519	0.118	0.036	0.026		0.7	66
95/12/04	1330	7.2	26800.0	55	13.7	119.4	8.0	12.0	0.222	0.010 U	0.029	0.005	24	5.6	43
96/01/08	1345	4.0	8320.0	86	12.7 J	101.9	7.4	574.0	1.710	0.059	0.300 J	0.043		500.0	280 S
96/02/05	1305	2.5	6540.0	92	13.8	107.5	7.9	2.0	0.555	0.010 U	0.036	0.027	42	3.4	48
96/03/04	1205	2.0	16000.0	75	14.8	114.8	8.1	17.0	0.657	0.010 U	0.038	0.013		18.0	17
96/04/09	1330	6.0	11000.0	75	13.4	114.7	7.7	5.0	0.460	0.010 U	0.038	0.023	30	12.0	12 X
96/05/06	1325	7.6	19200.0	61	13.2	116.6	8.0	5.0	0.299	0.010 U	0.023	0.005 U		6.9	6
96/06/03	1520	13.8	15100.0	70	11.8	120.4	8.5	4.0	0.276	0.010 U	0.010 U	0.005 U	29	2.6 J	7
96/07/08	1745	19.9	3610.0	137	9.1	106.7	8.8	2.0	0.718	0.021	0.010 U	0.005 U		1.1	11
96/08/05	1400	15.4	1660.0	196	9.7	102.6	8.3	1.0	1.210	0.010 U	0.013	0.012	59	1.5	75
96/09/03	1550	15.0	995.0	241	9.9	104.4	8.6	1.0	1.120	0.010 U	0.024	0.006		1.0	5

54A120 Spokane R @ Riverside State Pk continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/02	1415	0.774						0.0010 U	0.044	0.488	0.110	1.000 U		24.100	
95/11/06	1315	0.260													
95/12/04	1330	0.097						0.0010 U	0.239	0.416	0.232	1.000 U		80.900	
96/01/08	1345	1.090													
96/02/05	1305	0.467						0.0010	0.283	0.698	0.966	0.560		73.000	
96/03/04	1205	0.459													
96/04/09	1330	0.319						0.0010 U	0.290	0.931	4.270	0.543		66.800	
96/05/06	1325	0.199													
96/06/03	1520	0.156						0.0010	0.254	0.510	1.470	0.340		53.800	
96/07/08	1745	0.623													
96/08/05	1400	1.050						0.0010 U	0.091	0.450	0.087	0.631		19.000	
96/09/03	1550	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 LITTLE SPOKANE R NR MOUTH Water Class: A Latitude: 47 47 00.0
Water Body No.: WA-55-1010 River Mile: 1.10 Longitude: 117 31 43.0

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/02	1500	10.2	390.0	300	9.8	91.2	8.1	3.0	1.280	0.098	0.023	0.005 U		1.2	53
95/11/06	1350	7.6	400.0	265	10.6	93.1	8.3	3.0	1.420	0.010 U	0.016	0.006		1.3	8
95/12/04	1415	6.5	480.0	250	10.3 J	87.8	8.1	6.0	1.270	0.010 U	0.030	0.013		2.7	36
96/01/08	1415	5.9	520.0	242	10.4	87.1	7.9	22.0	1.330	0.022	0.038	0.016		13.0	80
96/02/05	1350	4.9	500.0	244	10.9	89.7	8.0	14.0	1.370	0.010 U	0.032	0.015		5.0	67
96/04/09	1420	12.9	715.0	216	9.1	91.2	8.2	14.0	0.967	0.010 U	0.034	0.015		5.9	20
96/05/06	1400	8.0	900.0	192	9.4	83.5	8.0	13.0	0.875	0.010 U	0.038	0.017		6.0	34
96/06/03	1615	16.2	600.0	231	9.8	104.9	8.1	10.0	0.981	0.010 U	0.035	0.011		4.3 J	38
96/07/08	1835	18.0	440.0	247	9.7	109.1	8.4	6.0	1.120	0.011	0.010 U	0.007		2.8	34
96/08/05	1440	13.6	400.0	260	9.4	95.3	8.3	4.0	1.300	0.010 U	0.011	0.009		1.7	86
96/09/03	1630	14.5	345.0	271	10.6	109.9	8.6	4.0	1.390	0.010 U	0.017	0.006		2.1	24

55B070 Little Spokane R nr Mouth continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/02	1500	1.190													
95/11/06	1350	1.220 J													
95/12/04	1415	1.110													
96/01/08	1415	1.220													
96/02/05	1350	1.300													
96/04/09	1420	0.775													
96/05/06	1400	0.665													
96/06/03	1615	0.826													
96/07/08	1835	1.020													
96/08/05	1440	1.130													
96/09/03	1630	1.230													

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

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

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/02	1320	11.0	20.0	370	12.6	120.3	8.5	1.0	0.803	0.068	0.041	0.008		1.1	26
95/11/06	1235	3.9	25.0	327	13.7	110.1	9.0	2.0	0.991	0.010 U	0.022	0.012		1.3	9
95/12/04	1245	3.1	180.0	155	11.8	92.9	8.6	17.0	3.900	0.052	0.174	0.063		80.0	220 S
96/01/08	1310	1.1	3690.0	87	12.0 J	89.5	7.8	1960.0	4.600	0.152	0.267	0.092		2300.0 J	380 S
96/03/04	1115	0.9	1180.0	184	12.6	95.1	7.5	220.0	6.400	0.026	0.058	0.068		130.0	14
96/04/09	1245	14.7	348.0	217	9.3	97.4	8.3	18.0	3.380	0.010 U	0.072	0.058		33.0	14
96/05/06	1250	12.4	225.0	214	10.0	99.0	8.2	10.0	2.600	0.010 U	0.095	0.038		18.0	57
96/06/03	1420	21.5	154.0	250	10.5	125.5	9.1	11.0	1.070	0.010 U	0.042	0.010		6.5 J	13
96/07/08	1645	25.1	41.0	352	9.4	121.5	9.0	5.0	0.982	0.011	0.010 U	0.013		3.7	54
96/08/05	1320	16.5	5.3	376	11.9	129.2	8.7	7.0	1.220	0.010 U	0.055	0.011		4.1	120
96/09/03	1510	19.6	29.0	346	13.1	151.8	9.3	5.0	1.060	0.010 U	0.062	0.018		3.0	17

56A070 Hangman Cr @ Mouth continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/02	1320	0.579													
95/11/06	1235	0.766													
95/12/04	1245	3.190													
96/01/08	1310	3.550													
96/03/04	1115	5.090													
96/04/09	1245	2.830													
96/05/06	1250	2.190													
96/06/03	1420	0.694													
96/07/08	1645	0.684													
96/08/05	1320	0.767													
96/09/03	1510	0.783													

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

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/02	1010	14.9	1570.0	53	8.9	93.4	7.5	5.0	0.186	0.047	0.014	0.005 U	21	2.7	8
95/11/06	0940	8.4	3680.0	50	10.3	91.2	8.1	1.0 U	0.082	0.010 U	0.010 U	0.005 U		0.9	3
95/12/04	0945	7.1	29800.0	57	12.7	112.5	7.5	5.0	0.127	0.010 U	0.011	0.005 U	22	1.9	6
96/01/08	1010	4.3	8370.0	51	11.9	97.7	7.6	2.0	0.163	0.023	0.010 U	0.005 U		4.4	4
96/02/05	0920	1.1	6100.0	48	12.8	97.0	8.1	2.0	0.172	0.010 U	0.018	0.008	21	3.1	9
96/03/04	1010	1.2	16000.0	44	13.3	102.2	7.7	5.0	0.223	0.010 U	0.014	0.008		14.0	3 U
96/04/09	0945	4.0	11100.0	45	12.4	101.9	7.4	3.0	0.201	0.010 U	0.011	0.007	17	11.0	2
96/05/06	0955	6.9	19800.0	45	12.1	106.3	7.9	3.0	0.105	0.010 U	0.010 U	0.005 U		6.0	1 U
96/06/03	1100	13.3	15500.0	47	10.9	111.3	8.5	3.0	0.102	0.010 U	0.010 U	0.005 U	19	2.7 J	57
96/07/08	1205	20.5	3070.0	49	8.4	100.3	8.2	1.0	0.083	0.010 U	0.010 U	0.005 U		1.3	4
96/08/05	1010	20.1	1200.0	50	7.8	92.0		2.0	0.147	0.010 U	0.010 U	0.005 U	21	1.2	7
96/09/03	1105	20.5	615.0	54	8.4	99.9	7.8	1.0	0.165	0.010 U	0.019	0.005 U		2.5	2

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

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/02	1010	0.022	1.00 U	0.4	1.4	48.4 N	0.16	0.0010 U	0.110	0.410	0.172	1.000 U		51.200	
95/11/06	0940	0.011													
95/12/04	0945	0.047	1.00 U	0.6	3.7	102.0 B	0.47	0.0020	0.289	0.345	0.212	1.000 U		92.100	1.000 U
96/01/08	1010	0.080													
96/02/05	0920	0.080	1.00 U	0.9	5.4	89.6	0.46	0.0020	0.377	0.841	1.150	0.512		94.500	1.000 U
96/03/04	1010	0.081													
96/04/09	0945	0.087	0.20 U	1.1	14.8	82.3	0.40		0.370	0.931	3.870	0.509		86.100	1.000 U
96/05/06	0955	0.051													
96/06/03	1100	0.010 U	0.40 U	0.9	5.6	67.1 J	0.34	0.0010	0.282	0.547	1.640	0.297		66.500	0.470
96/07/08	1205	0.015													
96/08/05	1010	0.038	0.40 U	1.1	1.4	45.7	0.45	0.0010 U	0.281	0.450	0.206	0.370		46.100	0.430
96/09/03	1105	0.040													

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

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/03	0920	11.3	444.0	219	10.5	101.5	8.2	2.0	0.197	0.031	0.010 U	0.005 U		0.5	13
95/11/07	0920	0.5	683.0	161	13.5	97.8	8.7	1.0 U	0.193	0.010 U	0.010 U	0.005 U		0.5 U	6
95/12/05	0935	0.0	2380.0	81	14.3	101.2	8.0	2.0	0.138	0.010 U	0.010 U	0.005 U		1.2	4
96/01/09	0925	0.3	1270.0	120	13.6	97.9	7.8	1.0 U	0.190	0.010 U	0.010 U	0.005 U		0.6	1 U
96/03/05	0855	0.0	1170.0	149	13.4	96.4	7.9	2.0	0.212	0.010 U	0.010 U	0.005 U		1.1	1 U
96/04/10	0910	5.8	12200.0	80	12.6	105.4	7.7	156.0	0.486	0.010 U	0.190	0.005 U		45.0	52
96/05/07	0915	8.4	7430.0	99	11.3	100.9	7.8	7.0	0.150	0.010 U	0.014	0.005 U		2.6	1
96/06/04	0940	10.1	21800.0	67	12.1	112.7	8.0	47.0	0.212	0.010 U	0.076	0.005 U		17.0	97 S
96/07/09	1120	16.2	6070.0	86	9.3	99.5	8.1	5.0	0.087	0.010 U	0.010 U	0.005 U		2.6	7
96/08/06	0920	16.4	1750.0	152	9.5	100.4	8.4	1.0 U	0.131	0.010 U	0.010 U	0.005 U		1.1	14
96/09/04	0855	16.3	471.0	201	9.0	95.5	8.5	1.0 U	0.144	0.010 U	0.010 U	0.005 U		1.2	2

60A070 Kettle R nr Barstow continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/03	0920	0.033													
95/11/07	0920	0.122													
95/12/05	0935	0.025													
96/01/09	0925	0.118													
96/03/05	0855	0.099													
96/04/10	0910	0.024													
96/05/07	0915	0.010 U													
96/06/04	0940	0.010 U													
96/07/09	1120	0.010													
96/08/06	0920	0.055													
96/09/04	0855	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.: 62A150 PEND OREILLE R @ NEWPORT Water Class: A Latitude: 48 11 07.0
Water Body No.: WA-62-1020 River Mile: 88.20 Longitude: 117 02 02.0

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/02	1145	15.3	17100.0	166	9.0	95.3	8.3	2.0	0.157	0.079	0.010 U	0.005 U		1.6	1
95/11/06	1100	8.9	24600.0	155	10.5	97.3	8.3	2.0	0.069	0.010 U	0.010 U	0.005 U		1.3	1 U
95/12/04	1115	6.6	46300.0	160	11.8	103.3	8.0	6.0	0.108	0.010 U	0.010 U	0.005 U		3.7	1 U
96/01/08	1130	2.6	25600.0	158	13.6	107.2	7.8	3.0	0.111	0.010 U	0.010 U	0.005 U		2.1	1 U
96/02/05	1055	0.5	21000.0 A	154	12.9	96.1	7.8	3.0	0.125	0.010 U	0.010 U	0.005 U		1.4	1 U
96/04/09	1115	7.5	35900.0	160	12.9	116.2	8.4	4.0	0.106	0.010 U	0.010 U	0.005 U		3.0	1 U
96/05/06	1115	10.5	60200.0	146	11.8	113.2	8.2	8.0	0.100	0.010 U	0.010	0.005 U		5.7	1 U
96/06/03	1235	12.2	94400.0 A	144	12.0	119.7	7.8	10.0	0.134	0.010 U	0.010 U	0.005 U		6.1 J	1 U
96/07/08	1340	18.3	41000.0	141	9.8	112.2	8.2	3.0	0.092	0.010 U	0.010 U	0.005 U		2.8	1
96/08/05	1140	21.2	19400.0	146	8.6	103.7	8.4	1.0	0.095	0.010 U	0.010 U	0.005 U		1.5	1
96/09/03	1245	22.8	16400.0	147	8.7	108.1	8.7	2.0	0.096	0.010 U	0.011	0.005 U		2.0	1

62A150 Pend Oreille R @ Newport continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/02	1145	0.010 U													
95/11/06	1100	0.010 U													
95/12/04	1115	0.019													
96/01/08	1130	0.044													
96/02/05	1055	0.068													
96/04/09	1115	0.016													
96/05/06	1115	0.010 U													
96/06/03	1235	0.010 U													
96/07/08	1340	0.010 U													
96/08/05	1140	0.010 U													
96/09/03	1245	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.: 61A070 COLUMBIA R @ NORTHPORT Water Class: AA Latitude: 48 55 21.0
Water Body No.: WA-CR-9010 River Mile: 735.10 Longitude: 117 46 32.0

Date	Time	Temp (C)	Flow (CFS)	Conduc-tivity (umhos)	Oxygen (mg/L)	Oxygen Satur. (%)	pH (units)	Suspend Solids (mg/L)	TPN (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)
95/10/03	0745	14.7	70000.0	140	9.7	100.4	8.2	1.0	0.150	0.051	0.010 U	0.005 U	65	0.5 U	120
95/11/07	0720	8.5	76000.0	136	11.7	104.1	8.2	1.0 U	0.120	0.010 U	0.010 U	0.005 U	67	0.7	3 U
95/12/05	0750	6.7	92300.0	146	13.6	115.1	8.3	2.0	0.147	0.012	0.010 U	0.005 U	73	1.5	39
96/01/09	0755	3.8	120000.0	142	13.5	106.8	7.9	1.0 U	0.146	0.010 U	0.010 U	0.005 U	70	0.8	1 U
96/02/06	0755	1.8	151000.0	133	13.3	100.0	7.9	3.0	0.173	0.010 U	0.010 U	0.005 U	69	1.3	
96/03/05	0735	1.7	120000.0	137	13.9	105.0	7.5	3.0	0.198	0.010 U	0.010 U	0.005 U	68	2.9	3
96/04/10	0745	5.4	92800.0	146	13.4	110.9	8.3	5.0	0.163	0.010 U	0.010 U	0.005 U	70	2.0	12
96/05/07	0750	6.6	131000.0	144	13.0	111.4	8.2	4.0	0.165	0.010 U	0.010	0.005 U	65	4.0	2
96/06/04	0800	10.1	219000.0	134	13.0	121.1	7.3	9.0	0.159	0.010 U	0.010 U	0.005 U	66	3.9	5
96/07/09	0805	15.2	188000.0	124	11.2	117.3	7.4	2.0	0.121	0.010 U	0.010 U	0.005 U	62	2.0	1 U
96/08/06	0750	14.8	127000.0	116	11.4	116.6	8.2	2.0	0.168	0.010 U	0.010 U	0.005 U	92	1.2	2
96/09/04	0720	15.4	89000.0	234	10.6	110.7	8.1	1.0	0.152	0.010 U	0.010 U	0.005 U		1.1	54

61A070 Columbia R @ Northport continued: more parameters.

Date	Time	NO2+NO3 Nitrog. (mg/L)	Chrom-ium (ug/L)	Copper (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Mercury (ug/L)	Cadmium Dissol. (ug/L)	Copper Dissol. (ug/L)	Lead Dissol (ug/L)	Nickle Dissol. (ug/L)	Nickle Tot Rec (ug/L)	Zinc Dissol. (ug/L)	Arsenic Tot Rec (ug/L)
95/10/03	0745	0.045	1.00 U	1.7	1.3	6.7 J	0.10 U	0.0010 U	0.079	1.190	0.130	1.000	1.000 U	3.000	
95/11/07	0720	0.050	1.00 U	1.4	0.6	8.0 B	0.10 U	0.0010 U					1.000 U		1.000 U
95/12/05	0750	0.052	1.00 U	1.5	0.6	12.0 B	0.10 U	0.0010 U	0.048	0.934	0.069	1.000 U		5.200	1.000 U
96/01/09	0755	0.098	1.00 U	3.0	1.3 B	20.7	0.10 U	0.0010							1.000 U
96/02/06	0755	0.130						0.0010 U	0.020 U	1.020	0.110	0.612		4.200 B	
96/03/05	0735	0.106	5.00 U	2.1 B	0.7	15.0 J	0.10 U								0.410
96/04/10	0745	0.063						0.0010 U	0.058	1.160	0.092	0.597		3.500	
96/05/07	0750	0.068	0.40 U	2.6	0.8	21.0 B	0.10 U								
96/06/04	0800	0.052						0.0030	0.030	1.000	0.110	0.384		2.500	
96/07/09	0805	0.059	0.40 U	1.4	0.8	5.9	0.53	0.0010 U							0.480
96/08/06	0750	0.089						0.0010 U	0.044	0.797	0.059	0.572		2.600	
96/09/04	0720	0.093	0.40 U	1.5 B	0.8 B	7.4 B	0.10 U	0.0050							0.260

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

Appendix D

Wateryear 1996 Six-Year Summary Statistics
for Core Stations in Ecology's River and Stream
Ambient Monitoring Program

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 01A050 Name: NOOKSACK R @ BRENNAN Class: A Elevation: 10 River Mile: 3.40

Location:
LOCATED ONE MILE WEST OF BRENNAN AT BRIDGE OVER NOOKSACK ON STATE HIGHWAY 540 (RURAL ROAD EXIT FROM I-5)

