TUALATIN RIVER FLOW MANAGEMENT TECHNICAL COMMITTEE

2006 Annual Report

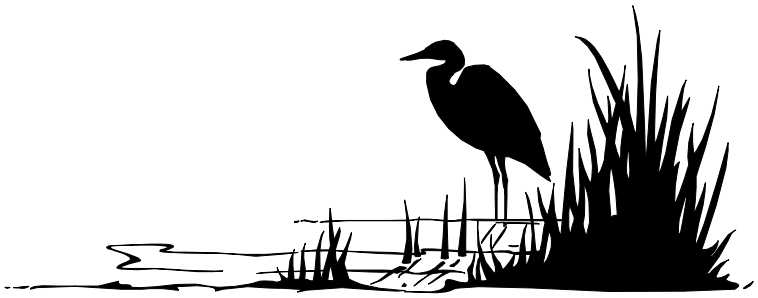
prepared by
Bernie Bonn for

Clean Water Services
Our commitment is clear.

Photo Credits:
Footbridge over Fanno Creek at Durham City Park
Stewart Rounds, USGS Oregon Water Science Center

TUALATIN RIVER FLOW MANAGEMENT TECHNICAL COMMITTEE

2006 Annual Report



Prepared by:

Bernie Bonn

For:

Clean Water Services, Watershed Management Division

In cooperation with:

Oregon Water Resources Department, District 18 Watermaster

FLOW MANAGEMENT TECHNICAL COMMITTEE MEMBERS

From left to right:

Charlie Harrison *City of Beaverton*
Darrell Hedin, Secretary
Oregon Water Resources Department
Raj Kapur *Clean Water Services*
Kevin Hanway *Joint Water Commission*
Jan Miller, Chair *Clean Water Services*
Wally Otto
Tualatin Valley Irrigation District
Mark Rosenkranz
Lake Oswego Corporation
Chris Wayland
Washington County Parks — Hagg Lake
Tom VanderPlaat *Clean Water Services*
Randy Smith *City of Forest Grove*

Not pictured:

Niki Iverson *Joint Water Commission*

ACRONYMS USED IN THIS REPORT

FULL NAME	ACRONYM
Facilities	
Springhill Pumping Plant	SHPP
Wastewater Treatment Plant	WWTP
Organization	
Clean Water Services (formerly Unified Sewerage Agency)	CWS
Joint Water Commission	JWC
Lake Oswego Corporation	LOC
Oregon Department of Environmental Quality	ODEQ
Oregon Department of Transportation	ODOT
Oregon Water Resources Department	OWRD
Tualatin Valley Irrigation District	TVID
Tualatin Valley Water District	TVWD
U.S. Bureau of Reclamation	BOR
U.S. Geological Survey	USGS
Water Quality Parameters	
Dissolved Oxygen	DO
Sediment Oxygen Demand	SOD

FULL NAME	ACRONYM
Units of Measurement	
Acre-Feet	ac-ft
Cubic Feet per Second	cfs
Micrograms per liter	µg/L
Milligrams per Liter	mg/L
Million Gallons per Day	MGD
Pounds	lbs
River Mile	RM
Water Year	WY
Other	
Endangered Species Act	ESA
Load Allocation	LA
Total Maximum Daily Load	TMDL
Wasteload Allocation	WLA

Disclaimer

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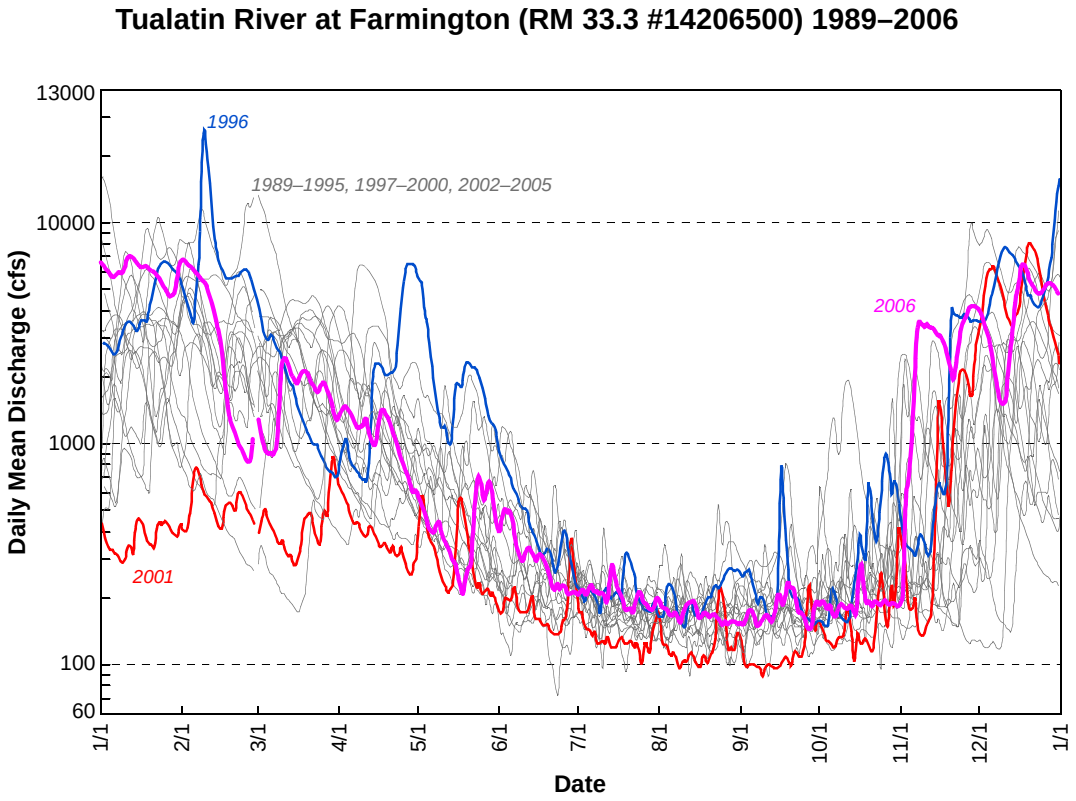
I. River Mile Indices—

2006 SUMMARY

This is the nineteenth year that the Tualatin River Flow Management Technical Committee has prepared an annual report documenting the flow management of the Tualatin River. Members of the committee include Clean Water Services (CWS), Tualatin Valley Irrigation District (TVID), Joint Water Commission (JWC), Lake Oswego Corporation (LOC) and Oregon Water Resources Department (OWRD).

Highlights for 2006 include:

- The year was characterized by a warm spring and summer and early fall rains.



- Both Barney and Scoggins Reservoirs filled.
- Oregon Water Resources Division assumed the operation of the gaging station at Scoggins Creek below Henry Hagg Lake (#14202980) on October 1, 2006. Until then, the site was operated by the U.S. Geological Survey.

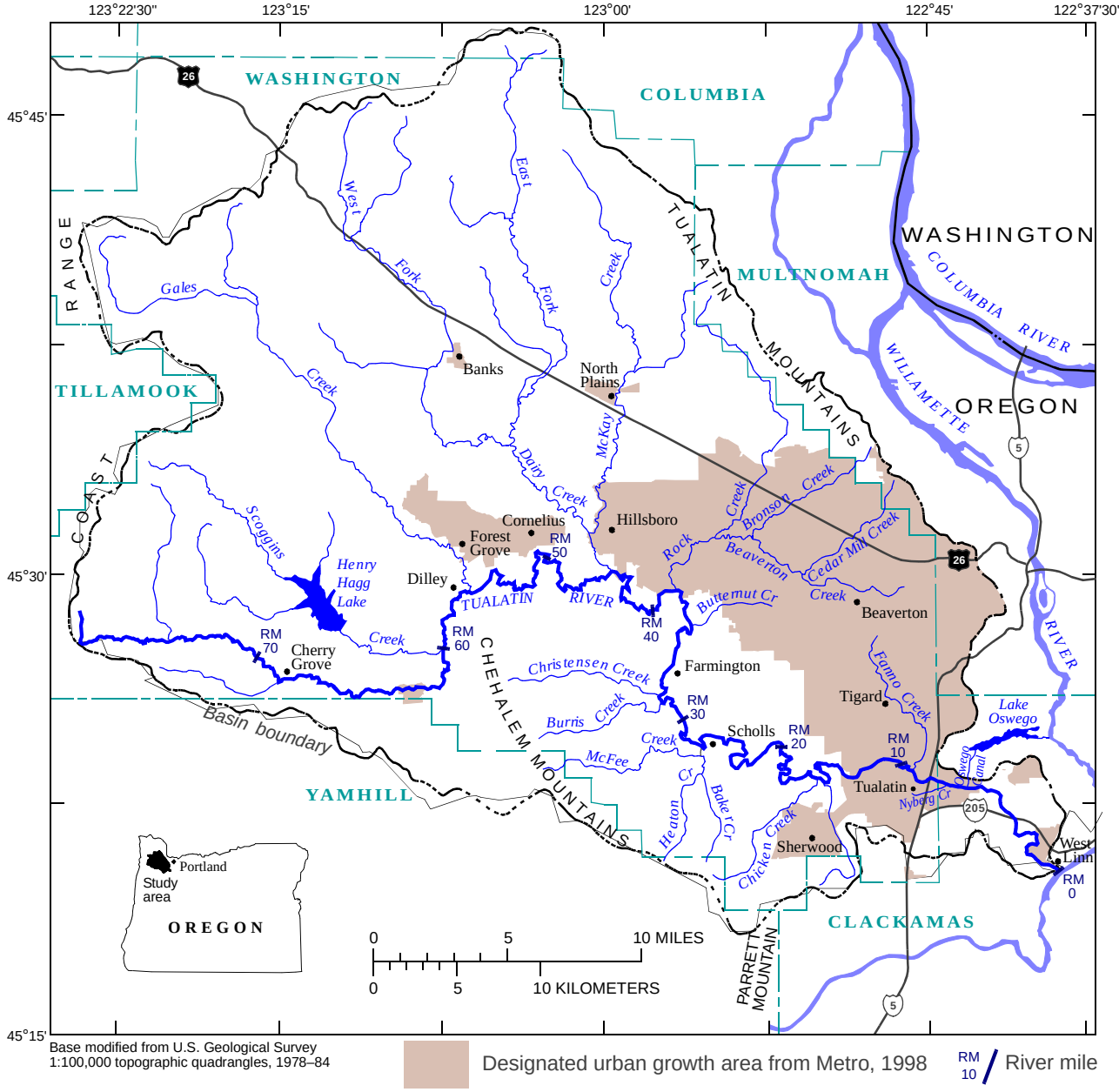
BACKGROUND

Basin Description

The Tualatin River Basin comprises an area of 712 square miles situated in the northwest corner of Oregon and is a subbasin of the Willamette River. The headwaters are in the Coast Range and flow in a generally easterly direction to the confluence with the Willamette River. The basin lies almost entirely in Washington County. (See map below)

The Tualatin River is about 80 miles long and changes dramatically from its headwaters to its mouth. The mountain or headwater reach (upstream of RM 55) is narrow (about 15 ft) and steep with an average slope of about 74 ft/mi. The meander reach (RM 55–33) is wider with an average slope of about 1.3 ft/mi. The reservoir reach (RM 33–3.4) is very wide (up to 150 ft) and has an estimated slope of only 0.08 ft/mi. It includes several deep pools. Travel times through this reach are very long. The slow movement of the water causes this reach to act much like a lake. In the riffle reach (RM 3.4–0), the Tualatin River flows through a short reservoir section and then drops into a narrow gorge near the City of West Linn before it enters the Willamette River just upstream of Willamette Falls. The average slope in this reach is 10 ft/mi.

Tualatin River Basin



Water sources to the Tualatin River

Precipitation: Seasonal rainfall accounts for most of the flow in the Tualatin Basin; stream flow from snowmelt is minimal. The amount of rainfall ranges from 110 inches on the eastern slopes of the Coast Range to 37 inches in the southeastern area of the drainage basin. Peak months for rainfall are November through February while the driest months are normally June through October. The peak streamflow month is usually February, and the lowest streamflow month is August.

Barney Reservoir: Barney Reservoir is located on the Middle Fork of the North Fork of the Trask River. It has a capacity 20,000 acre-feet and stores water for Clean Water Services, the Tualatin Valley Water District, and the Cities of Beaverton, Hillsboro and Forest Grove. Water released from Barney Reservoir enters the Tualatin River at RM 78 via an aqueduct over a low Coast Range divide and via a pipeline. Water is released during the summer low-flow season to supplement shortages in natural flow.

Scoggins Reservoir: Scoggins Creek enters the Tualatin River at RM 60.0. In the early 1970's the Bureau of Reclamation built an earthen dam on Scoggins Creek. Scoggins reservoir (Henry Hagg Lake) has an active storage capacity of 53,640 acre-feet. It is a multipurpose facility with contracted water for irrigation, municipal and industrial, and water quality uses. Recreation is a major activity during the summer months on the reservoir. During the winter it serves as a flood control structure with 20,000 acre feet designated for flood control storage from November to April.

Clean Water Services: Clean Water Services (CWS) provides sanitary and stormwater services to the urban areas of Washington County. CWS has two major summer discharging wastewater treatment plants (WWTPs) that have permits to discharge water into the Tualatin River. The Rock Creek WWTP discharges an average of 50 cfs (33 MGD) at RM 38.1; the Durham WWTP discharges an average of 31 cfs (20 MGD) at RM 9.4. CWS also releases storage water from Scoggins and Barney Reservoirs for flow augmentation during the seasonal low flow periods. The goal is to maintain 150 cfs (100 MGD) at the Tualatin River at Farmington Road Bridge gage (RM 33.3).

Tualatin Valley Irrigation District: Tualatin Valley Irrigation District (TVID) is the agricultural water service agency for the area and serves approximately 20,000 acres of irrigated cropland. TVID operates the Patton Valley Pump Station at RM 1.71 on Scoggins Creek which can divert water via a low-pressure pipeline into the upper Tualatin River above the city of Gaston (outfalls at RM 63.2 and RM 64). This water is used to serve irrigators upstream of the Scoggins confluence (RM 60.0).

Water diversions from the Tualatin River

Cherry Grove Intake (RM 73.2): The City of Hillsboro diverts water for municipal and industrial uses at the Cherry Grove Intake. Hillsboro customers are served by this treatment facility and include the City of Gaston, the LA Water Cooperative, and rural residents of the Dilly and Cherry Grove areas.

Springhill Pumping Plant (RM 56.3): The Springhill Pumping Plant (SHPP) is the largest diversion facility on the river. It is operated jointly by the Tualatin Valley Irrigation District (TVID) and the Joint Water Commission (JWC). TVID delivers water from SHPP to about 12,000 acres of irrigated cropland via a pressure pipeline. TVID has a pumping capacity of approximately 90 MGD (140 cfs) at the SHPP. JWC delivers water from SHPP to the Cities of Beaverton, Hillsboro, Forest Grove and to the Tualatin Valley Water District (TVWD). JWC has a pumping capacity of approximately 60 MGD (90 cfs) at the SHPP. Both TVID and JWC have natural flow water rights that are used when flows are high; they release contracted stored water from Scoggins and Barney Reservoirs to augment declined natural flow in the summer.

Irrigation withdrawals: Water is obtained directly from the Tualatin River for irrigation purposes by members of the Wapato Improvement District (Wapato Lake), members of the TVID, and irrigators with natural flow water rights. About 5,000 acres of cropland served by TVID is irrigated with water obtained directly from the Tualatin River.

Lake Oswego Canal Diversion: The Lake Oswego Corporation (LOC) diverts a portion of the Tualatin flow into the Lake Oswego Canal at RM 6.7. A headwork structure regulates the flow into this mile long canal that feeds into Lake Oswego. The water is used to generate power below the dam at the east end of Lake Oswego. The Lake Oswego Corporation has a natural flow water right for 57.5 cfs (priority date: 1906) and has 500 acre-feet of contracted stored water for consumptive uses from Hagg Lake. At RM 3.4, a combination diversion dam/fish ladder structure is used during low flow periods to elevate the Tualatin River enough to divert the flow into the canal. During most of the year, river elevation is adequate to allow diversion of the LOC water right; in the summer, however, flash boards may be installed to increase the water level. This dam is 4 feet high and causes the water surface of the Tualatin River to be elevated for about 25 river miles upstream. LOC did not install flashboards in 2006.