Water Years Sampled:

```
5 6                 7                   8                   9
9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 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 X X X
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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	C	7.317	2.231	18	5.571	2.042	17	10.911	2.069	18	15.750	2.079	18	18.400	1.000
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	mmHg	764.644	7.515	18	762.253	8.837	17	762.767	5.451	18	766.229	5.372	17	777.700	745.000
OXYGEN	P300	mg/L	11.683	0.690	18	11.988	0.654	16	10.728	0.453	18	10.039	0.483	18	13.600	9.500
PCTSAT	P301	%	95.939	2.600	18	94.663	1.911	16	96.217	3.546	18	99.578	3.092	18	106.300	88.500
FC	P31616	#/100ml	134.353	163.466	17	116.250	192.262	16	119.529	256.939	17	127.722	117.807	18	1100.000	6.000
PH	P400	units	7.561	0.194	18	7.460	0.145	15	7.433	0.161	18	7.576	0.222	17	8.100	7.200
SUSSOL	P530	mg/L	185.611	353.972	18	89.000	172.990	17	41.667	36.810	18	37.722	32.736	18	1520.000	6.000
FLOW	P60	CFS	5189.222	4644.992	18	4671.765	4238.354	17	3698.611	1238.070	18	1957.500	728.714	18	20700.000	785.000
TPN	P600	mg/L	0.523	0.224	9	0.836	0.241	9	0.341	0.231	9	0.208	0.088	9	1.220	0.097
NH3_N	P610	mg/L	0.038	0.035	18	0.040	0.021	17	0.019	0.014	18	0.014	0.007	17	0.130	0.010U
NO2_DIS	P613	mg/L	0.009	0.003	9	0.010	0.000	8	0.010	0.000	9	0.010	0.000	9	0.010	0.002K
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	0.436	0.186	18	0.588	0.176	17	0.255	0.107	18	0.159	0.058	17	0.971	0.094
TP_P	P665	mg/L	0.104	0.174	18	0.063	0.079	17	0.039	0.033	18	0.040	0.021	17	0.777	0.010U
OP_DIS	P671	mg/L	0.016	0.021	18	0.010	0.002	16	0.009	0.002	18	0.010	0.003	18	0.100	0.005U
HG	P71900	ug/L	0.031	0.019	6	0.028	0.020	3	0.024	0.021	5	0.043	0.059	2	0.084	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	86.911	183.637	18	36.035	63.345	17	15.447	13.548	17	21.300	15.839	18	800.000	2.000
HARD	P900	mg/L	44.167	6.432	6	44.250	9.743	4	42.000	7.314	5	37.750	16.112	4	56.000	17.000
COND	P95	umhos	93.111	22.865	18	101.765	19.531	17	85.111	14.592	18	95.222	14.534	18	139.000	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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 01A120 Name: NOOKSACK R @ NO CEDARVILLE Class: A Elevation: 140 River Mile: 30.80

Location:
LOCATED ON HIGHWAY 542 (MOUNT BAKER HIGHWAY) AT BRIDGE OVER NOOKSACK RIVER BETWEEN CEDARVILLE AND NORTH CEDARVILLE APPROXIMATELY FOUR MILES WEST OF DEMING

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	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	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	C	6.858	2.142	12	4.708	1.756	12	8.950	1.145	12	13.100	1.859	12	16.000	1.400
PRESS	P25	mmHg	760.442	8.289	12	757.175	9.917	12	758.975	5.754	12	764.583	5.244	12	775.200	741.400
OXYGEN	P300	mg/L	12.067	0.813	12	12.409	0.649	11	11.433	0.328	12	10.867	0.414	12	13.700	10.300
PCTSAT	P301	%	98.533	4.497	12	96.482	2.176	11	98.558	2.359	12	102.100	3.230	12	109.000	91.800
FC	P31616	#/100ml	22.727	30.692	11	8.636	8.640	11	31.167	56.685	12	23.250	38.690	12	190.000	1.000U
PH	P400	units	7.542	0.271	12	7.409	0.170	11	7.500	0.209	12	7.508	0.306	12	8.100	7.000
SUSSOL	P530	mg/L	209.750	390.551	12	213.917	592.836	12	74.000	161.008	12	32.083	27.023	12	2080.000	3.000
FLOW	P60	CFS	5225.917	4710.593	12	3730.833	3081.819	12	3732.500	1325.910	12	1902.111	881.577	9	18800.000	851.000
TPN	P600	mg/L	0.296	0.132	6	0.308	0.056	6	0.191	0.099	6	0.113	0.073	6	0.537	0.070
NH3_N	P610	mg/L	0.020	0.019	12	0.016	0.011	12	0.014	0.007	12	0.012	0.004	11	0.070	0.005K
NO2_DIS	P613	mg/L	0.009	0.003	6	0.010	0.000	6	0.010	0.000	6	0.010	0.000	6	0.010	0.002K
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	0.236	0.104	12	0.238	0.059	12	0.117	0.050	12	0.076	0.048	11	0.484	0.048
TP_P	P665	mg/L	0.124	0.241	12	0.090	0.176	12	0.037	0.047	12	0.031	0.014	11	0.872	0.006J
OP_DIS	P671	mg/L	0.008	0.002	12	0.009	0.006	12	0.008	0.003	12	0.008	0.002	12	0.027	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	123.542	279.293	12	45.767	86.984	12	31.592	66.273	12	19.175	12.013	12	1000.000	1.800
COND	P95	umhos	76.667	18.322	12	79.917	18.976	12	70.250	12.293	12	83.333	13.720	12	109.000	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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 03A060 Name: SKAGIT R NR MOUNT VERNON Class: A Elevation: 14 River Mile: 15.90

Location:
LOCATED ONE MILE NORTH OF MOUNT VERNON AT THE BRIDGE CROSSING THE SKAGIT RIVER ON OLD HIGHWAY 99 (.3 MILE EAST OF INTERSTATE 5)

Water Years Sampled:

5	6									7										8										9					
9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	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	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	C	7.961	2.130	18	4.839	1.210	18	9.672	1.869	18	13.833	1.263	18	15.700	1.400
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	mmHg	765.167	7.798	18	762.650	10.201	18	766.139	4.391	18	767.794	5.752	17	782.100	741.700
OXYGEN	P300	mg/L	11.639	0.750	18	12.367	0.518	18	11.156	0.453	18	10.317	0.373	18	13.500	9.800
PCTSAT	P301	%	96.983	2.697	18	95.856	2.714	18	96.778	2.087	18	98.144	2.672	18	105.300	89.500
FC	P31616	#/100ml	21.444	23.066	18	14.722	19.634	18	16.722	15.744	18	30.500	33.919	18	140.000	1.000
COD	P340	mg/L	7.000	2.646	3	7.667	1.528	3	6.333	2.082	3	4.500	0.707	2	10.000	4.000K
PH	P400	units	7.411	0.178	18	7.400	0.225	16	7.428	0.244	18	7.476	0.284	17	8.100	6.900
SUSSOL	P530	mg/L	53.944	61.144	18	27.833	44.524	18	52.667	113.670	18	105.444	284.235	18	1230.000	2.000
FLOW	P60	CFS	20062.222	12664.821	18	19038.333	9940.765	18	17451.111	6909.224	18	11925.556	5583.457	18	51700.000	4340.000
TPN	P600	mg/L	0.188	0.058	9	0.211	0.062	9	0.109	0.064	9	0.074	0.017	9	0.325	0.010K
NH3_N	P610	mg/L	0.017	0.011	18	0.013	0.005	18	0.011	0.001	18	0.014	0.009	17	0.045	0.010U
NO2_DIS	P613	mg/L	0.009	0.003	9	0.010	0.000	9	0.010	0.000	9	0.010	0.000	9	0.011	0.002K
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	0.000	9	0.001	0.000
NO3_N	P620	mg/L	0.120	0.070	3	0.113	0.015	3	0.087	0.025	3	0.043	0.012	3	0.170	0.030
NO2_NO3	P630	mg/L	0.134	0.051	18	0.141	0.044	18	0.080	0.025	18	0.043	0.012	17	0.256	0.013
TP_P	P665	mg/L	0.041	0.049	18	0.029	0.033	18	0.027	0.056	18	0.072	0.174	17	0.737	0.010U
OP_DIS	P671	mg/L	0.009	0.003	18	0.008	0.003	18	0.008	0.002	18	0.009	0.002	18	0.011	0.003
HG	P71900	ug/L	0.000	0.000	0	0.001	0.000	2	0.000	0.000	0	0.001	0.000	2	0.001	0.001P
COLOR	P80	Pt-Co	22.000	19.916	4	99.333	156.666	3	21.333	18.771	3	22.667	34.962	3	280.000	1.000
TURB	P82079	NTU	18.967	30.470	18	10.106	14.440	18	10.950	27.460	18	28.306	60.076	18	260.000	1.300
HARD	P900	mg/L	25.500	2.121	2	28.500	0.707	2	0.000	0.000	0	21.500	2.121	2	12.000	12.000P
COND	P95	umhos	54.056	9.607	18	57.944	8.426	18	49.000	12.709	18	48.056	9.576	18	89.000	30.000

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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 03B050 Name: SAMISH R NR BURLINGTON Class: A Elevation: 38 River Mile: 10.40

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

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	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	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	C	7.983	2.222	12	5.167	1.961	12	10.658	1.687	12	13.025	2.076	12	15.800	0.500
PRESS	P25	mmHg	764.992	8.401	12	760.217	11.504	12	765.575	5.141	12	769.858	5.418	12	781.600	741.200
OXYGEN	P300	mg/L	11.417	0.954	12	12.183	0.663	12	10.550	0.502	12	9.950	0.657	12	13.800	8.700
PCTSAT	P301	%	95.142	3.995	12	95.425	1.226	12	93.708	1.756	12	92.542	2.544	12	106.200	85.700
FC	P31616	#/100ml	264.917	617.586	12	60.583	58.832	12	280.083	223.976	12	341.833	590.686	12	2200.000	8.000
PH	P400	units	7.358	0.275	12	7.282	0.419	11	7.283	0.244	12	7.483	0.255	12	7.900	6.400
SUSSOL	P530	mg/L	72.333	176.188	12	28.167	38.612	12	9.583	8.196	12	4.917	6.127	12	629.000	1.000
FLOW	P60	CFS	383.860	370.288	10	551.545	526.362	11	236.692	164.977	12	42.892	37.477	12	1860.000	16.600
TPN	P600	mg/L	0.846	0.099	6	1.073	0.241	6	0.815	0.071	6	0.782	0.086	6	1.380	0.680
NH3_N	P610	mg/L	0.023	0.012	12	0.021	0.020	12	0.022	0.024	12	0.012	0.003	11	0.095	0.010U
NO2_DIS	P613	mg/L	0.009	0.003	6	0.010	0.001	6	0.010	0.000	6	0.010	0.000	6	0.012	0.002K
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	0.875	0.007	2	0.913	0.150	3	0.673	0.051	3	0.757	0.055	3	1.000	0.630
NO2_NO3	P630	mg/L	0.782	0.199	12	0.790	0.127	12	0.601	0.090	12	0.622	0.086	11	1.220	0.455
TP_P	P665	mg/L	0.043	0.042	12	0.037	0.029	12	0.027	0.014	12	0.019	0.010	11	0.166	0.010U
OP_DIS	P671	mg/L	0.009	0.002	12	0.008	0.003	12	0.009	0.003	12	0.009	0.002	12	0.015	0.005U
COLOR	P80	Pt-Co	34.250	11.927	4	59.000	72.125	2	62.667	21.939	3	2.000	1.732	3	110.000	1.000
TURB	P82079	NTU	17.683	26.171	12	12.742	11.056	12	6.883	6.742	12	2.842	2.606	12	97.000	0.900
HARD	P900	mg/L	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	30.000	30.000
COND	P95	umhos	77.750	18.361	12	69.333	10.534	12	82.083	17.101	12	113.750	18.207	12	134.000	49.000

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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 04A100 Name: SKAGIT R @ MARBLEMOUNT Class: AA Elevation: 360 River Mile: 78.20

Location:
LOCATED AT THE BRIDGE ON THE CASCADE RIVER ROAD WHERE HIGHWAY 20 (NORTH CASCADES HIGHWAY) TURNS 90 DEGREES IN MARBLEMOUNT

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	7	8	9	0	1	2	3	4	5	6
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	C	7.733	1.767	18	4.228	1.539	18	7.439	1.527	18	10.722	0.800	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	mmHg	757.667	7.152	18	755.278	8.306	18	755.822	4.550	18	759.953	5.182	17	771.700	739.600
OXYGEN	P300	mg/L	11.833	0.626	18	12.656	0.387	18	11.939	0.320	18	11.194	0.241	18	13.600	10.800
PCTSAT	P301	%	99.150	3.257	18	97.511	2.383	18	99.639	1.630	18	100.472	1.823	18	107.200	93.000
FC	P31616	#/100ml	8.882	15.568	17	5.875	18.970	16	2.706	2.054	17	9.444	21.713	18	94.000	1.000U
PH	P400	units	7.461	0.257	18	7.375	0.232	16	7.344	0.179	18	7.412	0.245	17	8.100	6.800
SUSSOL	P530	mg/L	8.333	20.187	18	4.056	6.494	18	1.722	1.179	18	2.056	1.731	18	88.000	1.000U
FLOW	P60	CFS	7616.111	5089.056	18	7739.444	3304.554	18	5866.667	1969.228	18	5104.444	2355.804	18	18900.000	2290.000
TPN	P600	mg/L	0.130	0.047	9	0.105	0.019	9	0.078	0.035	9	0.063	0.015	9	0.208	0.010K
NH3_N	P610	mg/L	0.011	0.003	18	0.011	0.003	18	0.010	0.000	18	0.010	0.002	17	0.022	0.005K
NO2_DIS	P613	mg/L	0.009	0.003	9	0.010	0.000	9	0.010	0.000	9	0.010	0.000	8	0.010	0.002K
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_NO3	P630	mg/L	0.073	0.019	18	0.063	0.012	18	0.064	0.014	18	0.044	0.014	17	0.119	0.010K
TP_P	P665	mg/L	0.015	0.023	18	0.013	0.006	17	0.011	0.002	18	0.011	0.003	17	0.106	0.002K
OP_DIS	P671	mg/L	0.009	0.002	18	0.008	0.002	18	0.009	0.003	18	0.008	0.002	18	0.014	0.004
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	3.211	6.389	18	1.333	1.099	18	1.153	0.639	17	1.589	0.728	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	48.611	10.896	18	55.611	7.694	18	43.111	13.235	18	43.722	6.341	18	71.000	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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 05A070 Name: STILLAGUAMISH R NR SILVANA Class: A Elevation: 35 River Mile: 11.10

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

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	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	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	C	7.150	2.286	18	4.900	1.637	18	10.433	2.534	18	17.022	3.349	18	22.000	0.500
CR	P1118	ug/L	0.000	0.000	0	10.500	7.778	2	0.000	0.000	0	5.000	0.000	2	16.000	5.000U
PRESS	P25	mmHg	766.061	7.070	18	762.339	9.687	18	766.250	4.259	18	767.329	5.557	17	782.800	743.000
OXYGEN	P300	mg/L	11.850	0.891	18	12.367	0.596	18	10.894	0.536	18	9.272	0.832	18	14.000	8.100
PCTSAT	P301	%	96.639	3.253	18	95.978	2.085	18	96.128	2.945	18	94.089	6.820	18	113.700	88.700
FC	P31616	#/100ml	65.000	77.463	18	55.333	70.084	18	53.278	47.185	18	128.389	153.482	18	680.000	1.000
PH	P400	units	7.317	0.285	18	7.338	0.175	16	7.350	0.201	18	7.447	0.243	17	7.800	6.600
SUSSOL	P530	mg/L	64.444	77.446	18	92.722	253.962	18	39.833	100.825	18	10.333	19.846	18	1100.000	2.000
FLOW	P60	CFS	5916.875	4558.477	16	4592.333	3953.770	18	3888.889	3982.789	18	971.556	1061.845	18	19400.000	380.000
TPN	P600	mg/L	0.391	0.113	9	0.443	0.143	9	0.239	0.073	9	0.250	0.076	9	0.692	0.102
NH3_N	P610	mg/L	0.025	0.021	18	0.018	0.010	18	0.013	0.005	18	0.015	0.009	17	0.080	0.010U
NO2_DIS	P613	mg/L	0.009	0.003	9	0.010	0.000	9	0.010	0.000	9	0.010	0.000	9	0.010	0.002K
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	8	0.001	0.000
NO3_N	P620	mg/L	0.425	0.021	2	0.237	0.135	3	0.153	0.055	3	0.137	0.038	3	0.440	0.100
NO2_NO3	P630	mg/L	0.325	0.110	18	0.327	0.101	18	0.162	0.040	18	0.142	0.060	17	0.589	0.063
TP_P	P665	mg/L	0.053	0.067	18	0.037	0.035	18	0.033	0.056	18	0.020	0.017	17	0.281	0.010U
OP_DIS	P671	mg/L	0.009	0.002	18	0.010	0.007	18	0.008	0.002	18	0.009	0.003	18	0.036	0.005U
HG	P71900	ug/L	0.008	0.008	2	0.007	0.006	3	0.002	0.001	3	0.001	0.000	3	0.014	0.001U
COLOR	P80	Pt-Co	38.500	14.526	4	295.500	416.486	2	30.667	9.815	3	10.000	13.077	3	590.000	1.000
TURB	P82079	NTU	31.383	36.724	18	29.517	38.422	18	23.750	59.477	18	3.767	4.341	18	260.000	1.000
HARD	P900	mg/L	19.333	3.055	3	22.333	2.082	3	22.667	2.887	3	35.000	6.928	3	18.000	18.000P
COND	P95	umhos	53.000	15.084	18	50.167	10.228	18	46.333	10.238	18	76.556	20.763	18	106.000	25.000

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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 05A090 Name: SF STILLAGUAMISH @ ARLINGTON Class: A Elevation: 55 River Mile: 18.20

Location:
AT BRIDGE ON STATE HIGHWAY 530 IN ARLINGTON

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	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

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	C	6.925	2.056	12	4.575	1.902	12	9.725	2.395	12	15.833	2.951	12	20.600	0.000
PRESS	P25	mmHg	764.083	7.109	12	760.767	8.950	12	763.075	6.085	12	768.500	4.809	12	778.500	745.000
OXYGEN	P300	mg/L	12.158	1.077	12	12.655	0.750	11	11.133	0.601	12	9.567	0.850	12	14.300	8.300
PCTSAT	P301	%	98.833	4.738	12	97.582	2.102	11	97.042	3.126	12	94.458	4.027	12	109.000	89.100
FC	P31616	#/100ml	127.273	187.154	11	59.000	118.585	12	43.250	72.591	12	105.750	177.565	12	660.000	1.000K
PH	P400	units	7.200	0.352	12	7.436	0.246	11	7.300	0.344	12	7.433	0.253	12	8.000	6.400
SUSSOL	P530	mg/L	164.417	262.428	12	258.417	770.173	12	22.333	25.822	12	7.583	7.280	12	2700.000	2.000
FLOW	P60	CFS	3306.917	2837.438	12	3999.167	5517.196	12	1655.908	633.385	12	532.083	478.066	12	20000.000	125.000
TPN	P600	mg/L	0.296	0.065	6	0.346	0.116	6	0.201	0.042	6	0.300	0.194	6	0.668	0.158
NH3_N	P610	mg/L	0.017	0.012	12	0.014	0.006	12	0.011	0.003	12	0.010	0.001	11	0.050	0.010U
NO2_DIS	P613	mg/L	0.009	0.003	6	0.011	0.002	5	0.010	0.000	6	0.010	0.000	6	0.014	0.002K
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	0.340	0.071	2	0.263	0.087	3	0.167	0.100	3	0.110	0.010	3	0.390	0.070
NO2_NO3	P630	mg/L	0.230	0.066	12	0.271	0.105	12	0.142	0.042	12	0.140	0.053	11	0.467	0.083
TP_P	P665	mg/L	0.081	0.184	12	0.059	0.101	12	0.024	0.022	12	0.013	0.006	11	0.658	0.008
OP_DIS	P671	mg/L	0.008	0.003	12	0.007	0.002	11	0.008	0.003	12	0.008	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	97.367	166.321	12	68.542	156.530	12	14.958	15.532	12	5.558	5.819	12	560.000	0.900
COND	P95	umhos	41.083	11.000	12	41.000	14.422	12	41.083	5.583	12	65.000	16.186	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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 05A110 Name: SF STILLY NR GRANITE FALLS

Class: AA Elevation: 290 River Mile: 34.60

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

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	7	8	9	0	1	2	3	4	5	6
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	C	6.478	2.324	9	3.767	1.908	9	8.411	2.480	9	14.278	3.293	9	20.000	0.000
PRESS	P25	mmHg	755.667	7.487	9	750.889	8.328	9	753.489	5.294	9	760.789	5.580	9	771.100	736.600
OXYGEN	P300	mg/L	12.489	1.055	9	13.150	0.693	8	11.578	0.779	9	10.211	0.746	9	14.400	8.900
PCTSAT	P301	%	101.522	3.756	9	100.663	1.798	8	98.989	1.138	9	98.567	1.102	9	110.600	96.800
FC	P31616	#/100ml	34.500	38.026	8	2.889	1.269	9	66.000	149.401	9	51.778	61.931	9	460.000	1.000U
PH	P400	units	7.167	0.132	9	7.325	0.183	8	7.167	0.269	9	7.356	0.251	9	7.800	6.900
SUSSOL	P530	mg/L	221.556	278.236	9	51.333	41.617	9	185.667	256.625	9	12.556	15.717	9	898.000	1.000
TPN	P600	mg/L	0.178	0.046	6	0.147	0.037	6	0.136	0.043	6	0.103	0.082	6	0.255	0.048
NH3_N	P610	mg/L	0.021	0.018	9	0.014	0.006	9	0.011	0.003	9	0.011	0.004	8	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	0.122	0.024	9	0.113	0.041	9	0.060	0.023	9	0.057	0.058	8	0.195	0.010U
TP_P	P665	mg/L	0.109	0.175	9	0.040	0.029	9	0.107	0.176	9	0.016	0.012	8	0.571	0.010U
OP_DIS	P671	mg/L	0.008	0.003	9	0.006	0.002	8	0.007	0.002	9	0.007	0.003	9	0.010	0.005U
TURB	P82079	NTU	132.178	194.583	9	32.400	20.942	9	188.856	307.102	9	10.256	11.262	9	850.000	1.800
COND	P95	umhos	33.000	9.862	9	33.556	10.477	9	32.111	6.566	9	51.667	13.472	9	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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

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

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

Water Years Sampled:

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

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	C	6.583	1.949	12	4.458	1.601	12	8.908	2.172	12	14.442	2.351	12	17.800	1.100
PRESS	P25	mmHg	762.733	6.760	12	759.183	8.820	12	761.308	5.601	12	766.567	4.993	12	776.700	743.200
OXYGEN	P300	mg/L	12.058	0.901	12	12.555	0.710	11	11.450	0.560	12	10.267	0.851	12	14.100	9.200
PCTSAT	P301	%	97.450	3.345	12	96.782	1.692	11	98.233	5.298	12	98.975	6.448	12	115.100	92.600
FC	P31616	#/100ml	61.091	70.885	11	18.250	22.999	12	44.000	78.069	12	61.500	51.924	12	280.000	2.000
PH	P400	units	7.308	0.162	12	7.382	0.166	11	7.325	0.171	12	7.625	0.400	12	8.600	7.000
SUSSOL	P530	mg/L	212.583	391.889	12	355.833	1023.685	12	64.167	165.880	12	6.917	6.960	12	3600.000	2.000
FLOW	P60	CFS	4318.417	6168.103	12	3567.333	4959.348	12	1467.250	709.072	12	469.333	267.060	12	23500.000	233.000
TPN	P600	mg/L	0.297	0.072	6	0.268	0.069	6	0.181	0.058	6	0.168	0.115	6	0.419	0.105
NH3_N	P610	mg/L	0.025	0.021	12	0.014	0.007	12	0.012	0.004	12	0.010	0.000	11	0.080	0.005K
NO2_DIS	P613	mg/L	0.009	0.003	6	0.010	0.000	5	0.010	0.000	6	0.010	0.000	6	0.010	0.002K
NO2_N	P615	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.010K
NH3_UN	P619	mg/L	0.000	0.000	10	0.000	0.000	11	0.000	0.000	12	0.000	0.000	9	******.***	0.000
NO3_N	P620	mg/L	0.365	0.049	2	0.230	0.036	3	0.110	0.030	3	0.077	0.040	3	0.400	0.040
NO2_NO3	P630	mg/L	0.237	0.054	12	0.204	0.057	12	0.112	0.035	12	0.085	0.079	11	0.323	0.022
TP_P	P665	mg/L	0.123	0.191	12	0.139	0.344	12	0.054	0.117	12	0.014	0.007	11	1.230	0.010U
OP_DIS	P671	mg/L	0.008	0.002	12	0.009	0.007	11	0.008	0.003	12	0.008	0.003	12	0.030	0.005U
COLOR	P80	Pt-Co	34.500	10.472	4	330.500	465.983	2	36.667	2.309	3	2.000	1.732	3	660.000	1.000
TURB	P82079	NTU	99.683	198.724	12	74.625	134.083	12	32.042	78.321	12	3.767	5.378	12	700.000	0.600
COND	P95	umhos	47.167	15.332	12	47.917	17.712	12	47.750	8.709	12	79.667	15.275	12	104.000	23.000

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

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

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

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

Water Years Sampled:

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

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			-----JANUARY-MARCH----			------APRIL-JUNE------			----JULY-SEPTEMBER----			-----SIX YEAR------	
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN
TEMP	P10	C	6.422	1.961	9	4.011	1.267	9	8.133	1.909	9	12.278	1.796	9	14.500	1.600
PRESS	P25	mmHg	754.100	7.395	9	749.711	8.030	9	751.878	5.256	9	758.700	5.394	9	769.600	736.900
OXYGEN	P300	mg/L	11.844	0.750	9	12.488	0.544	8	11.456	0.602	9	10.500	0.587	9	13.500	9.900
PCTSAT	P301	%	96.489	2.413	9	96.400	1.064	8	97.656	2.228	9	97.633	4.530	9	105.500	91.800
FC	P31616	#/100ml	39.625	81.433	8	3.333	3.202	9	25.444	34.979	9	17.889	9.816	9	240.000	1.000U
PH	P400	units	7.211	0.237	9	7.313	0.181	8	7.511	0.237	9	7.578	0.139	9	8.000	6.800
SUSSOL	P530	mg/L	87.556	227.962	9	11.333	18.901	9	5.889	12.424	9	2.444	1.509	9	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	0.246	0.092	6	0.193	0.057	6	0.123	0.017	6	0.148	0.025	6	0.403	0.102
NH3_N	P610	mg/L	0.011	0.002	9	0.013	0.007	9	0.010	0.000	9	0.010	0.000	8	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	0.154	0.055	9	0.154	0.047	9	0.074	0.021	9	0.096	0.024	8	0.236	0.036
TP_P	P665	mg/L	0.041	0.079	9	0.015	0.007	9	0.015	0.011	9	0.012	0.004	8	0.251	0.010U
OP_DIS	P671	mg/L	0.008	0.003	9	0.006	0.002	8	0.007	0.003	9	0.007	0.002	9	0.010	0.005U
TURB	P82079	NTU	43.678	118.670	9	6.122	9.604	9	2.344	4.392	9	0.667	0.495	9	360.000	0.200
COND	P95	umhos	35.778	15.189	9	38.333	12.510	9	35.444	6.346	9	60.889	15.145	9	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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 07A090 Name: SNOHOMISH R @ SNOHOMISH

Class: A Elevation: 8 River Mile: 12.70

Location:
LOCATED AT BRIDGE ON AVENUE D IN SNOHOMISH, TWO BLOCKS SOUTH OF 2ND STREET (OLD HIGHWAY 2)

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	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	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	C	7.750	2.277	18	5.306	1.634	18	10.378	2.096	18	16.889	2.427	18	21.300	1.400
ZN	P1094	ug/L	9.450	1.666	6	10.500	8.266	4	8.525	11.687	4	8.367	3.808	3	26.000	1.900B
CD	P1113	ug/L	0.100	0.000	6	0.108	0.015	4	0.114	0.063	5	0.100	0.000	3	0.220	0.050U
PB	P1114	ug/L	0.917	0.458	6	1.225	0.263	4	0.600	0.469	4	1.133	1.106	3	2.300	0.100J
CR	P1118	ug/L	1.493	0.763	6	2.138	1.982	4	0.713	0.425	4	0.413	0.121	3	5.000	0.300K
CU	P1119	ug/L	4.167	2.330	6	4.350	1.226	4	3.180	2.188	5	2.267	1.270	3	7.600	0.800
PRESS	P25	mmHg	766.972	6.557	18	763.717	7.795	18	765.061	4.427	18	767.388	4.286	17	780.000	743.700
OXYGEN	P300	mg/L	11.583	0.908	18	12.235	0.476	17	10.889	0.609	18	9.422	0.519	18	13.500	8.400
PCTSAT	P301	%	95.722	3.901	18	95.847	2.605	17	96.089	2.963	18	95.522	4.500	18	107.800	88.800
FC	P31616	#/100ml	85.333	59.173	18	61.063	48.207	16	73.118	78.436	17	108.941	185.100	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	units	7.222	0.190	18	7.165	0.229	17	7.117	0.201	18	7.259	0.194	17	7.700	6.600
SUSSOL	P530	mg/L	17.444	17.369	18	23.667	34.204	18	10.167	6.456	18	5.278	3.739	18	121.000	1.000K
FLOW	P60	CFS	11395.875	9107.879	16	12777.333	11559.103	18	9917.500	3298.112	18	3032.706	1418.387	17	53230.000	1510.000
TPN	P600	mg/L	0.449	0.140	9	0.517	0.194	9	0.192	0.082	9	0.212	0.055	9	0.840	0.071
NH3_N	P610	mg/L	0.033	0.023	18	0.025	0.013	18	0.013	0.005	18	0.014	0.008	17	0.103	0.010U
NO2_DIS	P613	mg/L	0.009	0.003	9	0.010	0.000	8	0.010	0.000	9	0.010	0.000	9	0.010	0.002K
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	0.342	0.205	18	0.343	0.129	18	0.160	0.066	18	0.135	0.063	17	1.010	0.010K
TP_P	P665	mg/L	0.025	0.015	18	0.030	0.025	18	0.014	0.005	18	0.016	0.014	17	0.105	0.010U
OP_DIS	P671	mg/L	0.010	0.003	18	0.009	0.002	17	0.008	0.002	18	0.009	0.002	18	0.018	0.005U
HG	P71900	ug/L	0.032	0.024	6	0.027	0.023	3	0.025	0.021	5	0.033	0.045	2	0.064	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	7.539	7.063	18	13.333	22.389	18	4.676	3.642	17	2.450	2.554	18	90.000	0.900
HARD	P900	mg/L	15.500	4.680	6	15.250	2.872	4	14.600	2.408	5	21.750	3.403	4	25.000	11.000
COND	P95	umhos	44.235	11.267	17	41.056	9.194	18	33.611	5.982	18	51.389	11.294	18	85.000	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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 07B055 Name: PILCHUCK R @ SNOHOMISH

Class: A Elevation: 25 River Mile: 1.90

Location:
LOCATED AT BRIDGE ON US HIGHWAY 2 AT EAST CITY LIMITS OF SNOHOMISH

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	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

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	C	8.244	1.673	9	6.589	1.832	9	11.867	1.553	9	16.833	3.224	9	21.800	3.300
PRESS	P25	mmHg	767.967	6.948	9	763.389	7.531	9	765.067	3.025	9	763.813	2.027	8	779.800	749.300
OXYGEN	P300	mg/L	11.344	0.849	9	11.900	0.541	9	10.889	0.662	9	9.833	0.820	9	13.000	8.600
PCTSAT	P301	%	94.900	4.925	9	96.256	2.968	9	99.511	5.898	9	100.089	8.993	9	112.000	89.100
FC	P31616	#/100ml	95.111	125.414	9	42.714	46.417	7	59.000	67.447	8	71.250	79.923	8	410.000	1.000U
PH	P400	units	7.244	0.305	9	7.222	0.156	9	7.322	0.259	9	7.533	0.158	9	7.900	6.800
SUSSOL	P530	mg/L	31.000	19.358	9	16.778	22.549	9	5.000	4.213	9	8.222	13.998	9	74.000	1.000
FLOW	P60	CFS	874.250	549.925	8	608.000	330.431	9	404.778	202.739	9	133.333	164.437	9	1800.000	40.000
TPN	P600	mg/L	0.654	0.136	3	0.698	0.239	3	0.348	0.074	3	0.485	0.226	3	0.974	0.266
NH3_N	P610	mg/L	0.016	0.008	9	0.015	0.008	9	0.011	0.002	9	0.013	0.007	9	0.030	0.005K
NO2_DIS	P613	mg/L	0.009	0.003	6	0.010	0.000	6	0.010	0.000	6	0.010	0.000	6	0.010	0.002K
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	0.645	0.262	2	0.617	0.191	3	0.293	0.076	3	0.203	0.070	3	0.830	0.130
NO2_NO3	P630	mg/L	0.484	0.194	9	0.571	0.129	9	0.301	0.080	9	0.262	0.121	9	0.780	0.065
TP_P	P665	mg/L	0.026	0.013	9	0.026	0.014	9	0.014	0.006	9	0.020	0.017	9	0.061	0.010U
OP_DIS	P671	mg/L	0.008	0.002	9	0.008	0.003	9	0.008	0.003	9	0.009	0.002	9	0.010	0.005U
COLOR	P80	Pt-Co	40.333	20.306	3	26.333	6.110	3	29.333	4.509	3	23.857	16.456	7	54.000	13.000
TURB	P82079	NTU	8.711	5.501	9	7.811	10.826	9	1.963	0.972	8	5.144	10.470	9	36.000	0.500
COND	P95	umhos	57.556	19.099	9	57.444	9.748	9	61.333	12.000	9	81.222	18.952	9	99.000	30.000

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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 07C070 Name: SKYKOMISH R @ MONROE

Class: A Elevation: 43 River Mile: 25.60

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

Water Years Sampled:

5	6						7							8								9						
9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	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	C	7.775	2.345	12	4.664	1.657	11	9.113	2.052	15	15.313	2.744	15	20.300	1.200
PRESS	P25	mmHg	764.358	7.379	12	760.345	7.585	11	763.867	4.470	15	766.050	4.575	14	780.300	743.700
OXYGEN	P300	mg/L	11.767	0.675	12	12.630	0.497	10	11.620	0.496	15	10.260	0.378	15	13.600	9.700
PCTSAT	P301	%	97.717	2.203	12	97.860	2.200	10	99.793	2.805	15	100.993	5.967	15	108.900	86.200
FC	P31616	#/100ml	20.333	27.087	12	3.818	4.875	11	9.533	7.633	15	67.571	191.876	14	730.000	1.000U
PH	P400	units	7.242	0.198	12	7.100	0.224	11	7.193	0.263	15	7.333	0.219	15	7.800	6.600
SUSSOL	P530	mg/L	13.667	16.036	12	9.182	12.368	11	8.267	4.758	15	4.643	3.003	14	54.000	1.000K
FLOW	P60	CFS	7286.250	6306.108	12	5428.545	3661.822	11	5536.267	1893.023	15	1730.000	643.084	15	20800.000	880.000
TPN	P600	mg/L	0.225	0.073	6	0.199	0.064	5	0.093	0.033	6	0.109	0.052	6	0.312	0.043
NH3_N	P610	mg/L	0.013	0.004	12	0.010	0.003	11	0.011	0.002	15	0.010	0.002	14	0.020	0.005
NO2_DIS	P613	mg/L	0.010	0.000	6	0.010	0.000	5	0.010	0.000	9	0.010	0.000	9	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	0.171	0.072	12	0.156	0.053	11	0.073	0.036	15	0.061	0.034	14	0.259	0.022
TP_P	P665	mg/L	0.014	0.010	12	0.015	0.011	11	0.012	0.003	15	0.012	0.004	14	0.044	0.006
OP_DIS	P671	mg/L	0.008	0.002	12	0.007	0.003	10	0.008	0.003	15	0.008	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	6.658	6.647	12	6.973	10.236	11	4.240	2.769	15	2.427	2.156	15	37.000	0.700
COND	P95	umhos	33.250	7.944	12	30.636	7.284	11	27.067	5.431	15	38.800	4.945	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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 07D050 Name: SNOQUALMIE R NR MONROE

Class: A Elevation: 15 River Mile: 2.70

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

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	7	8	9	0	1	2	3	4	5	6
																		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	C	8.100	2.263	12	5.500	1.782	12	11.292	2.285	12	16.525	2.710	12	21.200	1.700
PRESS	P25	mmHg	764.250	7.370	12	761.067	7.615	12	763.233	4.311	12	767.218	5.037	11	780.500	743.200
OXYGEN	P300	mg/L	11.308	0.719	12	11.955	0.599	11	10.658	0.602	12	9.525	0.420	12	13.100	8.400
PCTSAT	P301	%	94.508	2.841	12	94.436	3.336	11	96.292	4.486	12	95.958	5.416	12	111.700	90.200
FC	P31616	#/100ml	92.667	42.018	12	126.417	157.931	12	222.667	261.496	12	75.818	44.492	11	730.000	3.000
PH	P400	units	7.225	0.218	12	7.100	0.252	12	7.217	0.272	12	7.342	0.219	12	8.000	6.500
SUSSOL	P530	mg/L	12.000	10.652	12	28.333	45.107	12	9.167	6.576	12	4.000	1.809	12	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	0.527	0.182	6	0.553	0.200	6	0.283	0.096	6	0.257	0.030	6	0.822	0.166
NH3_N	P610	mg/L	0.033	0.038	12	0.030	0.015	12	0.016	0.007	12	0.012	0.002	11	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_NO3	P630	mg/L	0.376	0.189	12	0.362	0.112	12	0.211	0.075	12	0.173	0.042	11	0.828	0.105
TP_P	P665	mg/L	0.021	0.011	12	0.033	0.035	12	0.017	0.009	12	0.013	0.005	11	0.136	0.010U
OP_DIS	P671	mg/L	0.012	0.005	12	0.010	0.003	11	0.008	0.002	12	0.008	0.003	12	0.023	0.005U
TURB	P82079	NTU	5.883	5.342	12	16.808	30.063	12	4.250	3.837	12	1.967	1.323	12	100.000	0.700
COND	P95	umhos	54.417	25.440	12	41.667	10.343	12	37.000	6.296	12	56.500	8.909	12	122.000	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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 07D070 Name: SNOQUALMIE R NR CARNATION

Class: A Elevation: 50 River Mile: 23.01

Location:
LOCATED AT THE BRIDGE ON CARNATION FARM ROAD ONE MILE N.W. OF CARNATION

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	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	---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	C	8.075	1.711	8	5.657	1.458	7	10.156	2.055	9	16.211	2.913	9	20.100	3.800
PRESS	P25	mmHg	768.000	7.320	8	764.457	3.193	7	765.233	2.877	9	764.038	2.166	8	780.500	759.500
OXYGEN	P300	mg/L	11.600	0.644	8	12.057	0.529	7	10.933	0.559	9	9.878	0.504	9	12.800	9.100
PCTSAT	P301	%	96.625	1.585	8	95.143	1.198	7	95.978	1.857	9	99.189	3.910	9	105.000	92.900
FC	P31616	#/100ml	30.750	17.871	8	12.429	10.245	7	25.333	20.773	9	39.625	32.824	8	92.000	1.000
PH	P400	units	7.125	0.287	8	7.071	0.170	7	7.278	0.291	9	7.278	0.259	9	7.800	6.800
SUSSOL	P530	mg/L	13.250	8.084	8	5.714	3.450	7	8.444	6.598	9	3.667	4.717	9	28.000	1.000K
FLOW	P60	CFS	4759.500	2895.239	8	3031.429	1186.612	7	3470.000	1302.094	9	1113.333	475.140	9	10100.000	526.000
TPN	P600	mg/L	0.365	0.050	3	0.436	0.166	2	0.211	0.061	3	0.278	0.028	3	0.553	0.159
NH3_N	P610	mg/L	0.013	0.004	8	0.012	0.003	7	0.011	0.002	9	0.011	0.002	9	0.020	0.009
NO2_DIS	P613	mg/L	0.008	0.004	5	0.010	0.000	5	0.010	0.000	6	0.010	0.000	6	0.010	0.002K
NO2_N	P615	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.010K
NH3_UN	P619	mg/L	0.000	0.000	10	0.000	0.000	11	0.000	0.000	12	0.000	0.000	9	******.***	0.000
NO3_N	P620	mg/L	0.365	0.092	2	0.293	0.068	3	0.150	0.056	3	0.160	0.000	3	0.430	0.100
NO2_NO3	P630	mg/L	0.286	0.059	8	0.319	0.077	7	0.186	0.060	9	0.169	0.038	9	0.427	0.121
TP_P	P665	mg/L	0.015	0.006	8	0.019	0.011	6	0.014	0.006	9	0.013	0.005	9	0.040	0.010U
OP_DIS	P671	mg/L	0.008	0.002	8	0.008	0.003	6	0.011	0.007	9	0.009	0.002	9	0.029	0.005U
COLOR	P80	Pt-Co	23.667	6.110	3	17.000	4.000	3	25.333	11.150	3	15.714	6.701	7	38.000	4.000
TURB	P82079	NTU	5.625	3.393	8	4.071	1.913	7	4.511	3.344	9	3.589	5.824	9	19.000	0.700
COND	P95	umhos	41.125	16.574	8	41.857	7.647	7	36.111	5.968	9	54.333	8.775	9	76.000	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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 07D130 Name: SNOQUALMIE R @ SNOQUALMIE

Class: A Elevation: 400 River Mile: 42.30

Location:
LOCATED AT THE BRIDGE EAST OF SNOQUALMIE ON THE LUMBER MILL ROAD

Water Years Sampled:

5	6						7								8										9						
9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	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	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	C	7.050	1.864	12	4.700	1.039	12	8.717	1.871	12	14.092	1.858	12	16.600	2.900
PRESS	P25	mmHg	755.067	7.622	12	751.858	9.124	12	752.708	3.975	12	758.191	5.090	11	772.400	732.000
OXYGEN	P300	mg/L	11.708	1.094	12	12.208	0.446	12	11.242	0.548	12	9.700	0.479	12	13.800	8.800
PCTSAT	P301	%	96.642	5.809	12	95.683	2.438	12	97.058	2.071	12	93.958	3.484	12	110.600	85.700
FC	P31616	#/100ml	13.917	9.876	12	6.636	9.892	11	15.250	10.687	12	32.818	19.067	11	69.000	1.000K
PH	P400	units	7.400	0.270	12	7.250	0.321	12	7.350	0.258	12	7.283	0.286	12	8.000	6.800
SUSSOL	P530	mg/L	12.833	10.125	12	18.917	31.044	12	7.000	4.221	12	5.000	4.954	12	109.000	1.000K
FLOW	P60	CFS	3403.833	2084.045	12	4030.000	4404.752	12	2672.500	903.318	12	822.500	399.221	12	16900.000	306.000
TPN	P600	mg/L	0.280	0.049	6	0.282	0.059	6	0.176	0.054	6	0.210	0.047	6	0.366	0.123
NH3_N	P610	mg/L	0.012	0.004	12	0.011	0.002	12	0.011	0.001	12	0.010	0.001	12	0.020	0.010U
NO2_DIS	P613	mg/L	0.009	0.003	6	0.010	0.000	6	0.010	0.000	6	0.010	0.000	6	0.010	0.002K
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	0.218	0.043	12	0.215	0.049	12	0.133	0.047	12	0.153	0.032	12	0.305	0.084
TP_P	P665	mg/L	0.012	0.005	12	0.025	0.020	11	0.026	0.051	12	0.012	0.003	11	0.187	0.010U
OP_DIS	P671	mg/L	0.008	0.003	12	0.007	0.003	11	0.008	0.003	12	0.007	0.003	11	0.010	0.004
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	4.967	3.934	12	9.258	12.684	12	3.583	2.664	12	2.675	3.395	12	37.000	0.600
COND	P95	umhos	38.583	13.501	12	30.583	7.868	12	29.250	9.545	12	44.750	9.743	12	67.000	19.000

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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 07F055 Name: WOODS CR @ MONROE Class: A Elevation: 45 River Mile: 0.50

Location:
LOCATED AT BRIDGE OVER WOODS CREEK AT WEST ENTRANCE TO MONROE PARK

Water Years Sampled:

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

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			-----JANUARY-MARCH----			------APRIL-JUNE------			----JULY-SEPTEMBER----			-----SIX YEAR------	
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN
TEMP	P10	C	9.133	1.707	6	6.667	1.718	6	12.100	1.927	6	15.350	2.707	6	19.100	4.700
PRESS	P25	mmHg	766.683	9.237	6	761.033	5.895	6	762.767	2.045	6	762.600	3.338	5	779.500	749.300
OXYGEN	P300	mg/L	10.883	0.631	6	11.950	0.524	6	11.317	0.611	6	10.517	0.884	6	12.600	9.600
PCTSAT	P301	%	93.133	1.886	6	97.150	2.419	6	104.350	7.200	6	103.983	8.157	6	114.800	90.500
FC	P31616	#/100ml	235.833	230.097	6	1082.000	2410.690	6	197.500	182.154	6	165.000	61.373	4	6000.000	29.000
PH	P400	units	7.050	0.105	6	7.150	0.207	6	7.383	0.232	6	7.700	0.228	6	8.100	6.900
SUSSOL	P530	mg/L	15.667	12.160	6	11.000	9.899	6	6.000	4.980	6	6.000	5.138	6	36.000	1.000K
TPN	P600	mg/L	1.015	0.175	3	0.930	0.204	3	0.593	0.087	3	0.718	0.291	3	1.210	0.494
NH3_N	P610	mg/L	0.034	0.040	6	0.033	0.044	6	0.011	0.002	6	0.023	0.027	6	0.121	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	0.678	0.351	6	0.814	0.116	6	0.493	0.060	6	0.472	0.108	6	1.200	0.187
TP_P	P665	mg/L	0.030	0.019	6	0.034	0.027	6	0.024	0.011	6	0.034	0.024	6	0.089	0.010U
OP_DIS	P671	mg/L	0.012	0.008	6	0.015	0.016	6	0.009	0.005	6	0.010	0.004	6	0.046	0.005U
TURB	P82079	NTU	5.933	2.842	6	4.850	4.680	6	2.317	1.130	6	5.700	9.950	6	26.000	1.200
COND	P95	umhos	64.167	25.717	6	52.500	6.025	6	59.000	10.392	6	92.667	12.580	6	113.000	39.000

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

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 07P070 Name: PATTERSON CK NR FALL CITY Class: A Elevation: 70 River Mile: 0.70

Location:

Water Years Sampled:

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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 7 8 9 0 1 2 3 4 5 6
                                                          X       X
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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	C	8.933	1.606	6	6.200	1.824	6	11.250	1.062	6	12.767	1.275	6	14.300	4.100
PRESS	P25	mmHg	767.033	8.510	6	762.017	6.864	6	764.017	1.955	6	764.320	1.881	5	780.800	748.300
OXYGEN	P300	mg/L	9.033	0.728	6	10.883	1.109	6	9.883	0.571	6	9.333	0.459	6	12.800	7.900
PCTSAT	P301	%	77.000	5.677	6	87.183	5.761	6	89.300	5.950	6	87.283	4.717	6	97.600	69.700
FC	P31616	#/100ml	501.167	642.847	6	62.833	37.605	6	250.500	157.909	6	5340.000	8956.732	5	21000.000	23.000
PH	P400	units	7.117	0.172	6	7.150	0.138	6	7.283	0.223	6	7.450	0.187	6	7.700	6.900
SUSSOL	P530	mg/L	16.000	25.322	6	6.667	1.966	6	4.000	2.828	6	13.667	19.023	6	67.000	1.000
FLOW	P60	CFS	95.667	133.927	3	808.000	686.289	3	34.333	26.083	3	9.767	1.365	3	1300.000	8.300
TPN	P600	mg/L	1.347	0.189	3	1.340	0.250	3	0.914	0.064	3	1.041	0.051	3	1.620	0.859
NH3_N	P610	mg/L	0.025	0.013	6	0.017	0.008	6	0.012	0.002	6	0.017	0.009	6	0.047	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	0.977	0.249	6	1.088	0.211	6	0.770	0.218	6	0.782	0.100	6	1.440	0.523
TP_P	P665	mg/L	0.075	0.062	6	0.047	0.008	6	0.037	0.011	6	0.066	0.032	6	0.198	0.021
OP_DIS	P671	mg/L	0.040	0.019	6	0.024	0.007	6	0.031	0.027	6	0.032	0.014	6	0.086	0.013
TURB	P82079	NTU	5.967	8.875	6	5.200	3.170	6	2.617	1.446	6	5.133	5.889	6	24.000	0.800
COND	P95	umhos	185.833	169.410	6	87.667	18.305	6	106.333	23.045	6	146.667	3.933	6	525.000	62.000

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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 07R050 Name: FRENCH CR NR MOUTH

Class: A Elevation: 5 River Mile: 1.30

Location:
Snohomish-Monroe Road bridge.

Water Years Sampled:

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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 7 8 9 0 1 2 3 4 5 6
                                                                       X
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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	C	9.700	2.862	3	6.600	2.970	2	12.900	1.572	3	15.867	1.750	3	17.600	4.500
PRESS	P25	mmHg	772.500	9.800	3	763.250	1.061	2	763.033	0.404	3	764.200	2.066	3	780.300	761.500
OXYGEN	P300	mg/L	4.167	1.767	3	8.300	0.849	2	6.867	0.681	3	7.367	1.401	3	8.900	3.000
PCTSAT	P301	%	35.467	13.196	3	67.050	1.768	2	64.333	4.314	3	73.733	15.245	3	87.900	25.800
FC	P31616	#/100ml	3451.000	5503.351	3	450.000	353.553	2	643.333	450.148	3	2775.000	3429.468	2	9800.000	43.000S
PH	P400	units	6.600	0.100	3	7.250	0.636	2	7.200	0.781	3	7.167	0.153	3	8.100	6.500
SUSSOL	P530	mg/L	22.333	17.388	3	14.000	0.000	2	12.667	4.619	3	8.333	2.082	3	42.000	6.000
TPN	P600	mg/L	5.327	1.471	3	3.645	0.403	2	1.760	0.678	3	1.125	0.150	3	6.930	0.956
NH3_N	P610	mg/L	1.241	1.371	3	0.799	0.298	2	0.696	0.305	3	0.130	0.049	3	2.780	0.083
NO2_NO3	P630	mg/L	2.757	0.564	3	1.372	0.577	2	0.788	0.167	3	0.592	0.050	3	3.280	0.557
TP_P	P665	mg/L	0.194	0.147	3	0.109	0.063	2	0.125	0.074	3	0.068	0.051	3	0.362	0.010
OP_DIS	P671	mg/L	0.098	0.092	3	0.070	0.001	2	0.052	0.026	3	0.025	0.006	3	0.203	0.022J
TURB	P82079	NTU	22.667	14.572	3	23.000	1.414	2	21.333	7.024	3	19.333	6.110	3	39.000	11.000
COND	P95	umhos	211.667	16.442	3	156.000	49.497	2	180.333	27.970	3	206.333	17.243	3	225.000	121.000

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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

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

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

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	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	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	C	8.356	2.089	18	6.383	1.457	18	10.911	1.784	18	14.500	2.065	18	18.600	3.100
PRESS	P25	mmHg	764.544	8.064	18	763.078	8.718	18	765.956	4.341	18	767.465	5.089	17	782.800	748.000
OXYGEN	P300	mg/L	11.844	0.558	18	12.318	0.433	17	11.561	0.526	18	11.083	0.700	18	13.400	10.000
PCTSAT	P301	%	99.861	3.915	18	99.076	2.766	17	103.344	5.536	18	106.922	5.639	18	115.500	93.700
FC	P31616	#/100ml	41.765	37.662	17	28.059	41.460	17	99.833	204.285	18	187.667	182.168	18	900.000	1.000
PH	P400	units	7.517	0.186	18	7.475	0.279	16	7.550	0.223	18	7.747	0.296	17	8.300	7.000
SUSSOL	P530	mg/L	11.944	17.562	18	27.667	53.210	18	10.389	20.263	18	13.333	28.752	18	213.000	1.000
FLOW	P60	CFS	803.111	627.255	18	1066.833	951.910	18	567.222	439.592	18	186.056	67.025	18	3570.000	129.000
TPN	P600	mg/L	0.356	0.151	9	0.515	0.148	9	0.314	0.131	9	0.247	0.053	9	0.756	0.157
NH3_N	P610	mg/L	0.016	0.008	18	0.012	0.004	18	0.011	0.003	18	0.014	0.007	17	0.039	0.008
NO2_DIS	P613	mg/L	0.009	0.003	9	0.010	0.000	9	0.010	0.000	9	0.010	0.000	9	0.011	0.002K
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	0.312	0.126	18	0.398	0.101	18	0.235	0.060	18	0.182	0.036	17	0.643	0.117
TP_P	P665	mg/L	0.019	0.015	18	0.024	0.016	18	0.020	0.018	18	0.019	0.015	17	0.084	0.006
OP_DIS	P671	mg/L	0.009	0.002	18	0.008	0.002	18	0.009	0.002	18	0.009	0.002	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	4.467	7.332	18	8.739	13.557	18	3.933	8.427	18	3.133	6.615	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	63.167	11.372	18	60.000	11.045	18	67.500	10.211	18	86.111	8.731	18	107.000	39.000

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

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 08C110 Name: CEDAR R NR LANDSBURG

Class: AA Elevation: 616 River Mile: 25.10

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

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	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

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	C	7.825	1.769	12	6.000	1.165	10	8.975	1.226	12	10.875	0.651	12	11.700	4.100
PRESS	P25	mmHg	751.317	7.342	12	749.000	9.543	10	748.058	4.194	12	753.125	4.062	12	766.600	728.000
OXYGEN	P300	mg/L	11.650	0.709	12	11.960	0.412	10	11.175	0.280	12	10.800	0.181	12	13.200	10.500
PCTSAT	P301	%	98.642	3.965	12	97.240	1.689	10	97.808	1.757	12	98.133	0.862	12	109.800	93.800
FC	P31616	#/100ml	2.583	2.109	12	1.444	0.527	9	4.583	4.582	12	5.182	2.562	11	17.000	1.000U
COD	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	units	7.508	0.173	12	7.456	0.403	9	7.383	0.190	12	7.409	0.314	11	8.400	6.900
SUSSOL	P530	mg/L	3.500	2.541	12	6.400	9.606	10	1.833	1.115	12	1.167	0.577	12	31.000	1.000U
FLOW	P60	CFS	853.833	552.765	12	974.500	535.651	10	614.000	268.947	12	314.083	52.452	12	2090.000	242.000
TPN	P600	mg/L	0.206	0.048	9	0.275	0.030	7	0.181	0.051	9	0.197	0.017	9	0.306	0.090
NH3_N	P610	mg/L	0.010	0.000	12	0.010	0.002	10	0.010	0.001	12	0.011	0.001	12	0.015	0.005K
NO2_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
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	0.200	0.071	2	0.093	0.038	3	0.113	0.015	3	0.147	0.032	3	0.250	0.050
NO2_NO3	P630	mg/L	0.179	0.049	12	0.196	0.033	10	0.166	0.022	12	0.178	0.019	12	0.287	0.128
TP_P	P665	mg/L	0.010	0.001	12	0.015	0.011	10	0.011	0.002	12	0.011	0.002	12	0.040	0.005J
OP_DIS	P671	mg/L	0.008	0.003	12	0.008	0.003	10	0.008	0.003	12	0.008	0.003	12	0.013	0.005U
COLOR	P80	Pt-Co	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	1.358	1.277	12	2.170	2.849	10	0.933	0.528	12	0.933	0.858	12	9.900	0.300
COND	P95	umhos	51.167	11.976	12	47.600	8.369	10	56.083	8.372	12	68.750	4.827	12	75.000	37.000

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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 09A080 Name: GREEN R @ TUKWILA Class: A Elevation: 4 River Mile: 12.40

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

Water Years Sampled:

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	C	8.031	2.650	16	5.894	1.662	18	12.317	2.356	18	17.422	2.645	18	22.400	2.200
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	mmHg	765.838	8.057	16	762.628	8.132	18	765.889	4.168	18	766.588	5.136	17	783.300	749.000
OXYGEN	P300	mg/L	11.081	1.079	16	11.672	0.498	18	9.700	0.497	18	8.772	0.851	18	13.200	7.500
PCTSAT	P301	%	92.219	4.670	16	92.889	2.058	18	89.394	3.950	18	89.883	6.825	18	111.200	81.000
FC	P31616	#/100ml	171.938	177.469	16	224.500	246.646	18	197.111	625.366	18	190.944	259.959	18	2700.000	3.000
PH	P400	units	7.325	0.198	16	7.244	0.228	16	7.350	0.186	18	7.335	0.173	17	7.800	6.800
SUSSOL	P530	mg/L	22.750	27.116	16	37.222	74.142	18	16.389	21.443	18	11.167	6.913	18	326.000	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	0.584	0.200	9	0.725	0.175	9	0.523	0.234	9	0.494	0.082	9	1.090	0.260
NH3_N	P610	mg/L	0.036	0.032	16	0.031	0.017	18	0.029	0.019	18	0.033	0.017	17	0.120	0.010U
NO2_DIS	P613	mg/L	0.010	0.000	7	0.010	0.001	9	0.010	0.000	9	0.010	0.000	9	0.014	0.010K
NO2_NO3	P630	mg/L	0.399	0.120	16	0.483	0.116	18	0.366	0.093	18	0.315	0.073	17	0.702	0.176
TP_P	P665	mg/L	0.050	0.036	16	0.050	0.025	18	0.043	0.043	18	0.051	0.013	17	0.207	0.010U
OP_DIS	P671	mg/L	0.017	0.009	16	0.019	0.010	18	0.018	0.013	18	0.021	0.005	18	0.065	0.005K
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	7.900	9.157	16	13.933	23.157	18	5.333	9.991	18	3.372	0.963	18	94.500	1.400
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	79.500	25.264	16	71.611	17.961	18	100.944	23.782	18	144.611	24.230	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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 09A190 Name: GREEN R @ KANASKAT

Class: AA Elevation: 775 River Mile: 57.60

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

Water Years Sampled:

5	6						7								8									9						
9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	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	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	C	7.461	2.596	18	4.661	1.452	18	9.328	1.867	18	14.144	0.995	18	16.100	1.700
PRESS	P25	mmHg	744.550	6.578	18	742.144	7.440	18	744.650	7.668	18	747.282	3.612	17	771.700	724.400
OXYGEN	P300	mg/L	11.683	0.982	18	12.433	0.535	18	11.122	0.549	18	9.906	0.236	18	13.500	9.300
PCTSAT	P301	%	98.717	3.787	18	98.578	2.999	18	98.494	2.265	18	97.517	1.066	18	110.200	91.300
FC	P31616	#/100ml	12.222	11.904	18	4.588	5.280	17	11.500	20.686	18	18.412	26.958	17	120.000	1.000K
PH	P400	units	7.483	0.419	18	7.482	0.343	17	7.467	0.363	18	7.335	0.326	17	8.500	6.800
SUSSOL	P530	mg/L	4.944	4.646	18	11.167	26.527	18	2.222	0.943	18	2.778	1.865	18	112.000	1.000U
FLOW	P60	CFS	1309.889	1248.418	18	1506.944	1557.188	18	744.889	437.118	18	174.889	63.855	18	6890.000	124.000
TPN	P600	mg/L	0.216	0.080	9	0.233	0.063	9	0.094	0.046	9	0.172	0.133	9	0.522	0.030
NH3_N	P610	mg/L	0.011	0.003	18	0.011	0.003	18	0.013	0.005	18	0.013	0.005	17	0.030	0.006
NO2_DIS	P613	mg/L	0.009	0.003	9	0.010	0.000	8	0.010	0.000	9	0.010	0.000	9	0.010	0.002K
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	0.169	0.086	18	0.160	0.044	18	0.063	0.034	18	0.063	0.012	17	0.296	0.020
TP_P	P665	mg/L	0.014	0.006	18	0.017	0.011	17	0.013	0.004	18	0.011	0.001	17	0.046	0.010U
OP_DIS	P671	mg/L	0.010	0.002	18	0.009	0.003	17	0.008	0.002	18	0.008	0.002	18	0.018	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	2.672	2.431	18	8.578	21.886	18	1.294	0.990	18	1.694	2.391	18	90.000	0.200
COND	P95	umhos	50.833	23.715	18	38.444	4.105	18	40.500	5.639	18	59.056	14.611	18	140.000	30.000

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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 10A070 Name: PUYALLUP R @ MERIDIAN ST Class: A Elevation: 30 River Mile: 8.30

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

Water Years Sampled:

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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 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
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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	C	6.800	2.465	18	6.000	1.666	18	11.633	2.253	18	13.928	1.969	18	17.900	2.000
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	mmHg	767.689	7.283	18	763.622	7.689	18	763.344	4.748	18	765.911	6.095	18	781.800	745.700
OXYGEN	P300	mg/L	11.828	0.993	18	11.813	0.515	16	10.456	0.619	18	10.022	0.511	18	14.600	9.100
PCTSAT	P301	%	95.389	4.308	18	94.800	2.379	16	95.128	3.027	18	95.639	2.997	18	107.300	88.700
FC	P31616	#/100ml	253.529	348.850	17	271.222	345.930	18	280.278	321.312	18	189.667	189.351	18	1400.000	26.000
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	units	7.439	0.185	18	7.317	0.176	18	7.428	0.237	18	7.400	0.250	17	7.900	6.900
SUSSOL	P530	mg/L	85.333	137.158	18	109.111	196.456	18	72.444	147.905	18	157.278	158.091	18	704.000	4.000
FLOW	P60	CFS	3862.944	2876.356	18	5586.667	4142.054	18	3536.667	1708.649	18	1861.611	735.592	18	16100.000	433.000
TPN	P600	mg/L	0.404	0.177	9	0.561	0.178	9	0.268	0.135	9	0.183	0.092	9	0.826	0.098J
NH3_N	P610	mg/L	0.030	0.021	18	0.029	0.016	18	0.023	0.012	18	0.022	0.012	18	0.100	0.010U
NO2_DIS	P613	mg/L	0.009	0.002	9	0.010	0.000	9	0.010	0.000	9	0.010	0.001	9	0.014	0.004
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	0.288	0.174	18	0.369	0.131	18	0.125	0.057	18	0.097	0.034	18	0.691	0.048
TP_P	P665	mg/L	0.063	0.057	18	0.070	0.069	17	0.059	0.087	18	0.122	0.068	18	0.375	0.010U
OP_DIS	P671	mg/L	0.016	0.005	18	0.017	0.006	17	0.012	0.005	18	0.018	0.006	18	0.032	0.008
HG	P71900	ug/L	0.015	0.024	4	0.002	0.002	3	0.001	0.000	3	0.010	0.007	3	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	20.133	25.122	18	22.439	38.555	18	22.439	41.458	18	76.444	60.109	18	200.000	2.000
HARD	P900	mg/L	25.500	4.435	4	26.000	2.000	3	25.333	1.155	3	36.000	5.568	3	41.000	20.000
COND	P95	umhos	66.722	12.508	18	65.333	9.324	18	60.444	8.753	18	72.278	15.896	18	20.000	1.000K

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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 10A110 Name: PUYALLUP R @ ORTING

Class: A Elevation: 200 River Mile: 22.20

Location:
LOCATED AT THE BRIDGE ON THE ORTING-KAPOWSIN ROAD (OLD SOLDIERS HOME ROAD), JUST SOUTHWEST OF ORTING

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	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	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	C	5.522	2.409	9	4.356	2.150	9	9.078	1.439	9	10.089	2.405	9	15.400	0.500
PRESS	P25	mmHg	764.967	7.484	9	757.833	7.096	9	760.489	3.734	9	761.356	4.998	9	779.800	746.500
OXYGEN	P300	mg/L	12.489	1.178	9	12.386	0.302	7	11.589	0.496	9	11.356	0.508	9	15.500	10.200
PCTSAT	P301	%	97.956	5.915	9	98.043	1.830	7	99.956	3.901	9	100.067	1.998	9	110.500	88.100
FC	P31616	#/100ml	20.250	28.065	8	15.222	17.747	9	29.222	37.114	9	30.222	34.007	9	120.000	1.000
PH	P400	units	7.567	0.218	9	7.244	0.151	9	7.411	0.314	9	7.400	0.338	8	8.000	6.800
SUSSOL	P530	mg/L	42.556	58.594	9	200.889	412.684	9	61.889	99.624	9	335.667	280.857	9	1200.000	1.000
FLOW	P60	CFS	1197.889	688.408	9	1243.444	935.911	9	969.778	549.395	9	550.111	223.032	9	2910.000	205.000
TPN	P600	mg/L	0.265	0.055	3	0.302	0.162	3	0.163	0.128	3	0.039	0.023	3	0.459	0.020
NH3_N	P610	mg/L	0.014	0.010	9	0.013	0.005	9	0.017	0.013	9	0.013	0.006	9	0.049	0.010U
NO2_DIS	P613	mg/L	0.009	0.003	6	0.010	0.000	6	0.010	0.000	6	0.010	0.000	6	0.011	0.002
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	0.001	9	0.002	0.000
NO3_N	P620	mg/L	0.197	0.100	3	0.160	0.072	3	0.030	0.000	2	0.013	0.006	3	0.300	0.010
NO2_NO3	P630	mg/L	0.232	0.135	9	0.208	0.097	9	0.061	0.043	9	0.029	0.015	9	0.466	0.010U
TP_P	P665	mg/L	0.047	0.051	9	0.091	0.138	8	0.055	0.086	9	0.153	0.064	9	0.415	0.010U
OP_DIS	P671	mg/L	0.008	0.003	9	0.008	0.002	8	0.009	0.002	9	0.012	0.005	9	0.021	0.004
COLOR	P80	Pt-Co	38.667	9.815	3	28.000	23.516	3	17.000	21.930	3	683.333	165.025	3	820.000	1.000
TURB	P82079	NTU	10.333	9.881	9	25.756	49.531	9	18.522	34.998	9	162.444	140.478	9	485.000	1.200
COND	P95	umhos	53.667	8.411	9	51.889	10.576	9	49.333	7.399	9	57.556	10.088	9	75.000	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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 10C070 Name: WHITE R @ SUMNER

Class: A Elevation: 50 River Mile: 0.70

Location:
AT BRIDGE ON MAIN STREET IN SUMNER

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	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	---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	C	7.689	3.003	9	5.689	1.640	9	11.733	2.041	9	15.122	2.629	9	20.200	2.800
PRESS	P25	mmHg	768.667	6.744	9	761.244	7.022	9	763.811	3.742	9	764.233	5.169	9	782.600	749.800
OXYGEN	P300	mg/L	11.511	1.382	9	11.813	0.488	8	10.411	0.521	9	9.611	0.791	9	14.300	8.800
PCTSAT	P301	%	94.511	6.434	9	94.613	2.051	8	94.911	1.764	9	94.122	4.262	9	105.200	87.300
FC	P31616	#/100ml	280.286	329.035	7	454.222	865.176	9	529.333	858.266	9	212.889	304.292	9	2700.000	14.000
PH	P400	units	7.467	0.206	9	7.200	0.296	9	7.411	0.220	9	7.413	0.136	8	7.700	6.600
SUSSOL	P530	mg/L	123.556	197.053	9	130.556	193.382	9	69.000	158.375	9	23.222	10.906	9	490.000	3.000
FLOW	P60	CFS	2484.000	3090.113	9	3547.111	2301.015	9	2375.000	1362.703	9	1161.667	398.195	9	10500.000	356.000
TPN	P600	mg/L	0.487	0.242	3	0.471	0.297	3	0.329	0.264	3	0.160	0.082	3	0.806	0.102
NH3_N	P610	mg/L	0.033	0.017	9	0.038	0.030	9	0.023	0.014	9	0.022	0.013	9	0.092	0.010U
NO2_DIS	P613	mg/L	0.009	0.002	6	0.010	0.000	6	0.010	0.000	6	0.010	0.001	6	0.012	0.004
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	0.203	0.150	3	0.257	0.031	3	0.060	0.014	2	0.063	0.032	3	0.360	0.040
NO2_NO3	P630	mg/L	0.336	0.238	9	0.329	0.197	9	0.101	0.069	9	0.072	0.046	9	0.715	0.023
TP_P	P665	mg/L	0.075	0.073	9	0.100	0.090	8	0.066	0.119	9	0.057	0.021	9	0.381	0.010K
OP_DIS	P671	mg/L	0.015	0.007	9	0.021	0.016	8	0.013	0.008	9	0.022	0.013	9	0.057	0.005U
COLOR	P80	Pt-Co	29.000	4.000	3	63.000	44.978	3	12.667	4.509	3	180.000	51.962	3	210.000	8.000
TURB	P82079	NTU	31.422	42.952	9	19.022	18.998	9	24.478	54.720	9	22.656	8.452	9	170.000	2.000
COND	P95	umhos	68.556	15.493	9	61.667	5.292	9	59.556	7.367	9	72.889	15.640	9	105.000	45.000

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

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 10C085 Name: WHITE R NR SUMNER

Class: A Elevation: 55 River Mile: 4.90

Location:
LOCATED APPROXIMATELY ONE MILE SOUTH OF AUBURN AT THE BRIDGE ON 8TH STREET EAST

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

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			-----JANUARY-MARCH----			------APRIL-JUNE------			----JULY-SEPTEMBER----			-----SIX YEAR------	
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN
TEMP	P10	C	8.133	2.150	3	6.867	1.872	3	10.500	2.600	3	15.633	5.064	3	20.900	5.500
PRESS	P25	mmHg	773.400	9.160	3	757.033	8.559	3	762.067	0.404	3	763.700	7.637	3	782.300	750.100
OXYGEN	P300	mg/L	11.867	0.306	3	11.300	1.587	3	11.333	0.306	3	10.633	0.802	3	12.500	9.500
PCTSAT	P301	%	98.433	3.062	3	93.067	14.835	3	100.800	3.404	3	105.167	4.062	3	109.400	77.400
FC	P31616	#/100ml	39.667	30.072	3	744.333	1009.701	3	345.333	567.184	3	28.333	19.604	3	1900.000	2.000
PH	P400	units	7.567	0.208	3	7.233	0.208	3	7.600	0.100	3	7.700	0.173	3	7.900	7.000
SUSSOL	P530	mg/L	59.667	82.948	3	44.000	64.281	3	316.667	502.584	3	41.667	15.144	3	897.000	2.000
FLOW	P60	CFS	373.667	165.868	3	2065.000	3061.523	3	1867.667	1951.888	3	470.333	206.713	3	5600.000	234.000
TPN	P600	mg/L	0.512	0.026	3	1.036	1.016	3	0.366	0.253	3	0.193	0.031	3	2.200	0.123
NH3_N	P610	mg/L	0.014	0.004	3	0.061	0.088	3	0.023	0.022	3	0.012	0.003	3	0.163	0.010U
NO2_NO3	P630	mg/L	0.364	0.061	3	0.655	0.608	3	0.156	0.106	3	0.118	0.033	3	1.340	0.043
TP_P	P665	mg/L	0.069	0.038	3	0.107	0.067	3	0.207	0.293	3	0.072	0.014	3	0.546	0.030
OP_DIS	P671	mg/L	0.020	0.007	3	0.041	0.049	3	0.016	0.010	3	0.020	0.007	3	0.097	0.005
TURB	P82079	NTU	13.900	12.211	3	20.233	25.995	3	93.000	144.648	3	31.000	7.000	3	260.000	2.000
COND	P95	umhos	81.667	19.858	3	83.333	32.868	3	61.000	9.165	3	79.667	5.033	3	111.000	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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 11A070 Name: NISQUALLY R @ NISQUALLY Class: A Elevation: 20 River Mile: 3.40

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

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 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 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	C	8.133	2.603	18	6.094	1.388	18	10.894	2.045	18	14.889	1.297	18	17.000	2.700
ZN	P1094	ug/L	8.667	8.083	3	4.000	0.000	3	4.667	0.577	3	8.333	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	mmHg	767.667	6.979	18	765.194	6.424	18	764.317	5.046	18	765.311	5.364	18	782.300	749.000
OXYGEN	P300	mg/L	11.617	0.850	18	11.956	0.619	16	11.278	0.775	18	10.211	0.479	18	14.100	9.500
PCTSAT	P301	%	96.828	3.860	18	95.650	3.600	16	100.800	4.698	18	99.694	5.331	18	111.500	88.500
FC	P31616	#/100ml	30.412	41.724	17	60.389	151.365	18	11.556	8.417	18	16.222	9.391	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	units	7.444	0.333	18	7.353	0.235	17	7.561	0.191	18	7.635	0.162	17	8.000	6.700
SUSSOL	P530	mg/L	115.778	268.436	18	26.556	47.484	18	7.722	6.086	18	17.222	23.942	18	1120.000	2.000
FLOW	P60	CFS	3361.000	3878.875	18	2691.333	1089.023	18	1911.056	725.518	18	993.556	234.607	18	14057.000	695.000
TPN	P600	mg/L	0.396	0.280	9	0.547	0.105	9	0.355	0.075	9	0.263	0.148	9	1.050	0.131
NH3_N	P610	mg/L	0.019	0.010	18	0.018	0.013	18	0.012	0.003	18	0.013	0.005	18	0.050	0.010U
NO2_DIS	P613	mg/L	0.009	0.002	9	0.010	0.000	9	0.010	0.000	9	0.010	0.000	9	0.010	0.003
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	0.260	0.127	18	0.418	0.077	18	0.223	0.063	18	0.147	0.038	18	0.570	0.085
TP_P	P665	mg/L	0.057	0.063	18	0.049	0.042	18	0.018	0.008	18	0.030	0.024	18	0.260	0.010U
OP_DIS	P671	mg/L	0.010	0.003	18	0.010	0.003	18	0.009	0.002	18	0.009	0.002	18	0.020	0.005U
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	79.650	198.575	18	17.272	21.932	18	3.583	3.406	18	13.594	15.038	18	850.000	1.300
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	61.167	8.631	18	61.056	7.471	18	61.944	5.450	18	69.556	6.591	18	84.000	44.000

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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 12A070 Name: CHAMBERS CR NR STEILACOOM Class: A Elevation: 40 River Mile: 0.90

Location:
LOCATED AT CHAMBERS CREEK ROAD BRIDGE, 1.5 MILES NORTHEAST OF STEILACOOM
AT THE HEAD OF CHAMBERS BAY, 2.2 MILES DOWNSTREAM OF GAGE

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	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	

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	C	9.411	2.347	9	8.711	2.002	9	14.689	1.979	9	14.911	2.335	9	19.700	5.000
PRESS	P25	mmHg	769.633	6.371	9	762.289	6.597	9	764.378	3.784	9	764.944	4.737	9	783.100	752.900
OXYGEN	P300	mg/L	10.967	1.083	9	11.025	0.369	8	10.167	0.490	9	10.256	1.439	9	13.600	8.600
PCTSAT	P301	%	93.922	4.911	9	94.875	2.364	8	98.967	6.223	9	99.956	12.198	9	117.300	83.400
FC	P31616	#/100ml	437.875	718.524	8	968.000	2337.576	9	95.444	164.210	9	147.556	251.707	9	7100.000	3.000K
PH	P400	units	7.589	0.162	9	7.433	0.235	9	7.544	0.181	9	7.750	0.262	8	8.300	7.000
SUSSOL	P530	mg/L	7.000	3.162	9	9.222	1.986	9	6.667	5.244	9	3.778	2.108	9	16.000	1.000K
FLOW	P60	CFS	140.000	78.910	8	145.333	60.695	6	86.333	21.097	6	47.833	10.907	6	255.000	28.000
TPN	P600	mg/L	1.520	0.223	3	1.997	0.374	3	1.227	0.103	3	1.213	0.156	3	2.410	1.070
NH3_N	P610	mg/L	0.029	0.012	9	0.034	0.037	9	0.021	0.008	9	0.023	0.013	9	0.130	0.010U
NO2_DIS	P613	mg/L	0.012	0.005	6	0.010	0.000	6	0.010	0.000	6	0.011	0.001	5	0.021	0.008
NO2_N	P615	mg/L	0.010	0.000	2	0.010	0.000	3	0.010	0.000	3	0.013	0.006	3	0.010	0.010
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	1.127	0.361	3	1.333	0.321	3	1.100	0.141	2	1.333	0.252	3	1.700	0.780
NO2_NO3	P630	mg/L	1.091	0.280	9	1.307	0.317	9	1.056	0.139	9	1.182	0.160	9	1.770	0.643
TP_P	P665	mg/L	0.059	0.015	9	0.050	0.025	9	0.041	0.020	9	0.053	0.013	9	0.090	0.010K
OP_DIS	P671	mg/L	0.035	0.010	9	0.019	0.011	8	0.014	0.007	9	0.036	0.014	9	0.060	0.005U
COLOR	P80	Pt-Co	30.667	10.599	3	30.667	17.243	3	9.000	6.928	3	71.000	70.873	3	150.000	1.000
TURB	P82079	NTU	2.156	1.271	9	3.344	1.402	9	2.778	2.823	9	1.344	0.439	9	9.800	0.500
COND	P95	umhos	147.222	27.581	9	137.667	19.545	9	144.444	18.399	9	175.556	18.756	9	221.000	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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 12A110 Name: CLOVER CR ABV STEILACOOM LK Class: A Elevation: 240 River Mile: 7.10

Location:
LOCATED ON CLOVER CREST DRIVE JUST OFF GRAVELLY LAKE DRIVE AT THE ENTRANCE OF CLOVER CREST ESTATES, .4 MILE UPSTREAM FROM STEILACOOM LAKE

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

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			-----JANUARY-MARCH----			------APRIL-JUNE------			----JULY-SEPTEMBER----			-----SIX YEAR------	
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN
TEMP	P10	C	10.067	1.419	3	8.033	1.563	3	12.433	2.079	3	16.667	3.313	3	19.800	6.600
PRESS	P25	mmHg	770.467	6.103	3	753.800	8.021	3	756.400	1.323	3	759.733	3.573	3	777.200	745.000
OXYGEN	P300	mg/L	10.133	0.603	3	10.700	0.872	3	9.900	0.436	3	10.500	0.265	3	11.700	9.400
PCTSAT	P301	%	88.400	6.458	3	91.067	9.957	3	92.867	7.901	3	107.100	5.212	3	112.500	81.000
FC	P31616	#/100ml	369.667	399.925	3	52.333	22.480	3	413.000	595.313	3	233.333	11.547	3	1100.000	29.000
PH	P400	units	7.300	0.173	3	7.000	0.200	3	7.267	0.208	3	7.600	0.200	3	7.800	6.800
SUSSOL	P530	mg/L	7.000	2.646	3	4.000	1.000	3	5.667	3.055	3	9.000	4.583	3	14.000	3.000
FLOW	P60	CFS	29.067	42.378	3	130.000	25.000	3	98.000	69.203	3	21.400	21.323	3	175.000	4.600
TPN	P600	mg/L	1.860	0.360	3	2.723	0.662	3	1.533	0.127	3	1.413	0.046	3	3.460	1.360
NH3_N	P610	mg/L	0.010	0.000	3	0.010	0.000	3	0.011	0.002	3	0.010	0.000	3	0.014	0.010U
NO2_NO3	P630	mg/L	1.613	0.307	3	2.007	0.093	3	1.260	0.145	3	1.127	0.101	3	2.110	1.010
TP_P	P665	mg/L	0.027	0.006	3	0.033	0.008	3	0.036	0.029	3	0.041	0.017	3	0.067	0.010U
OP_DIS	P671	mg/L	0.011	0.009	3	0.014	0.006	3	0.014	0.007	3	0.006	0.001	3	0.022	0.005U
HG	P71900	ug/L	0.009	0.009	2	0.000	0.000	0	0.004	0.004	2	0.000	0.000	0	0.015	0.001U
TURB	P82079	NTU	3.300	1.153	3	2.267	0.702	3	4.133	3.707	3	4.367	1.850	3	8.400	1.600
HARD	P900	mg/L	47.000	0.000	2	0.000	0.000	0	38.000	5.657	2	0.000	0.000	0	47.000	34.000
COND	P95	umhos	140.000	15.100	3	116.667	2.517	3	103.000	12.000	3	124.667	2.082	3	156.000	91.000

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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 13A060 Name: DESCHUTES R @ E ST BRIDGE Class: A Elevation: 93 River Mile: 0.60

Location:
LOCATED AT THE BRIDGE ON E STREET, IMMEDIATELY SOUTH OF THE OLYMPIA BREWING COMPANY AND ADJACENT TO THE ENTRANCE OF THE TUMWATER VALLEY GOLF COURSE

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	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

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	C	7.973	1.914	15	7.213	2.024	15	13.373	2.568	15	15.180	2.337	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	mmHg	764.067	7.426	15	763.913	5.650	15	761.660	5.687	15	763.513	6.318	15	777.000	750.100
OXYGEN	P300	mg/L	11.213	0.818	15	11.386	0.895	14	10.413	0.688	15	10.567	0.982	15	12.800	8.900
PCTSAT	P301	%	93.713	5.729	15	93.986	7.491	14	98.827	7.170	15	104.067	10.795	15	124.000	71.200
FC	P31616	#/100ml	130.917	156.754	12	69.600	94.334	15	212.467	509.977	15	69.429	88.234	14	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	units	7.347	0.220	15	7.247	0.242	15	7.387	0.226	15	7.567	0.329	15	8.200	6.800
SUSSOL	P530	mg/L	53.429	97.692	14	16.400	25.284	15	7.200	5.931	15	3.533	1.506	15	368.000	2.000
FLOW	P60	CFS	667.467	565.183	15	689.000	749.432	15	307.067	203.350	15	99.667	29.913	15	3270.000	56.000
TPN	P600	mg/L	0.734	0.093	6	0.864	0.117	6	0.791	0.119	6	0.932	0.172	6	1.190	0.628
NH3_N	P610	mg/L	0.019	0.011	14	0.017	0.010	15	0.017	0.014	15	0.021	0.023	15	0.103	0.010U
NO2_DIS	P613	mg/L	0.010	0.001	8	0.010	0.000	9	0.010	0.000	9	0.010	0.000	9	0.010	0.007
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	0.571	0.123	15	0.650	0.131	15	0.570	0.136	15	0.708	0.106	15	0.907	0.290
TP_P	P665	mg/L	0.050	0.044	15	0.035	0.019	15	0.024	0.009	15	0.024	0.006	15	0.189	0.010U
OP_DIS	P671	mg/L	0.012	0.003	13	0.014	0.006	15	0.012	0.004	15	0.012	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	18.921	29.617	14	9.320	14.804	15	3.053	2.981	15	1.986	0.679	14	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	88.467	24.500	15	85.400	15.610	15	101.467	14.976	15	127.933	12.384	15	160.000	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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 16A070 Name: SKOKOMISH R NR POTLATCH

Class: AA Elevation: 60 River Mile: 5.30

Location:
LOCATED AT HIGHWAY 101 BRIDGE ON THE SKOKOMISH RIVER APPROXIMATELY EIGHT MILES NORTH OF SHELTON

Water Years Sampled:

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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 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 X X X X X X
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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	C	7.529	1.070	17	6.294	1.191	18	9.900	1.448	18	11.128	1.634	18	15.800	3.800
PRESS	P25	mmHg	769.188	7.147	17	766.450	5.312	18	765.189	5.464	18	766.800	5.393	18	779.800	754.400
OXYGEN	P300	mg/L	11.265	0.805	17	11.771	0.320	17	10.872	0.450	18	10.139	0.441	18	13.300	9.600
PCTSAT	P301	%	92.535	5.230	17	94.371	2.244	17	95.000	3.128	18	91.050	5.618	18	107.700	83.700
FC	P31616	#/100ml	19.000	26.768	16	5.333	6.660	18	18.111	28.687	18	36.444	60.727	18	270.000	1.000U
PH	P400	units	7.459	0.324	17	7.194	0.375	18	7.494	0.210	18	7.447	0.170	17	8.300	6.300
SUSSOL	P530	mg/L	25.471	45.459	17	17.056	31.021	18	8.722	19.697	18	1.722	1.179	18	168.000	1.000U
FLOW	P60	CFS	2310.529	3478.472	17	1777.333	2463.617	18	765.056	665.272	18	209.722	36.383	18	12500.000	159.000
TPN	P600	mg/L	0.148	0.059	8	0.110	0.038	9	0.068	0.028	9	0.092	0.021	8	0.242	0.024
NH3_N	P610	mg/L	0.016	0.016	17	0.013	0.006	18	0.014	0.009	18	0.013	0.005	17	0.076	0.010U
NO2_DIS	P613	mg/L	0.010	0.000	8	0.010	0.000	9	0.010	0.000	9	0.010	0.000	9	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	0.121	0.045	17	0.093	0.029	18	0.052	0.017	18	0.071	0.018	18	0.209	0.022
TP_P	P665	mg/L	0.025	0.025	17	0.022	0.024	18	0.012	0.004	18	0.014	0.005	17	0.112	0.008
OP_DIS	P671	mg/L	0.009	0.003	16	0.009	0.002	18	0.009	0.002	18	0.009	0.003	18	0.014	0.004
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	12.182	18.605	17	9.788	13.529	17	4.289	8.288	18	0.950	0.489	18	58.000	0.300
COND	P95	umhos	62.882	7.364	17	56.778	8.822	18	65.278	9.694	18	76.278	6.452	18	95.000	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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 16C090 Name: DUCKABUSH R NR BRINNON

Class: AA Elevation: 300 River Mile: 4.50

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

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

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			-----JANUARY-MARCH----			------APRIL-JUNE------			----JULY-SEPTEMBER----			-----SIX YEAR------	
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN
TEMP	P10	C	5.978	1.200	9	3.789	1.546	9	7.122	1.413	9	10.922	1.452	9	13.100	0.000
PRESS	P25	mmHg	763.467	7.113	9	758.013	5.350	8	758.300	5.141	9	759.956	4.514	9	773.200	749.300
OXYGEN	P300	mg/L	12.500	0.439	9	12.850	0.193	8	12.044	0.296	9	11.144	0.343	9	13.200	10.700
PCTSAT	P301	%	99.622	1.980	9	98.800	1.204	8	99.456	1.992	9	100.389	2.079	9	103.400	96.100
FC	P31616	#/100ml	3.778	4.711	9	1.250	0.707	8	3.111	3.100	9	2.333	1.500	9	13.000	1.000U
PH	P400	units	7.522	0.338	9	7.475	0.406	8	7.700	0.180	9	7.633	0.292	9	8.000	6.900
SUSSOL	P530	mg/L	7.000	9.862	9	3.500	6.279	8	1.667	0.707	9	1.111	0.333	9	31.000	1.000U
FLOW	P60	CFS	333.500	350.893	8	358.667	178.332	6	384.333	57.677	6	117.200	51.334	5	962.000	59.000
TPN	P600	mg/L	0.065	0.034	9	0.046	0.033	8	0.032	0.018	9	0.027	0.019	8	0.135	0.010U
NH3_N	P610	mg/L	0.012	0.006	9	0.010	0.000	8	0.010	0.000	9	0.010	0.001	8	0.028	0.010U
NO2_NO3	P630	mg/L	0.039	0.027	9	0.025	0.020	8	0.012	0.005	9	0.013	0.004	9	0.084	0.010U
TP_P	P665	mg/L	0.012	0.005	9	0.010	0.001	8	0.010	0.000	9	0.024	0.038	8	0.118	0.010U
OP_DIS	P671	mg/L	0.007	0.003	9	0.007	0.003	8	0.007	0.003	9	0.007	0.003	9	0.010	0.005U
TURB	P82079	NTU	4.789	8.716	9	1.963	3.154	8	1.322	0.632	9	0.633	0.206	9	27.000	0.500U
COND	P95	umhos	72.556	12.561	9	70.125	9.702	8	63.333	6.538	9	79.111	9.373	9	92.000	46.000

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

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 18B070 Name: ELWHA R NR PORT ANGELES Class: AA Elevation: 220 River Mile: 8.10

Location:
LOCATED AT BRIDGE ON HIGHWAY 101, 12 MILES WEST OF PORT ANGELES

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	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

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	C	7.078	2.567	9	4.722	1.258	9	9.100	1.776	9	14.067	1.085	9	15.700	2.600
PRESS	P25	mmHg	762.644	8.781	9	761.900	3.683	9	759.333	5.403	9	761.522	4.178	9	776.500	747.000
OXYGEN	P300	mg/L	12.189	0.662	9	12.778	0.291	9	11.522	0.377	9	10.400	0.250	9	13.300	10.000
PCTSAT	P301	%	99.778	2.886	9	98.889	2.481	9	99.589	2.216	9	100.233	1.383	9	105.000	94.100
FC	P31616	#/100ml	2.667	2.062	9	1.111	0.333	9	1.889	1.833	9	1.444	1.014	9	7.000	1.000U
PH	P400	units	7.556	0.265	9	7.656	0.235	9	7.689	0.257	9	7.711	0.117	9	8.200	7.200
SUSSOL	P530	mg/L	27.625	29.091	8	7.222	5.142	9	3.778	3.866	9	2.000	2.291	9	71.000	1.000U
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	0.052	0.030	9	0.051	0.018	9	0.021	0.012	9	0.028	0.026	8	0.107	0.010U
NH3_N	P610	mg/L	0.011	0.002	9	0.010	0.000	9	0.010	0.000	9	0.011	0.002	8	0.017	0.010U
NO2_NO3	P630	mg/L	0.023	0.016	9	0.023	0.013	9	0.011	0.002	9	0.010	0.000	9	0.062	0.010U
TP_P	P665	mg/L	0.032	0.025	9	0.011	0.001	9	0.011	0.001	9	0.010	0.000	8	0.079	0.010U
OP_DIS	P671	mg/L	0.008	0.003	8	0.007	0.003	9	0.007	0.003	9	0.007	0.002	9	0.010	0.005U
TURB	P82079	NTU	31.233	35.187	9	8.467	6.095	9	4.100	4.604	9	0.856	0.371	9	95.000	0.500U
COND	P95	umhos	88.333	14.705	9	87.222	9.378	9	80.556	8.847	9	91.778	13.046	9	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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 20B070 Name: HOH R @ DNR CAMPGROUND Class: AA Elevation: 350 River Mile: 16.50

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

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	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

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	C	7.078	1.516	9	5.756	1.141	9	10.567	2.270	9	12.622	1.583	9	15.000	3.700
PRESS	P25	mmHg	762.733	7.480	9	761.511	3.959	9	759.456	4.963	9	761.533	3.994	9	772.900	749.600
OXYGEN	P300	mg/L	12.044	0.378	9	12.356	0.246	9	11.344	0.459	9	10.956	0.456	9	12.700	10.300
PCTSAT	P301	%	98.744	2.445	9	98.211	1.510	9	101.378	2.506	9	102.267	2.396	9	107.500	95.900
FC	P31616	#/100ml	23.667	27.987	9	1.333	0.707	9	3.111	3.408	9	7.778	5.094	9	92.000	1.000U
PH	P400	units	7.411	0.252	9	7.333	0.150	9	7.533	0.240	9	7.589	0.183	9	7.900	7.100
SUSSOL	P530	mg/L	78.250	145.969	8	6.444	2.555	9	5.111	5.465	9	5.556	6.227	9	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	0.164	0.045	9	0.117	0.042	9	0.038	0.031	9	0.036	0.035	8	0.240	0.010U