Tualatin River Flow Management Technical Committee

The Tualatin River Flow Management Technical Committee provides a mechanism for the coordination and management of flow in the Tualatin River. The members of the committee are technical staff with detailed knowledge of the specific characteristics of flow in this river. The committee meets monthly from February through November. Meetings focus mainly on the review of the hydrographs and current status of the reservoirs. In addition, a variety of other water issues and any problems are discussed. Each member updates the committee on any changes that could impact the flow management of the Tualatin.

Data collection system

A coordinated information system was developed to provide flow information to all members of the committee. Because use or release of water by any one of the entities can impact the other users, coordination of flow information is an important aspect of the committee's work. The data are collected by field staff from the cooperating entities or from the Corps of Engineers via telemetry. A system of gaging stations, precipitation and other flow monitoring equipment has been developed during the past several years to monitor the flows on the Tualatin and the major tributaries. Significant releases and diversions are also monitored.

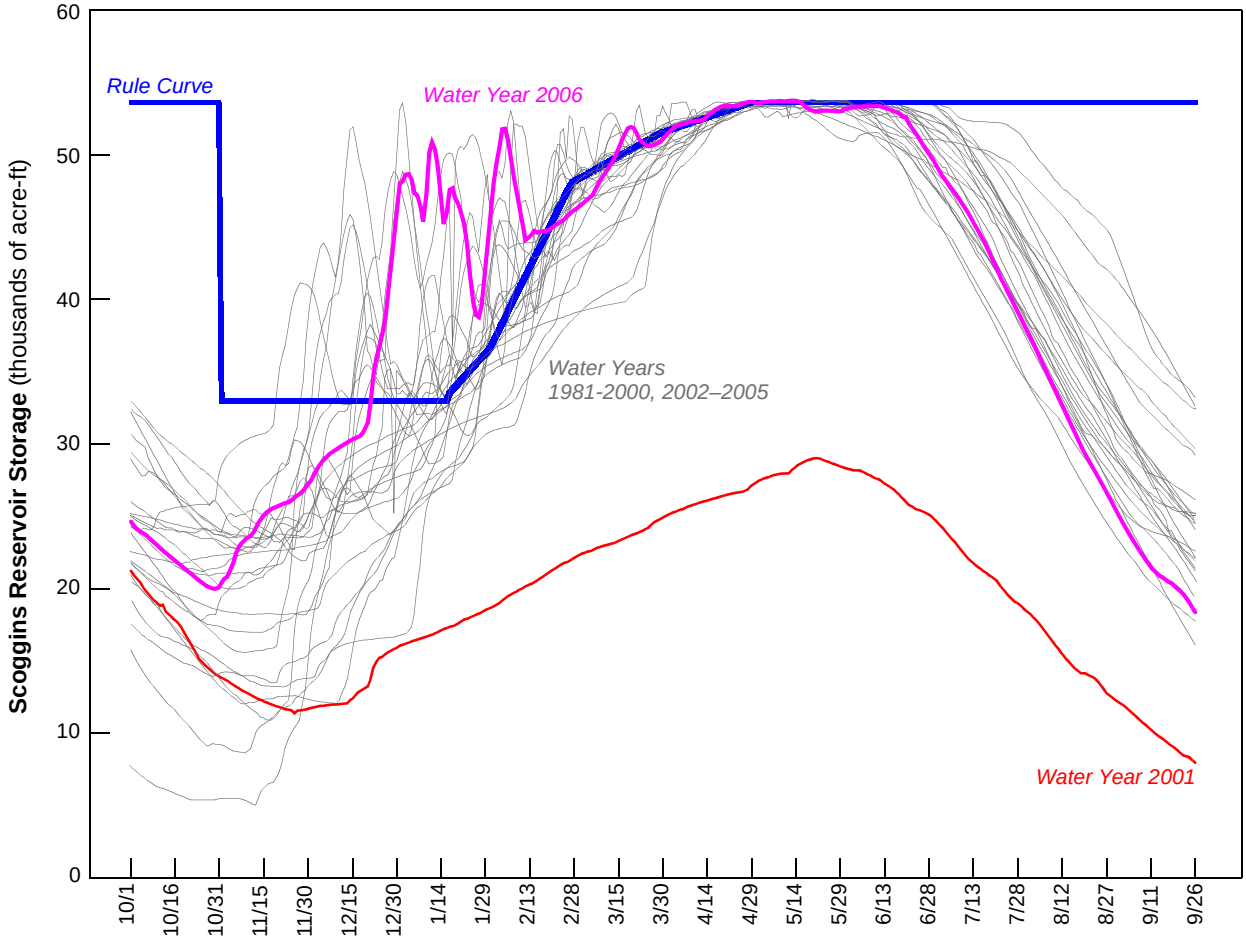
An expanding, on-going flow monitoring system continues to provide valuable information for the management of stored water and natural flow availability in the basin. It also makes the calculation of pollutant loads possible, when it is necessary for the Total Maximum Daily Load program (TMDL). New monitoring includes temperature as well as flow at some sites. As water quality issues have come to the forefront, the monitoring system has provided information vital to understanding the Tualatin basin, helped guide basin management, and been an excellent example of interagency cooperation.

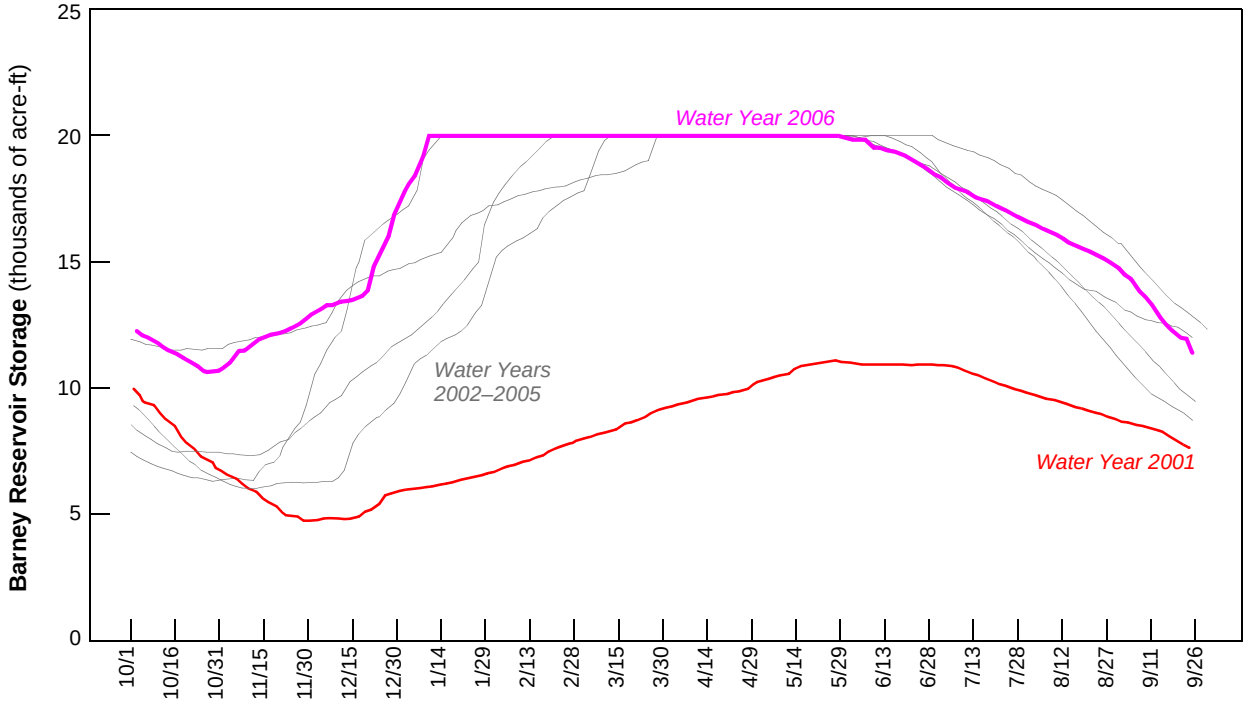
Some of the monitoring data for the Tualatin Basin can be accessed at the following web sites:

- Bureau of Reclamation data: http://www.usbr.gov/pn-bin/rtindex.pl?cfg=tual
- Oregon Water Resources Division data: http://www.goeslink.com/ordistrict18/
- USGS data: http://or.water.usgs.gov/cgi-bin/grapher/graph_setup.pl?basin_id=tualatin

RESERVOIR STATUS

Both Scoggins and Barney Reservoirs filled in 2006. The fill curves for 2006 and the reservoir filling histories are shown below.





CLEAN WATER SERVICES

BY JAN MILLER, CLEAN WATER SERVICES

Water is released by Clean Water Services (CWS) from the Scoggins and Barney reservoirs to improve water quality in the Tualatin River. The Department of Environmental Quality issued an NPDES Watershed-Based Waste Discharge Permit to Clean Water Services on February 26, 2004. After a legal challenge, changes were made to the stormwater section of the permit and the entire permit was reissued on July 27, 2005. It provides Clean Water Services with flexibility in meeting its wastewater treatment plant permit requirements by recognizing the benefit of the water that Clean Water Services releases from the two reservoirs.

The reservoir releases during July and August are traded to mitigate approximately 75% of the thermal impacts of the wastewater treatment plants. Clean Water Services offsets the remainder of its thermal impact by improving riparian habitat along the tributaries either directly within its service area or through a partnership with the Tualatin Soil and Water Conservation District on rural lands. During the rest of the summer, the water is released to offset the impact of sediment oxygen demand on the dissolved oxygen levels in the river. The dissolved oxygen levels in the river downstream of the wastewater treatment plants determine the ammonia limits for the wastewater treatment plants. The higher the dissolved oxygen levels are, the more operational flexibility the wastewater treatment plants have.

A primary water quality issue in the lower Tualatin River is dissolved oxygen. During the early parts of the summer, the oxygen produced by the algae effectively offsets the sediment oxygen demand (oxygen consumed by the decaying substances in the sediment of the river). Once algal oxygen production is reduced in the fall due to the reduced solar radiation, the impact of the sediment oxygen demand on the river is significant. By increasing the flow of water, the impact of the sediment oxygen demand is minimized because the water moves past the sediment faster.

2006 Water Releases

Clean Water Services initiated its release from Scoggins Reservoir on July 1, 2006. This was the third year with two primary goals. One goal was to release an average of 35 cfs for July and August for temperature trading. Clean Water Services met this goal by releasing an average of 38.4 cfs during this period. The second goal was to have enough water left to mitigate the impact of sediment oxygen demand after the algal populations declined in mid-September. This goal was not tested because Clean Water Services did not need its entire allocation of water. Water releases ended on November 3, 2006 when Farmington flows reached 520 cfs and winter flow conditions started. Clean Water Services released a total 9,634 acre-feet from Scoggins Reservoir for the summer. This was 76% of its allocation. The primary reason for the reduced water use in 2006 was the start of winter flow levels on November 3, 2006.

Clean Water Services initiated a constant rate of release of 14 cfs from Barney Reservoir on September 1, 2006. Except for 5 days in September (23rd–27th) when it was suspended, the 14 cfs release was maintained until November 3, 2006. Clean Water Services used a total of 1,638 acre-feet. The amount of water available to and released by Clean Water Services during 2006 is summarized below; monthly details of the water releases are summarized in the table on the following page.

CLEAN WATER SERVICES WATER AVAILABILITY AND USE — 2006

Reservoir		**Maximum Available** (acre-ft)	**Available** (acre-ft)	**Total CWS Release** (acre-ft)
Scoggins Reservoir	Storage	12,618	12,618	9,636
	Natural flow portion (credit)	4,282	—	—
Barney Reservoir	Storage	2,000	1,667	1,638
	Summer storage	—		
Total		**18,900**	**14,285**	**11,274**
Percent of available				**78.9%**

CLEAN WATER SERVICES WATER RELEASE SUMMARY 2006

	Units	May	June	July	Aug	Sept	Oct	Nov 1-3	Total
Scoggins Release	acre-ft	0	0	1,918	2,799	2,281	2,392	244	9,634
	days	0	0	31	31	30	31	3	126
Barney Release	acre-ft	0	0	0	0	694	861	208	1,638
	days	0	0	0	0	25	31	3	59
Total Release	acre-ft	0	0	1,918	2,799	2,975	3,253	327	11,272
Daily Average Release	cfs	0	0	31	46	50	53	55	45
Measured Flows* and Flow Goals for Tualatin River at Farmington (RM 33.3)									
Measured minimum	cfs	211	188	158	151	148	169	194	—
Measured mean	cfs	434	292	188	168	180	194	324	—
Measured maximum	cfs	708	497	258	193	238	289	560	—
Daily minimum flow goal	cfs	120	120	120	120	120	120	120	—
Monthly mean flow goal	cfs	120	120	120	150	180	180	180	—

* Flows shown here were obtained in "real time" prior to QC by the Distinct 18 Watermaster and may not exactly match those shown in Appendix A for this site.

The combined average daily release (for days with releases) was 45 cfs. Both daily and monthly flow targets were met.

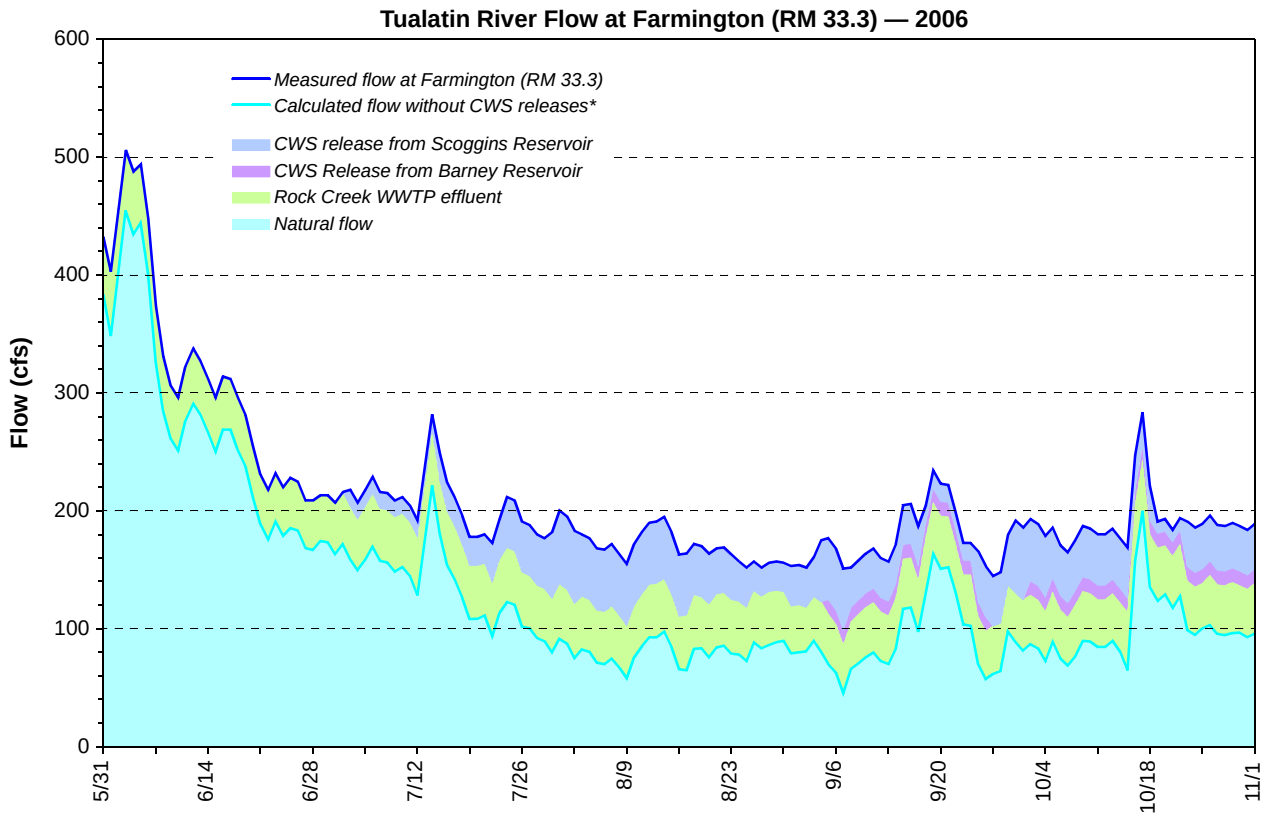
Clean Water Services flow augmentation and treatment plant flow accounts for a significant fraction of flow in the lower Tualatin River, especially during the late summer and early fall period (see graphs on the following page).