NH3_N	P610	mg/L	0.012	0.007	9	0.010	0.001	9	0.011	0.001	9	0.012	0.005	8	0.030	0.010U
NO2_NO3	P630	mg/L	0.126	0.056	9	0.084	0.037	9	0.021	0.024	9	0.013	0.007	9	0.212	0.010U
TP_P	P665	mg/L	0.046	0.076	9	0.011	0.001	9	0.011	0.002	9	0.011	0.001	8	0.244	0.010U
OP_DIS	P671	mg/L	0.007	0.003	8	0.007	0.002	9	0.007	0.003	9	0.007	0.002	9	0.010	0.005U
TURB	P82079	NTU	35.544	64.109	9	5.022	2.169	9	4.489	4.213	9	6.244	5.352	9	200.000	0.900
COND	P95	umhos	70.556	12.146	9	71.333	4.123	9	75.889	6.990	9	75.333	8.078	9	85.000	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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 22A070 Name: HUMPTULIPS R NR HUMPTULIPS Class: A Elevation: 145 River Mile: 23.60

Location:
LOCATED AT THE BRIDGE ON HIGHWAY 101, JUST SOUTH OF HUMPTULIPS

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	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	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	C	7.444	1.586	18	6.478	1.457	18	12.206	3.000	18	14.944	2.485	18	18.700	4.000
PRESS	P25	mmHg	764.317	6.460	18	763.244	5.448	18	762.617	4.266	18	763.567	4.919	18	774.200	750.300
OXYGEN	P300	mg/L	11.900	0.696	18	12.165	0.457	17	11.111	0.815	18	10.367	0.665	18	13.600	9.000
PCTSAT	P301	%	97.517	5.165	18	98.359	2.437	17	102.367	4.551	18	101.333	4.324	18	111.800	84.000
FC	P31616	#/100ml	24.941	41.511	17	3.278	3.754	18	33.944	77.901	18	28.056	32.443	18	290.000	1.000U
PH	P400	units	7.361	0.295	18	7.211	0.278	18	7.528	0.219	18	7.535	0.150	17	7.900	6.500
SUSSOL	P530	mg/L	38.824	84.420	17	12.389	20.252	18	7.167	17.253	18	1.500	0.857	18	344.000	1.000U
FLOW	P60	CFS	2425.778	3405.332	18	1578.556	1180.008	18	787.889	847.497	18	169.833	57.705	18	15400.000	86.000
TPN	P600	mg/L	0.265	0.079	9	0.180	0.048	9	0.079	0.045	9	0.083	0.028	8	0.409	0.026
NH3_N	P610	mg/L	0.012	0.005	18	0.013	0.005	18	0.012	0.004	18	0.012	0.003	17	0.031	0.010U
NO2_DIS	P613	mg/L	0.009	0.003	8	0.010	0.000	9	0.010	0.000	9	0.010	0.000	9	0.010	0.002
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	0.220	0.072	3	0.117	0.031	3	0.040	0.000	2	0.023	0.006	3	0.300	0.020
NO2_NO3	P630	mg/L	0.212	0.079	18	0.150	0.052	18	0.055	0.045	18	0.048	0.044	18	0.335	0.010U
TP_P	P665	mg/L	0.037	0.066	18	0.020	0.017	18	0.013	0.010	18	0.011	0.002	17	0.288	0.010U
OP_DIS	P671	mg/L	0.009	0.003	15	0.008	0.002	18	0.008	0.003	18	0.009	0.003	18	0.015	0.002
COLOR	P80	Pt-Co	29.667	14.434	3	6.667	2.309	3	14.500	14.849	2	22.333	17.616	3	42.000	4.000
TURB	P82079	NTU	29.367	70.330	18	7.924	9.138	17	4.094	8.071	18	0.667	0.341	18	300.000	0.300
COND	P95	umhos	48.611	6.827	18	49.167	8.046	18	53.556	6.382	18	66.778	8.454	18	86.000	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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 23A070 Name: CHEHALIS R @ PORTER Class: A Elevation: 40 River Mile: 33.30

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 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 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	C	7.950	2.218	18	6.850	2.000	18	14.594	3.627	18	17.644	2.691	18	22.100	3.200
PRESS	P25	mmHg	768.183	5.894	18	766.417	5.442	18	765.561	4.129	18	767.533	5.276	18	776.000	753.900
OXYGEN	P300	mg/L	10.967	0.851	18	11.082	0.575	17	9.639	0.790	18	9.128	0.705	18	12.600	7.700
PCTSAT	P301	%	90.467	5.829	18	90.106	2.720	17	93.206	7.108	18	94.083	9.322	18	114.800	78.900
FC	P31616	#/100ml	187.176	350.123	17	53.556	48.928	18	25.000	22.297	18	19.556	12.821	18	1300.000	1.000U
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	units	7.317	0.373	18	7.122	0.359	18	7.356	0.255	18	7.535	0.322	17	8.100	6.600
SUSSOL	P530	mg/L	23.118	29.529	17	17.667	14.184	18	9.222	10.882	18	3.111	1.641	18	95.000	1.000K
FLOW	P60	CFS	7668.111	10770.022	18	6053.611	3293.709	18	2760.944	3873.725	18	404.056	140.059	18	42000.000	202.000
TPN	P600	mg/L	0.986	0.185	9	1.005	0.079	9	0.782	0.084	9	0.762	0.130	8	1.220	0.567
NH3_N	P610	mg/L	0.024	0.010	18	0.028	0.012	18	0.025	0.018	18	0.021	0.014	17	0.080	0.010U
NO2_DIS	P613	mg/L	0.010	0.001	8	0.010	0.000	9	0.010	0.000	9	0.010	0.000	9	0.010	0.007
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	0.876	0.366	18	0.838	0.103	18	0.562	0.099	18	0.522	0.134	18	2.130	0.187
TP_P	P665	mg/L	0.073	0.039	18	0.046	0.018	18	0.036	0.014	17	0.040	0.018	17	0.190	0.018
OP_DIS	P671	mg/L	0.027	0.017	16	0.016	0.006	18	0.016	0.006	17	0.024	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	12.344	19.283	18	9.800	6.031	17	5.144	8.000	18	1.483	0.605	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	87.278	21.578	18	72.389	10.291	18	85.222	14.595	18	104.333	9.003	18	125.000	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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 23A100 Name: CHEHALIS R @ PRATHER RD

Class: A Elevation: 128 River Mile: 59.90

Location:
PRATHER ROAD BRIDGE NEAR ROCHESTER

Water Years Sampled:

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

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			-----JANUARY-MARCH----			------APRIL-JUNE------			----JULY-SEPTEMBER----			-----SIX YEAR------	
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN
TEMP	P10	C	8.217	2.485	6	5.100	2.033	6	14.583	3.702	6	17.967	3.286	6	22.100	2.900
PRESS	P25	mmHg	763.417	8.827	6	761.850	6.411	6	761.333	4.674	6	761.867	7.449	6	775.000	752.900
OXYGEN	P300	mg/L	10.333	0.769	6	11.600	0.502	6	9.417	0.857	6	8.417	1.341	6	12.100	7.200
PCTSAT	P301	%	86.883	5.692	6	90.533	2.027	6	91.533	7.056	6	87.850	14.486	6	110.300	73.900
FC	P31616	#/100ml	394.333	584.154	6	30.167	22.049	6	30.167	25.175	6	31.333	40.098	6	1500.000	5.000
PH	P400	units	7.033	0.294	6	7.050	0.207	6	7.233	0.216	6	7.367	0.151	6	7.500	6.500
SUSSOL	P530	mg/L	41.500	43.615	6	8.000	5.060	6	13.000	10.507	6	3.000	0.894	6	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	0.966	0.296	6	0.906	0.089	6	0.646	0.122	6	0.653	0.097	6	1.190	0.491
NH3_N	P610	mg/L	0.024	0.013	6	0.027	0.008	6	0.034	0.020	6	0.046	0.033	6	0.096	0.010U
NO2_NO3	P630	mg/L	0.686	0.225	6	0.734	0.103	6	0.435	0.115	6	0.433	0.058	6	0.857	0.295
TP_P	P665	mg/L	0.078	0.025	6	0.039	0.014	6	0.054	0.012	6	0.082	0.036	6	0.138	0.021
OP_DIS	P671	mg/L	0.030	0.036	6	0.014	0.005	6	0.024	0.011	6	0.050	0.025	6	0.102	0.006
TURB	P82079	NTU	25.683	23.438	6	9.167	4.948	6	7.167	8.838	6	1.917	0.637	6	60.000	1.200
COND	P95	umhos	84.000	21.808	6	77.167	8.377	6	85.667	12.987	6	102.667	9.266	6	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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 23A160 Name: CHEHALIS R @ DRYAD

Class: A Elevation: 288 River Mile: 101.70

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

Water Years Sampled:

5	6						7								8								9					
9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	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	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	C	7.183	2.309	18	5.789	2.971	18	13.139	3.957	18	15.978	3.015	18	24.500	0.300
PRESS	P25	mmHg	758.061	7.136	18	758.067	6.031	18	758.567	6.304	18	758.694	6.610	18	773.900	742.200
OXYGEN	P300	mg/L	11.889	0.882	18	12.306	0.566	16	10.717	1.108	18	9.700	0.797	18	13.700	8.400
PCTSAT	P301	%	98.117	4.622	18	99.038	4.674	16	101.178	8.256	18	97.572	7.921	18	120.500	88.500
FC	P31616	#/100ml	94.059	90.278	17	33.944	33.590	18	49.556	60.471	18	202.444	649.789	18	2800.000	2.000
PH	P400	units	7.428	0.329	18	7.222	0.364	18	7.567	0.461	18	7.611	0.259	18	8.700	6.300
SUSSOL	P530	mg/L	55.778	123.174	18	23.556	54.342	18	4.000	3.678	18	4.778	10.339	18	397.000	1.000U
FLOW	P60	CFS	1899.389	2757.453	18	1350.000	1687.291	18	460.478	458.602	18	79.972	67.762	18	10000.000	26.000
TPN	P600	mg/L	0.641	0.263	9	0.604	0.121	9	0.348	0.100	9	0.262	0.167	9	1.030	0.135
NH3_N	P610	mg/L	0.014	0.007	18	0.012	0.005	18	0.016	0.017	18	0.014	0.005	18	0.081	0.010U
NO2_DIS	P613	mg/L	0.009	0.002	8	0.010	0.000	9	0.010	0.000	9	0.010	0.000	9	0.010	0.004
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	0.482	0.291	18	0.495	0.143	18	0.208	0.114	18	0.067	0.049	18	0.959	0.010
TP_P	P665	mg/L	0.035	0.042	18	0.031	0.042	18	0.014	0.004	18	0.020	0.019	18	0.178	0.010U
OP_DIS	P671	mg/L	0.008	0.003	17	0.010	0.002	18	0.008	0.002	18	0.009	0.002	18	0.014	0.002
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	20.011	44.189	18	6.388	11.572	17	1.861	1.294	18	2.572	3.873	18	140.000	0.700
COND	P95	umhos	63.833	9.990	18	59.889	7.315	18	66.176	7.884	17	79.500	6.819	18	96.000	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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 23E070   Name: BLACK RIVER @ MOON ROAD BRIDGE   Class: A   Elevation: 90   River Mile: 7.10

Location:
LOCATED AT THE BRIDGE 6.7 MILES WEST OF I-5 (WEST OF ROCHESTER) AND .6 MILES NORTH ON MOON ROAD.

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

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	C	8.483	2.297	12	5.683	2.173	12	13.717	2.358	12	16.167	2.019	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	mmHg	763.875	6.611	12	764.125	6.029	12	763.317	4.338	12	763.900	6.090	12	776.200	752.300
OXYGEN	P300	mg/L	8.375	1.344	12	9.682	0.943	11	8.342	0.762	12	8.492	1.461	12	11.300	6.300
PCTSAT	P301	%	70.683	9.901	12	77.027	7.725	11	79.633	8.331	12	85.300	14.951	12	107.000	55.800
FC	P31616	#/100ml	186.900	255.733	10	171.667	353.439	12	56.917	49.456	12	94.833	154.021	12	1200.000	5.000
PH	P400	units	7.142	0.306	12	7.083	0.321	12	7.117	0.259	12	7.333	0.161	12	7.700	6.500
SUSSOL	P530	mg/L	5.083	3.605	12	3.500	1.567	12	3.333	1.969	12	1.417	0.669	12	12.000	1.000U
TPN	P600	mg/L	1.037	0.086	6	1.092	0.089	6	1.067	0.234	6	1.073	0.185	6	1.380	0.680
NH3_N	P610	mg/L	0.033	0.031	12	0.035	0.038	12	0.024	0.022	12	0.027	0.042	12	0.157	0.010U
NO2_DIS	P613	mg/L	0.016	0.014	5	0.010	0.001	6	0.010	0.000	6	0.010	0.000	6	0.041	0.010K
NO2_NO3	P630	mg/L	0.755	0.138	12	0.853	0.157	12	0.780	0.194	12	0.925	0.137	12	1.170	0.364
TP_P	P665	mg/L	0.065	0.039	12	0.045	0.027	12	0.040	0.014	11	0.033	0.008	12	0.168	0.010
OP_DIS	P671	mg/L	0.031	0.027	11	0.024	0.014	12	0.020	0.004	11	0.019	0.007	12	0.108	0.010K
HG	P71900	ug/L	0.058	0.031	3	0.040	0.000	3	0.160	0.208	3	0.016	0.021	2	0.400	0.001K
TURB	P82079	NTU	5.136	5.398	11	2.342	0.543	12	2.250	0.755	12	1.000	0.467	12	17.000	0.500
HARD	P900	mg/L	26.500	16.263	2	26.667	3.215	3	33.333	4.041	3	45.333	4.933	3	51.000	15.000
COND	P95	umhos	79.583	21.177	12	72.333	8.637	12	86.167	17.309	12	109.250	7.111	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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 24B090 Name: WILLAPA R NR WILLAPA Class: A Elevation: 50 River Mile: 17.70

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

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	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	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	C	8.400	2.247	9	6.250	2.749	12	13.925	3.900	12	16.558	3.081	12	22.200	1.500
PRESS	P25	mmHg	765.411	7.460	9	764.208	6.843	12	764.808	4.511	12	766.033	5.563	12	779.800	753.400
OXYGEN	P300	mg/L	11.211	0.722	9	11.927	0.592	11	10.483	1.122	12	9.483	0.659	12	13.200	8.300
PCTSAT	P301	%	93.100	4.271	9	95.545	3.183	11	99.675	6.156	12	95.642	7.341	12	114.200	83.200
FC	P31616	#/100ml	399.889	558.563	9	56.364	97.777	11	116.083	75.500	12	312.083	318.658	12	1600.000	4.000
PH	P400	units	7.089	0.306	9	7.150	0.303	12	7.400	0.191	12	7.433	0.144	12	7.700	6.500
SUSSOL	P530	mg/L	119.222	179.921	9	9.917	13.931	12	4.833	3.460	12	6.083	5.054	12	453.000	2.000
FLOW	P60	CFS	2239.667	2771.900	9	721.750	519.785	12	286.750	229.194	12	38.583	15.412	12	7390.000	18.000
TPN	P600	mg/L	1.085	0.396	6	0.856	0.147	6	0.577	0.148	6	0.382	0.136	6	1.616	0.115
NH3_N	P610	mg/L	0.015	0.006	9	0.014	0.008	12	0.015	0.006	12	0.019	0.010	11	0.039	0.010U
NO2_DIS	P613	mg/L	0.010	0.000	3	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	0.817	0.290	3	0.690	0.082	3	0.325	0.106	2	0.223	0.021	3	1.100	0.200
NO2_NO3	P630	mg/L	0.796	0.313	9	0.805	0.173	12	0.422	0.193	12	0.258	0.042	12	1.260	0.202
TP_P	P665	mg/L	0.064	0.067	9	0.023	0.018	12	0.015	0.004	12	0.021	0.006	12	0.214	0.010U
OP_DIS	P671	mg/L	0.007	0.003	9	0.008	0.002	12	0.008	0.003	12	0.008	0.002	12	0.011	0.005U
COLOR	P80	Pt-Co	52.667	30.436	3	19.667	2.309	3	25.000	0.000	2	47.667	33.858	3	87.000	17.000
TURB	P82079	NTU	46.800	74.248	9	3.827	2.671	11	2.150	1.818	12	2.042	0.419	12	210.000	0.800
COND	P95	umhos	61.333	9.899	9	58.333	6.387	12	67.000	15.082	12	78.083	11.285	12	112.000	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: 24F070 Name: NASELLE R NR NASELLE Class: A Elevation: 75 River Mile: 17.40

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

Water Years Sampled:

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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 7 8 9 0 1 2 3 4 5 6
              X X   X X     X     X X X X X                     X     X X X
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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	C	8.344	2.262	9	6.367	2.978	9	13.389	4.152	9	15.367	3.147	9	21.200	1.600
PRESS	P25	mmHg	764.189	7.593	9	758.489	11.464	9	762.056	4.838	9	763.911	5.790	9	779.500	732.800
OXYGEN	P300	mg/L	11.756	0.644	9	12.433	0.766	9	10.878	0.797	9	10.178	0.504	9	13.900	9.300
PCTSAT	P301	%	97.578	5.461	9	99.856	2.766	9	102.756	2.570	9	100.378	4.747	9	106.800	85.600
FC	P31616	#/100ml	185.111	294.428	9	24.333	47.403	9	19.889	17.660	9	396.667	806.558	9	2400.000	1.000
PH	P400	units	7.078	0.222	9	7.156	0.219	9	7.389	0.395	9	7.711	0.252	9	8.200	6.400
SUSSOL	P530	mg/L	162.111	290.931	9	21.667	57.886	9	2.889	1.900	9	6.667	13.666	9	791.000	1.000K
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	0.827	0.197	6	0.489	0.103	5	0.347	0.085	6	0.272	0.213	6	1.060	0.118
NH3_N	P610	mg/L	0.013	0.009	9	0.011	0.003	8	0.014	0.006	9	0.019	0.016	9	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	0.594	0.160	9	0.458	0.119	8	0.258	0.118	9	0.129	0.101	9	0.843	0.024
TP_P	P665	mg/L	0.070	0.103	9	0.025	0.040	8	0.013	0.003	9	0.025	0.032	9	0.334	0.010U
OP_DIS	P671	mg/L	0.007	0.003	9	0.008	0.003	9	0.007	0.003	9	0.007	0.003	9	0.012	0.005U
TURB	P82079	NTU	70.300	122.916	9	4.411	8.118	9	1.311	0.992	9	3.600	6.127	9	310.000	0.300
COND	P95	umhos	51.333	7.714	9	52.556	8.833	9	54.000	5.196	9	60.667	3.500	9	75.000	38.000

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

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 26B070 Name: COWLITZ R @ KELSO

Class: A Elevation: 5 River Mile: 4.90

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

Water Years Sampled:

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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 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 X X X X X X X
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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	C	8.072	2.222	18	6.389	1.859	18	11.522	2.764	18	14.017	2.168	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	mmHg	764.733	11.567	18	766.194	5.475	18	765.933	8.778	18	766.011	4.503	18	795.000	724.400
OXYGEN	P300	mg/L	11.367	0.875	18	11.782	0.685	17	10.839	0.562	18	10.239	0.342	18	13.200	9.100
PCTSAT	P301	%	95.300	8.025	18	94.947	5.220	17	98.050	3.367	18	97.961	3.694	18	108.800	76.100
FC	P31616	#/100ml	55.067	71.933	15	28.611	76.633	18	16.333	13.178	18	18.000	11.586	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	units	7.433	0.366	18	7.233	0.309	18	7.517	0.430	18	7.494	0.186	18	8.500	6.700
SUSSOL	P530	mg/L	132.625	232.851	16	57.722	60.468	18	40.278	38.979	18	10.944	9.019	18	794.000	3.000
FLOW	P60	CFS	9722.857	9387.966	14	9613.077	5159.368	13	7402.308	2455.050	13	3433.333	543.697	12	32600.000	950.000
TPN	P600	mg/L	0.284	0.201	7	0.325	0.063	9	0.179	0.064	9	0.118	0.062	9	0.640	0.078
NH3_N	P610	mg/L	0.016	0.008	16	0.017	0.010	18	0.017	0.015	18	0.012	0.004	18	0.069	0.010U
NO2_DIS	P613	mg/L	0.009	0.002	8	0.010	0.000	9	0.010	0.000	9	0.010	0.000	9	0.010	0.004
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	0.207	0.157	16	0.249	0.113	18	0.111	0.062	18	0.045	0.011	18	0.627	0.026
TP_P	P665	mg/L	0.053	0.055	16	0.061	0.076	18	0.034	0.023	18	0.016	0.009	18	0.339	0.010U
OP_DIS	P671	mg/L	0.009	0.002	15	0.009	0.003	18	0.009	0.005	17	0.008	0.002	18	0.025	0.004
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	41.680	77.196	15	32.350	42.741	18	17.389	20.489	18	4.161	3.915	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	87.611	17.355	18	86.611	12.491	18	95.722	21.110	18	119.556	15.451	18	171.000	56.000

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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 27B070 Name: KALAMA R NR KALAMA

Class: A Elevation: 40 River Mile: 2.80

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

Water Years Sampled:

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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 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 X X X X     X X X
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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	C	7.942	1.538	12	6.025	2.339	12	12.417	3.218	12	14.425	2.729	12	19.400	1.200
PRESS	P25	mmHg	766.800	6.600	12	763.933	5.631	12	762.383	5.317	12	763.542	4.221	12	779.500	754.400
OXYGEN	P300	mg/L	12.217	0.879	12	12.600	0.486	11	11.483	0.855	12	10.542	0.487	12	14.000	9.500
PCTSAT	P301	%	101.600	4.725	12	101.064	2.769	11	106.317	5.171	12	101.942	3.443	12	114.100	95.100
FC	P31616	#/100ml	25.778	17.527	9	3.917	5.567	12	9.750	7.629	12	22.833	24.483	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	units	7.508	0.297	12	7.308	0.358	12	7.675	0.352	12	7.675	0.201	12	8.400	6.700
SUSSOL	P530	mg/L	48.000	123.966	10	11.167	27.125	12	4.417	2.503	12	2.750	2.179	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	0.403	0.291	4	0.369	0.105	6	0.245	0.063	6	0.147	0.045	6	0.741	0.101
NH3_N	P610	mg/L	0.014	0.008	10	0.011	0.003	12	0.012	0.005	12	0.020	0.013	12	0.052	0.010U
NO2_DIS	P613	mg/L	0.009	0.002	5	0.010	0.000	6	0.010	0.000	6	0.010	0.000	6	0.010	0.005
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	0.001	9	0.002	0.000
NO3_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
NO2_NO3	P630	mg/L	0.314	0.165	10	0.334	0.094	12	0.140	0.088	12	0.052	0.023	12	0.542	0.017
TP_P	P665	mg/L	0.024	0.019	10	0.026	0.021	11	0.014	0.004	12	0.018	0.006	12	0.081	0.010U
OP_DIS	P671	mg/L	0.009	0.005	9	0.009	0.003	11	0.008	0.002	12	0.009	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	22.433	59.112	9	4.300	5.845	12	2.133	2.138	12	1.667	1.742	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	45.833	9.024	12	44.000	6.105	12	47.000	6.267	12	64.250	10.670	12	0.000	0.000

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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 27D090 Name: EF LEWIS R NR DOLLAR CORNER Class: A Elevation: 68 River Mile: 10.20

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

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	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	C	7.708	1.840	12	6.300	2.804	12	13.450	4.271	12	17.192	3.422	12	22.500	0.200
PRESS	P25	mmHg	765.458	6.419	12	762.908	5.860	12	761.458	5.289	12	762.658	3.883	12	778.500	753.100
OXYGEN	P300	mg/L	12.067	0.825	12	12.418	0.700	11	10.808	0.930	12	9.942	0.552	12	14.000	8.900
PCTSAT	P301	%	99.950	4.245	12	100.270	2.304	10	102.175	2.306	12	101.892	4.382	12	111.600	94.800
FC	P31616	#/100ml	111.000	250.350	11	10.417	25.854	12	12.167	9.013	12	71.417	198.152	12	850.000	1.000U
PH	P400	units	7.542	0.427	12	7.458	0.417	12	7.700	0.439	12	7.617	0.180	12	8.600	6.700
SUSSOL	P530	mg/L	10.833	26.274	12	3.500	4.253	12	2.750	1.357	12	4.667	10.254	12	94.000	1.000U
FLOW	P60	CFS	1047.875	896.170	8	1007.125	836.067	8	322.750	184.986	8	154.143	238.961	7	2730.000	35.000
TPN	P600	mg/L	0.568	0.145	6	0.436	0.126	6	0.282	0.055	6	0.231	0.057	6	0.717	0.166
NH3_N	P610	mg/L	0.015	0.011	12	0.011	0.002	12	0.011	0.003	12	0.015	0.009	12	0.049	0.010U
NO2_DIS	P613	mg/L	0.009	0.003	5	0.010	0.000	6	0.010	0.000	6	0.010	0.000	6	0.010	0.004
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	0.477	0.090	12	0.376	0.105	12	0.208	0.061	12	0.136	0.056	12	0.614	0.059
TP_P	P665	mg/L	0.017	0.019	12	0.017	0.013	11	0.010	0.000	12	0.014	0.007	12	0.075	0.005
OP_DIS	P671	mg/L	0.008	0.006	11	0.008	0.002	12	0.008	0.003	12	0.008	0.002	12	0.023	0.001
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	5.182	11.266	11	1.900	1.212	12	1.408	0.775	12	2.325	4.354	12	39.000	0.400
COND	P95	umhos	37.083	7.115	12	37.333	8.316	12	38.167	6.873	12	62.583	12.859	12	95.000	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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

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

Location:
HIGWAY 141 BRIDGE

Water Years Sampled:

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

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			-----JANUARY-MARCH----			------APRIL-JUNE------			----JULY-SEPTEMBER----			-----SIX YEAR------	
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN
TEMP	P10	C	6.667	3.175	6	4.383	1.398	6	11.800	2.791	6	16.050	2.316	6	19.000	2.800
PRESS	P25	mmHg	755.933	7.960	6	754.983	10.945	6	750.767	7.886	6	752.950	9.913	6	768.900	734.100
OXYGEN	P300	mg/L	11.800	1.225	5	12.950	0.619	6	10.767	0.792	6	9.700	0.917	6	13.800	9.000
PCTSAT	P301	%	96.680	2.982	5	100.183	2.159	6	99.883	2.283	6	98.717	10.694	6	116.400	87.600
FC	P31616	#/100ml	38.600	46.441	5	22.833	25.592	6	39.667	36.985	6	112.833	219.585	6	560.000	1.000
PH	P400	units	7.650	0.394	6	7.917	0.248	6	7.883	0.240	6	7.867	0.339	6	8.400	6.900
SUSSOL	P530	mg/L	7.000	7.899	6	5.500	4.593	6	1.833	0.983	6	1.667	0.816	6	21.000	1.000U
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	0.208	0.142	6	0.199	0.162	6	0.088	0.047	6	0.198	0.035	6	0.509	0.029
NH3_N	P610	mg/L	0.010	0.000	6	0.012	0.005	6	0.010	0.000	6	0.018	0.013	6	0.040	0.010U
NO2_NO3	P630	mg/L	0.084	0.074	6	0.061	0.032	6	0.017	0.012	6	0.097	0.044	6	0.211	0.010U
TP_P	P665	mg/L	0.054	0.026	6	0.035	0.018	6	0.031	0.011	6	0.056	0.007	6	0.089	0.011
OP_DIS	P671	mg/L	0.026	0.014	6	0.019	0.007	6	0.020	0.006	6	0.037	0.004	6	0.052	0.010
TURB	P82079	NTU	7.900	8.850	6	8.983	5.245	6	2.483	1.150	6	1.133	0.755	6	25.000	0.500
COND	P95	umhos	115.000	56.203	6	61.000	3.578	6	91.833	12.937	6	143.667	16.488	6	205.000	56.000

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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 29E070 Name: GILMER CR NR MOUTH

Class: A Elevation: 1090 River Mile: 1.50

Location:
UPSTREAM SIDE OF FIRST CULVERT ON GLENWOOD ROAD

Water Years Sampled:

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

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			-----JANUARY-MARCH----			------APRIL-JUNE------			----JULY-SEPTEMBER----			-----SIX YEAR------	
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN
TEMP	P10	C	5.683	3.815	6	4.900	1.557	6	10.217	2.031	6	11.900	1.346	6	13.900	0.000
PRESS	P25	mmHg	742.140	7.136	5	744.783	11.294	6	741.417	8.653	6	745.400	7.623	6	759.500	732.800
OXYGEN	P300	mg/L	11.300	1.145	5	12.417	0.387	6	10.900	0.555	6	10.633	0.234	6	12.800	9.600
PCTSAT	P301	%	94.660	10.212	5	98.750	1.971	6	98.983	1.614	6	99.950	3.661	6	104.600	76.600
FC	P31616	#/100ml	95.500	72.968	4	342.333	763.521	6	84.833	73.690	6	252.000	354.191	6	1900.000	2.000
PH	P400	units	7.660	0.297	5	7.750	0.315	6	7.767	0.258	6	7.650	0.351	6	8.300	7.100
SUSSOL	P530	mg/L	19.000	30.927	5	24.000	36.006	6	4.000	3.033	6	8.333	14.137	6	96.000	1.000U
FLOW	P60	CFS	43.840	92.901	5	53.917	33.693	6	13.683	11.222	6	3.040	1.795	5	210.000	0.600
TPN	P600	mg/L	3.104	1.554	5	1.831	0.947	6	2.865	0.784	6	4.107	0.705	6	5.380	0.404
NH3_N	P610	mg/L	0.025	0.034	5	0.013	0.008	6	0.011	0.002	6	0.012	0.004	6	0.086	0.010U
NO2_NO3	P630	mg/L	2.852	1.658	5	1.730	0.324	6	2.830	0.912	6	4.165	0.750	6	5.310	1.080
TP_P	P665	mg/L	0.043	0.013	5	0.050	0.046	6	0.023	0.011	6	0.035	0.014	6	0.138	0.010U
OP_DIS	P671	mg/L	0.017	0.005	5	0.020	0.008	6	0.010	0.005	6	0.018	0.004	6	0.030	0.006
TURB	P82079	NTU	11.880	14.406	5	16.400	21.727	6	3.600	1.838	6	3.750	5.522	6	60.000	1.100
COND	P95	umhos	117.400	27.709	5	83.667	6.563	6	106.833	20.292	6	121.167	14.945	6	150.000	69.000

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

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 31A070 Name: COLUMBIA R @ UMATILLA Class: A Elevation: 240 River Mile: 290.50

Location:
LOCATED BELOW MCNARY DAM UNDER THE UMATILLA INTERSTATE BRIDGE

Water Years Sampled:

5	6						7								8									9						
9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6
									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	C	11.356	4.490	16	3.683	1.477	18	11.194	2.773	18	19.250	1.330	18	21.500	0.800
ZN	P1094	ug/L	6.300	3.824	4	6.000	1.633	4	7.000	2.646	3	5.667	2.082	3	12.000	4.000K
CD	P1113	ug/L	0.100	0.000	3	0.197	0.167	3	0.000	0.000	0	0.000	0.000	0	0.390	0.100K
PB	P1114	ug/L	1.000	0.000	3	1.000	0.000	3	0.000	0.000	0	0.000	0.000	0	1.000	1.000K
CR	P1118	ug/L	0.783	0.551	4	2.166	2.588	5	2.875	3.005	2	3.467	2.656	3	5.000	0.200K
CU	P1119	ug/L	2.667	0.577	3	2.250	0.500	4	0.000	0.000	0	0.000	0.000	0	3.000	2.000K
PRESS	P25	mmHg	759.088	7.049	16	757.800	7.787	17	754.250	4.663	18	754.139	5.580	18	769.400	738.600
OXYGEN	P300	mg/L	10.819	1.226	16	13.433	1.126	18	12.383	0.719	18	9.822	0.514	18	16.100	8.900
PCTSAT	P301	%	97.900	6.621	16	101.717	7.200	18	113.000	5.806	18	106.333	5.317	18	125.500	90.500
FC	P31616	#/100ml	51.714	111.206	14	13.444	30.475	18	4.889	3.818	18	18.556	65.309	18	400.000	1.000U
PH	P400	units	8.088	0.348	16	7.906	0.352	18	8.222	0.258	18	8.222	0.273	18	8.800	7.100
SUSSOL	P530	mg/L	9.667	12.921	15	29.833	92.513	18	7.778	2.365	18	7.000	1.910	18	394.000	2.000
FLOW	P60	CFS	136906.250	60276.048	16	170461.111	71947.482	18	223094.444	89570.514	18	136472.222	56943.138	18	476300.000	62900.000
TPN	P600	mg/L	0.304	0.070	9	0.507	0.224	9	0.270	0.101	9	0.185	0.059	9	1.020	0.112
NH3_N	P610	mg/L	0.014	0.005	16	0.013	0.007	18	0.013	0.005	18	0.014	0.007	18	0.039	0.004
NO2_DIS	P613	mg/L	0.010	0.000	7	0.010	0.000	9	0.009	0.003	9	0.010	0.000	9	0.010	0.001
NO2_NO3	P630	mg/L	0.179	0.084	16	0.321	0.124	18	0.171	0.129	18	0.041	0.030	18	0.577	0.010U
TP_P	P665	mg/L	0.026	0.007	16	0.032	0.038	18	0.026	0.012	18	0.020	0.006	18	0.181	0.010K
OP_DIS	P671	mg/L	0.014	0.010	15	0.026	0.044	18	0.009	0.004	18	0.010	0.007	18	0.199	0.005U
HG	P71900	ug/L	0.035	0.023	4	0.032	0.021	7	0.041	0.032	4	0.109	0.134	5	0.300	0.001U
TURB	P82079	NTU	3.053	2.368	15	9.939	27.704	18	4.461	2.357	18	3.272	1.208	18	120.000	0.500
HARD	P900	mg/L	69.250	8.655	4	74.833	3.061	6	63.500	5.066	4	59.600	4.722	5	80.000	52.000
COND	P95	umhos	160.188	13.934	16	174.944	27.622	18	141.889	20.099	18	132.611	12.186	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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 32A070 Name: WALLA WALLA R NR TOUCHET

Class: B Elevation: 370 River Mile: 15.30

Location:
LOCATED AT A PRIVATE BRIDGE THREE RIVER MILES UPSTREAM FROM US HIGHWAY 12 BRIDGE NEAR REESE

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 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 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	C	8.612	4.636	17	5.550	3.063	16	15.528	5.065	18	22.144	2.781	18	26.900	0.100
PRESS	P25	mmHg	756.765	5.568	17	753.620	7.882	15	750.222	5.626	18	750.061	5.384	18	765.800	736.100
OXYGEN	P300	mg/L	11.882	1.343	17	12.393	1.173	15	10.222	1.103	18	10.611	1.752	18	15.400	8.300
PCTSAT	P301	%	101.441	10.957	17	98.440	7.984	15	102.628	9.641	18	122.289	21.276	18	183.700	86.200
FC	P31616	#/100ml	87.333	117.121	15	66.200	44.926	15	153.111	92.166	18	105.500	77.476	18	480.000	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	units	8.106	0.336	17	7.781	0.243	16	8.172	0.369	18	8.517	0.320	18	9.200	7.300
SUSSOL	P530	mg/L	50.688	41.869	16	663.188	2278.422	16	98.500	127.984	18	34.778	22.383	18	9200.000	4.000
FLOW	P60	CFS	202.629	232.764	17	872.500	612.074	16	651.667	621.136	18	26.117	24.420	18	2690.000	1.300
TPN	P600	mg/L	1.100	0.221	8	1.401	0.853	8	0.983	0.514	9	0.901	0.184	9	3.480	0.569
NH3_N	P610	mg/L	0.031	0.018	17	0.051	0.061	16	0.030	0.026	18	0.027	0.016	18	0.268	0.010U
NO2_DIS	P613	mg/L	0.012	0.004	9	0.010	0.000	8	0.010	0.002	9	0.011	0.004	9	0.023	0.006
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	0.747	0.265	17	0.964	0.207	16	0.647	0.410	18	0.480	0.313	18	1.850	0.010U
TP_P	P665	mg/L	0.115	0.050	16	0.165	0.075	16	0.121	0.046	18	0.121	0.041	18	0.414	0.038
OP_DIS	P671	mg/L	0.064	0.032	15	0.080	0.013	16	0.055	0.018	18	0.055	0.032	18	0.129	0.010K
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	24.625	30.093	16	618.506	2368.657	16	19.606	17.303	18	15.028	10.291	18	9500.000	2.700
COND	P95	umhos	271.118	171.394	17	139.063	30.313	16	175.556	68.161	18	469.333	132.151	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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 33A050 Name: SNAKE R NR PASCO Class: A Elevation: 330 River Mile: 2.20

Location:
LOCATED AT THE BRIDGE ON US HIGHWAY 12/395 NEAR BURBANK AT HOOD PARK

Water Years Sampled:

5	6						7								8									9					
9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	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	---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	C	11.613	4.756	16	4.044	1.577	18	11.656	2.661	18	19.950	1.526	18	22.600	1.600
PRESS	P25	mmHg	751.719	11.308	16	754.572	7.588	18	749.000	4.630	18	749.217	7.901	18	765.300	725.200
OXYGEN	P300	mg/L	10.081	1.569	16	12.911	1.440	18	12.044	1.162	18	9.222	0.899	18	17.800	7.500
PCTSAT	P301	%	92.269	7.665	16	99.167	10.439	18	111.906	10.852	18	101.878	9.878	18	132.700	83.100
FC	P31616	#/100ml	5.500	6.149	14	17.471	47.596	17	19.611	45.202	18	40.833	69.361	18	250.000	1.000U
COD	P340	mg/L	9.143	5.543	21	19.500	13.435	2	10.500	0.707	2	11.667	4.041	3	29.000	7.000
PH	P400	units	8.106	0.139	16	8.106	0.234	18	7.961	0.417	18	8.061	0.350	18	8.600	6.900
SUSSOL	P530	mg/L	5.200	2.366	15	23.778	64.190	18	13.778	7.682	18	10.667	8.636	18	279.000	2.000
FLOW	P60	CFS	27706.250	16480.957	16	43830.556	28430.271	18	78544.444	43394.107	18	31538.889	21263.864	18	205000.000	9000.000
TPN	P600	mg/L	0.706	0.183	9	1.271	0.606	9	0.486	0.234	9	0.290	0.081	9	2.830	0.186
NH3_N	P610	mg/L	0.014	0.005	16	0.024	0.019	18	0.017	0.008	18	0.018	0.012	18	0.073	0.010U
NO2_DIS	P613	mg/L	0.012	0.006	7	0.010	0.001	9	0.012	0.007	9	0.011	0.001	9	0.028	0.004
NO2_N	P615	mg/L	0.012	0.004	17	0.013	0.007	14	0.010	0.000	12	0.010	0.000	13	0.000	0.000
NH3_UN	P619	mg/L	0.000	0.001	19	0.000	0.000	19	0.001	0.004	17	0.001	0.001	15	0.000	0.000
NO3_N	P620	mg/L	0.638	0.144	13	0.809	0.148	14	0.380	0.389	13	0.163	0.085	10	0.000	0.000
NO2_NO3	P630	mg/L	0.446	0.211	16	0.909	0.307	18	0.484	0.342	18	0.303	0.397	18	1.650	0.024
TP_P	P665	mg/L	0.062	0.023	16	0.061	0.023	17	0.060	0.037	18	0.046	0.033	18	0.141	0.010K
OP_DIS	P671	mg/L	0.043	0.009	14	0.045	0.013	17	0.031	0.025	18	0.025	0.026	18	0.098	0.005U
COLOR	P80	Pt-Co	21.571	6.294	7	37.667	17.507	9	36.000	23.551	7	22.333	2.066	6	0.000	0.000
TURB	P82079	NTU	4.027	6.668	15	31.372	104.736	18	8.039	3.638	18	5.067	2.292	18	450.000	1.100
COND	P95	umhos	282.313	67.407	16	286.944	70.036	18	161.833	74.694	18	148.833	29.036	18	450.000	79.000

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.

REPORT CREATION DATE: 97/07/24

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

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	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	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	C	6.506	4.801	18	3.393	2.159	14	14.017	4.402	18	20.450	2.995	18	26.300	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	mmHg	737.911	7.009	18	736.154	6.611	13	735.100	4.003	18	733.544	5.204	18	751.100	724.200
OXYGEN	P300	mg/L	12.050	1.299	18	12.393	0.780	14	10.111	1.201	18	9.247	1.612	17	13.900	7.300
PCTSAT	P301	%	100.039	7.343	18	95.786	2.332	14	100.311	8.889	18	106.012	21.941	17	158.000	83.400
FC	P31616	#/100ml	190.118	289.965	17	258.462	527.042	13	51.000	48.386	17	112.353	119.898	17	1700.000	1.000
COD	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	units	8.311	0.377	18	7.914	0.179	14	8.439	0.532	18	8.744	0.454	18	9.700	7.700J
SUSSOL	P530	mg/L	47.667	57.621	18	649.000	1392.566	14	66.111	78.793	18	37.444	17.771	18	4380.000	2.000
FLOW	P60	CFS	169.222	250.911	18	1065.286	1201.215	14	605.500	606.552	18	54.111	46.601	18	4510.000	2.000
TPN	P600	mg/L	2.113	1.254	9	3.627	1.614	7	2.428	1.612	8	0.821	0.410	9	6.630	0.386
NH3_N	P610	mg/L	0.046	0.045	18	0.082	0.096	14	0.036	0.052	17	0.048	0.074	18	0.361	0.009
NO2_DIS	P613	mg/L	0.010	0.001	9	0.016	0.005	7	0.014	0.008	9	0.010	0.000	9	0.035	0.007
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	1.382	1.044	18	3.146	1.200	14	1.564	1.306	17	0.249	0.299	18	6.040	0.010U
TP_P	P665	mg/L	0.186	0.124	18	0.221	0.135	14	0.138	0.074	16	0.137	0.060	18	0.605	0.024
OP_DIS	P671	mg/L	0.132	0.130	18	0.120	0.030	14	0.082	0.047	18	0.059	0.049	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	38.328	48.978	18	627.429	2037.425	14	32.544	36.378	18	23.406	13.620	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	297.000	85.210	18	205.429	58.416	14	224.778	46.885	18	320.500	40.992	18	404.000	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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 34A170 Name: PALOUSE R @ PALOUSE Class: A Elevation: 2090 River Mile: 121.20

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

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

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			-----JANUARY-MARCH----			------APRIL-JUNE------			----JULY-SEPTEMBER----			-----SIX YEAR------	
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN
TEMP	P10	C	4.567	3.991	15	1.315	1.797	13	11.427	5.844	15	18.233	3.421	15	23.700	0.000J
PRESS	P25	mmHg	703.673	4.993	15	702.275	5.854	12	705.487	15.518	15	702.233	5.297	15	760.700	690.100
OXYGEN	P300	mg/L	11.400	1.475	15	12.392	0.778	13	10.173	1.641	15	8.007	1.469	15	14.000	5.900
PCTSAT	P301	%	94.307	6.034	15	94.954	3.518	13	99.573	19.055	15	91.393	18.256	15	154.400	70.200
FC	P31616	#/100ml	79.214	122.503	14	196.333	410.915	12	295.267	805.374	15	430.667	1190.894	15	4700.000	1.000
PH	P400	units	7.820	0.248	15	7.562	0.272	13	7.880	0.349	15	8.440	0.453	15	9.200	7.100
SUSSOL	P530	mg/L	3.733	3.390	15	135.231	407.986	13	51.800	160.132	15	8.400	16.911	15	1490.000	1.000K
FLOW	P60	CFS	67.400	124.066	15	254.385	245.317	13	292.000	390.128	15	15.667	12.904	15	1280.000	2.000
TPN	P600	mg/L	0.407	0.380	9	1.209	1.145	8	0.290	0.146	8	0.324	0.128	9	3.380	0.113
NH3_N	P610	mg/L	0.017	0.010	15	0.032	0.026	13	0.017	0.021	14	0.013	0.005	15	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	0.154	0.316	15	0.840	0.793	13	0.153	0.232	14	0.089	0.302	15	2.460	0.010U
TP_P	P665	mg/L	0.047	0.023	15	0.069	0.034	13	0.054	0.037	14	0.044	0.026	15	0.162	0.010K
OP_DIS	P671	mg/L	0.022	0.010	15	0.039	0.028	13	0.023	0.013	15	0.027	0.033	15	0.141	0.005U
TURB	P82079	NTU	6.793	5.389	15	172.723	519.999	13	21.693	49.565	15	6.300	13.021	15	1900.000	1.100
COND	P95	umhos	82.067	17.657	15	77.000	21.440	13	62.467	11.993	15	85.200	18.606	15	142.000	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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 34B110 Name: SF PALOUSE R @ PULLMAN Class: A Elevation: 2320 River Mile: 22.20

Location:
LOCATED AT THE BRIDGE ON STATE STREET ONE BLOCK NORTH OF US HIGHWAY 195 AT PULLMAN

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	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