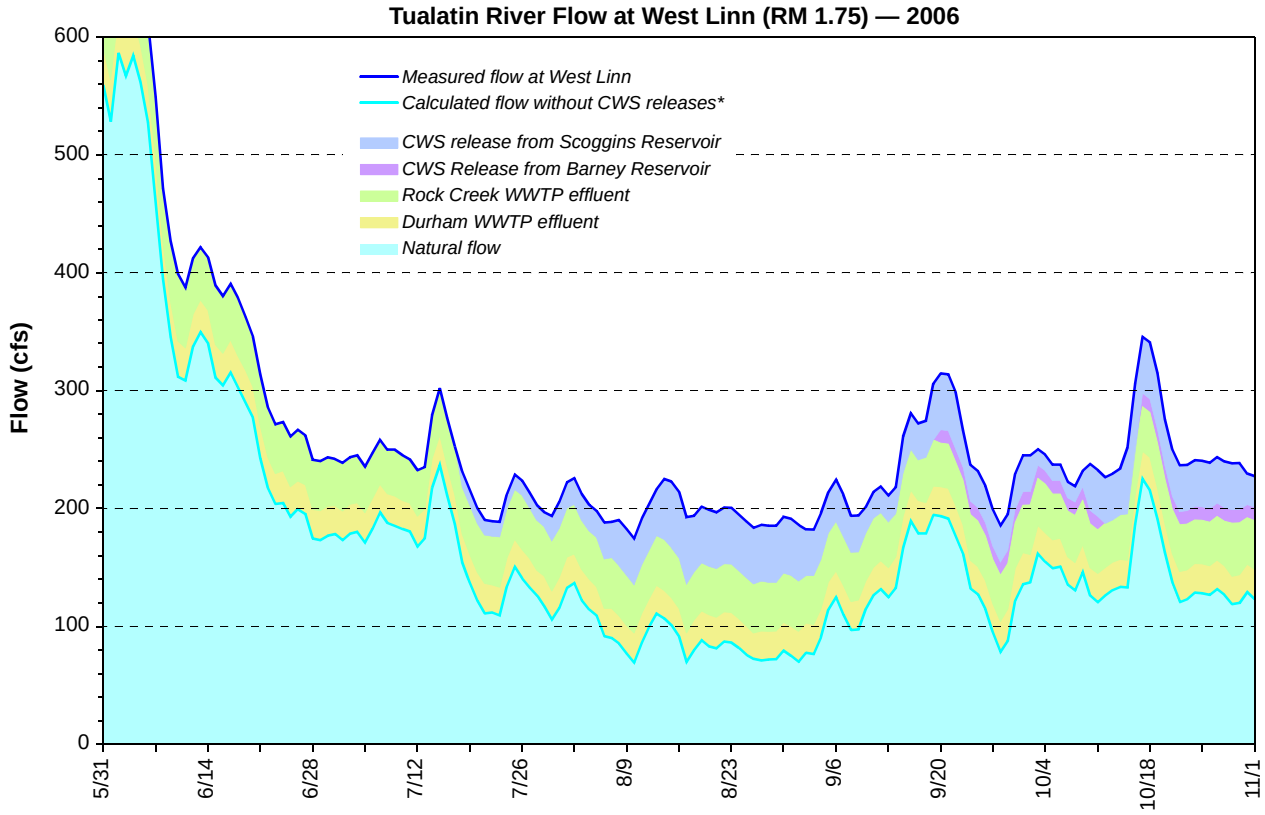
Natural flow credit

If the natural flow in the Tualatin River measured at West Linn is less than the flow target for the months of May, June, October and November, then CWS receives a natural flow credit of up to 4282 acre-ft. Natural flow is calculated as the actual measured flow minus the CWS released flow. The table below shows that the natural flow at West Linn exceeded the flow targets for these four months, and therefore, CWS was not entitled to a natural flow credit in 2006.

BUREAU OF RECLAMATION NATURAL FLOW CREDIT

Month	Mean Daily Measured Flow at West Linn (cfs)	Mean Daily CWS Release (cfs)	Calculated Natural Flow at West Linn (cfs)	Target Natural Flow at West Linn (cfs)	Maximum Possible CWS Natural Flow Credit (cfs) *[acre-ft]*	CWS Natural Flow Credit (cfs)
May	605	0	605	85	13 *[798]*	0
June	407	0	407	140	21 *[1250]*	0
October	250	53	197	95	16 *[984]*	0
November	3102	0	3102	110	21 *[1250]*	0





*Flows without CWS releases were calculated as follows. (Constant travel times and a uniform evaporative loss of 0.25% per mile were assumed.)

Flow at Farmington without CWS releases =
+ Measured flow at Farmington
– 0.988 x Rock Ck WWTP flow from the same day
– 0.933 x CWS Scoggins Release from 2 days before
– 0.888 x CWS Barney Release from 4 days before

Flow at West Linn without CWS releases =
+ Measured flow at West Linn
– 0.981 x Durham WWTP flow from 3 days before
– 0.909 x Rock Ck WWTP flow from 14 days before
– 0.854 x CWS Scoggins Release from 17 days before
– 0.809 x CWS Barney Release from 19 days before

Historical perspective

In 1987, Clean Water Services begin managing the release of its water with the goal of maintaining a monthly average of 150 cfs at the Tualatin River at Farmington. Work by the United States Geological Survey in the early 1990's indicated that it was more important to have higher flows in the fall to maintain dissolved oxygen levels than in the early summer to prevent algal blooms. The flow goals were changed to maintaining 120 cfs in the early summer, 150 cfs in August and then 180–200 cfs from September until the winter flows start. Winter flows are defined as flows that exceed a 7-day median of at least 350 cfs. In 2004, an additional goal of releasing water in July and August for temperature trading was added. The following table shows the history of Clean Water Services releases from Scoggins Reservoir

CLEAN WATER SERVICES — SCOGGINS RESERVOIR RELEASES

Year	Start Date	End Date	Total Release Days	Total Release (acre-ft)	Average per Release Day (cfs)	Minimum Monthly Flow at Farmington (RM 33.3) (cfs)
1987	6/9	11/30	175	16,722	48.2	138
1988	7/2	11/4	126	15,071	60.3	149
1989	6/27	11/15	141	16,586	59.3	158
1990	7/12	11/1	113	11,889	53.0	172
1991	7/12	11/4	116	13,024	56.6	181
1992	6/5	11/19	168	12,730	38.2	138
1993	7/3	12/1	150	11,486	38.6	154
1994	6/21	10/27	129	10,917	42.7	137
1995	6/24	11/8	138	9,824	35.9	174
1996	7/27	11/10	114	10,952	48.4	205
1997	7/4	10/2	91	6,716	37.2	202
1998	8/12	11/7	87	9,407	54.5	175
1999	7/27	11/12	109	12,001	55.5	188
2000	7/21	11/27	130	15,275	59.2	174
2001	9/25	11/14	50	2,403	24.0	114
2002	6/12	11/9	151	12,618	42.0	103
2003	7/11	11/17	130	11,765	52.4	107
2004	7/1	11/2	125	8,650	34.9	130
2005	7/8	10/31	116	9,918	43.1	153
2006	7/1	11/3	126	9,634	38.5	148

Water is released from Barney Reservoir at a constant rate during the late summer to supplement the water released from Scoggins Reservoir. The following table shows the historic use of Barney Reservoir releases. Clean Water Services owns 10% of the 20,000 acre-foot reservoir. Each year the Joint Water Commission decides how much water is to be released for the Department of Fish and Wildlife. This, plus the dead pool, is subtracted from the available water. The remainder is allocated to the owners.

CLEAN WATER SERVICES — BARNEY RESERVOIR RELEASES

Year	Start Date	End Date	Total Release (acre-ft)	Daily Release Rate (cfs)	Comment
1998	7/12	8/27	2,779	24.6	extra water released to draw down reservoir
1999	9/1	10/19	1,025	10	10 cfs also released 6/4–6/10
2000	9/8	10/23	1,461	18	—
2001	9/18	10/29	1,416	17	1000 acre-ft purchased in addition to allocation; reservoir did not fill; 4,000 acre-ft held in reserve
2002	8/26	10/24	1,667	14	—
2003	8/15	10/14	1,742	14	—
2004	9/1	11/2	1,777	14	—
2005	9/1	11/8	1,874	14	miscommunication about end date; extra water released
2006	9/1	11/3	1,638	14	

HAGG LAKE MONITORING PROGRAM
BY BERNIE BONN FOR CLEAN WATER SERVICES

Overview

A comprehensive Hagg Lake monitoring program was initiated in August of 1999. The monitoring program is designed to provide information about lake water sources and sinks, including inflow volume, discharge volume, and evaporative losses; nutrient concentrations in the lake and its tributaries; concentrations of petroleum hydrocarbon compounds in the lake; bacteria concentrations in the lake and its tributaries; and biological communities (phytoplankton, zooplankton, and macroinvertebrate) in the watershed. This information will be used to develop water and nutrient budgets for the lake and characterize the water quality of Hagg Lake and determine its trophic level.

Monitoring

Samples are collected from the deepest location in Hagg Lake and from the three main tributaries to the lake, Scoggins, Sain, and Tanner Creeks. Prior to 2006, the program was conducted year-round, although the sampling frequency and analyses varied with the season. The winter part of the monitoring program was discontinued in 2006. Lake samples are collected twice a month from May to October. Tributaries are sampled monthly. The monitoring schedule and actual sampling for 2006 is shown in the table below.

HAGG LAKE MONITORING — 2006

[First value is the number of actual dates with analytic results; value in parenthesis is the number that was scheduled]

	Field Data	Nutrient Concentration	Chlorophyll *a*	Suspended Solids	Total Petroleum Hydrocarbon	Bacteria	Phytoplankton	Zooplankton		Macroinvertebrates
								ID	Length	
Hagg Lake										
May	2 (2)	2 (2)	2 (2)	—	1 (1)	2 (2)	2(2)	2 (2)	1 (1)	—
June	1 (2)	1 (2)	1 (2)	—	0 (0)	1 (2)	1 (2)	1 (2)	0 (1)	—
July	2 (2)	2 (2)	2 (2)	—	1 (1)	2 (2)	2 (2)	2 (2)	1 (1)	—
August	0 (2)	0 (2)	0 (2)	—	—	0 (2)	0 (2)	0 (2)	0 (0)	—
September	2 (2)	2 (2)	2 (2)	—	1 (1)	2 (2)	2 (2)	2 (2)	1 (1)	—
October	2 (2)	2 (2)	2 (2)	—	1 (1)	2 (2)	1 (2)	2 (2)	1 (1)	—
Tributaries (Scoggins, Sain and Tanner Creeks)										
May	1 (1)	1 (1)	—	1 (1)	—	1 (1)	—	—	—	—
June	1 (1)	1 (1)	—	1 (1)	—	1 (1)	—	—	—	—
July	1 (1)	1 (1)	—	1 (1)	—	1 (1)	—	—	—	—
August	0 (1)	0 (1)	—	0 (1)	—	0 (1)	—	—	—	—
September	1 (1)	1 (1)	—	1 (1)	—	1 (1)	—	—	—	0 (1)
October	1 (1)	1 (1)	—	1 (1)	—	1 (1)	—	—	—	1 (0)

All samples are collected by JWC, except macroinvertebrate samples which are collected by Clean Water Services. JWC also collects all field measurements and weather conditions. Most of the chemical analyses are done by the Bureau of Reclamation laboratory in Boise, Idaho. JWC arranges and pays for bacteria testing. Clean Water Services arranges and pays for macroinvertebrate, zooplankton, phytoplankton, and total petroleum hydrocarbon analyses.

Additional information about Hagg Lake is also available.

- OWRD maintains gages on the tributaries that flow into Hagg Lake.
- The USGS (OWRD as of October 1, 2006) maintains a gage on Scoggins Creek downstream of Scoggins Dam.
- TVID is responsible for flow releases and maintains records of reservoir height and discharge. They also collect weekly data for water turbidity, transparency, and temperature. In addition, CWS collects weekly water samples immediately downstream of the discharge from Scoggins Dam during the summer; these samples are analyzed for nutrients and major ions by Clean Water Services laboratory.
- The Washington County Parks Department collects weekly samples at key sites around Hagg Lake; these samples are sent to the Oregon State Health Department for bacteria analysis.

Results for 2006

Hagg Lake was thermally stratified when all samples were obtained in 2006 (see graphs on the opposite page). Dissolved oxygen levels frequently were not available for 2006 because of recurring problems with the dissolved oxygen probe. In past years, dissolved oxygen concentrations in the hypolimnion (lower layer) of the lake began decrease shortly after thermal stratification began.

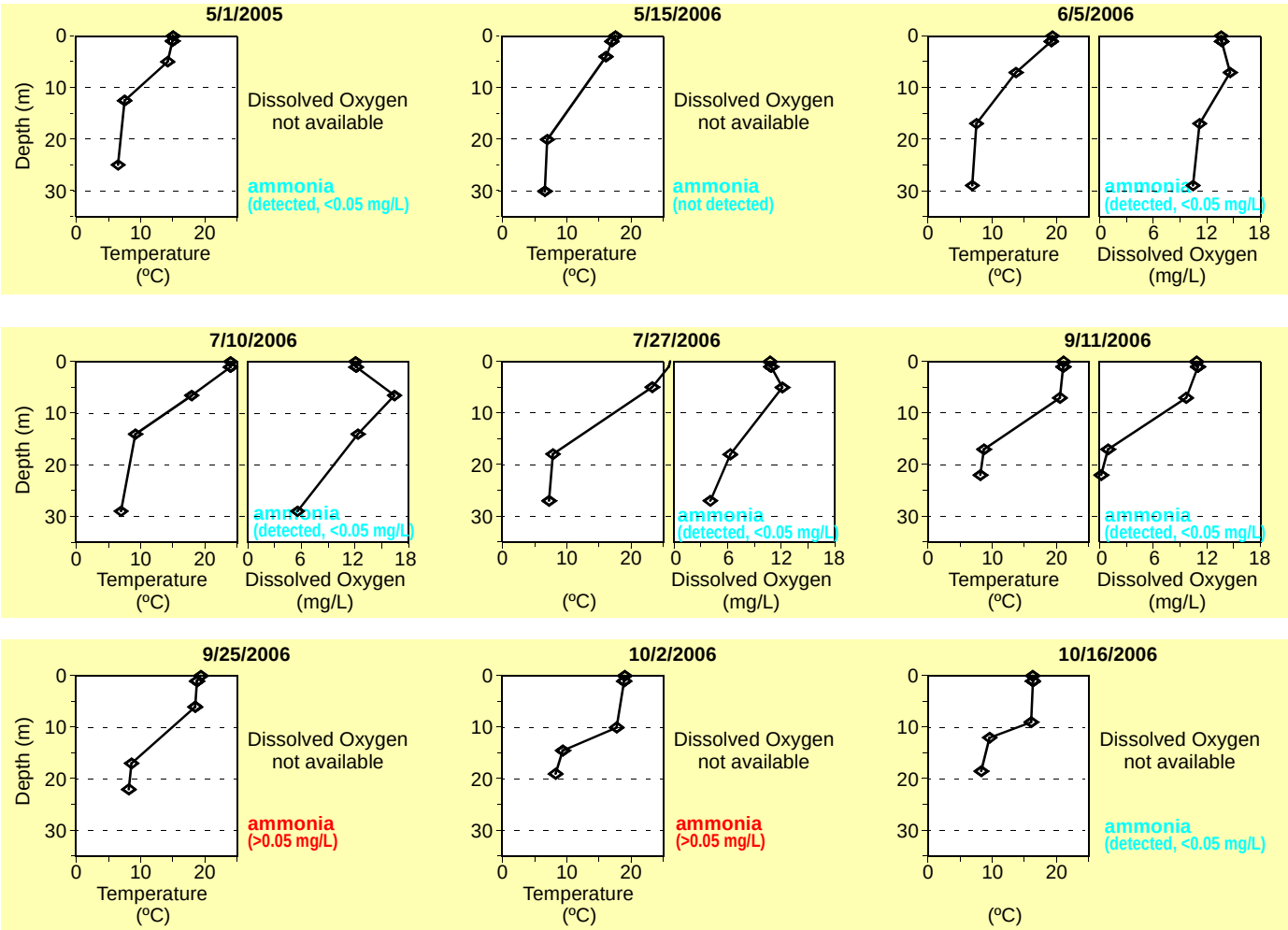
Once the oxygen is depleted, anaerobic bacteria can survive. These bacteria produce ammonia as they decompose organic material (ammonification). There was concern that if the intake structure in the reservoir tapped into the hypolimnion, ammonia would be discharged into Scoggins Creek. If the ammonia concentrations were high enough, several problem could result.

- It could be toxic to fish;
- Nitrification of the ammonia could deplete oxygen levels in Scoggins Creek;
- If the water reaching JWC's drinking water plant at Springhill contained significant ammonia, it would consume extra chlorine in the disinfection process, causing an increase in costs and in the concentration of choramines in the treated water.

Sporadic ammonia detections occurred throughout spring and into summer, but they were near the detection limit. The ammonia concentration in the deepest sample had risen to 0.14 mg/L as N by September 25th. Ammonia levels had declined to 0.06 and 0.04 mg/L by October. It is not known when the lake thermal stratification ended in 2006, but it was sometime after the last sampling on October 16th.

DISSOLVED AMMONIA CONCENTRATIONS IN DEEPEST SAMPLE

Year	September		October		November	
	Date	Ammonia (mg/L as N)	Date	Ammonia (mg/L as N)	Date	Ammonia (mg/L as N)
2006	9/11	0.01	10/2	0.06	—	—
	9/25	0.14	10/16	0.04		
2005	9/19	0.11	10/17	0.44	11/28	0.66
2004	9/20	0.07	10/27	0.43	11/15	0.07
2003	9/22	0.03	10/06	0.25	12/8	0.02
			10/20	0.08		
2002	9/24	0.02	10/22	0.38	11/19	0.01
2001	9/25	0.07	10/23	0.27	11/27	0.07
2000	9/19	0.02	10/31	0.17	11/07	0.43



All samples were taken when the lake was thermally stratified. Dissolved oxygen measurements were problematic throughout 2006.

JOINT WATER COMMISSION & JOINT BARNEY COMMISSION

BY NIKI IVERSON, WATER RESOURCES MANAGER, JOINT WATER COMMISSION/CITY OF HILLSBORO

Over 300,000 people in Washington County receive at least a portion of their water from JWC. The Joint Water Commission (JWC) provides water to its member agencies: the Cities of Hillsboro, Forest Grove, Beaverton and Tigard, and the Tualatin Valley Water District. JWC also provides wholesale service directly to the city of North Plains, and to Cities of Cornelius and Gaston and to the LA Water Cooperative as wholesale customers of Hillsboro. JWC's water production averages approximately 37 million gallons per day. During the peak periods of the summer, production increases substantially; in 2006 production peaked at a record 60 million gallons per day.

JWC's water treatment plant is supplied with water from the nearby Tualatin River. Water is pumped from an intake facility at Spring Hill that was constructed by the Bureau of Reclamation and is shared with the Tualatin Valley Irrigation District (TVID). Flows in the Tualatin River are supplemented during the summer with water from impounds at Scoggins Dam (Hagg Lake) and Barney Reservoir. Scoggins Dam is owned by the Bureau of Reclamation (BOR) and operated by TVID through a contract with the BOR. The Barney Reservoir Joint Commission (BRJOC) is the owner of Barney Reservoir, which is formed behind the Eldon Mills Dam on the Trask River. BRJOC includes Hillsboro, Forest Grove, Beaverton, and Tualatin Valley Water District as well as Clean Water Services. The City of Hillsboro serves as the managing agency for the JWC and BRJOC.

The JWC water treatment plant uses conventional, dual media filtration, along with disinfection, to produce high quality potable water. Treated water is pumped from the plant to the member agencies either directly through finished water pipelines leaving the plant or via the Fern Hill Reservoirs. Fern Hill Reservoirs include two 20 million gallon covered concrete tanks, for a total of 40 million gallons of storage, located about one-third mile to the east of the treatment plant. The second 20 million gallon reservoir was recently constructed at the Fern Hill Site and began operation in October 2006. The JWC finished water pipelines include master meter and pressure reducing stations at the connection points to the member agencies.

JWC continued its emphasis on maximizing the capture of our source waters through improved coordination of the operation of Fern Hill Reservoirs with JWC member system demands, and through careful tracking of individual member use of their stored water. The 2006 program had continued success, as the JWC pump station recovered 93% of the water available to us at our intake from our natural flow rights and releases from our impounded supplies.

JWC appreciates the efforts of the watermaster and our partners on the Flow Management Committee, and we extend our thanks for all of their involvement and cooperation. The communication and coordination that comes from this committee among the various Tualatin River users is invaluable to us.

SUMMARY OF 2006 RELEASE SEASON

Description	Beginning Balance (acre-ft)	Amount Released (acre-ft)	Calculated Inflow (acre-ft)	Ending Balance (acre-ft)	Average Release (acre-ft/day)
Breakdown by Reservoir					
Scoggins	13,500.00	11,331.74		2,168.26	70.82
Barney (M&I)	14,886.00	8,100.61	1,874.00	6,785.39	50.63
Total	**28,386.00**	**19,432.35**	**1,874.00**	**8,953.65**	**121.45**
Breakdown by Agency – Including Leased Allocations					
Hillsboro	9,327.40	4,240.38		5,087.02	26.50
Forest Grove	2,413.50	1,727.04		686.46	10.79
Beaverton	6,556.10	5,390.49		1,165.61	33.69
TVWD	9,589.00	7,648.39		1,940.61	47.80
Tigard	500.00	425.98		74.02	2.66
Total	**28,386.00**	**19,432.28**		**8,953.72**	**121.45**

Reservoir release detail after reallocation for leases (total released by storage ownership):

	Reservoir Release (acre-ft)			**Average Release** (acre-ft/day)
	Barney	**Scoggins**	**Total Release**	
Hillsboro	1,068.74	3,900.46	4,969.20	31.06
Forest Grove	995.64	2,956.21	3,951.85	24.70
Beaverton	1,797.67	4,475.06	6,272.74	39.20
TVWD	4,238.57	—	4,238.57	26.49
Total	**8,100.61**	**11,331.74**	**19,432.35**	**121.45**

COMPARISON OF STORED WATER RELEASES— 2005–2006

Year	Begin Date	End Date	Days Regulated Use	**Stored Water Release** (acre-ft)			Average Release (acre-ft/day)
				Barney	**Scoggins**	**Total**	
2006	5/18/2006	11/3/2006	160	8,100.61	11,331.74	19,432.35	121.45
2005	6/20/2005	10/27/2005	130	5,966.37	10,550.24	16,516.61	127.05

ESTIMATED WATER CAPTURE RATES (THROUGH 11/4/2006)

Stored water released:	19,432.35	acre-ft
WRD loss factor:	–694.83	acre-ft
Natural flow:	+4,443.04	acre-ft
Total water available to be pumped:	23,180.56	acre-ft
Raw water pumped at Springhill Pump Station:	21,434.80	acre-ft = 92.47%
Finished water produced:	21,235.70	acre-ft = 91.61%

LAKE OSWEGO CORPORATION
BY MARK ROSENKRANZ, WATER RESOURCE SPECIALIST

Introduction
The Lake Oswego Corporation (LOC), a non-profit organization, owns and manages Oswego Lake, a 168-hectare (403 acre) reservoir located 10 miles south of Portland, Oregon. LOC was formed in 1942 when the Oregon Iron and Steel Company, then owner of the land around the Lake, deeded to LOC the land, three dam structures, and all water rights. The original dam was constructed in 1871 and later upgraded in 1921. Oswego Lake is a private water body whose primary water right is hydropower generation. Secondary uses include irrigation, aesthetic viewing, contact recreation, fishing, and boating.

Oswego Lake and Watershed Morphology
The original natural lake, called Waluga, was formed 10,000 years ago by the Missoula glacial floods, altering the old Tualatin River channel. Today, the Lake has three basins: West Bay, the Main Lake, and Lakewood Bay. There are also two shallow, man-made canals, Blue Heron Canal and Oswego Canal. Oswego Canal is the 2.4-km conduit from the Tualatin River (RM 6.7). Total lake surface area and volume is 1.63 km^2 (403 acres) and 12.7 x 10^6 m^3 (10,300 acre-feet). Shoreline length, including bays and canals, is 18.62 km (11.56 mi.). Oswego Lake has a 5.08-km (3.15-mi) fetch and a narrow 0.56-km width (0.34-mi). The hydraulic residence time is 390 days.

Oswego Lake's two watersheds include the natural, 7.5-mi^2 urban basin around the Lake (10:1 watershed to lake-area ratio) and the larger 700-mi^2 Tualatin River basin (1,000:1 ratio) when the LOC Headgate is opened. Major inflows from the watershed include Springbrook Creek, Lostdog Creek, Blue Heron Creek, and 70-plus storm drains from the City of Lake Oswego.

LOC Water Rights
Hydro Power
The primary hydro power water right is 57.5 cubic feet per second (cfs) obtained in 1906 that allows year around diversion. To guarantee this flow during the dry season, LOC owns and operates a diversion dam located downstream of the Oswego Canal (RM 3.4). Flaps are erected on an “as needed” basis. In 2006, no flaps were used.

Irrigation
There is also a 1974 irrigation water right of 500 acre-feet for the irrigation season, March - October. LOC proved up their irrigation water right in 2000 with the Bureau of Reclamation and the Oregon Water Resources Department. The largest irrigator on the Lake is the Lake Oswego Country Club (approximately 175 acre-feet).

Maintenance/Evaporation
The third water right is the 1985 maintenance/evaporation water right of 3.36 cfs. This water can be diverted between September 16th and July 30th.

2006 Oswego Lake Management Summary

Water quality improvements and safety are the top priorities for LOC. The goal for the annual LOC Water Quality Management Plan is to reduce Cyanobacteria productivity and maximize the aesthetic value of the Lake by focusing on flow management, water quality treatment, and macrophyte issues.

Lake Drawdown

Oswego Lake was drawn down 10 feet starting October 30, 2006 and held until refill started December 8, 2006. It required 14.5 inches rain and 78 days to refill, which occurred on February 24, 2007. This was the first drawdown in eight years, after many years of biannual drawdowns for shoreline maintenance. Several dock replacements and seawall repairs took place during this drawdown, mostly satisfying the backlog of projects that had built up since the last drawdown.

Lake Water Quality

In 2006 the Oswego Lake water quality-monitoring program included six sites where water clarity, nutrient content, biological productivity, and chemical profiles were recorded. The year-round monitoring was conducted weekly with more emphasis during the summer season, June - September. A winter storm sampling program was formally initiated in collaboration with the City of Lake Oswego for the 2005/2006 season.

2006 OSWEGO LAKE WATER QUALITY SUMMARY AVERAGES

Location	Season	Chlorophyll-a (µg/L)	Total P (µg/L)	SRP (µg/L)	Total N (µg/L)	Secchi (m)	Turbidity (NTU)
Lakewood Bay	Annual	16	48	4	462	2.0	3.0
	Summer	**21**	66	3	556	1.4	**4.5**
Main Lake	Annual	22	35	2	637	2.7	2.8
	Summer	17	32	2	412	2.3	3.0
West Bay	Annual	16	59	18	1511	1.2	3.6
	Summer	14	43	2	483	1.2	2.6
Oswego Canal	Annual	6	137	86	3821	1.1	3.4
	Summer	5	**118**	**67**	**3806**	1.1	2.5
Blue Heron Canal	Annual	6	43	8	1216	1.1	4.2
	Summer	9	29	2	674	1.2	2.2
Outlet	Annual	13	29	2	603	3.0	2.1
	Summer	11	34	2	433	**2.6**	2.1

Bold = highest average during the summer; Underline = lowest average during the summer — Summer=June–September

Abbreviations: Total P = Total Phosphorus, SRP = Soluble Reactive Phosphorus, Total N = Total Nitrogen, Secchi = Secchi depth, Turb = Turbidity; ug/L = micrograms per liter, m = meters, NTU = nephelometric turbidity units, C = Celsius

Algae: Although the summer was dominated by cyanobacteria this year, West Bay and Main Lake concentrations were reduced from previous years because of periodic surface alum applications and ongoing alum injection. Lakewood Bay will need increased attention in the future as cyanobacteria is becoming problematic in this section of the lake. Our alum program has been effective in reducing phosphorus and the resultant cyanobacteria growth. Alum will continue to be used as necessary to reduce phosphorus that promotes algae and cyanobacteria. Nutrient input from the watershed and Tualatin River will have to be dramatically reduced in order to greatly reduce the amount of active management required to control phosphorus.

Macrophytes: Spring herbicide applications in Lakewood Bay and Half Moon bay were successful in controlling invasive *Potamogeton crispus* (curlyleaf pondweed). Later applications to Blue Heron Canal, Oswego Canal, and West Bay were used to control curlyleaf and invasive *Egeria densa* (Brazilian elodea).

Our winter drawdown provided an opportunity to map vegetation growth. There were known areas of concentrated Brazilian elodea growth, but it was surprising how extensively the plant had spread throughout the perimeter. There were many areas with a single Brazilian elodea plant among native elodea, making it difficult to find the invasive plant once the lake was full. During drawdown, several areas were hand pulled of Brazilian elodea as a test method for vegetation control. These areas will be monitored throughout the summer to determine efficacy.

In addition to herbicides, macrophytes are controlled by an aquatic weed harvester and diver hand-pulling. Harvesting is most effective when large areas of vegetation have reached the surface. Harvesting will clip vegetation about five feet below the surface. Hand-pulling is an effective long-term control solution used for removing complete plants from root to stem. A barge is equipped with a four inch suction hose that draws in plants where they are macerated and emptied into a tote for removal.

Chemical Treatments: Chemical treatments were limited to herbicide applications to control non-native aquatic weeds. In 2006 Lakewood Bay, Half Moon Bay, Kelok Bay, Oswego Canal and Blue Heron Canal were treated with herbicide.

Alum Treatments: During early spring 2006 LOC installed a 5,600 gallon alum storage tank and started applying liquid alum exclusively. A total of 75,000 gallons of liquid alum were applied to various areas around the lake that year. Most of the alum was applied by surface application, but almost 5,000 gallons were sub-surface injected into West Bay, Oswego Canal and Blue Heron Canal.

Oswego Lake Watershed Management

To provide long-term water quality solutions and to be proactive in preserving the quality of the Lake, watershed activities are a major part of the LOC management plan.

Tualatin River Flows

Minimal Tualatin river flows were used for keeping the lake full. It is desirable to reduce river flow into Oswego Lake due to high phosphorus and sediment concentrations in the river water.

Oswego Lake Basin

A comprehensive storm sampling program in collaboration with the City of Lake Oswego was started in 2006. Sampling targeted six stations on Lost Dog Creek on the south shoreline and nine outfalls on the lake perimeter. Data collected were phosphorus, nitrogen, total suspended solids, turbidity, and flow. LOC also purchased flow monitoring equipment for quantifying flow into Blue Heron Canal. Flow equipment will be moved to other outfalls around the lake to develop a basin-wide hydrologic model that will be coupled with nutrient concentrations, further refining the watershed phosphorus budget.