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	C	5.692	2.852	12	3.318	1.724	11	12.342	3.975	12	16.667	2.286	12	21.400	0.200
PRESS	P25	mmHg	705.625	4.450	12	703.080	5.693	10	703.742	2.817	12	703.950	6.020	12	714.200	691.900
OXYGEN	P300	mg/L	9.833	1.600	12	11.618	0.773	11	10.542	2.650	12	8.317	2.547	12	15.800	5.300
PCTSAT	P301	%	84.033	11.947	12	94.009	3.834	11	105.200	23.281	12	91.967	28.428	12	142.300	56.700
FC	P31616	#/100ml	1164.917	1604.802	12	2958.400	5972.289	10	476.182	607.052	11	2604.167	3972.108	12	19000.000	20.000
PH	P400	units	7.867	0.202	12	7.791	0.192	11	8.133	0.498	12	8.083	0.376	12	8.900	7.400
SUSSOL	P530	mg/L	11.000	9.705	12	292.909	418.890	11	18.083	12.767	12	26.000	50.566	12	1090.000	2.000
FLOW	P60	CFS	15.583	14.216	12	122.000	150.324	11	29.167	24.672	12	11.273	16.371	11	520.000	2.000
TPN	P600	mg/L	6.780	1.184	6	7.468	2.307	5	5.894	1.352	5	3.598	1.772	6	9.420	1.380
NH3_N	P610	mg/L	0.544	1.180	12	0.232	0.141	11	0.188	0.228	11	0.041	0.033	12	4.240	0.010U
NO2_DIS	P613	mg/L	0.073	0.027	6	0.074	0.073	6	0.074	0.061	6	0.022	0.008	6	0.179	0.010K
NO2_N	P615	mg/L	0.117	0.125	3	0.100	0.017	3	0.100	0.042	2	0.080	0.020	3	0.260	0.030
NH3_UN	P619	mg/L	0.004	0.004	13	0.003	0.002	11	0.008	0.011	12	0.006	0.004	9	0.042	0.001
NO3_N	P620	mg/L	9.850	4.455	2	7.833	3.308	3	3.900	1.778	3	4.100	2.000	3	13.000	1.900
NO2_NO3	P630	mg/L	5.865	2.260	12	6.401	1.550	11	4.564	1.221	11	3.529	1.776	12	10.600	0.612
TP_P	P665	mg/L	1.918	1.391	12	0.680	0.514	10	0.859	0.599	10	1.548	0.796	10	5.250	0.086
OP_DIS	P671	mg/L	1.702	1.145	12	0.382	0.284	11	0.767	0.514	12	1.213	0.579	11	4.550	0.135
COLOR	P80	Pt-Co	75.286	79.115	7	121.000	111.723	2	28.333	13.429	3	119.000	43.841	2	252.000	13.000
TURB	P82079	NTU	19.217	19.408	12	252.909	494.264	11	14.100	10.416	12	13.992	24.087	12	1700.000	2.300
COND	P95	umhos	514.750	125.655	12	311.455	106.554	11	375.833	54.464	12	539.833	135.113	12	735.000	188.000

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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 34F090 Name: PINE CR @ ROSALIA Class: A Elevation: 2190 River Mile: 22.40

Location:
1st Street bridge in Rosalia

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 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	C	4.667	3.937	3	1.900	1.131	2	13.867	4.252	3	16.733	2.268	3	19.300	1.100
PRESS	P25	mmHg	705.433	3.915	3	702.300	9.334	2	705.433	3.150	3	701.400	1.931	3	709.900	695.700
OXYGEN	P300	mg/L	9.067	3.272	3	11.100	0.849	2	8.567	0.833	3	7.667	1.767	3	11.700	5.300
PCTSAT	P301	%	74.133	21.749	3	86.600	5.091	2	88.533	1.848	3	84.967	18.569	3	105.600	49.200
FC	P31616	#/100ml	426.667	583.895	3	250.000	0.000	2	114.667	26.558	3	112.000	137.764	3	1100.000	17.000
PH	P400	units	7.900	0.500	3	7.300	0.000	2	7.867	0.058	3	8.033	0.208	3	8.400	7.300
SUSSOL	P530	mg/L	229.667	311.214	3	4145.000	2694.077	2	20.333	11.060	3	11.000	2.000	3	6050.000	9.000
FLOW	P60	CFS	5.000	6.505	3	204.000	135.765	2	42.667	22.368	3	0.667	0.493	3	300.000	0.100
TPN	P600	mg/L	3.803	1.080	3	10.950	3.182	2	8.187	1.642	3	2.270	1.172	3	13.200	1.230
NH3_N	P610	mg/L	0.205	0.303	3	0.093	0.033	2	0.012	0.004	3	0.012	0.003	3	0.555	0.010U
NO2_NO3	P630	mg/L	2.833	0.537	3	8.665	1.591	2	7.867	1.946	3	1.069	0.586	3	9.790	0.446
TP_P	P665	mg/L	0.218	0.028	3	0.327	0.164	2	0.094	0.019	3	0.100	0.037	3	0.443	0.066
OP_DIS	P671	mg/L	0.117	0.048	3	0.105	0.011	2	0.061	0.032	3	0.026	0.020	3	0.162	0.005U
TURB	P82079	NTU	703.333	1036.452	3	3950.000	1626.346	2	26.400	16.391	3	9.467	0.611	3	5100.000	8.200J
COND	P95	umhos	340.000	11.790	3	248.000	9.899	2	369.000	24.021	3	411.667	23.288	3	428.000	241.000

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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 35A150 Name: SNAKE R @ INTERSTATE BR

Class: A Elevation: 705 River Mile: 139.60

Location:
LOCATED AT THE WASHINGTON-IDAHO INTERSTATE BRIDGE ON U S HIGHWAY 12 AT CLARKSTON

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	7	8	9	0	1	2	3	4	5	6
		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	C	10.450	4.925	16	3.489	1.600	18	11.882	2.496	17	20.339	2.226	18	24.600	1.200
PRESS	P25	mmHg	745.481	6.472	16	745.171	6.230	17	741.767	6.050	18	740.389	7.878	18	761.200	730.000
OXYGEN	P300	mg/L	10.731	1.373	16	12.811	0.665	18	10.644	0.659	18	8.872	0.430	18	13.900	8.100
PCTSAT	P301	%	96.488	2.515	16	98.200	2.125	18	98.761	5.731	18	99.944	4.058	18	108.800	82.300
FC	P31616	#/100ml	4.250	8.606	16	3.389	3.381	18	24.588	33.753	17	7.118	9.013	17	130.000	1.000U
CHL	P32211	ug/L	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	2.233	1.721	3	4.200	1.000J
PHEO	P32218	ug/L	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.720	0.416	3	6.300	0.470
PH	P400	units	8.306	0.139	16	8.183	0.248	18	8.206	0.236	18	8.350	0.147	18	8.900	7.700
SUSSOL	P530	mg/L	5.125	8.617	16	5.000	4.144	18	16.833	13.674	18	5.444	3.568	18	57.000	1.000
FLOW	P60	CFS	17456.250	7326.388	16	24975.000	11892.491	16	51483.333	32578.651	18	24340.556	13686.453	18	137000.000	9410.000
TPN	P600	mg/L	0.873	0.166	12	1.174	0.145	12	0.623	0.339	11	0.444	0.131	12	1.390	0.190
NH3_N	P610	mg/L	0.015	0.010	15	0.020	0.011	18	0.018	0.017	17	0.015	0.007	18	0.079	0.007
NO2_DIS	P613	mg/L	0.010	0.000	7	0.010	0.001	9	0.009	0.002	9	0.010	0.000	9	0.013	0.004
NO2_NO3	P630	mg/L	0.704	0.172	16	1.017	0.146	18	0.400	0.233	17	0.270	0.110	18	1.310	0.054
TP_P	P665	mg/L	0.064	0.017	16	0.064	0.015	17	0.052	0.029	17	0.036	0.014	18	0.128	0.010U
OP_DIS	P671	mg/L	0.050	0.013	16	0.047	0.011	18	0.024	0.017	18	0.022	0.011	18	0.082	0.005U
TURB	P82079	NTU	2.569	4.659	16	4.239	3.796	18	8.200	7.482	18	2.467	1.555	18	25.000	0.700
COND	P95	umhos	366.063	56.704	16	359.000	59.668	18	199.667	60.931	18	250.167	66.679	18	474.000	116.000

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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 35B060 Name: TUCANNON R @ POWERS

Class: A Elevation: 600 River Mile: 2.30

Location:
LOCATED .2 MILES SOUTHEAST OF HIGHWAY 261, 1.5 MILES WEST OF STARBUCK

Water Years Sampled:

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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 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
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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	C	8.367	3.333	12	5.500	2.738	12	12.883	3.235	12	18.617	3.216	12	23.900	0.000
PRESS	P25	mmHg	750.783	7.570	12	748.955	6.454	11	747.850	5.247	12	745.442	7.258	12	763.300	734.300
OXYGEN	P300	mg/L	11.558	0.782	12	12.100	0.951	12	10.633	0.669	12	9.325	0.558	12	13.800	8.400
PCTSAT	P301	%	99.200	7.343	12	96.892	1.979	12	101.550	5.384	12	100.792	6.485	12	117.100	90.100
FC	P31616	#/100ml	112.417	177.978	12	303.727	706.694	11	96.909	90.463	11	349.000	574.509	11	2400.000	6.000
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	0.000
PH	P400	units	8.100	0.310	12	7.742	0.156	12	8.267	0.271	12	8.325	0.365	12	9.100	7.500
SUSSOL	P530	mg/L	37.583	60.991	12	82.583	115.331	12	34.833	22.871	12	59.583	147.340	12	526.000	3.000
FLOW	P60	CFS	154.400	153.371	10	193.917	136.936	12	201.500	104.322	12	63.583	18.357	12	570.000	22.000
TPN	P600	mg/L	0.463	0.262	6	0.923	0.453	6	0.509	0.254	5	0.443	0.414	6	1.780	0.158
NH3_N	P610	mg/L	0.022	0.027	11	0.017	0.009	12	0.013	0.006	11	0.016	0.008	12	0.100	0.005
NO2_DIS	P613	mg/L	0.009	0.003	6	0.010	0.000	6	0.009	0.004	6	0.010	0.000	6	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	0.000	13	0.000	0.000	12	0.000	0.000	12	0.001	0.001	9	0.003	0.000
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	0.060
NO2_NO3	P630	mg/L	0.250	0.159	11	0.544	0.325	12	0.214	0.212	11	0.169	0.096	12	1.440	0.006
TP_P	P665	mg/L	0.072	0.037	11	0.101	0.044	12	0.069	0.020	10	0.064	0.022	12	0.190	0.028
OP_DIS	P671	mg/L	0.036	0.009	12	0.049	0.010	12	0.029	0.012	12	0.046	0.022	12	0.100	0.006
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	1.000
TURB	P82079	NTU	13.058	30.723	12	18.517	17.971	12	5.717	3.485	12	40.783	128.878	12	450.000	1.300
COND	P95	umhos	137.500	20.156	12	132.083	20.318	12	123.583	17.428	12	153.750	13.929	12	10.000	10.000K

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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 36A070 Name: COLUMBIA R NR VERNITA

Class: A Elevation: 380 River Mile: 388.10

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

Water Years Sampled:

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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 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 X X X
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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	C	12.036	3.992	11	3.644	1.064	9	9.722	2.691	9	17.756	1.734	9	19.700	2.200
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	mmHg	753.909	11.424	11	747.856	11.839	9	749.656	5.342	9	748.511	9.959	9	767.300	721.400
OXYGEN	P300	mg/L	10.409	0.693	11	13.756	1.479	9	12.678	1.089	9	10.544	0.635	9	16.100	9.400
PCTSAT	P301	%	96.591	3.232	11	105.400	9.735	9	112.422	7.366	9	111.822	9.197	9	128.400	92.000
FC	P31616	#/100ml	1.778	1.716	9	6.667	16.628	9	2.889	1.833	9	4.111	5.110	9	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	units	8.080	0.358	10	8.156	0.151	9	8.133	0.292	9	8.289	0.203	9	8.700	7.400
SUSSOL	P530	mg/L	2.273	0.786	11	4.778	6.280	9	4.333	2.291	9	2.778	0.441	9	21.000	1.000
FLOW	P60	CFS	84181.818	22831.812	11	137677.778	32249.216	9	154611.111	55765.815	9	115722.222	60465.295	9	255500.000	45200.000
TPN	P600	mg/L	0.171	0.038	9	0.208	0.048	9	0.180	0.077	9	0.132	0.047	9	0.301	0.066
NH3_N	P610	mg/L	0.011	0.003	11	0.010	0.000	9	0.010	0.001	9	0.011	0.002	9	0.020	0.010U
NO2_DIS	P613	mg/L	0.006	0.006	2	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.002
NO2_N	P615	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	2	0.010	0.000	3	0.010	0.010K
NH3_UN	P619	mg/L	0.000	0.000	13	0.000	0.000	13	0.002	0.005	11	0.000	0.001	9	0.016	0.000
NO3_N	P620	mg/L	0.120	0.000	2	0.103	0.021	3	0.063	0.035	3	0.013	0.006	3	0.120	0.010
NO2_NO3	P630	mg/L	0.112	0.074	11	0.139	0.054	9	0.086	0.047	9	0.050	0.037	9	0.330	0.010K
TP_P	P665	mg/L	0.016	0.006	11	0.014	0.006	9	0.013	0.006	9	0.014	0.005	9	0.030	0.010U
OP_DIS	P671	mg/L	0.009	0.003	10	0.010	0.009	9	0.010	0.011	9	0.007	0.003	9	0.039	0.005U
HG	P71900	ug/L	0.035	0.039	4	0.020	0.000	3	0.002	0.001	2	0.056	0.021	3	0.077	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	1.245	0.785	11	4.911	7.156	9	3.400	2.539	9	1.756	0.594	9	23.000	0.700
HARD	P900	mg/L	63.750	1.708	4	72.000	2.000	3	59.500	7.778	2	61.000	2.646	3	66.000	54.000
COND	P95	umhos	132.818	7.222	11	147.778	20.843	9	131.333	11.906	9	131.222	11.935	9	196.000	112.000

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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 37A090 Name: YAKIMA R @ KIONA

Class: A Elevation: 460 River Mile: 29.80

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

Water Years Sampled:

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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 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 X X X X X X X X X X X X
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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	C	7.839	4.391	18	4.594	3.003	18	14.533	3.020	18	20.067	2.756	18	24.400	0.000
PRESS	P25	mmHg	752.150	11.000	18	751.667	6.773	18	750.589	4.798	18	751.283	5.139	18	767.100	725.400
OXYGEN	P300	mg/L	11.611	1.357	18	12.239	1.192	18	9.656	1.367	18	8.589	0.823	18	14.400	7.400
PCTSAT	P301	%	97.794	9.047	18	95.261	3.989	18	95.006	11.035	18	94.906	10.361	18	124.800	81.100
FC	P31616	#/100ml	58.625	62.923	16	29.765	28.402	17	70.111	83.411	18	101.667	83.479	18	5.000	5.000K
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	units	8.147	0.290	17	7.906	0.280	18	8.072	0.308	18	8.144	0.268	18	8.900	7.400
SUSSOL	P530	mg/L	27.722	35.929	18	36.389	38.116	18	36.778	31.131	18	26.000	17.862	18	139.000	1.000
FLOW	P60	CFS	3144.000	3364.912	18	5448.611	5388.794	18	3261.444	2118.897	18	1569.111	666.100	18	24000.000	580.000
TPN	P600	mg/L	1.387	0.452	9	1.026	0.461	9	0.842	0.392	9	1.524	0.349	9	1.980	0.397
NH3_N	P610	mg/L	0.027	0.016	18	0.056	0.055	18	0.019	0.012	18	0.022	0.012	18	0.209	0.006
NO2_DIS	P613	mg/L	0.015	0.007	9	0.012	0.004	9	0.010	0.002	9	0.014	0.004	9	0.030	0.008
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	1.174	0.413	18	0.866	0.432	18	0.585	0.298	18	0.961	0.439	18	1.750	0.065
TP_P	P665	mg/L	0.109	0.032	18	0.107	0.064	18	0.088	0.039	18	0.116	0.060	18	0.308	0.017
OP_DIS	P671	mg/L	0.071	0.022	16	0.079	0.070	18	0.033	0.017	18	0.071	0.028	18	0.297	0.005[illegible]
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	11.494	16.946	18	18.356	30.473	18	11.278	7.630	18	11.011	7.065	18	130.000	1.400
COND	P95	umhos	248.444	63.950	18	199.167	61.294	18	201.667	53.147	18	260.056	29.377	18	325.000	106.000

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.

REPORT CREATION DATE: 97/07/24

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:

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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 7 8 9 0 1 2 3 4 5 6
                                                                X X X
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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	C	5.933	5.395	6	3.167	2.722	6	9.733	2.452	6	15.600	1.097	6	17.000	0.000
PRESS	P25	mmHg	737.150	14.780	6	736.017	6.373	6	734.200	6.475	6	738.583	7.006	6	750.800	710.700
OXYGEN	P300	mg/L	12.150	1.657	6	13.167	1.319	6	10.983	0.677	6	9.367	0.493	6	15.000	8.600
PCTSAT	P301	%	99.067	4.869	6	100.833	2.510	6	99.567	3.517	6	96.183	4.766	6	105.700	90.800
FC	P31616	#/100ml	18.200	16.769	5	19.333	16.342	6	60.833	33.855	6	68.333	51.496	6	170.000	2.000
PH	P400	units	8.060	0.134	5	7.617	0.306	6	8.067	0.186	6	8.117	0.293	6	8.400	7.100
SUSSOL	P530	mg/L	16.667	15.996	6	44.167	49.146	6	22.833	21.339	6	17.667	7.062	6	136.000	4.000
FLOW	P60	CFS	4351.667	4744.940	6	11568.000	14316.362	5	5622.000	1432.121	5	3478.333	386.493	6	37000.000	1240.000
TPN	P600	mg/L	0.242	0.060	6	0.333	0.117	6	0.215	0.103	6	0.267	0.073	6	0.532	0.119
NH3_N	P610	mg/L	0.010	0.000	6	0.010	0.000	6	0.011	0.002	6	0.014	0.005	6	0.022	0.010U
NO2_NO3	P630	mg/L	0.127	0.021	6	0.188	0.074	6	0.071	0.044	6	0.129	0.025	6	0.290	0.011
TP_P	P665	mg/L	0.051	0.023	6	0.071	0.062	6	0.053	0.035	6	0.044	0.019	6	0.183	0.010U
OP_DIS	P671	mg/L	0.024	0.008	5	0.036	0.045	6	0.014	0.008	6	0.018	0.005	6	0.127	0.005U
TURB	P82079	NTU	9.250	9.695	6	31.783	40.487	6	14.267	15.171	6	9.500	6.680	6	110.000	1.700
COND	P95	umhos	109.500	23.322	6	109.500	29.717	6	89.667	10.948	6	92.333	8.959	6	168.000	71.000

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

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 39A090 Name: YAKIMA R NR CLE ELUM Class: AA Elevation: 2022 River Mile: 191.00

Location:
LOCATED AT THE BRIDGE ON INTERSTATE 90, 4.5 MILES WEST OF CLE ELUM

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	7	8	9	0	1	2	3	4	5	6
													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	C	6.250	3.224	12	2.700	1.269	12	7.342	2.340	12	13.875	2.137	12	16.300	0.100
PRESS	P25	mmHg	714.283	9.244	12	708.350	8.656	12	710.450	4.178	12	713.025	10.022	12	740.200	689.900
OXYGEN	P300	mg/L	11.217	1.143	12	12.300	0.325	12	11.108	0.604	12	9.250	0.392	12	13.500	8.800
PCTSAT	P301	%	95.733	3.885	12	97.158	2.508	12	98.317	2.553	12	94.883	3.912	12	106.300	89.300
FC	P31616	#/100ml	7.583	2.999	12	2.750	3.019	12	3.917	3.423	12	35.000	43.777	11	160.000	1.000U
PH	P400	units	7.409	0.413	11	7.500	0.479	12	7.308	0.399	12	7.200	0.266	12	8.200	6.400
SUSSOL	P530	mg/L	12.583	21.865	12	5.250	6.649	12	4.917	3.825	12	2.500	1.087	12	73.000	1.000U
FLOW	P60	CFS	963.667	1125.729	12	993.500	854.169	12	1275.250	1064.647	12	1919.000	1560.502	12	4310.000	150.000
TPN	P600	mg/L	0.091	0.033	6	0.091	0.014	6	0.053	0.024	5	0.045	0.025	6	0.123	0.015
NH3_N	P610	mg/L	0.018	0.011	12	0.012	0.003	12	0.012	0.005	11	0.011	0.002	12	0.044	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	0.030	0.019	11	0.040	0.016	12	0.015	0.014	11	0.014	0.008	12	0.070	0.010U
TP_P	P665	mg/L	0.025	0.025	12	0.015	0.011	12	0.011	0.003	11	0.011	0.002	12	0.087	0.010U
OP_DIS	P671	mg/L	0.008	0.003	11	0.008	0.003	12	0.008	0.003	12	0.008	0.003	12	0.010	0.005U
TURB	P82079	NTU	10.717	22.933	12	2.842	2.871	12	3.142	3.522	12	1.582	0.477	11	80.000	0.500
COND	P95	umhos	60.583	8.918	12	57.917	8.867	12	55.583	7.657	12	61.750	43.058	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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 41A070 Name: CRAB CR NR BEVERLY

Class: B Elevation: 500 River Mile: 6.00

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

Water Years Sampled:

5	6						7								8										9					
9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	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	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	C	7.608	3.983	12	5.575	3.636	12	14.933	2.793	12	19.925	1.791	12	22.400	0.000
PRESS	P25	mmHg	751.517	10.854	12	751.225	7.478	12	747.342	4.357	12	748.950	4.981	12	765.000	723.900
OXYGEN	P300	mg/L	11.800	2.048	12	12.758	1.160	12	9.908	1.315	12	9.225	1.546	12	14.600	5.900
PCTSAT	P301	%	98.558	11.008	12	102.908	14.801	12	98.875	9.510	12	102.242	18.333	12	133.200	63.600
FC	P31616	#/100ml	37.700	30.144	10	26.333	35.397	12	356.750	556.887	12	142.083	94.963	12	2000.000	2.000
PH	P400	units	8.373	0.220	11	8.583	0.199	12	8.542	0.231	12	8.442	0.223	12	9.100	7.900
SUSSOL	P530	mg/L	13.833	7.685	12	21.917	7.549	12	90.750	40.676	12	60.500	38.646	12	193.000	7.000
FLOW	P60	CFS	265.583	70.176	12	185.583	30.950	12	250.500	22.076	12	298.750	44.989	12	388.000	125.000
TPN	P600	mg/L	2.567	0.814	9	3.436	0.359	9	1.777	0.417	9	1.494	0.353	9	4.120	0.735J
NH3_N	P610	mg/L	0.017	0.014	12	0.030	0.034	12	0.015	0.008	11	0.027	0.049	12	0.183	0.010U
NO2_DIS	P613	mg/L	0.010	0.000	3	0.017	0.006	3	0.014	0.006	3	0.013	0.003	3	0.021	0.010K
NO2_N	P615	mg/L	0.013	0.006	3	0.017	0.006	3	0.020	0.000	2	0.013	0.006	3	0.020	0.010
NH3_UN	P619	mg/L	0.001	0.000	13	0.002	0.001	12	0.003	0.001	10	0.002	0.002	10	0.007	0.000
NO3_N	P620	mg/L	2.600	0.917	3	3.000	0.624	3	1.200	0.707	2	1.095	0.573	2	3.700	0.690
NO2_NO3	P630	mg/L	2.219	0.616	12	2.938	0.260	12	1.366	0.353	12	1.254	0.173	12	3.420	0.892
TP_P	P665	mg/L	0.073	0.031	12	0.113	0.052	12	0.136	0.067	12	0.085	0.039	12	0.262	0.028
OP_DIS	P671	mg/L	0.038	0.020	11	0.057	0.037	12	0.014	0.004	12	0.011	0.003	12	0.140	0.007
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	6.200	3.948	12	9.950	4.537	12	28.383	13.474	12	18.167	10.914	12	50.000	2.200
COND	P95	umhos	676.833	108.169	12	857.417	92.229	12	554.250	50.840	12	518.083	38.519	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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 43A070 Name: CRAB CR @ IRBY

Class: B Elevation: 1400 River Mile: 111.50

Location:
LOCATED AT THE SECONDARY ROAD BRIDGE IMMEDIATELY NORTHEAST OF IRBY

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	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	C	6.167	6.453	3	1.233	1.159	3	16.600	3.439	3	19.300	3.559	3	23.400	0.000
PRESS	P25	mmHg	723.800	5.533	3	723.233	3.213	3	721.800	0.794	3	720.767	7.001	3	728.700	713.700
OXYGEN	P300	mg/L	13.900	1.709	3	12.700	0.400	3	10.733	0.503	3	10.000	0.458	3	15.500	9.600
PCTSAT	P301	%	116.567	8.879	3	94.600	4.854	3	115.800	10.431	3	113.533	6.493	3	125.400	89.000
FC	P31616	#/100ml	32.667	27.465	3	64.000	83.863	3	107.000	65.597	3	140.333	112.385	3	270.000	1.000
PH	P400	units	9.167	0.289	3	8.033	0.058	3	8.567	0.115	3	8.800	0.346	3	9.500	8.000
SUSSOL	P530	mg/L	10.000	7.211	3	84.000	96.597	3	35.667	9.452	3	11.667	2.082	3	194.000	2.000
FLOW	P60	CFS	3.333	1.155	3	144.667	131.474	3	73.667	40.796	3	11.200	2.706	3	290.000	2.000
TPN	P600	mg/L	2.013	0.508	3	2.800	1.037	3	1.617	0.099	3	3.280	0.509	2	3.800	1.460
NH3_N	P610	mg/L	0.033	0.027	3	0.031	0.023	3	0.010	0.000	3	0.028	0.017	3	0.062	0.010U
NO2_NO3	P630	mg/L	1.717	0.505	3	2.263	1.340	3	1.006	0.109	3	2.913	0.631	3	3.750	0.922
TP_P	P665	mg/L	0.069	0.003	3	0.187	0.139	3	0.099	0.028	3	0.125	0.009	3	0.334	0.059
OP_DIS	P671	mg/L	0.048	0.005	3	0.135	0.024	3	0.039	0.019	3	0.103	0.013	3	0.155	0.018
TURB	P82079	NTU	5.900	3.959	3	122.000	137.357	3	27.333	10.017	3	8.267	2.369	3	280.000	1.800
COND	P95	umhos	444.000	17.349	3	352.000	72.794	3	385.667	18.037	3	439.000	25.865	3	463.000	270.000

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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 43A100 Name: CRAB CK @ MARCELUS ROAD Class: B Elevation: 1665 River Mile: 137.70

Location:
Bridge on Marcelus Road between Harrington and Odessa

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 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	C	9.100	3.451	3	1.967	0.321	3	10.167	2.868	3	12.200	1.931	3	14.300	1.600
PRESS	P25	mmHg	715.067	8.520	3	723.500	6.032	3	720.200	2.254	3	719.067	3.219	3	728.500	709.900
OXYGEN	P300	mg/L	10.767	1.650	3	12.467	0.058	3	9.567	1.137	3	9.667	1.050	3	12.500	8.300
PCTSAT	P301	%	99.600	21.779	3	94.633	1.890	3	89.200	5.283	3	95.200	13.915	3	124.500	83.100
FC	P31616	#/100ml	105.333	177.258	3	119.000	87.023	3	42.333	19.348	3	62.333	33.081	3	310.000	1.000U
PH	P400	units	8.100	0.173	3	7.967	0.153	3	8.167	0.493	3	8.000	0.100	3	8.500	7.600
SUSSOL	P530	mg/L	1.667	0.577	3	527.333	717.385	3	5.000	0.000	3	3.333	0.577	3	1350.000	1.000U
TPN	P600	mg/L	0.734	0.523	3	2.063	0.624	3	1.443	0.076	3	1.125	0.078	2	2.740	0.154
NH3_N	P610	mg/L	0.018	0.014	3	0.024	0.014	3	0.018	0.014	3	0.010	0.000	3	0.037	0.010U
NO2_NO3	P630	mg/L	0.643	0.494	3	1.286	0.533	3	1.010	0.151	3	0.889	0.073	3	1.790	0.087
TP_P	P665	mg/L	0.081	0.061	3	0.091	0.040	2	0.045	0.034	3	0.087	0.028	3	0.122	0.010U
OP_DIS	P671	mg/L	0.068	0.053	3	0.084	0.024	3	0.026	0.027	3	0.080	0.005	3	0.109	0.006
TURB	P82079	NTU	0.700	0.200	3	715.333	1031.516	3	2.900	0.529	3	2.200	0.436	3	1900.000	0.500
COND	P95	umhos	358.000	21.794	3	256.333	93.725	3	352.000	10.392	3	337.000	35.791	3	383.000	149.000

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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 43A150 Name: CRAB CK @ BLUESTEM ROAD Class: B Elevation: 2130 River Mile: 171.50

Location:
Bluestem Road bridge south of Davenport

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 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	C	5.367	4.051	3	2.633	1.172	3	11.600	2.787	3	12.033	4.290	3	16.900	1.300
PRESS	P25	mmHg	704.567	5.918	3	702.733	3.302	3	704.233	2.483	3	722.200	21.679	3	735.800	697.200
OXYGEN	P300	mg/L	11.733	1.060	3	11.800	0.436	3	11.633	1.124	3	10.900	0.656	3	12.700	10.200
PCTSAT	P301	%	99.467	2.043	3	93.833	1.102	3	114.733	5.894	3	106.033	8.201	3	121.300	92.700
FC	P31616	#/100ml	162.000	240.830	3	566.667	896.074	3	164.667	132.005	3	366.667	381.750	3	1600.000	4.000
PH	P400	units	8.100	0.200	3	7.833	0.153	3	8.467	0.252	3	8.300	0.173	3	8.700	7.700
SUSSOL	P530	mg/L	1.667	0.577	3	38.333	32.624	3	14.000	15.620	3	3.000	1.732	3	74.000	1.000
FLOW	P60	CFS	4.250	1.626	2	38.167	25.712	3	17.667	10.017	3	2.767	1.415	3	54.000	1.900
TPN	P600	mg/L	2.267	0.205	3	2.227	0.722	3	2.087	0.029	3	2.345	0.460	2	2.780	1.410
NH3_N	P610	mg/L	0.022	0.020	3	0.017	0.007	3	0.021	0.019	3	0.013	0.005	3	0.045	0.010U
NO2_NO3	P630	mg/L	2.107	0.130	3	1.686	0.810	3	1.693	0.067	3	2.170	0.147	3	2.360	0.787
TP_P	P665	mg/L	0.075	0.005	3	0.116	0.070	3	0.077	0.017	3	0.065	0.009	3	0.193	0.055
OP_DIS	P671	mg/L	0.063	0.006	3	0.087	0.017	3	0.048	0.005	3	0.056	0.007	3	0.100	0.043
TURB	P82079	NTU	1.433	0.451	3	62.333	44.230	3	5.667	5.499	3	2.333	1.021	3	95.000	1.000
COND	P95	umhos	300.667	18.009	3	221.333	79.122	3	292.000	7.550	3	295.333	3.055	3	319.000	130.000

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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 43B090 Name: LAKE CK @ COFFEEPOT ROAD Class: B Elevation: 1838 River Mile: 18.30

Location:
Coffeepot road bridge west of Harrington

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 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	C	0.000	0.000	0	1.667	1.877	3	16.033	4.600	3	0.000	0.000	0	24.300	0.000
PRESS	P25	mmHg	0.000	0.000	0	711.133	2.401	3	710.600	1.510	3	0.000	0.000	0	713.500	703.600
OXYGEN	P300	mg/L	0.000	0.000	0	12.167	0.115	3	10.233	1.201	3	0.000	0.000	0	12.300	6.900
PCTSAT	P301	%	0.000	0.000	0	93.333	5.508	3	109.833	7.407	3	0.000	0.000	0	118.100	88.300
FC	P31616	#/100ml	0.000	0.000	0	5.333	5.859	3	317.333	539.260	3	0.000	0.000	0	940.000	1.000
PH	P400	units	0.000	0.000	0	7.800	0.265	3	8.500	0.346	3	0.000	0.000	0	8.900	7.500
SUSSOL	P530	mg/L	0.000	0.000	0	4.333	2.082	3	4.000	1.000	3	0.000	0.000	0	6.000	1.000
FLOW	P60	CFS	0.000	0.000	0	27.267	26.796	3	22.333	9.074	3	0.000	0.000	0	58.000	5.000
TPN	P600	mg/L	0.000	0.000	0	1.215	0.344	3	0.847	0.297	3	0.000	0.000	0	1.610	0.667
NH3_N	P610	mg/L	0.000	0.000	0	0.054	0.042	3	0.039	0.050	3	0.000	0.000	0	0.102	0.010U
NO2_NO3	P630	mg/L	0.000	0.000	0	0.417	0.275	3	0.022	0.020	3	0.000	0.000	0	0.663	0.010U
TP_P	P665	mg/L	0.000	0.000	0	0.096	0.043	3	0.067	0.025	3	0.000	0.000	0	0.146	0.039
OP_DIS	P671	mg/L	0.000	0.000	0	0.056	0.044	3	0.039	0.010	3	0.000	0.000	0	0.107	0.028
TURB	P82079	NTU	0.000	0.000	0	5.400	2.689	3	2.367	0.814	3	0.000	0.000	0	8.500	1.800
COND	P95	umhos	0.000	0.000	0	423.333	83.201	3	389.000	24.576	3	0.000	0.000	0	517.000	358.000

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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 45A070 Name: WENATCHEE R @ WENATCHEE Class: A Elevation: 600 River Mile: 1.10

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

Water Years Sampled:

5	6						7								8										9					
9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	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	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	C	6.144	4.391	16	3.720	1.929	15	8.883	2.194	18	16.641	2.383	17	21.200	0.200
PRESS	P25	mmHg	746.824	6.657	17	744.773	6.234	15	741.544	3.667	18	743.222	4.819	18	761.000	734.300
OXYGEN	P300	mg/L	13.541	1.089	17	13.560	0.879	15	11.889	1.001	18	10.439	0.843	18	15.600	9.400
PCTSAT	P301	%	109.394	8.695	17	104.453	4.317	15	104.450	4.801	18	106.472	9.425	18	127.300	84.600
FC	P31616	#/100ml	7.235	10.449	17	18.071	37.678	14	11.471	13.698	17	25.833	31.047	18	7.000	7.000
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	units	8.160	0.656	15	7.860	0.505	15	7.794	0.526	17	8.050	0.580	18	9.400	6.800
SUSSOL	P530	mg/L	5.647	7.826	17	13.000	26.121	15	13.944	16.322	18	3.167	1.886	18	106.000	1.000K
FLOW	P60	CFS	3049.176	5596.535	17	2562.533	1964.603	15	6249.722	2885.425	18	1880.000	2030.506	18	22700.000	302.000
TPN	P600	mg/L	0.287	0.103	9	0.220	0.043	8	0.135	0.071	9	0.230	0.111	9	0.482	0.072
NH3_N	P610	mg/L	0.010	0.001	17	0.011	0.002	15	0.010	0.001	18	0.011	0.002	18	0.016	0.010U
NO2_DIS	P613	mg/L	0.010	0.000	8	0.010	0.000	7	0.010	0.000	9	0.010	0.000	9	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	0.177	0.093	17	0.117	0.049	15	0.051	0.022	18	0.159	0.091	18	0.351	0.010K
TP_P	P665	mg/L	0.015	0.005	17	0.018	0.017	15	0.017	0.017	18	0.011	0.002	18	0.079	0.010U
OP_DIS	P671	mg/L	0.009	0.002	17	0.009	0.002	14	0.008	0.002	17	0.008	0.002	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	2.035	2.208	17	5.747	15.111	15	3.983	5.661	18	1.241	0.761	17	60.000	0.300
COND	P95	umhos	67.824	21.057	17	71.000	13.137	15	47.778	18.823	18	59.556	17.721	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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 45A110 Name: WENATCHEE R NR LEAVENWORTH Class: AA Elevation: 1665 River Mile: 35.60

Location:
LOCATED AT THE UPPER END OF TUMWATER CANYON ON THE US HIGHWAY 2 BRIDGE
AT TUMWATER CAMPGROUND

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	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	C	5.875	3.777	16	2.489	1.504	18	7.117	2.119	18	14.388	2.283	17	19.200	0.000
PRESS	P25	mmHg	721.206	6.854	17	719.917	5.137	18	717.189	3.278	18	720.447	5.384	17	735.100	708.400
OXYGEN	P300	mg/L	12.076	1.221	17	12.906	0.524	18	11.494	0.687	18	9.769	0.361	16	14.400	9.200
PCTSAT	P301	%	100.206	6.168	17	99.650	2.193	18	99.961	2.621	18	100.638	2.971	16	114.300	84.400
FC	P31616	#/100ml	2.529	2.267	17	1.412	0.870	17	2.111	2.494	18	3.118	2.848	17	11.000	1.000U
PH	P400	units	7.687	0.475	15	7.656	0.396	18	7.700	0.364	17	7.747	0.430	17	8.600	6.600
SUSSOL	P530	mg/L	3.235	3.930	17	8.667	12.024	18	9.000	10.633	18	2.294	1.263	17	44.000	1.000U
FLOW	P60	CFS	1675.059	2882.028	17	1334.688	791.250	16	4432.778	2016.164	18	1535.647	1639.726	17	11300.000	243.000
TPN	P600	mg/L	0.084	0.045	8	0.104	0.021	9	0.124	0.059	9	0.048	0.031	8	0.261	0.010U
NH3_N	P610	mg/L	0.011	0.002	17	0.012	0.004	18	0.012	0.004	18	0.011	0.002	17	0.022	0.010U
NO2_DIS	P613	mg/L	0.010	0.000	8	0.010	0.000	9	0.010	0.000	9	0.010	0.000	9	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	0.027	0.020	17	0.052	0.024	18	0.049	0.020	18	0.012	0.004	17	0.139	0.010U
TP_P	P665	mg/L	0.012	0.004	17	0.014	0.007	18	0.017	0.016	18	0.011	0.002	17	0.070	0.010U
OP_DIS	P671	mg/L	0.009	0.002	16	0.009	0.002	17	0.008	0.002	17	0.008	0.002	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	1.007	0.803	17	1.550	1.493	18	2.289	2.596	18	1.075	0.656	16	12.000	0.020
COND	P95	umhos	38.882	7.833	17	38.056	6.699	18	31.556	7.891	18	33.176	5.114	17	64.000	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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 46A070 Name: ENTIAT R NR ENTIAT

Class: A Elevation: 660 River Mile: 1.50

Location:
LOCATED AT A PRIVATE BRIDGE 1.2 MILES FROM HIGHWAY 97 JUST OFF THE ENTIAT RIVER ROAD APPROXIMATELY 1.5 MILES WEST OF ENTIAT

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	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	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	C	4.867	4.248	12	2.758	2.254	12	8.208	1.840	12	15.483	2.634	12	19.400	0.100
PRESS	P25	mmHg	743.658	6.444	12	744.308	5.984	12	738.558	3.788	12	740.558	6.959	12	755.700	725.900
OXYGEN	P300	mg/L	13.117	1.292	12	13.408	1.137	12	11.583	0.586	12	10.200	0.453	12	15.400	9.100
PCTSAT	P301	%	103.642	3.012	12	100.608	4.037	12	100.733	2.615	12	104.150	5.391	12	115.000	92.300
FC	P31616	#/100ml	10.909	13.838	11	11.091	13.502	11	19.417	25.465	12	5.667	4.141	12	72.000	1.000U
PH	P400	units	8.060	0.295	10	8.008	0.247	12	7.992	0.448	12	8.092	0.442	12	9.200	7.200
SUSSOL	P530	mg/L	2.833	2.791	12	6.500	6.802	12	32.583	53.140	12	3.583	3.315	12	198.000	1.000U
FLOW	P60	CFS	305.375	251.884	8	328.667	176.504	9	1440.889	745.734	9	553.556	512.577	9	2590.000	53.000
TPN	P600	mg/L	0.216	0.068	9	0.213	0.054	9	0.160	0.156	9	0.126	0.076	9	0.552	0.010U
NH3_N	P610	mg/L	0.010	0.000	12	0.010	0.000	12	0.011	0.003	12	0.011	0.003	12	0.022	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	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	0.134	0.075	12	0.132	0.066	12	0.042	0.036	12	0.065	0.054	12	0.270	0.010U
TP_P	P665	mg/L	0.011	0.003	12	0.017	0.007	12	0.037	0.065	12	0.013	0.004	12	0.238	0.010U
OP_DIS	P671	mg/L	0.009	0.002	12	0.008	0.003	12	0.009	0.003	12	0.008	0.003	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	0.867	0.446	12	2.058	2.219	12	6.983	13.689	12	1.275	1.361	12	50.000	0.300
COND	P95	umhos	86.250	22.864	12	101.167	22.478	12	57.833	22.997	12	69.667	23.581	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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 48A070 Name: METHOW R NR PATEROS

Class: A Elevation: 870 River Mile: 5.00

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

Water Years Sampled:

5	6									7										8										9					
9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	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	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	C	5.076	3.876	17	3.588	2.854	16	9.367	2.154	18	15.267	2.461	18	19.000	0.000
PRESS	P25	mmHg	739.941	7.211	17	739.519	6.739	16	735.728	4.637	18	737.956	5.512	18	754.600	725.400
OXYGEN	P300	mg/L	12.841	1.355	17	13.113	1.062	16	11.178	0.634	18	10.094	0.471	18	14.700	9.200
PCTSAT	P301	%	102.506	3.354	17	101.144	1.392	16	100.239	1.936	18	102.961	3.829	18	111.900	94.400
FC	P31616	#/100ml	1.813	1.276	16	1.250	0.577	16	17.000	25.370	18	6.722	7.537	18	84.000	1.000U
PH	P400	units	8.188	0.141	16	8.144	0.175	16	8.044	0.228	18	8.261	0.352	18	8.700	7.500
SUSSOL	P530	mg/L	1.588	1.064	17	2.875	2.029	16	17.833	25.664	18	2.611	3.013	18	112.000	1.000U
FLOW	P60	CFS	521.412	396.202	17	514.000	271.666	16	3792.889	2523.490	18	1111.333	1119.694	18	8300.000	263.000
TPN	P600	mg/L	0.283	0.036	8	0.259	0.074	9	0.150	0.108	9	0.206	0.108	9	0.393	0.048
NH3_N	P610	mg/L	0.010	0.000	17	0.010	0.001	16	0.010	0.000	18	0.011	0.002	18	0.016	0.010U
NO2_DIS	P613	mg/L	0.010	0.000	8	0.010	0.000	7	0.010	0.000	9	0.010	0.000	9	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	0.202	0.056	17	0.182	0.073	16	0.054	0.031	18	0.132	0.080	18	0.355	0.018
TP_P	P665	mg/L	0.010	0.002	17	0.012	0.003	16	0.019	0.024	18	0.011	0.002	18	0.115	0.010U
OP_DIS	P671	mg/L	0.010	0.002	16	0.008	0.003	16	0.008	0.002	18	0.008	0.002	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	0.653	0.272	17	0.925	0.914	16	5.561	10.257	18	0.794	0.483	18	45.000	0.300
COND	P95	umhos	165.647	39.881	17	173.063	24.255	16	99.389	34.059	18	138.222	36.782	18	300.000	59.000

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

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 48A140 Name: METHOW R @ TWISP

Class: A Elevation: 1552 River Mile: 39.40

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

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

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			-----JANUARY-MARCH----			------APRIL-JUNE------			----JULY-SEPTEMBER----			-----SIX YEAR------	
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN
TEMP	P10	C	4.183	3.342	12	3.200	2.430	12	7.275	1.526	12	12.383	2.043	12	15.400	0.000
PRESS	P25	mmHg	722.009	8.394	11	723.375	5.182	12	718.992	4.239	12	721.933	5.946	12	736.600	710.400
OXYGEN	P300	mg/L	12.509	1.033	11	12.758	0.732	12	11.425	0.384	12	10.092	0.737	12	14.100	7.900
PCTSAT	P301	%	101.409	4.391	11	101.625	6.422	12	99.908	2.149	12	99.183	9.585	12	119.800	71.400
FC	P31616	#/100ml	3.800	4.264	10	1.667	1.231	12	18.083	24.032	12	10.917	13.648	12	68.000	1.000U
PH	P400	units	8.130	0.189	10	8.175	0.382	12	7.900	0.263	12	8.075	0.396	12	8.700	7.300
SUSSOL	P530	mg/L	1.182	0.405	11	1.750	0.866	12	18.083	28.808	12	1.333	0.651	12	103.000	1.000U
FLOW	P60	CFS	596.167	520.291	12	402.182	169.095	11	3986.167	2640.279	12	1267.583	1239.221	12	7650.000	192.000
TPN	P600	mg/L	0.216	0.028	5	0.173	0.044	6	0.157	0.107	6	0.168	0.114	6	0.349	0.015
NH3_N	P610	mg/L	0.010	0.000	11	0.011	0.002	12	0.011	0.001	12	0.010	0.000	12	0.017	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
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_NO3	P630	mg/L	0.147	0.052	11	0.126	0.035	12	0.055	0.038	12	0.110	0.083	12	0.287	0.012
TP_P	P665	mg/L	0.010	0.000	11	0.010	0.000	12	0.019	0.026	12	0.011	0.003	12	0.101	0.010U
OP_DIS	P671	mg/L	0.009	0.002	10	0.008	0.003	12	0.008	0.003	12	0.008	0.003	12	0.010	0.005U
TURB	P82079	NTU	0.600	0.276	11	0.600	0.346	12	5.675	10.947	12	0.550	0.361	12	40.000	0.200
COND	P95	umhos	132.727	23.212	11	142.167	18.780	12	93.917	33.255	12	113.583	31.020	12	194.000	57.000

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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 49A070 Name: OKANOGAN R @ MALOTT

Class: A Elevation: 780 River Mile: 17.00

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

Water Years Sampled:

```
5 6                7                8                9
9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 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 X X X X
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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	C	5.139	4.667	18	2.664	2.644	14	11.383	2.737	18	19.133	2.530	18	22.300	0.000
PRESS	P25	mmHg	742.667	7.798	18	742.436	4.913	14	739.089	4.916	18	741.633	5.077	18	759.000	729.000
OXYGEN	P300	mg/L	12.089	1.669	18	12.829	1.044	14	10.333	0.704	18	8.656	0.812	18	14.700	7.700
PCTSAT	P301	%	95.856	4.932	18	96.293	3.075	14	96.556	3.688	18	94.867	5.861	18	109.700	88.700
FC	P31616	#/100ml	23.167	34.190	18	9.154	12.402	13	34.667	32.581	18	38.389	23.210	18	150.000	1.000
PH	P400	units	8.176	0.256	17	8.157	0.332	14	8.056	0.195	18	8.217	0.329	18	8.800	7.100
SUSSOL	P530	mg/L	27.167	94.417	18	13.214	13.051	14	59.944	61.907	18	11.778	12.071	18	405.000	1.000U
FLOW	P60	CFS	2259.000	3122.759	18	1944.357	1199.903	14	7153.889	5178.283	18	2505.056	1991.746	18	18400.000	530.000A
TPN	P600	mg/L	0.211	0.059	9	0.216	0.034	8	0.158	0.062	9	0.142	0.044	9	0.334	0.039
NH3_N	P610	mg/L	0.014	0.014	18	0.011	0.002	14	0.014	0.010	18	0.011	0.003	18	0.070	0.010U
NO2_DIS	P613	mg/L	0.010	0.000	8	0.010	0.000	6	0.010	0.000	9	0.010	0.000	9	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	0.030	18	0.061	0.031	14	0.014	0.007	18	0.019	0.011	18	0.134	0.010U
TP_P	P665	mg/L	0.029	0.051	18	0.029	0.023	14	0.055	0.051	18	0.017	0.007	18	0.230	0.010U
OP_DIS	P671	mg/L	0.009	0.002	17	0.008	0.002	14	0.008	0.002	18	0.008	0.002	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	12.539	41.062	18	3.814	4.433	14	16.906	15.713	18	2.872	2.010	18	176.000	0.800
COND	P95	umhos	228.889	58.842	18	266.500	49.589	14	153.944	48.341	18	219.944	52.097	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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 49A090 Name: OKANOGAN R @ OKANOGAN Class: A Elevation: 815 River Mile: 26.00