Management in the Future

LOC continues to monitor the Lake and watershed to better understand the ecosystem. Future plans are:

- Continue to implement the integrated aquatic plant management plan involving hand pulling, harvesting, and herbicides
- Continue educating watershed residents about water quality impacts
- Assess conditions in bays and canals and propose localized solutions
- Work with City to improve surface water runoff to the Lake
- Maximize the water quality improvements with the 2-layer lake aeration system
- Continue to use aluminum sulfate as a phosphorus reduction tool.

OREGON WATER RESOURCES DEPARTMENT

BY DARRELL C. HEDIN, WATERMASTER, DISTRICT 18

Introduction

The District 18 Watermaster's Office is a field office of the Oregon Water Resources Department (OWRD) in cooperation with Washington County, and is responsible for water supply management within the Tualatin, Lake Oswego, and Lower Willamette Drainage Basins.

The Watermaster's Office is part of the Field Services Division of OWRD. There are twenty Watermaster Districts statewide, organized into five regions. The Watermaster functions as a local contact for landowners, elected officials, and watershed councils, as well as other governmental agencies at the local, state and federal level. Duties include conducting streamflow measurements and maintaining gaging stations, in addition to performing well inspections and collecting groundwater level data. Information is also provided to landowners and others on water rights and Oregon Water Law. The Watermaster is also responsible for regulating water use during times of shortage.

Watermaster, District 18 Staff

From left to right, Joseph Chung, Hydrologic Technician, Cole Beaman, Assistant Watermaster, Ben Kersens, Hydrologic Technician, Linda Yeoh-Elder, Senior Admin Specialist, and Darrell Hedin, Watermaster

Oregon Water Laws

Under Oregon law, all water is publicly owned. With some exceptions, cities, farmers, factory owners, and other water users must obtain a permit or water right from the Water Resources Department to use water from any source, whether it is underground, or from lakes or streams. Generally speaking, landowners with water flowing past, through, or under their property do not automatically have the right to use that water without a permit from the Department.

Oregon's water laws are based on the principle of prior appropriation. This means the first person to obtain a water right on a stream is the last to be shut off in times of low streamflows. In water-short times, the water right holder with the oldest date of priority can demand the water specified in their water right regardless of the needs of junior users.

There are four fundamental provisions under Oregon's Water Code:

Beneficial purpose without waste: Surface or groundwater may be legally diverted for use only if it is used for a beneficial purpose without waste.

Priority: The water right priority date determines who gets water in a time of shortage. The more senior the water right, the longer water is typically available for use.

Appurtenancy: Generally, a water right is attached to the land described in the right, as long as the water is used. If the land is sold, the water goes with the land to the new owner.

Use: Once established, a water right must be used as provided in the right at least once in every five year consecutive period. With some exceptions if nonuse occurs over a consecutive five year period the right is considered forfeited and is subject to cancellation.

Water Right Regulation

The 2006 water right regulation season summary is below. Overall it was a normal season with no major water supply problems by users.

2006 WATER RIGHTS REGULATION

Date	On/Off	Regulatory Activity	Mile	Back To
5/17/2006	Off	City of Beaverton (P-45455) – Tualatin River City of Forest Grove (P-40615) – Tualatin River City of Hillsboro (P-46423) – Tualatin River, Hillsboro still has 14 cfs available City of Hillsboro (P-50879) – Scoggins Creek TVID (P-35792) – Scoggins Cr	n/a	n/a
5/18/2006	Off	Tualatin River & tributaries above Springhill Pump Plant	> 56.09	2/19/1963
6/6/2006	On	City of Beaverton (P-45455) – Tualatin River City of Forest Grove (P-40615) – Tualatin River City of Hillsboro (P-46423) – Tualatin River City of Hillsboro (P-50879) – Scoggins Creek	n/a	n/a
6/14/2006	Off	City of Beaverton (P-45455) – Tualatin River City of Forest Grove (P-40615) – Tualatin River City of Hillsboro (P-46423) – Tualatin River, Hillsboro still has 14 cfs available City of Hillsboro (P-50879) – Scoggins Creek	n/a	n/a
8/14/2006	Off	Tualatin River & tributaries above Springhill Pump Plant	> 56.09	Between 2/19/1963 and 8/16/1930
8/17/2006	Off	McKay Creek and tributaries above Northrup Road	=44.73 =2.26 >15.5	Between 10/8/1976 and 5/25/1966
9/6/2006	Off	EF Dairy Creek & tributaries above RM 13	=44.73 =10.56 >13.0	Between 10/8/1976 and 5/25/1966
11/2/2006	On	Stimson Lumber Co (P-10633) – Scoggins Creek	>56.8	n/a
11/2/2006	On	TVID (P-35792) – Scoggins Creek TVID (P-5777) – Scoggins Creek	n/a	n/a
11/3/2006	On	City of Beaverton (P-45455) – Tualatin River City of Forest Grove (P-40615) – Tualatin River City of Hillsboro (P-46423) – Tualatin River City of Hillsboro (P-50879) – Scoggins Cr	n/a	n/a

Gaging Stations

A complete listing of streamflow gaging stations that are operated by OWRD within the Tualatin River Basin is given on the following page

WATERMASTER DISTRICT 18 GAGING STATIONS FOR 2006

Station Number	Stream	Stream Mile	Latitude	Longitude	Type
14206933	Ash Creek @ Metzger Park @ Metzger, OR	1.25	45°27'00"N	122°45'45"W	Logger
14206435	Beaverton Creek @ 216th Ave near Orenco, OR.	1.2	45°31'15"N	122°53'59"W	Logger
14206400	Beaverton Creek @ 170th near Aloha, OR	5.0	45°30'03"N	122°51'03"W	Staff
14206360	Beaverton Creek @ Cedar Hills Blvd @ Beaverton, OR	7.45	45°49'31"N	122°81'05"W	Logger
14206423	Bronson Creek @ Bronson Rd near Orenco, OR	2.1	45°32'18"N	122°51'15"W	Logger
14206421	Bronson Creek @ West Union near Orenco, OR	3.1	45°32'42"N	122°50'18"W	Staff
14206419	Bronson Creek @ Saltzman Rd near Orenco, OR	5.1	45°33'19"N	122°48'25"W	Logger
14206748	Cedar Creek @ Edy Rd near Sherwood, OR	0.62	45°22'05"N	122°51'22"W	Logger
14206395	Cedar Mill Creek @ Murray Blvd near Beaverton, OR	1.64	45°30'37"N	122°49'18"W	Logger
14206750	Chicken Creek @ Scholls-Sherwood Rd near Sherwood, OR	2.3	45°22'31"N	122°51'24"W	Logger
14206200	Dairy Creek at Hwy 8 near Hillsboro, OR	2.06	45°30'38"N	123°06'56"W	*Logger
14205480	E. Fk. Dairy Creek at Dairy Creek Rd near Mountaindale, OR	12.33	45°40'32"N	123°03'54"W	Staff
14205000	W. Fk. Dairy Creek @ Banks, OR	7.7	45°37'26"N	123°06'59"W	Staff
14205160	W. Fk. Dairy Creek @ Evers Rd near Roy, OR	1.96	45°34'34"N	123°05'34"W	Staff
14206443	Dawson Creek @ Brookwood Rd near Hillsboro, OR	0.7	45°31'27"N	122°56'01"W	Logger
14206365	Erickson Creek @ Menlo Dr @ Beaverton, OR	0.76	45°29'14"N	122°58'54"W	Logger
14206950	Fanno Creek @ Durham Rd near Tigard, OR	1.2	45°24'12"N	122°45'18"W	*Logger
14206928	Fanno Creek @ Parkview and Tuckerwood	7.3	45°27'27"N	122°47'43"W	Staff
14206925	Fanno Creek @ Scholls Ferry Rd near Garden Home, OR	9.4	45°28'16"N	122°46'25"W	Staff
14204530	Gales Creek @ Old Hwy 47 @ Forest Grove, OR	2.36	45°30'39"N	123°06'56"W	*Logger
14204540	Gales Creek @ Clapshaw Hill Rd near Gales Creek, OR	12.36	45°35'39"N	123°12'38"W	Staff
14206957	Hedges Creek Wetland near Tualatin, OR	1.2	45°22'53"N	122°46'35"W	Logger
14206958	Hedges Creek @ Tualatin Park @ Tualatin, OR	0.3	45°23'08"N	122°45'37"W	Logger
14206372	Johnson Creek @ Davis Rd near Beaverton, OR	1.3	45°28'30"N	122°49'52"W	Logger
14206070	McKay Creek @ Scotch Church Rd near North Plains, OR	6.3	45°57'21"N	122°99'18"W	Logger
14206180	McKay Creek @ near Hillsboro, OR (Hornecker Rd.)	2.2	45°32'33"N	123°00'14"W	Staff
14205980	McKay Creek @ Northrup Rd near North Plains, OR	15.5	45°38'36"N	122°59'32"W	Staff
14207000	Oswego Canal near Lake Oswego, OR	6.7	45°23'18"N	122°43'10"W	Logger
14206450	Rock Creek @ Hwy 8 near Hillsboro, OR	1.2	45°30'08"N	122°56'52"W	Logger
14206347	Rock Creek @ Quatama Rd @ Orenco, OR	4.9	45°31'25"N	122°54'34"W	Logger
14206305	Rock Creek @ NW Rock Creek Rd near Bowers Junction, OR	15.8	45°37'04"N	122°53'13"W	Logger
14206338	Rock Creek @ West Union Rd near Bethany, OR	9.0	45°33'34"N	122°52'30"W	Logger
14202920	Sain Creek above Hagg Lake near Gaston, OR	1.6	45°28'50"N	123°14'40"W	Logger
14202850	Scoggins Creek above Hagg Lake near Gaston, OR	8.0	45°30'06"N	123°15'06"W	*Logger
14211116	Springbrook Creek @ Iron Mountain Rd near Lake Oswego, OR	0.18	45°24'46"N	122°42'13"W	Logger
14206938	Summer Creek @ 121st Ave near Tigard, OR	1.0	45°26'06"N	122°47'55"W	Logger
14206905	Sylvan Creek @ Raleighwood Ln near West Slope, OR	1.0	45°29'35"N	122°44'48"W	Logger
14202860	Tanner Creek above Hagg Lake near Gaston, OR	1.6	45°30'21"N	123°13'10"W	Staff
14202450	Tualatin River below Lee Falls near Cherry Grove, OR	70.7	45°30'21"N	123°13'06"W	*Logger
14202510	Tualatin River @ Gaston, OR	62.3	45°26'21"N	123°07'85"W	*Logger
14204800	Tualatin River @ Golf Course Rd near Cornelius, OR	51.5	45°30'08"N	123°03'22"W	*Logger
14206241	Tualatin River @ Hwy 219 near Hillsboro, OR	44.4	45°30'01"N	122°59'24"W	Logger

WATERMASTER DISTRICT 18 GAGING STATIONS FOR 2006

Station Number	Stream	Stream Mile	Latitude	Longitude	Type
14206295	Tualatin River @ Rood Bridge Rd near Hillsboro, OR	38.4	45°29'24"N	122°57'06"W	*Logger
14206500	Tualatin River @ Farmington, OR	33.3	45°26'58"N	122°57'02"W	*Logger
14206600	Tualatin River @ Elsner	16.2	45°23'17"N	122°51'03"W	Staff
14206960	Tualatin River @ Tualatin	8.9	45°23'14"N	122°45'46"W	*Logger
14206100	Waible Creek at Jackson School Rd near Hillsboro, OR	1.0	45°33'55"N	122°58'12"W	Logger
WAPO	Wapato Canal near Gaston, OR (from Tualatin R)	61.9	45°26'29"N	123°07'17"W	Staff
14206410	Willow Creek @ NW 143rd Ave near Beaverton, OR	3.5	45°32'12"N	122°49'24"W	Logger
14206413	Willow Creek @ Heritage Pkwy near Beaverton, OR	0.75	45°31'12"N	122°51'35"W	Logger

*Telemetry

New Technology

There were two new technological advances that took place within the District 18 Watermaster's office in 2006. The first was the addition of a shallow water Acoustic Doppler Current Profiler (ADCP) called the "Streampro." The Streampro greatly increases the use of a Doppler type profiler to accurately measure the flow in small shallow tributary streams. This profiler provides the capability to measure in very slow velocities that are common throughout the summer months as streamflow decreases.

Also new in 2006 was the conversion of eight of our primary gaging stations to GOES, Geostationary Operational Environmental Satellites. Stream flow and elevation information is transmitted every hour and posted on the watermaster web site at, http://www.goeslink.com/ordistrict18/. Continuous real-time flow information is now available to everyone with the reliability of satellite technology and no longer depends on phone/modem connections for data transmission.

Tualatin River Flow Management Technical Committee

The Watermaster and staff would like to thank all the committee members for your continued financial support of the Tualatin and Lake Oswego Basins gaging station network and also your weekly reporting of information to this office. The monthly graphs and technical reports compiled by this office and distributed during the Flow Management meetings are an important part of assessing the current conditions of the basin and are only possible with your support. It is through this collaboration and support that the Flow Management Committee has attained the highest levels of success within the basin.

TUALATIN VALLEY IRRIGATION DISTRICT
BY WALLY OTTO, RESERVOIR SUPERINTENDENT

Introduction

The Tualatin Valley Irrigation District (TVID) was formed in 1962 and is located in Forest Grove Oregon. According to County records, in 1915, about 15 acres were irrigated in the Washington County. By 1933, that total had grown to 130 acres. In 1951, there was a total of 18,455 acres with water rights in the County. When the District was formed in 1962, the total acreage with water rights had increased to 33,885 acres. TVID was formed to assist in delivery of irrigation water to about half of those acres (17,000) in the Tualatin Basin. The water was supplied from natural flow and return flows. Beginning in 1975, additional water stored in the winter behind Scoggins Dam became available. Most of the water from these three sources is pumped from the Tualatin River at the Spring Hill Pump Plant. It is then delivered to patrons through approximately 120 miles of pressurized pipeline. Additional water flows down both Scoggins Creek and the Tualatin River and is withdrawn by irrigators (known as "River Users") at their individual pump diversion sites. When natural flow no longer meets demand, water is discharged from Scoggins Reservoir (Henry Hagg Lake) to augment the river flow and supply the irrigation needs of the District patrons, both for the pump plant/pressure pipeline users and for the river users. Water for some of the District members on the lower Tualatin River is supplied by reuse water discharged from the two Clean Water Services treatment plants. Crops irrigated with District water range from row crops including blueberries, blackcaps, corn, pumpkins and other vegetables to nursery stock.

2006 TVID Overview

In 2006, TVID used 21,124 acre-feet of water (127% of the past 10 year average) from storage. This was a significant increase from the total of 13,483 acre feet used in 2005. It was also the highest amount delivered from storage in the history of the Tualatin Project. This is partly caused by the extended season for irrigation allowed to TVID patrons beginning in March and ending in November. All water used outside the normal irrigation season of April through October must come from the annual allotment given to the District. By the 3rd week in June, the TVID was taking 130 cfs per day from storage. The rain returned in large amounts by the first of November so no storage water was used after November 1st.

The extension of the irrigation season to allow deliveries to begin on March 1st by the Oregon Water Resources Department has also been very beneficial to irrigators to assist in frost control in the early Spring. The extension until the end of November also benefits container and enclosed greenhouse nurseries in particular, but not exclusively. The growing season for these crops is so much longer than the traditional field crops is provided during the seasonal dry Fall season as needed.

TVID Water Use

The following table shows the total mapped irrigated acres for TVID in 2006 and the various crops that received water. TVID is allowed a total of 17,000 acres and in 2006, 16,699 acres were mapped.

WATER YEAR 2006 CROP SUMMARY

Water Use	Irrigated Acres	Breakdown by Crop	
		Crop	Irrigated Acres
High	5777.9	Berries	2531.9
		Nursery, Flowers	3246.0
Medium	5273.2	Corn	3565.1
		Turf, Yard, Garden	592.9
		Vegetables – non-corn	1115.2
Low	5647.9	Grain	2047.2
		Grass	2291.3
		Pasture, Trees, Nuts, Willow, Grapes	1309.4
Total (permits 35792 and 49958)	**16699.0**		

2006 TVID Operation and Maintenance

Operation and maintenance of the TVID distribution system progressed as normal for the year. Interruption of service was minimal. While being an uneventful year in terms of interruptions, it was a year of continued service to the District patrons. Occasional leaks were found in the pipeline delivery system and were repaired quickly. Maintenance technicians continued replacing pressure regulating and air release valves and performed routine maintenance at the two pumping plants and to other water service equipment. No new “turn out” deliveries were added to the delivery pipelines in 2006. There is also a moratorium on new delivery turnouts on the pipeline system. No new deliveries will be added until the moratorium is lifted. Some old turnout delivery boxes are being upgraded an/or repaired however. The approximate total pipeline distance remains at about 120 miles.

On the political front, Measure 37, a landmark land-use measure approved by the voters of the State of Oregon and upheld by the Oregon Supreme Court, has not had impacts on the Irrigation District as of this time. Some lands served with District water have been approved for development by Washington County. No permanent water right transfers and or subdivisions within District lands have been applied for as of this time however.

The Tualatin Valley Irrigation District and Clean Water Services continue their cooperative effort in identifying water use needs for the CWS outside TVID's boundaries. Water conservation is always a priority. The TVID water distribution network was used by CWS with great success in 2006 to augment the low Summer and Fall flows in McKay Creek near North Plains. The water quality of the stream was improved greatly at minimal cost. The cooperative partnership is expected to continue in the future.

Scoggins Dam

Scoggins Dam, the primary feature of the Tualatin Project, is located on Scoggins Creek, a tributary of the Tualatin River. Owned by the United States Bureau of Reclamation, Scoggins Dam was built in the early 1970's for the purpose of storing water in the winter to augment low summertime flows in the Tualatin River. Operation and maintenance of the dam is conducted under contract between the TVID and Reclamation. Scoggins Dam also provides flood control for the Cities of Gaston, Forest Grove, Cornelius and other downstream communities. Irrigation water is supplied to 17,000 acres in the Tualatin basin from the Project. The Lake Oswego Corporation receives 500 additional acre feet for irrigation. Municipal and Industrial water users include the Cities of Forest Grove, Hillsboro and Beaverton who have contracts for 13,500 acre feet. Clean Water Services (CWS) has 16,900 acre feet contracted from the Project of which 12,618 acre feet come from storage. CWS water is used to augment the low Summer Tualatin River stream flows to help meet water quality and minimum stream flow standards set for the River. The reservoir (Henry Hagg Lake) is also a major recreational destination. In 2006, there were about three quarters of a million park user days recorded at the 2,851 acre facility. The park and lake opened on March 5th and closed November 20th. Recreational uses included boating, fishing, picnicking, swimming, hiking, biking and general relaxation. Numerous races were also held throughout the year including triathlons.

The safety and security of Scoggins dam remains a priority. The Department of Homeland Security (DHS) initiated a five level alert system. Reclamation's Advisory System and Response Measures require the Project to follow the DHS alert levels and are defined as follows:

Green alert	Low risk of terrorist attacks
Blue alert	General risk of terrorist attacks
Yellow alert	Significant risk of terrorist attacks
Orange alert	High risk of terrorist attacks
Red alert	Severe risk of terrorist attacks

The alert level remained at Yellow for all of 2006. When the alert level rises to “orange,” the Dam and appurtenant structures are inspected thoroughly every day. Alert level elevations are not necessarily caused by a specific threat to Scoggins Dam. A threat may be national, regional or site specific in scope. Alerts are now being based on the types of infrastructure deemed at risk. This has refined the necessity for

all sectors of government to respond to each threat. A “Site Security Plan” specific to Scoggins Dam, adopted in October 2005, is used to maintain a level of security at the Project for the protection of life and supply of water. The Plan documents existing security systems, procedures, security responses and responsibilities and is to be used in conjunction with numerous other documents relating to the safe operation of the Project. Site security is taken very seriously at Scoggins Dam.

Numerous tours were again given to grade school classes from the West Metro area. Over 500 children grades 4 through 6 including teachers and chaperones, visited the Project. Each individual learned the purposes of Scoggins Dam/Henry Hagg Lake and its benefit to the Basin and community. These tours followed the release of fish “frye” which each classroom had nourished from incubation.

“Catch A Special Thrill” (CAST) continues to be a special event held on Sept 10th. Over 40 children ages 7-16 years old participated. This was the largest attendance of children ever for the event. The program is targeted for kids who have a variety of physical or developmental disabilities and in some cases, a terminal illness. Each child was given fishing gear, fun packs and a variety of goodies donated by the local community. There were thirty three volunteer boats with drivers and approximately sixty additional volunteers. The goal was to make the day special, fun and memorable and many fish were caught by the participants. Smiles and laughter on the faces of the children proved the event to be a success. As always, the barbecue was cooked by the local Kiwanis Clubs and everyone had plenty to eat. Partners in this annual event include: CAST for Kids Foundation, Forest Grove Fire & Rescue, Gaston Fire & Rescue, Oregon State BASS Anglers, Washington County Parks, the Tualatin Valley Irrigation District and Reclamation. The 2007 CAST event will be held on Sept. 9th at “C” ramp. Anyone interested in volunteering can contact Reclamation's Lower Columbia Area Office at 503-872-2733.

Flood Control: The Project operated under flood control restrictions five times during the 2005/2006 winter. During these periods, only minimum discharges were made. This allowed the reservoir to capture all runoff from the 39 square mile watershed providing flood control relief for down stream residents. These events began in December 2005 and the last one was done in March 2006. Excess water collected above the fill curve during these events was later safely discharged into Scoggins Creek when water levels receded below flood level in the Tualatin River at Dilley. A total of 61.20 inches of precipitation or 120% of normal was collected at the dam for the 2006 year from January 1st to December 31st. This was about 10 inches more than received in 2005.

Additional items of interest: The Tualatin Basin Water Supply Feasibility Study proponents of the Scoggins Dam raise want to aggressively pursue “title transfer” of either the entire Tualatin Project or several key components. A complete transfer would include the dam, pumping plants, transmission lines, office and shops of the Tualatin Valley Irrigation District. A partial transfer would include several major components since the Project is authorized by Congress as multi-function including Scoggins Dam, Henry Hagg Lake and two pumping plants. Either of these options, either total or partial title transfer, should not change current reservoir operations. All current contractual and legal obligations including flood control would be continued. The one big difference is that Reclamation would no longer be involved with the Project.

Although TVID is not one of the partners in the Dam raise, the District is an existing and currently the largest stakeholder in the Project so therefore is involved in the ongoing negotiations regarding the title transfer. The “title transfer” is aggressively being pursued with a goal of completion in less than two years. If successful, the transfer would remove Reclamation (the Federal government) from the design and construction of the dam raise thereby saving millions of dollars. It would also give local control of the Project to the local stakeholders. Planning time out to construction would also be greatly reduced.

A new 60 hp four wheel drive tractor was purchased by TVID for ground maintenance work at the dam. It replaces the old 40 hp two wheel drive and is much more stable and safer on embankments. It also handles several larger pieces of equipment.

The “Incident Response Trailer” did not respond to any hazardous material spills during 2006. It was put on standby to assist the Washington County Parks staff to contain a potential sewerage spill at a waste collection vault at “A” ramp following loss of commercial power to the site in December. No spill reached the reservoir waters. The trailer and Reservoir Supt. did participate with the Water Rescue Consortium in a large body and vehicle recovery exercise at “C” ramp. Numerous fire, rescue, dive teams, ambulance and police agencies participated. All are called to the lake for emergency life saving situations on occasion.

Tualatin River natural flow rights were regulated back to 1963 during the third week of June. TVID went off regulation on November 2nd and the JWC went off on Nov 3rd. A total of 43,716 acre feet of water was delivered from storage in 2006. The following chart shows the amount of water delivered to each stakeholder from Scoggins Dam for the past nine years.

SUMMARY OF HISTORICAL WATER DELIVERIES FROM SCOGGINS DAM—ALL VALUES IN ACRE-FT

The following totals reflect water delivered from storage and is in addition to all water used by the contracting agencies from natural and return flow. One-acre foot equals 325,390 gallons. Reservoir full pool is 53,640-acre-ft.

Agency	2006	2005	2004	2003	2002	2001	2000	1999	1998
TVID	21,124	13,483	16, 371	19,633	19,093	10,704	15,012	18,248	14,758
CWS	9,646	9,937	8,927	11,606	12,618	2,403	15,276	11,971	9,407
Hillsboro	4,196	3,896	3,864	3,996	3,712	3,490	2,867	4,543	4,522
Forest Grove	3,745	3,499	3,501	2,013	3,664	2,243	572	910	818
Beaverton	3,378	3,156	3,130	3,998	1,508	3,053	2,236	2,912	3,719
Lake Oswego	500	500	392	501	496	383	500	500	499
Other	1,127	996	619	978	898	*	825	1,309	878
Total	**43,716**	**35,467**	**36,804**	**42,725**	**41,989**	**22,276**	**37,688**	**41,530**	**34,599**

*(*Provisions were made to supply other M & I needs)*

WATER QUALITY STATUS REPORT
BY JAN MILLER, CLEAN WATER SERVICES

Tualatin Basin TMDLs

The current Tualatin Total Maximum Daily Load (TMDL) became effective in August 2001. The Department of Environmental Quality revised the 1988 total phosphorus (for excessive algal growth and high pH) and ammonia (for low dissolved oxygen in the mainstem river) TMDLs and added TMDLs for temperature, bacteria, and settleable volatile solids which uses total suspended solids as a surrogate (for low dissolved oxygen in the tributaries). The Department of Environmental Quality issued Clean Water Services an NPDES Watershed-Based Waste Discharge Permit in February 2004. The following evaluation of river and tributary conditions and wastewater treatment plant effluent is for general information and not for determining compliance. In many instances, the statistics and reporting periods shown in this review are different than those used to judge compliance with the permits or to compare the river conditions to the TMDLs.

Total Phosphorus

The 2001 Tualatin TMDL set river and tributary loading capacities in mg/L. The following table shows the loading capacities and the data for the key sites both historically (1990, 1995, and 2000) and in recent years (2004 to 2006).

MEDIAN TOTAL PHOSPHORUS CONCENTRATIONS FOR SUMMER SEASON (MAY 1–OCT 31)

Location Code	Location	River Mile	2001 TMDL Loading Capacity (mg/L as P)	Total Phosphorus (mg/L as P)					
				1990	1995	2000	2004	2005	2006
Tualatin River									
3701715	Cherry Grove	71.5	0.04	—	0.01	0.01	0.02	0.01	0.01
3701612	Springhill	61.2	0.04	0.04	0.03	0.03	0.02	0.01	0.01
3701528	Golf Course Road	52.8	0.04	0.05	0.04	0.03	0.03	0.03	0.03
3701450	Hwy 219	44.4	0.04	—	0.07	0.05	0.06	0.06	0.06
3701391	Rood Bridge Road	39.1	0.09	0.10	0.08	0.06	0.06	0.07	0.07
3701333	Farmington Road	33.3	0.10	0.43	0.08	0.09	0.08	*	0.08
3701271	Scholls	27.1	0.10	0.15	0.09	0.08	0.09	0.09	0.09
3701165	Elsner	16.5	0.11	0.14	0.09	0.08	0.09	0.09	0.09
3701087	Boones Ferry Road	8.7	0.11	0.23	0.09	0.08	0.10	0.09	0.09
3701054	Stafford Road	5.4	0.10	0.23	0.09	0.08	0.09	0.09	0.09
3701002	Weiss Bridge	0.2	0.10	0.22	0.09	0.08	0.09	0.09	0.08
Tributaries									
3805017	Scoggins @ Hwy 47		0.04	—	0.03	0.01	0.02	0.01	0.01
3810015	Gales @ New Hwy 47		0.04	0.06	0.05	0.04	0.05	0.04	0.04
3815021	Dairy @ Hwy 8		0.09	0.13	0.11	0.11	0.13	0.12	0.12
3820022	Rock @ Brookwood		0.19	0.21	0.21	0.18	0.18	0.19	0.24
3824001	Bronson @ 205th		0.13	0.13	0.12	0.12	0.15	0.14	0.19
3835020	Chicken @ Scholls-Sherwood		0.14	0.23	0.12	0.11	0.12	0.11	0.11
3838001	Nyberg @ Brown		0.14	—	—	0.17	0.18	0.20	0.19
3840012	Fanno @ Durham		0.13	0.15	0.15	0.15	0.16	0.15	0.16

* Water quality data for the Tualatin River at Farmington was not available for the summer of 2005 due to bridge construction.

The following table shows the treatment plant performance relative to total phosphorus.

2006 MONTHLY MEDIAN TOTAL PHOSPHORUS CONCENTRATIONS IN WWTP EFFLUENT

		May (mg/L as P)	June (mg/L as P)	July (mg/L as P)	Aug (mg/L as P)	Sept (mg/L as P)	Oct (mg/L as P)
Rock Creek WWTP	Effluent	0.08	0.06	0.08	0.08	0.07	0.08
	Limit	0.10	0.10	0.10	0.10	0.10	0.10
Durham WWTP	Effluent	0.10	0.09	0.10	0.09	0.06	0.06
	Limit	0.11	0.11	0.11	0.11	0.11	0.11

The phosphorus TMDL was developed to protect the beneficial use of

- aesthetics, as measured by chlorophyll-*a*, and
- fish and wild life, as measured by pH.

Three-month stratified mean chlorophyll-*a* for selected sites in the Tualatin Basin is shown in the following table. The water quality guidance level for this statistic is 15 µg/L.

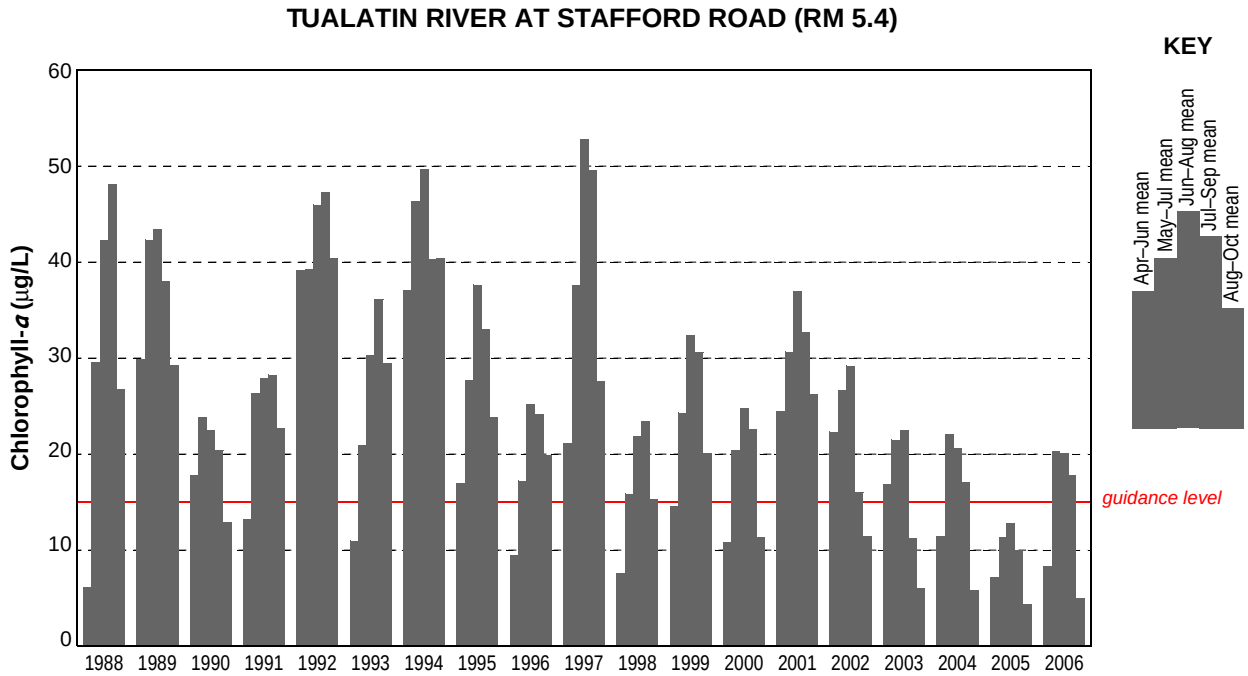
2006 THREE-MONTH MEAN CHLOROPHYLL-*a* CONCENTRATIONS

Location	River Mile	Mar–May (µg/L)	Apr–Jun (µg/L)	May–Jul (µg/L)	Jun–Aug (µg/L)	Jul–Sep (µg/L)	Aug–Oct (µg/L)
Tualatin River							
Rood Bridge Road	39.1	4.4	3.7	3.1	2.5	2.4	2.3
Farmington Road	33.3	3.7	3.3	2.4	1.8	1.5	1.6
Scholls	27.1	4.3	3.2	2.5	1.9	1.5	1.5
Elsner	16.5	4.6	5.1	5.8	5.7	4.6	3.0
Boones Ferry Road	8.7	5.0	7.0	11.3	10.5	8.7	3.6
Stafford Road	5.4	5.0	8.3	20.3	20.1	17.8	5.0

* Water quality data for the Tualatin River at Farmington was not available for the summer of 2005 due to bridge construction.