Location:
LOCATED AT THE BRIDGE IMMEDIATELY NORTHWEST OF US HIGHWAY 97, ENTERING THE CITY OF OKANOGAN

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	7	8	9	0	1	2	3	4	5	6
																	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	C	5.033	6.596	3	2.350	2.475	2	11.033	2.542	3	20.500	2.170	3	21.900	0.000
PRESS	P25	mmHg	742.367	16.364	3	744.250	3.606	2	733.233	3.873	3	736.500	4.503	3	759.500	726.900
OXYGEN	P300	mg/L	12.800	1.732	3	13.450	0.354	2	10.867	0.833	3	8.867	0.862	3	13.800	8.100
PCTSAT	P301	%	101.267	2.403	3	100.200	4.525	2	101.600	1.833	3	100.533	5.530	3	105.700	94.700
FC	P31616	#/100ml	21.333	16.042	3	4.500	3.536	2	27.667	16.073	3	46.333	32.868	3	74.000	2.000
PH	P400	units	8.200	0.361	3	8.150	0.212	2	8.133	0.208	3	8.333	0.306	3	8.600	7.800
SUSSOL	P530	mg/L	10.667	8.327	3	12.500	0.707	2	62.333	35.796	3	14.667	15.885	3	83.000	4.000
FLOW	P60	CFS	4940.000	5711.681	3	2665.000	403.051	2	10930.000	6549.908	3	3236.667	2207.744	3	18400.000	1070.000
TPN	P600	mg/L	0.250	0.072	3	0.205	0.024	2	0.179	0.038	3	0.132	0.070	3	0.324	0.052
NH3_N	P610	mg/L	0.010	0.000	3	0.010	0.000	2	0.010	0.000	3	0.010	0.000	3	0.010	0.010U
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	9	0.000	0.001	8	0.001	0.001	6	0.001	0.001	10	0.002	0.000
NO3_N	P620	mg/L	0.040	0.028	2	0.037	0.015	3	0.025	0.007	2	0.030	0.028	2	0.060	0.010K
NO2_NO3	P630	mg/L	0.055	0.019	3	0.046	0.032	2	0.013	0.004	3	0.014	0.008	3	0.070	0.010U
TP_P	P665	mg/L	0.030	0.020	3	0.026	0.006	2	0.085	0.053	3	0.023	0.009	3	0.142	0.010U
OP_DIS	P671	mg/L	0.006	0.002	3	0.005	0.000	2	0.006	0.001	3	0.005	0.000	3	0.009	0.005U
COLOR	P80	Pt-Co	8.000	0.000	2	6.000	2.828	2	11.667	10.066	3	19.500	26.163	2	42.000	1.000
TURB	P82079	NTU	9.833	7.489	3	7.600	0.566	2	26.767	17.218	3	5.133	3.821	3	40.000	1.500
COND	P95	umhos	188.000	63.506	3	231.000	16.971	2	166.667	50.342	3	214.667	36.171	3	251.000	111.000

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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 49A180 Name: OKANOGAN R @ TONASKAT

Class: A Elevation: 882 River Mile: 56.80

Location:
Bridge across Okanogan in Tonasket just upstream of Bonaparte Creek.

Water Years Sampled:
5 6 7 8 9
9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 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	C	5.000	6.539	3	1.533	2.237	3	10.467	2.458	3	20.233	1.677	3	21.300	0.000
PRESS	P25	mmHg	741.400	15.976	3	745.900	7.790	3	733.233	3.873	3	734.900	5.260	3	758.200	726.400
OXYGEN	P300	mg/L	12.733	2.196	3	14.133	0.666	3	11.233	0.874	3	9.133	0.611	3	14.900	8.600
PCTSAT	P301	%	100.400	3.079	3	102.767	5.700	3	103.700	3.551	3	103.400	3.279	3	108.500	97.100
FC	P31616	#/100ml	11.667	6.658	3	4.333	3.215	3	21.000	17.000	3	46.000	15.716	3	60.000	2.000
PH	P400	units	8.333	0.321	3	8.033	0.404	3	8.067	0.252	3	8.300	0.173	3	8.700	7.600
SUSSOL	P530	mg/L	6.667	3.215	3	13.000	3.606	3	50.000	24.556	3	9.667	9.074	3	71.000	3.000
FLOW	P60	CFS	2353.333	1430.396	3	2803.333	340.637	3	10561.667	6649.230	3	3123.333	2052.909	3	18150.000	1000.000
TPN	P600	mg/L	0.207	0.041	3	0.174	0.022	3	0.154	0.044	3	0.135	0.048	3	0.234	0.103
NH3_N	P610	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.000	3	0.010	0.010U
NO2_NO3	P630	mg/L	0.043	0.022	3	0.039	0.024	3	0.012	0.003	3	0.011	0.002	3	0.064	0.010U
TP_P	P665	mg/L	0.022	0.013	3	0.019	0.003	3	0.061	0.021	3	0.017	0.006	3	0.075	0.010U
OP_DIS	P671	mg/L	0.006	0.002	3	0.005	0.000	3	0.005	0.001	3	0.005	0.000	3	0.009	0.005U
TURB	P82079	NTU	8.267	7.221	3	4.667	1.222	3	23.067	14.311	3	4.167	2.635	3	35.000	1.700
COND	P95	umhos	190.333	49.743	3	219.333	13.577	3	166.000	42.755	3	207.333	34.064	3	237.000	118.000

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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 49A190 Name: OKANOGAN R @ OROVILLE

Class: A Elevation: 1040 River Mile: 78.00

Location:
LOCATED AT THE BRIDGE ON CHERRY (BRIDGE ST.) STREET ALSO KNOWN AS THE OROVILLE-CHESAW HIGHWAY

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

VARIABLE	P-CODE	UNITS	---OCTOBER-DECEMBER---			-----JANUARY-MARCH----			------APRIL-JUNE------			----JULY-SEPTEMBER----			-----SIX YEAR------	
			MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MEAN	STD. DEV.	N	MAX	MIN
TEMP	P10	C	7.633	5.215	12	1.667	1.159	12	12.308	3.981	12	20.492	1.704	12	23.700	0.000
PRESS	P25	mmHg	739.717	9.789	12	742.250	5.735	12	737.333	4.080	12	741.183	6.087	12	756.400	726.900
OXYGEN	P300	mg/L	10.717	1.687	12	13.967	1.335	12	11.058	1.710	12	8.773	0.681	11	17.700	7.800
PCTSAT	P301	%	90.533	5.820	12	102.658	11.934	12	103.625	8.111	12	99.000	8.465	11	135.500	78.600
FC	P31616	#/100ml	13.917	22.035	12	1.545	0.934	11	2.250	1.485	12	11.167	12.605	12	80.000	1.000U
PH	P400	units	8.491	0.453	11	8.458	0.281	12	8.517	0.266	12	8.458	0.211	12	9.400	7.700
SUSSOL	P530	mg/L	3.000	1.537	12	3.417	1.379	12	4.167	1.586	12	2.750	0.866	12	7.000	1.000
FLOW	P60	CFS	280.250	119.067	12	746.250	512.340	12	1583.833	929.914	12	994.083	560.277	12	3390.000	58.000
TPN	P600	mg/L	0.270	0.069	6	0.247	0.059	6	0.271	0.149	6	0.231	0.074	6	0.567	0.110
NH3_N	P610	mg/L	0.014	0.007	12	0.013	0.009	12	0.012	0.004	12	0.011	0.003	12	0.040	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	0.010
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	0.025	0.021	12	0.067	0.024	12	0.015	0.017	12	0.010	0.000	12	0.105	0.010U
TP_P	P665	mg/L	0.021	0.009	12	0.015	0.005	12	0.012	0.005	12	0.014	0.006	12	0.040	0.010U
OP_DIS	P671	mg/L	0.009	0.002	11	0.008	0.003	12	0.008	0.003	12	0.008	0.003	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	1.400	0.424	12	1.308	0.700	12	1.525	0.479	12	1.600	0.592	12	3.300	0.600
COND	P95	umhos	281.250	25.453	12	296.250	42.959	12	272.833	19.324	12	251.917	15.779	12	426.000	228.000

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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 49B070 Name: SIMILKAMEEN R @ OROVILLE

Class: A Elevation: 960 River Mile: 5.00

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

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	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	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	C	4.861	4.185	18	2.538	2.447	16	9.333	3.154	18	16.550	2.454	18	19.700	0.000
ZN	P1094	ug/L	10.000	5.798	2	0.000	0.000	0	7.800	4.243	2	0.000	0.000	0	14.100	3.400B
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	0.800	0.990	2	0.000	0.000	0	0.800	0.000	2	0.000	0.000	0	1.500	0.100U
CR	P1118	ug/L	2.500	2.121	2	0.000	0.000	0	1.450	0.071	2	0.000	0.000	0	5.000	0.400U
CU	P1119	ug/L	5.400	6.647	2	0.000	0.000	0	5.750	0.778	2	0.000	0.000	0	10.100	0.700
PRESS	P25	mmHg	740.650	7.840	18	741.006	5.744	16	737.433	4.420	18	739.833	6.528	18	756.400	723.900
OXYGEN	P300	mg/L	12.922	1.712	18	13.500	1.081	16	11.711	0.863	18	9.794	0.483	18	15.400	9.000
PCTSAT	P301	%	101.811	4.890	18	101.169	2.330	16	104.550	5.022	18	102.333	4.026	18	114.500	93.300
FC	P31616	#/100ml	4.444	6.662	18	1.200	0.414	15	15.611	13.904	18	15.118	13.887	17	54.000	1.000U
PH	P400	units	8.147	0.384	17	8.206	0.366	16	8.206	0.386	18	8.194	0.304	18	9.000	7.300
SUSSOL	P530	mg/L	17.556	50.026	18	6.563	7.572	16	55.778	68.432	18	6.500	7.987	18	248.000	1.000U
FLOW	P60	CFS	1364.611	1753.523	18	1182.929	698.686	14	5725.278	4160.722	18	1760.944	1655.320	18	16500.000	159.000
TPN	P600	mg/L	0.109	0.074	9	0.091	0.020	9	0.138	0.076	9	0.074	0.040	9	0.306	0.016
NH3_N	P610	mg/L	0.013	0.010	18	0.011	0.003	16	0.014	0.015	18	0.010	0.001	18	0.074	0.010U
NO2_DIS	P613	mg/L	0.010	0.000	8	0.010	0.000	7	0.010	0.000	9	0.010	0.000	9	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	0.027	0.020	18	0.029	0.019	16	0.013	0.007	18	0.011	0.002	18	0.070	0.010U
TP_P	P665	mg/L	0.025	0.041	18	0.014	0.008	16	0.038	0.035	18	0.012	0.004	18	0.180	0.010U
OP_DIS	P671	mg/L	0.009	0.002	17	0.008	0.003	16	0.009	0.002	18	0.009	0.002	18	0.011	0.005U
HG	P71900	ug/L	0.001	0.000	2	0.000	0.000	0	0.003	0.001	2	0.000	0.000	0	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	6.989	17.974	18	2.681	2.507	16	15.939	17.489	18	2.578	2.249	18	74.000	0.500
HARD	P900	mg/L	84.000	2.828	2	0.000	0.000	0	53.000	14.142	2	0.000	0.000	0	86.000	43.000
COND	P95	umhos	172.722	37.286	18	198.688	42.199	16	120.500	36.233	18	158.833	36.013	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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 49B090 Name: SIMILKAMEEN R @ NIGHTHAWK Class: A Elevation: 1150 River Mile: 17.60

Location:
Bridge over Similkameen on Loomis-Oroville Road, West of Oroville.