Chlorophyll-a concentrations are an indicator of the amount of algae in the river. High pH values can result from photosynthetic activities of the algae. This causes a negative impact on aquatic resources. The data from the continuous recorder at the Lake Oswego dam at river mile 3.4 were evaluated. This is the area of the river with the maximum algal production. In 2006, there were no pH values that exceeded 8.5. Low pH values are not a problem in the Tualatin River system.

The historic and current data for chlorophyll-a concentrations show an general decreasing trend over time (see the graph and table on the following page).



MEAN CHLOROPHYLL-*a* CONCENTRATIONS – TUALATIN RIVER AT STAFFORD ROAD (RM 5.4)

Year	Apr–Jun (µg/L)	May–Jul (µg/L)	Jun–Aug (µg/L)	Jul–Sep (µg/L)	Aug–Oct (µg/L)
1988	6.1	29.6	42.2	48.1	26.7
1989	29.8	42.3	43.4	38.0	29.3
1990	17.8	23.8	22.4	20.4	12.8
1991	13.2	26.3	27.9	28.2	22.7
1992	39.1	39.2	45.9	47.3	40.3
1993	10.9	20.9	30.3	36.1	29.5
1994	37.0	46.3	49.7	40.3	40.4
1995	16.9	27.6	37.6	33.0	23.8
1996	9.4	17.2	25.2	24.1	19.9
1997	21.1	37.6	52.7	49.5	27.6
1998	7.6	15.8	21.8	23.4	15.2
1999	14.5	24.3	32.3	30.6	20.1
2000	10.8	20.4	24.7	22.5	11.3
2001	24.4	30.6	36.9	32.7	26.2
2002	22.3	26.6	29.2	16.0	11.4
2003	16.8	21.5	22.4	11.2	6.0
2004	11.4	22.0	20.6	17.0	5.8
2005	7.1	11.3	12.7	10.0	4.4
2006	8.3	20.3	20.1	17.8	5.0

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Ammonia TMDL

The 2001 TMDL revised the permitted ammonia loads. It allows higher loads of ammonia in the spring and early summer when river conditions are favorable for the assimilation of ammonia and lower ammonia loads in the fall when sediment oxygen demand consumes more oxygen leaving very little assimilative capacity. For the months of July through November, there are two tiers of ammonia limits. The applicable tier is based on the previous weeks downstream dissolved oxygen levels. The ammonia limit ends when Farmington flow exceeds 350 cfs. Flows were above 350 cfs on November 3, 2006.

The following table compares the effluent ammonia load with the most restrictive ammonia limit (most restrictive tier). A less restrictive limit would be in place if dissolved oxygen levels downstream of the treatment plants were above 6.7 mg/L. The actual permit is based on weekly ammonia discharges. There were no weekly permit violations in 2006.

2006 MONTHLY AMMONIA LOADS AND LIMITS FOR WWTP EFFLUENT

	May	June	July	August	Sept	October
Rock Creek WWTP median load (lb/day)	278	8	7	10	7	5
Durham WWTP median load (lb/day)	13	24	12	9	7	6
Total allowed load (lb/day)	3177	2083	815	268	197	215

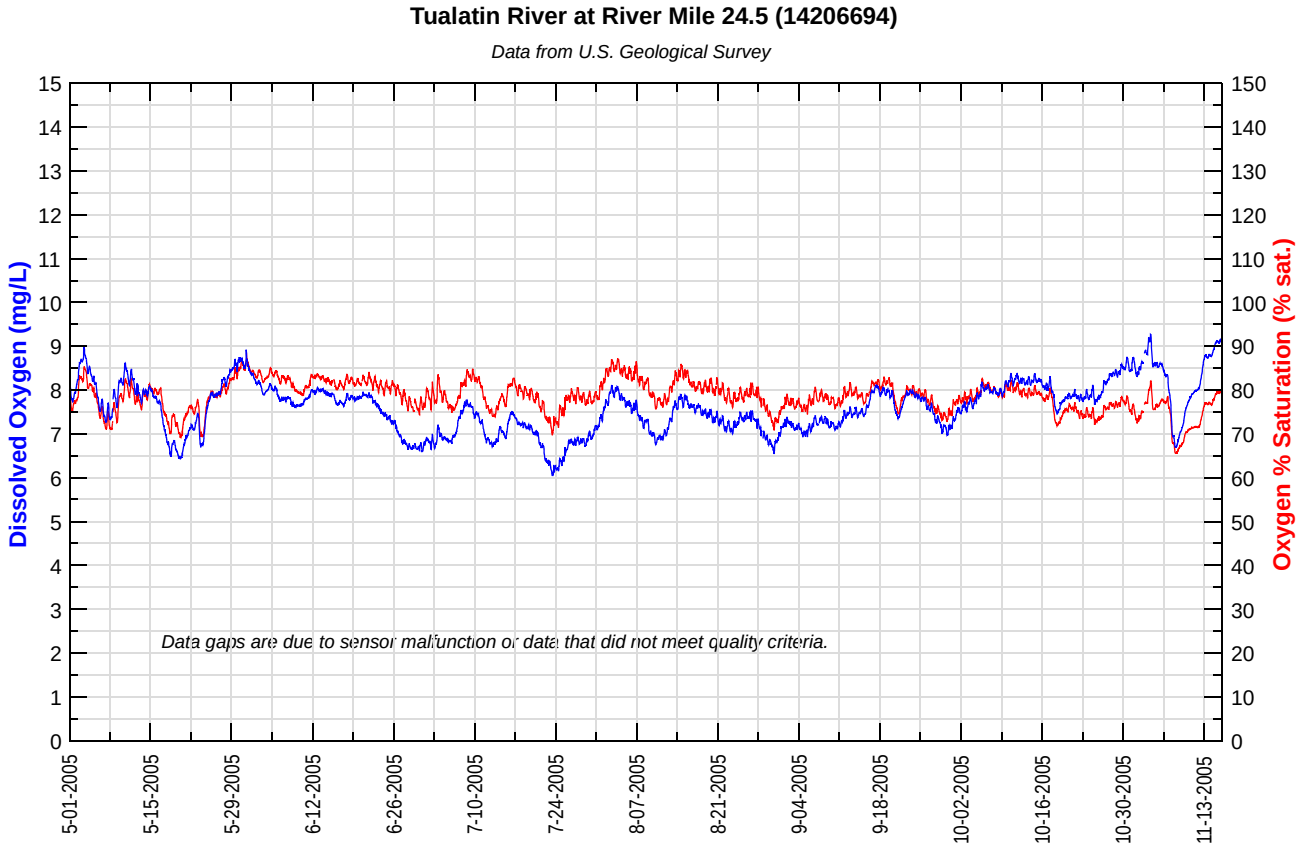
The ammonia TMDL is designed to protect the dissolved oxygen levels in the reservoir-like section of the Tualatin River. The water quality criteria for this section of the river, which is considered “Cool Water Habitat”, are.

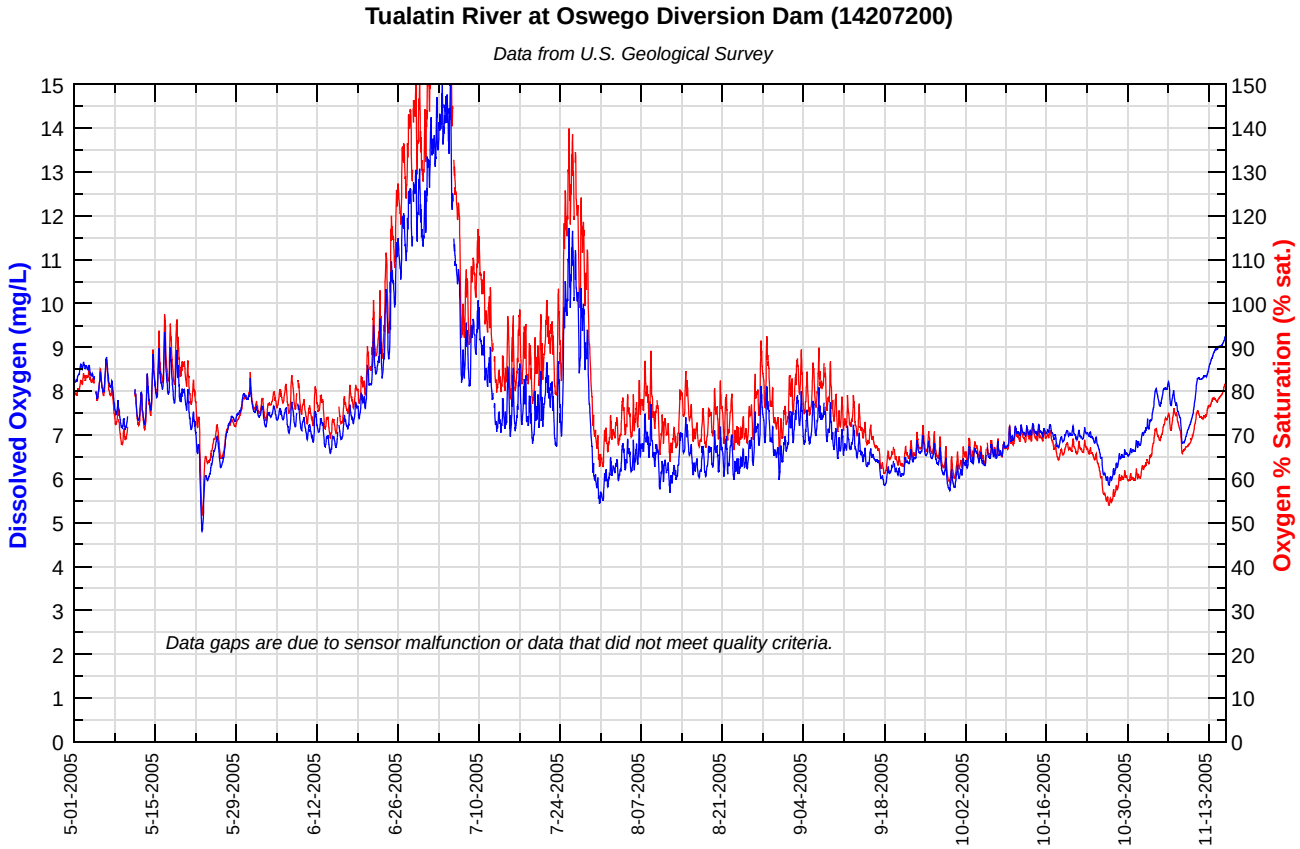
- Grab samples: DO > 6.5 mg/L
- Continuous Monitoring:–
  - 30-day average of daily mean DO > 6.5 mg/L (no credit for supersaturation)
  - 7-day average of daily minimum DO > 5.0 mg/L
  - Daily minimum DO > 4.0 mg/L

The following table shows the river conditions relative to dissolved oxygen at two locations in the reservoir section of the river. Graphs of the dissolved oxygen concentrations at these two locations are shown on the following page.

NUMBER OF DAYS THAT DID NOT MEET DISSOLVED OXYGEN CRITERIA IN 2006

Criterion	May	June	July	Aug	Sept	Oct	Summer Percentage
Tualatin River at RM 24.5							
30 day	0	0	0	0	0	0	0 %
7 day	0	0	0	0	0	0	0 %
Daily	0	0	0	0	0	0	0 %
Tualatin River at Oswego Dam							
30 day	0	0	0	2	0	8	5 %
7 day	0	0	0	0	0	0	0 %
Daily	0	0	0	0	0	0	0 %


Tualatin River at River Mile 24.5 (14206694)
Data from U.S. Geological Survey
Dissolved Oxygen (mg/L)
Oxygen % Saturation (% sat.)
Data gaps are due to sensor malfunction or data that did not meet quality criteria.
5-01-2005
5-15-2005
5-29-2005
6-12-2005
6-26-2005
7-10-2005
7-24-2005
8-07-2005
8-21-2005
9-04-2005
9-18-2005
10-02-2005
10-16-2005
10-30-2005
11-13-2005

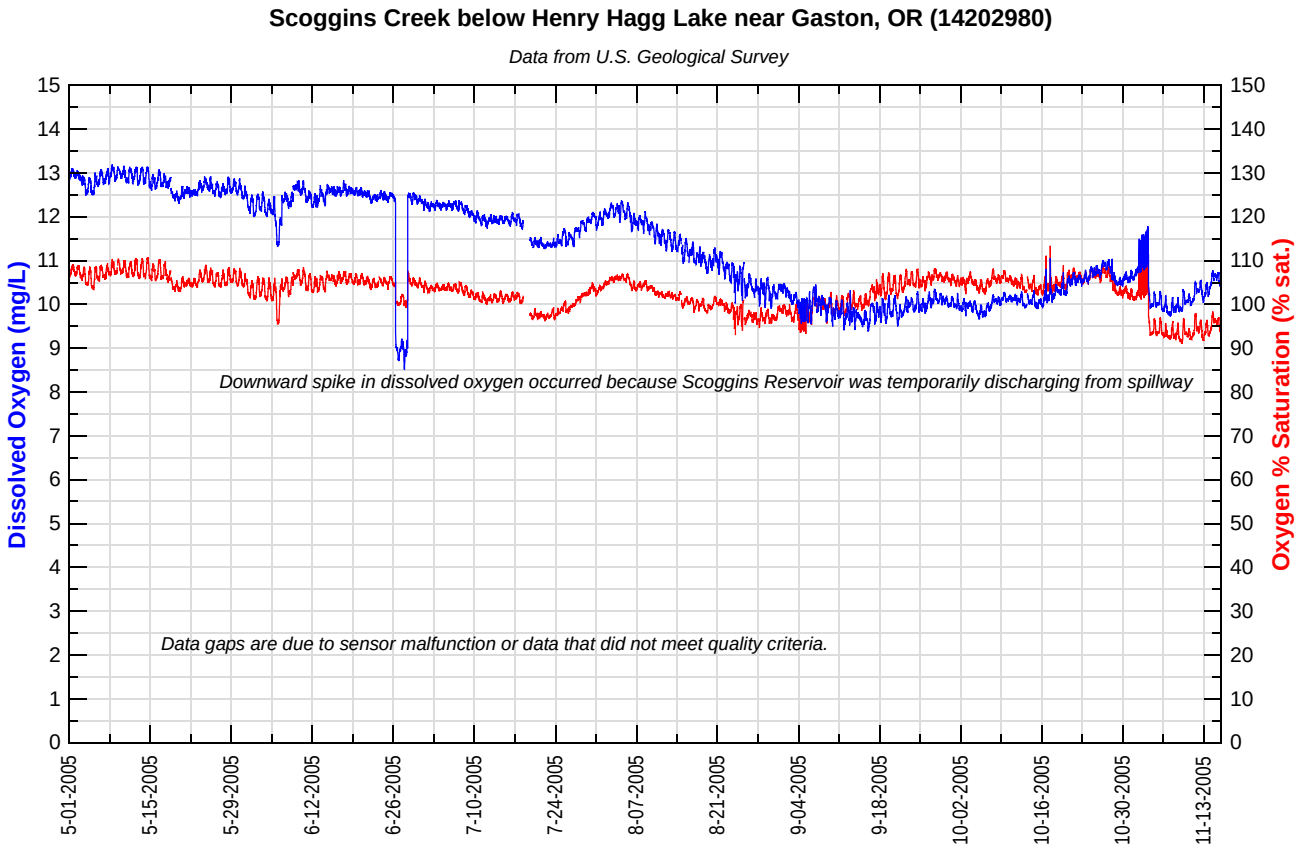

Tualatin River at Oswego Diversion Dam (14207200)
Data from U.S. Geological Survey
Dissolved Oxygen (mg/L)
Oxygen % Saturation (% sat.)
Data gaps are due to sensor malfunction or data that did not meet quality criteria.
5-01-2005
5-15-2005
5-29-2005
6-12-2005
6-26-2005
7-10-2005
7-24-2005
8-07-2005
8-21-2005
9-04-2005
9-18-2005
10-02-2005
10-16-2005
10-30-2005
11-13-2005