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	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	C	5.050	7.142	2	2.050	2.899	2	8.133	1.935	3	17.200	1.997	3	18.500	0.000
PRESS	P25	mmHg	741.550	11.667	2	734.050	3.606	2	728.133	3.873	3	732.933	8.607	3	749.800	723.100
OXYGEN	P300	mg/L	11.950	2.192	2	12.750	0.919	2	10.933	0.751	3	8.967	0.551	3	13.500	8.600
PCTSAT	P301	%	94.500	1.273	2	95.350	1.061	2	96.300	2.787	3	95.867	1.301	3	98.200	93.100
FC	P31616	#/100ml	10.500	6.364	2	3.500	3.536	2	15.333	11.590	3	33.000	19.468	3	55.000	1.000U
PH	P400	units	7.600	0.566	2	7.850	0.636	2	7.967	0.153	3	8.133	0.404	3	8.500	7.200
SUSSOL	P530	mg/L	5.000	1.414	2	11.000	1.414	2	54.333	22.301	3	8.000	7.000	3	71.000	3.000
FLOW	P60	CFS	1732.667	1142.209	3	1592.500	413.657	2	7993.333	4907.151	3	1868.333	1732.674	3	13600.000	528.000
TPN	P600	mg/L	0.122	0.081	2	0.113	0.012	2	0.134	0.070	3	0.057	0.041	3	0.179	0.010U
NH3_N	P610	mg/L	0.010	0.000	2	0.010	0.000	2	0.010	0.000	3	0.010	0.000	3	0.010	0.010U
NO2_NO3	P630	mg/L	0.024	0.019	2	0.022	0.006	2	0.014	0.004	3	0.010	0.000	3	0.037	0.010U
TP_P	P665	mg/L	0.018	0.011	2	0.015	0.004	2	0.067	0.025	3	0.011	0.002	3	0.096	0.010U
OP_DIS	P671	mg/L	0.005	0.000	2	0.005	0.000	2	0.006	0.001	3	0.005	0.000	3	0.007	0.005U
HG	P71900	ug/L	0.000	0.000	0	0.000	0.000	0	0.004	0.004	2	0.000	0.000	0	0.008	0.001U
TURB	P82079	NTU	3.550	2.899	2	8.350	5.162	2	24.000	12.124	3	3.733	1.950	3	35.000	1.500
HARD	P900	mg/L	0.000	0.000	0	0.000	0.000	0	51.500	14.849	2	0.000	0.000	0	86.000	41.000
COND	P95	umhos	154.500	38.891	2	165.000	14.142	2	119.333	29.738	3	158.667	37.005	3	182.000	85.000

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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 53A070 Name: COLUMBIA R @ GRAND COULEE Class: A Elevation: 950 River Mile: 596.00

Location:
LOCATED AT THE COULEE DAM BRIDGE .5 MILES BELOW GRAND COULEE DAM

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	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	C	13.900	3.412	11	2.856	1.267	9	7.522	3.134	9	16.978	2.182	9	19.700	1.000
PRESS	P25	mmHg	737.391	10.179	11	736.767	8.179	9	733.944	3.675	9	736.178	6.753	9	757.900	720.600
OXYGEN	P300	mg/L	9.164	0.818	11	12.633	0.712	9	12.125	0.992	8	9.511	0.727	9	13.700	7.900
PCTSAT	P301	%	90.518	3.547	11	96.367	5.974	9	103.388	3.104	8	100.767	6.558	9	109.200	86.200
FC	P31616	#/100ml	2.636	5.104	11	1.444	0.882	9	1.000	0.000	9	1.444	1.333	9	18.000	1.000U
PH	P400	units	7.873	0.488	11	8.011	0.215	9	8.033	0.141	9	8.156	0.167	9	8.600	6.800
SUSSOL	P530	mg/L	1.455	0.934	11	1.333	0.500	9	1.667	0.707	9	1.000	0.000	9	4.000	1.000U
FLOW	P60	CFS	116872.727	38591.659	11	140833.333	31921.779	9	143966.667	41617.905	9	126744.444	39865.496	9	197000.000	53800.000
TPN	P600	mg/L	0.313	0.397	6	0.219	0.064	6	0.218	0.026	6	0.131	0.018	6	1.120	0.107
NH3_N	P610	mg/L	0.011	0.001	11	0.014	0.005	9	0.016	0.008	9	0.014	0.006	9	0.030	0.010U
NO2_DIS	P613	mg/L	0.010	0.000	5	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	0.000	14	0.000	0.000	12	0.000	0.001	8	0.000	0.000	10	0.001	0.000
NO3_N	P620	mg/L	0.093	0.012	3	0.093	0.029	3	0.075	0.049	2	0.060	0.028	2	0.110	0.040
NO2_NO3	P630	mg/L	0.165	0.268	11	0.144	0.041	9	0.108	0.044	9	0.069	0.032	9	0.972	0.031
TP_P	P665	mg/L	0.022	0.027	11	0.012	0.004	9	0.011	0.002	9	0.011	0.001	9	0.103	0.010U
OP_DIS	P671	mg/L	0.017	0.024	11	0.007	0.002	9	0.007	0.003	9	0.008	0.002	9	0.087	0.005U
COLOR	P80	Pt-Co	5.333	2.309	3	9.000	11.314	2	9.000	11.314	2	13.333	21.362	3	38.000	1.000
TURB	P82079	NTU	0.682	0.405	11	1.767	1.593	9	2.122	1.798	9	0.844	0.388	9	5.300	0.300
COND	P95	umhos	123.182	16.296	11	133.778	8.303	9	128.222	11.155	9	126.444	12.340	9	145.000	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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 54A120 Name: SPOKANE R @ RIVERSIDE STATE PK Class: A Elevation: 1640 River Mile: 66.00

Location:
LOCATED IN SPOKANE AT RIVERSIDE STATE PARK ON THE WOODEN, SWINGING, FOOT BRIDGE

Water Years Sampled:

5	6							7								8								9						
9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	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	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	C	9.256	3.277	18	3.717	1.092	18	10.078	4.505	18	16.789	1.876	18	19.900	2.000
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	mmHg	718.967	8.512	18	718.935	6.556	17	717.278	2.853	18	716.529	6.294	17	732.500	693.400
OXYGEN	P300	mg/L	11.711	1.076	18	13.506	0.922	18	12.256	1.386	18	9.839	0.393	18	14.800	9.100
PCTSAT	P301	%	106.978	6.058	18	108.006	7.169	18	113.794	4.534	18	106.800	2.930	18	121.800	98.300
FC	P31616	#/100ml	103.556	183.474	18	179.647	525.467	17	44.176	66.548	17	60.000	102.836	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	units	8.072	0.330	18	7.878	0.362	18	8.111	0.270	18	8.317	0.238	18	8.800	7.200
SUSSOL	P530	mg/L	2.500	2.572	18	51.444	144.601	18	8.333	20.951	18	1.833	0.857	18	574.000	1.000U
FLOW	P60	CFS	4553.333	6436.709	18	7388.889	5443.720	18	10193.889	5109.297	18	1896.333	1325.849	18	26800.000	585.000
TPN	P600	mg/L	0.670	0.228	9	0.751	0.392	9	0.383	0.084	8	1.176	0.325	9	1.710	0.222
NH3_N	P610	mg/L	0.123	0.128	18	0.094	0.094	18	0.043	0.036	17	0.150	0.243	18	0.654	0.010U
NO2_DIS	P613	mg/L	0.016	0.007	9	0.010	0.000	9	0.010	0.004	9	0.020	0.015	9	0.048	0.002
NO2_N	P615	mg/L	0.010	0.000	3	0.013	0.006	3	0.010	0.000	2	0.013	0.006	3	0.010	0.010K
NH3_UN	P619	mg/L	0.003	0.006	13	0.001	0.001	13	0.000	0.000	10	0.011	0.013	9	0.043	0.000
NO3_N	P620	mg/L	0.355	0.021	2	0.503	0.337	3	0.110	0.042	2	0.933	0.289	3	0.820	0.080
NO2_NO3	P630	mg/L	0.459	0.202	18	0.515	0.263	18	0.261	0.101	17	0.947	0.378	18	1.530	0.090
TP_P	P665	mg/L	0.037	0.020	18	0.071	0.064	18	0.021	0.012	17	0.020	0.008	18	0.300	0.010U
OP_DIS	P671	mg/L	0.026	0.020	18	0.041	0.022	18	0.012	0.006	18	0.012	0.005	18	0.072	0.005U
HG	P71900	ug/L	0.032	0.032	5	0.030	0.020	4	0.034	0.037	5	0.024	0.032	2	0.090	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	1.950	2.993	18	36.056	117.413	18	3.572	4.771	18	1.056	0.448	18	500.000	0.500
HARD	P900	mg/L	50.200	23.573	5	38.750	6.946	4	34.200	6.058	5	74.250	33.059	4	121.000	24.000
COND	P95	umhos	121.333	33.230	18	99.588	24.246	17	80.056	13.670	18	197.056	61.016	18	295.000	55.000

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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 55B070 Name: LITTLE SPOKANE R NR MOUTH Class: A Elevation: 1525 River Mile: 1.10

Location:
LOCATED APPROXIMATELY 1.5 MILES UPSTREAM FROM CONFLUENCE WITH LONG LAKE
ON BRIDGE CROSSING THE LITTLE SPOKANE RIVER ON HIGHWAY 291 AT OLD FORT SPOKANE
HISTORICAL SITE

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 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

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	C	8.033	2.141	12	5.518	0.891	11	11.692	2.452	12	14.942	1.367	12	18.000	3.500
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	mmHg	722.267	5.457	12	722.109	5.690	11	720.650	2.323	12	719.658	7.474	12	734.300	709.900
OXYGEN	P300	mg/L	10.250	0.423	12	10.582	0.334	11	9.625	0.454	12	9.575	0.512	12	11.000	8.800
PCTSAT	P301	%	90.892	2.770	12	88.255	1.721	11	93.175	5.616	12	99.692	5.992	12	109.900	83.500
FC	P31616	#/100ml	25.333	14.144	12	94.636	147.625	11	35.364	23.359	11	57.083	53.058	12	520.000	4.000
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	units	8.150	0.162	12	7.909	0.255	11	8.150	0.157	12	8.233	0.277	12	8.600	7.500
SUSSOL	P530	mg/L	4.500	2.067	12	77.364	175.253	11	11.583	4.033	12	5.167	2.406	12	600.000	2.000
FLOW	P60	CFS	402.417	32.197	12	630.636	245.984	11	611.250	173.087	12	375.333	34.044	12	1040.000	339.000
TPN	P600	mg/L	1.312	0.094	9	1.202	0.202	8	0.995	0.114	8	1.249	0.136	9	1.470	0.833
NH3_N	P610	mg/L	0.018	0.025	12	0.058	0.107	11	0.023	0.030	11	0.012	0.005	12	0.374	0.010U
NO2_DIS	P613	mg/L	0.010	0.001	3	0.010	0.000	3	0.007	0.005	3	0.010	0.000	3	0.010	0.001
NO2_N	P615	mg/L	0.010	0.000	3	0.010	0.000	3	0.010	0.000	2	0.010	0.000	3	0.010	0.010K
NH3_UN	P619	mg/L	0.000	0.001	13	0.000	0.000	13	0.000	0.000	12	0.001	0.001	9	0.003	0.000
NO3_N	P620	mg/L	0.980	0.594	2	0.953	0.431	3	0.877	0.074	3	1.100	0.000	3	1.400	0.540
NO2_NO3	P630	mg/L	1.193	0.067	12	1.086	0.228	11	0.860	0.114	11	1.151	0.077	12	1.360	0.665
TP_P	P665	mg/L	0.019	0.009	12	0.043	0.025	10	0.026	0.009	11	0.018	0.010	12	0.110	0.010U
OP_DIS	P671	mg/L	0.011	0.004	12	0.020	0.010	10	0.013	0.003	12	0.009	0.003	12	0.040	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	1.558	0.834	12	24.555	51.362	11	3.658	1.747	12	2.192	1.175	12	178.000	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	268.333	14.131	12	229.364	35.992	11	226.083	21.496	12	270.833	18.634	12	300.000	174.000

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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 56A070 Name: HANGMAN CR @ MOUTH

Class: A Elevation: 1720 River Mile: 0.60

Location:
LOCATED AT THE MOUTH OF HANGMAN CREEK AT RIVERSIDE AVENUE BRIDGE IN SPOKANE

Water Years Sampled:

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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 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
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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	C	6.336	4.044	11	1.800	1.661	9	13.917	4.067	12	20.300	2.769	12	25.100	0.300
PRESS	P25	mmHg	720.136	5.902	11	717.167	7.297	9	716.550	2.749	12	715.958	6.974	12	731.000	704.900
OXYGEN	P300	mg/L	13.536	0.877	11	12.544	0.588	9	10.325	0.681	12	11.583	1.397	12	14.900	9.200
PCTSAT	P301	%	116.009	15.919	11	95.489	2.544	9	105.508	10.042	12	135.092	17.442	12	157.300	89.500
FC	P31616	#/100ml	37.364	64.046	11	114.778	149.837	9	122.909	283.871	11	150.167	302.091	12	1100.000	1.000U
PH	P400	units	8.491	0.311	11	7.678	0.239	9	8.358	0.466	12	8.725	0.283	12	9.300	7.200
SUSSOL	P530	mg/L	5.818	5.250	11	491.778	840.821	9	84.583	249.700	12	5.000	2.256	12	1980.000	1.000K
FLOW	P60	CFS	33.118	52.572	11	1038.222	1326.243	9	377.417	719.776	12	17.525	11.629	12	3690.000	1.000
TPN	P600	mg/L	1.496	1.383	5	4.950	0.939	5	2.406	1.300	5	1.140	0.224	6	6.400	0.444
NH3_N	P610	mg/L	0.030	0.030	11	0.080	0.060	9	0.021	0.015	11	0.018	0.014	12	0.165	0.010U
NO2_DIS	P613	mg/L	0.013	0.005	6	0.013	0.006	4	0.014	0.010	6	0.012	0.004	6	0.034	0.004
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	1.212	1.201	11	4.307	1.234	9	1.580	1.204	11	0.752	0.267	12	5.800	0.185
TP_P	P665	mg/L	0.058	0.063	11	0.208	0.161	9	0.090	0.073	11	0.045	0.018	12	0.540	0.010U
OP_DIS	P671	mg/L	0.027	0.025	11	0.081	0.022	9	0.032	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	12.400	24.913	11	339.833	744.627	9	27.183	43.648	12	4.225	4.217	12	2300.000	0.600
COND	P95	umhos	320.818	77.551	11	164.556	47.003	9	215.083	55.246	12	348.417	41.745	12	412.000	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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 57A150 Name: SPOKANE R @ STATELINE BR Class: A Elevation: 1980 River Mile: 96.00

Location:
LOCATED AT THE BRIDGE ON STATELINE VILLAGE ROAD, .1 MILE WEST OF THE WASHINGTON-IDAHO BORDER, 0.1 MILE NORTH OF I-90.

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	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	C	9.438	3.984	16	2.456	1.307	18	9.339	4.991	18	20.017	2.094	18	25.200	0.800
ZN	P1094	ug/L	89.100	27.187	4	101.683	17.032	6	98.880	26.956	5	62.675	11.444	4	135.000	45.700
CD	P1113	ug/L	0.355	0.145	4	0.937	1.028	6	0.417	0.086	3	0.375	0.106	2	3.000	0.160
PB	P1114	ug/L	2.600	1.153	3	6.500	6.782	6	10.200	6.505	2	1.950	0.778	2	20.000	1.000K
CR	P1118	ug/L	1.800	2.166	4	1.709	2.266	7	1.460	2.362	4	2.723	2.630	4	5.000	0.200U
CU	P1119	ug/L	1.333	1.447	3	4.133	4.893	6	1.333	0.586	3	2.050	1.344	2	14.000	0.400
PRESS	P25	mmHg	714.206	7.391	16	711.059	6.190	17	710.406	3.685	18	710.933	5.070	18	730.000	699.500
OXYGEN	P300	mg/L	10.213	1.280	16	12.439	0.773	18	11.311	1.434	18	7.917	0.448	18	14.300	7.000
PCTSAT	P301	%	93.994	7.234	16	97.256	5.860	18	104.011	5.426	18	92.344	5.081	18	115.300	84.100
FC	P31616	#/100ml	10.067	19.437	15	3.833	5.732	18	6.833	12.830	18	54.294	149.256	17	630.000	1.000U
PH	P400	units	7.550	0.283	16	7.567	0.377	18	7.600	0.366	18	7.741	0.306	17	8.500	6.900
SUSSOL	P530	mg/L	2.063	1.340	16	1.722	1.127	18	2.444	0.984	18	2.111	1.231	18	6.000	1.000U
FLOW	P60	CFS	4729.375	7505.524	16	7164.444	5421.396	18	10022.222	5412.758	18	1456.889	1330.551	18	29800.000	237.000
TPN	P600	mg/L	0.126	0.052	9	0.176	0.037	9	0.136	0.052	8	0.188	0.065	9	0.301	0.010U
NH3_N	P610	mg/L	0.017	0.010	16	0.022	0.012	18	0.015	0.012	17	0.017	0.011	18	0.059	0.010U
NO2_DIS	P613	mg/L	0.010	0.000	7	0.010	0.000	9	0.009	0.003	9	0.010	0.000	9	0.012	0.001
NO2_NO3	P630	mg/L	0.032	0.015	16	0.059	0.024	18	0.032	0.029	17	0.057	0.064	18	0.212	0.010U
TP_P	P665	mg/L	0.013	0.005	16	0.015	0.006	17	0.012	0.003	17	0.014	0.005	18	0.029	0.010U
OP_DIS	P671	mg/L	0.009	0.002	16	0.010	0.003	18	0.008	0.003	18	0.009	0.003	18	0.015	0.001
HG	P71900	ug/L	0.021	0.027	5	0.031	0.027	8	0.038	0.045	5	0.091	0.128	6	0.300	0.001U
TURB	P82079	NTU	1.150	0.542	16	2.317	3.131	18	2.283	2.505	18	1.322	0.540	18	14.000	0.500
HARD	P900	mg/L	22.000	1.673	6	22.857	1.215	7	21.333	2.733	6	21.500	1.643	6	25.000	17.000
COND	P95	umhos	55.500	6.419	16	53.722	4.336	18	51.611	8.096	18	53.167	5.216	18	76.000	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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

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

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

Water Years Sampled:

5	6						7								8														9						
9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6
	X	X	X	X	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---			-----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	C	5.410	4.942	10	0.529	0.678	7	7.622	2.052	9	17.911	1.774	9	21.600	0.000
PRESS	P25	mmHg	726.170	6.155	10	727.743	3.267	7	726.300	4.163	9	728.856	8.640	9	746.000	716.000
OXYGEN	P300	mg/L	12.290	1.539	10	13.614	0.261	7	12.000	0.418	9	9.078	0.307	9	14.300	8.700
PCTSAT	P301	%	100.440	2.083	10	98.729	1.546	7	104.756	4.085	9	99.133	4.454	9	112.700	92.200
FC	P31616	#/100ml	3.600	3.658	10	1.000	0.000	7	32.000	31.559	9	9.778	10.366	9	97.000	1.000U
COD	P340	mg/L	5.000	0.000	2	10.500	7.778	2	20.667	7.767	3	9.500	7.778	2	5.000	5.000K
PH	P400	units	8.260	0.232	10	8.071	0.243	7	7.900	0.112	9	8.400	0.250	9	8.800	7.700
SUSSOL	P530	mg/L	1.400	0.516	10	2.429	1.718	7	38.556	45.780	9	2.111	1.364	9	156.000	1.000U
FLOW	P60	CFS	719.000	646.694	9	835.143	280.131	7	10737.778	5024.522	9	1678.667	1861.442	9	21800.000	220.000
TPN	P600	mg/L	0.175	0.042	8	0.219	0.059	7	0.198	0.120	9	0.125	0.036	9	0.486	0.079
NH3_N	P610	mg/L	0.024	0.036	10	0.012	0.005	7	0.012	0.004	9	0.011	0.003	9	0.124	0.010U
NO2_DIS	P613	mg/L	0.006	0.006	2	0.010	0.000	2	0.010	0.000	3	0.010	0.000	2	0.010	0.002
NO2_N	P615	mg/L	0.010	0.000	2	0.010	0.000	2	0.010	0.000	2	0.010	0.000	3	0.010	0.010K
NH3_UN	P619	mg/L	0.000	0.000	10	0.000	0.000	5	0.000	0.000	11	0.001	0.001	9	0.001	0.000
NO3_N	P620	mg/L	0.090	0.078	3	0.070	0.028	2	0.023	0.015	3	0.030	0.035	3	0.180	0.010
NO2_NO3	P630	mg/L	0.097	0.111	10	0.117	0.057	7	0.016	0.012	9	0.020	0.016	9	0.381	0.010U
TP_P	P665	mg/L	0.010	0.001	10	0.010	0.000	7	0.049	0.056	9	0.010	0.001	9	0.190	0.008
OP_DIS	P671	mg/L	0.008	0.003	9	0.007	0.003	7	0.007	0.003	9	0.007	0.002	9	0.010	0.005U
COLOR	P80	Pt-Co	15.857	4.451	7	27.000	26.870	2	31.000	8.888	3	3.333	4.041	3	46.000	1.000
TURB	P82079	NTU	0.650	0.295	10	0.886	0.254	7	12.022	13.039	9	1.056	0.625	9	45.000	0.400
HARD	P900	mg/L	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	549.000	549.000
COND	P95	umhos	180.800	42.118	10	174.857	54.137	7	74.556	21.249	9	151.444	43.281	9	290.000	45.000

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

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 61A070 Name: COLUMBIA R @ NORTHPORT Class: AA Elevation: 1280 River Mile: 735.10

Location:
LOCATED AT THE BRIDGE CROSSING THE COLUMBIA RIVER ON STATE HIGHWAY 25, IMMEDIATELY NORTHEAST OF NORTHPORT

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	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	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	C	9.275	3.995	16	2.953	1.218	17	8.183	3.046	18	16.594	1.082	18	18.500	1.100J
ZN	P1094	ug/L	9.127	1.844	11	14.900	8.298	13	18.814	18.253	14	12.679	11.340	14	64.000	4.200P
CD	P1113	ug/L	0.429	0.906	10	0.388	0.828	12	0.363	0.798	13	1.672	4.276	12	15.000	0.040P
PB	P1114	ug/L	4.836	7.567	11	3.875	5.674	12	3.017	5.438	12	4.508	6.910	13	20.000	0.000P
CR	P1118	ug/L	1.025	1.434	10	1.996	2.227	12	1.093	1.740	13	1.205	1.802	12	5.000	0.200U
CU	P1119	ug/L	3.355	2.124	11	4.231	3.411	13	3.946	2.941	13	3.069	1.131	13	14.000	0.000P
PRESS	P25	mmHg	729.150	6.747	16	728.900	6.904	16	727.600	8.028	17	727.389	5.326	18	756.200	712.500
OXYGEN	P300	mg/L	11.456	1.449	16	13.065	0.527	17	12.289	0.538	18	10.356	0.577	18	13.900	9.300
PCTSAT	P301	%	102.763	6.381	16	101.112	6.216	17	108.550	7.120	18	110.250	4.796	18	121.100	89.400
FC	P31616	#/100ml	27.000	35.348	16	13.000	34.168	16	15.611	26.613	18	27.059	33.859	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	units	8.025	0.229	16	7.829	0.239	17	7.994	0.268	17	8.100	0.287	18	8.400	7.200
SUSSOL	P530	mg/L	1.750	0.775	16	1.765	0.752	17	3.556	2.148	18	2.000	0.767	18	9.000	1.000U
FLOW	P60	CFS	78606.250	14121.023	16	86488.235	37368.702	17	91988.889	56600.789	18	96011.111	36024.010	18	219000.000	11400.000
TPN	P600	mg/L	0.128	0.019	9	0.164	0.036	9	0.152	0.028	9	0.146	0.015	9	0.198	0.085
NH3_N	P610	mg/L	0.023	0.020	16	0.021	0.013	17	0.019	0.016	18	0.015	0.007	18	0.085	0.010U
NO2_DIS	P613	mg/L	0.010	0.000	7	0.010	0.000	8	0.009	0.003	9	0.010	0.001	9	0.012	0.001
NO2_NO3	P630	mg/L	0.061	0.023	16	0.111	0.018	17	0.071	0.022	18	0.057	0.020	18	0.135	0.021
TP_P	P665	mg/L	0.016	0.007	16	0.016	0.007	17	0.016	0.010	18	0.016	0.015	17	0.069	0.010U
OP_DIS	P671	mg/L	0.011	0.006	15	0.012	0.007	17	0.011	0.008	18	0.012	0.012	18	0.056	0.005U
HG	P71900	ug/L	0.033	0.038	11	0.032	0.023	12	0.042	0.059	16	0.049	0.079	18	0.300	0.001U
TURB	P82079	NTU	0.800	0.283	16	1.129	0.807	17	1.550	0.995	18	1.194	0.483	18	4.000	0.400
HARD	P900	mg/L	69.818	2.401	11	69.308	14.014	13	66.882	4.328	17	64.294	7.784	17	92.000	24.000
COND	P95	umhos	139.250	7.802	16	144.294	12.056	17	136.111	13.949	18	129.333	28.429	18	234.000	99.000

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.

REPORT CREATION DATE: 97/07/24

QUARTERLY DATA SUMMARY--SIX YEAR AVERAGE

Station Number: 62A150 Name: PEND OREILLE R @ NEWPORT Class: A Elevation: 2030 River Mile: 88.20

Location:
LOCATED IN BONNER COUNTY, IDAHO AT THE BRIDGE ON U S HIGHWAY 2, JUST EAST OF NEWPORT

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	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	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	C	8.894	4.555	18	1.907	1.408	15	10.283	3.837	18	19.728	2.280	18	24.900	0.000
PRESS	P25	mmHg	711.628	5.748	18	709.864	5.673	14	708.972	3.681	18	709.800	5.008	18	720.900	699.000
OXYGEN	P300	mg/L	10.444	1.108	18	12.640	0.491	15	11.256	1.016	18	9.100	0.551	18	13.600	8.500
PCTSAT	P301	%	95.150	3.190	18	97.607	4.181	15	106.756	6.808	18	105.744	5.952	18	119.700	89.200
FC	P31616	#/100ml	1.333	1.029	18	1.333	0.900	15	2.222	1.768	18	5.824	14.896	17	63.000	1.000U
PH	P400	units	8.161	0.161	18	7.967	0.216	15	8.118	0.224	17	8.383	0.189	18	8.700	7.600
SUSSOL	P530	mg/L	2.556	1.247	18	3.400	1.183	15	4.778	1.865	18	2.167	0.985	18	10.000	1.000K
FLOW	P60	CFS	24305.556	7272.468	18	19766.667	6956.053	15	30983.889	23726.282	18	20574.444	13192.054	18	94400.000	3600.000
TPN	P600	mg/L	0.092	0.034	9	0.114	0.017	8	0.101	0.032	8	0.091	0.021	9	0.157	0.030
NH3_N	P610	mg/L	0.015	0.016	18	0.011	0.005	15	0.010	0.002	17	0.010	0.001	18	0.079	0.004
NO2_DIS	P613	mg/L	0.009	0.003	9	0.010	0.000	7	0.009	0.003	9	0.010	0.000	9	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	0.001	0.003	14	0.000	0.000	12	0.000	0.000	11	0.001	0.001	9	0.011	0.000
NO3_N	P620	mg/L	0.013	0.006	3	0.023	0.012	3	0.013	0.006	3	0.010	0.000	3	0.030	0.010K
NO2_NO3	P630	mg/L	0.013	0.006	18	0.037	0.018	15	0.012	0.004	17	0.010	0.000	18	0.070	0.010U
TP_P	P665	mg/L	0.010	0.002	17	0.012	0.004	14	0.011	0.002	17	0.011	0.002	18	0.020	0.006
OP_DIS	P671	mg/L	0.009	0.003	18	0.008	0.002	15	0.008	0.003	18	0.009	0.002	18	0.011	0.002
COLOR	P80	Pt-Co	8.143	4.337	7	2.000	11.314	2	8.667	8.021	3	23.000	28.355	3	55.000	1.000
TURB	P82079	NTU	1.233	0.710	18	1.687	0.806	15	2.533	1.409	18	1.472	0.506	18	6.100	0.400
HARD	P900	mg/L	0.000	0.000	0	0.000	0.000	0	29.000	1.414	2	0.000	0.000	0	85.000	85.000
COND	P95	umhos	163.833	18.775	18	160.533	8.919	15	143.889	11.087	18	147.222	11.725	18	211.000	120.000

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.