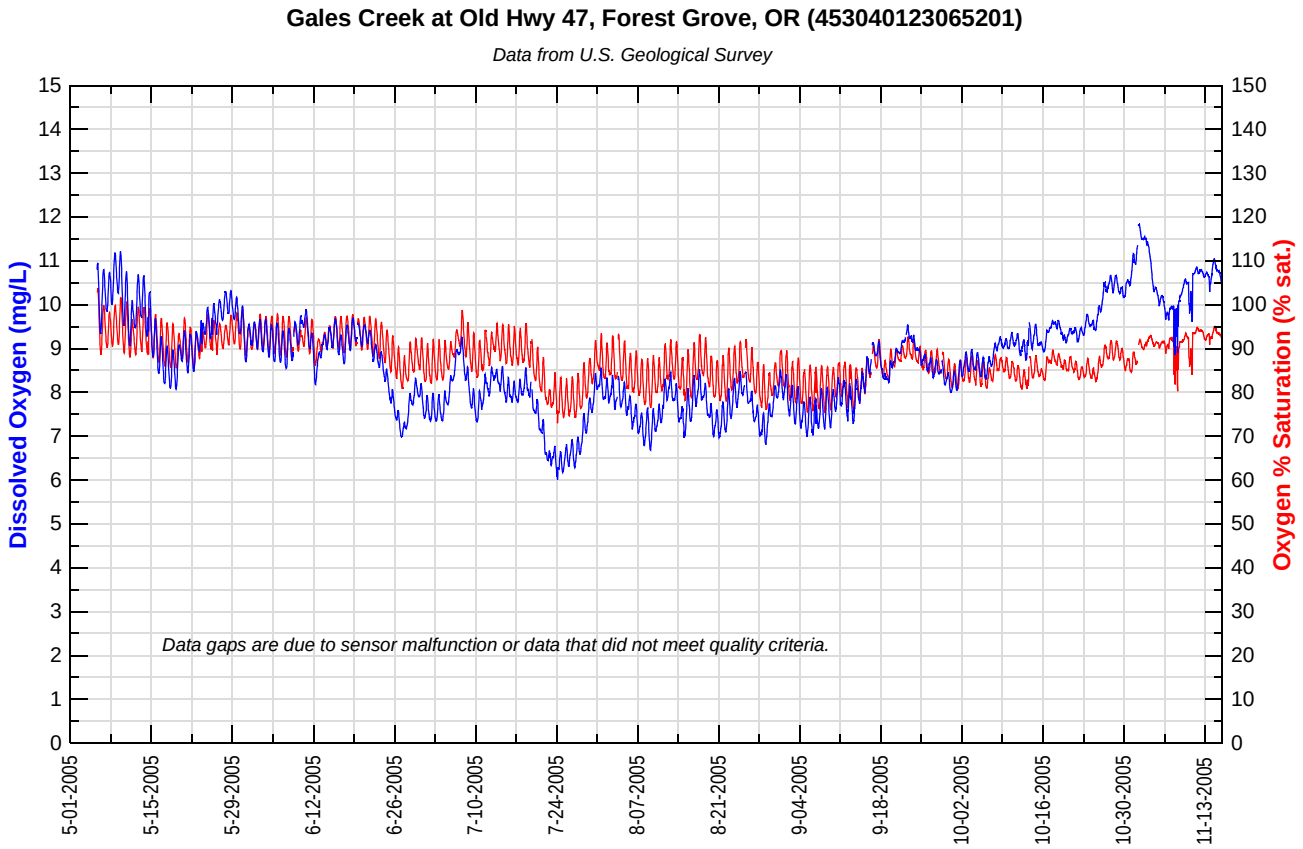
Temperature TMDL

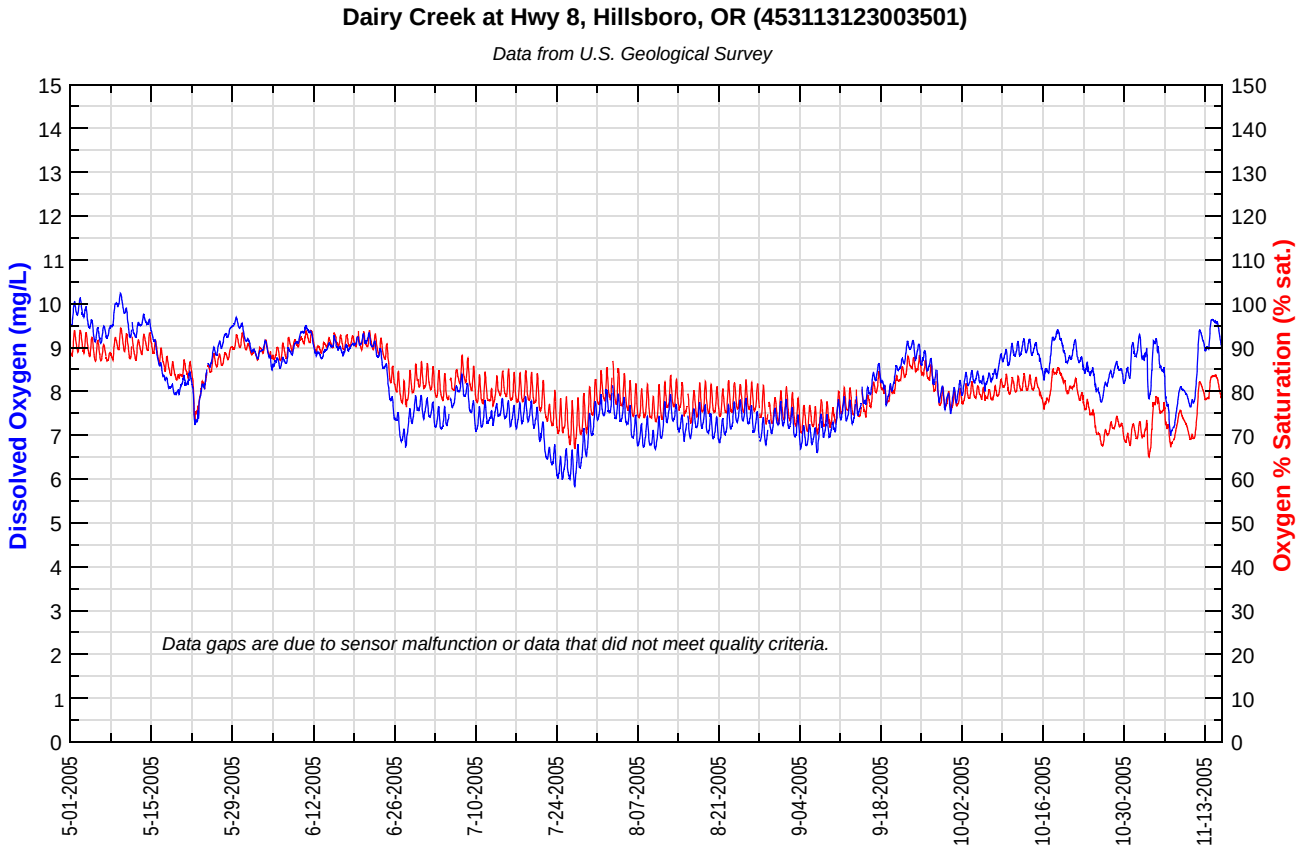
Temperature data for the Tualatin River and its tributaries are shown in Appendix F.

Dissolved Oxygen TMDL for Tributaries

The 2001 Tualatin TMDL contained requirements for tributary total suspended solids (a surrogate for settleable volatile solids) load reductions to protect dissolved oxygen. The best way to display data concerning solids reduction are being developed. The following graphs show the dissolved oxygen levels measured by continuous monitors at several tributaries during the summer period. These data are available at http://or.water.usgs.gov/cgi-bin/grapher/graph_setup.pl?basin_id=tualatin.

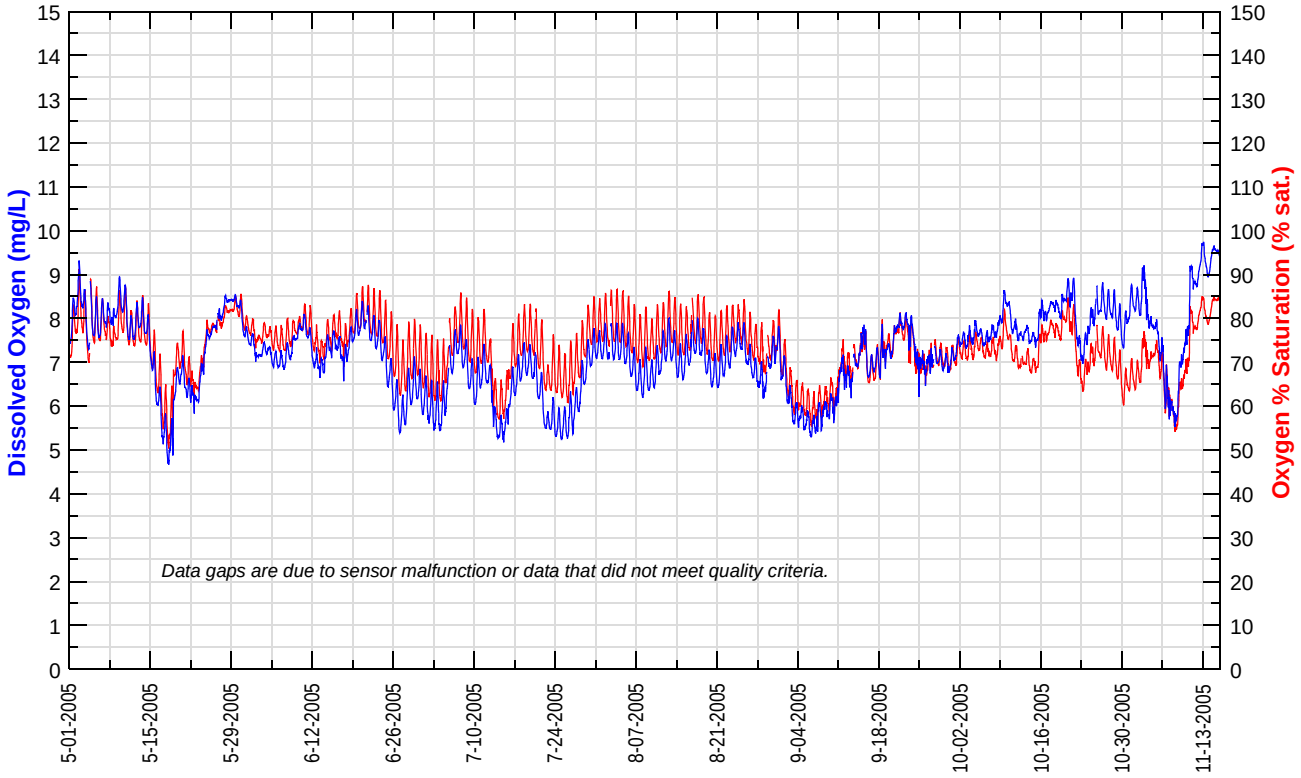



Gales Creek at Old Hwy 47, Forest Grove, OR (453040123065201)
Data from U.S. Geological Survey
Dissolved Oxygen (mg/L)
Oxygen % Saturation (% sat.)
Data gaps are due to sensor malfunction or data that did not meet quality criteria.
5-01-2005
5-15-2005
5-29-2005
6-12-2005
6-26-2005
7-10-2005
7-24-2005
8-07-2005
8-21-2005
9-04-2005
9-18-2005
10-02-2005
10-16-2005
10-30-2005
11-13-2005


Dairy Creek at Hwy 8, Hillsboro, OR (453113123003501)
Data from U.S. Geological Survey
Dissolved Oxygen (mg/L)
Oxygen % Saturation (% sat.)
Data gaps are due to sensor malfunction or data that did not meet quality criteria.
5-01-2005
5-15-2005
5-29-2005
6-12-2005
6-26-2005
7-10-2005
7-24-2005
8-07-2005
8-21-2005
9-04-2005
9-18-2005
10-02-2005
10-16-2005
10-30-2005
11-13-2005

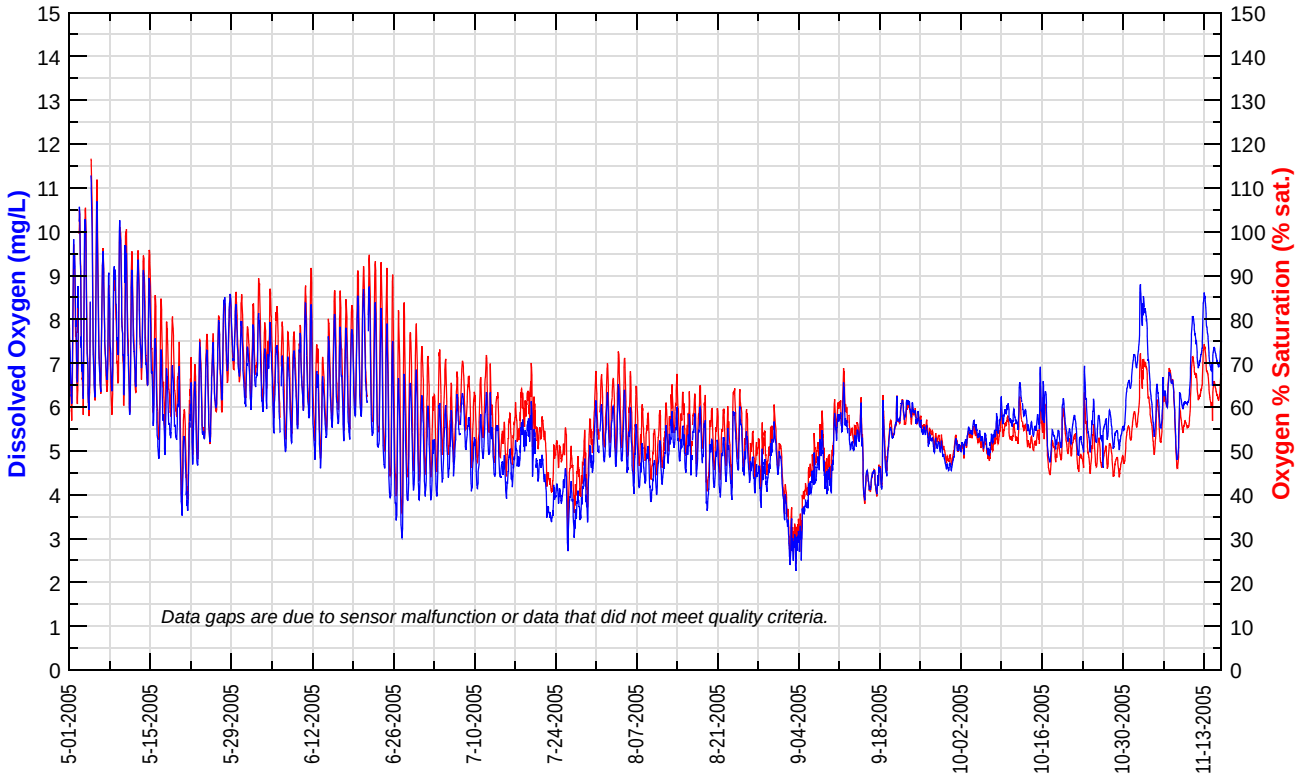
Rock Creek at Brookwood Ave, Hillsboro, OR (453030122560101)

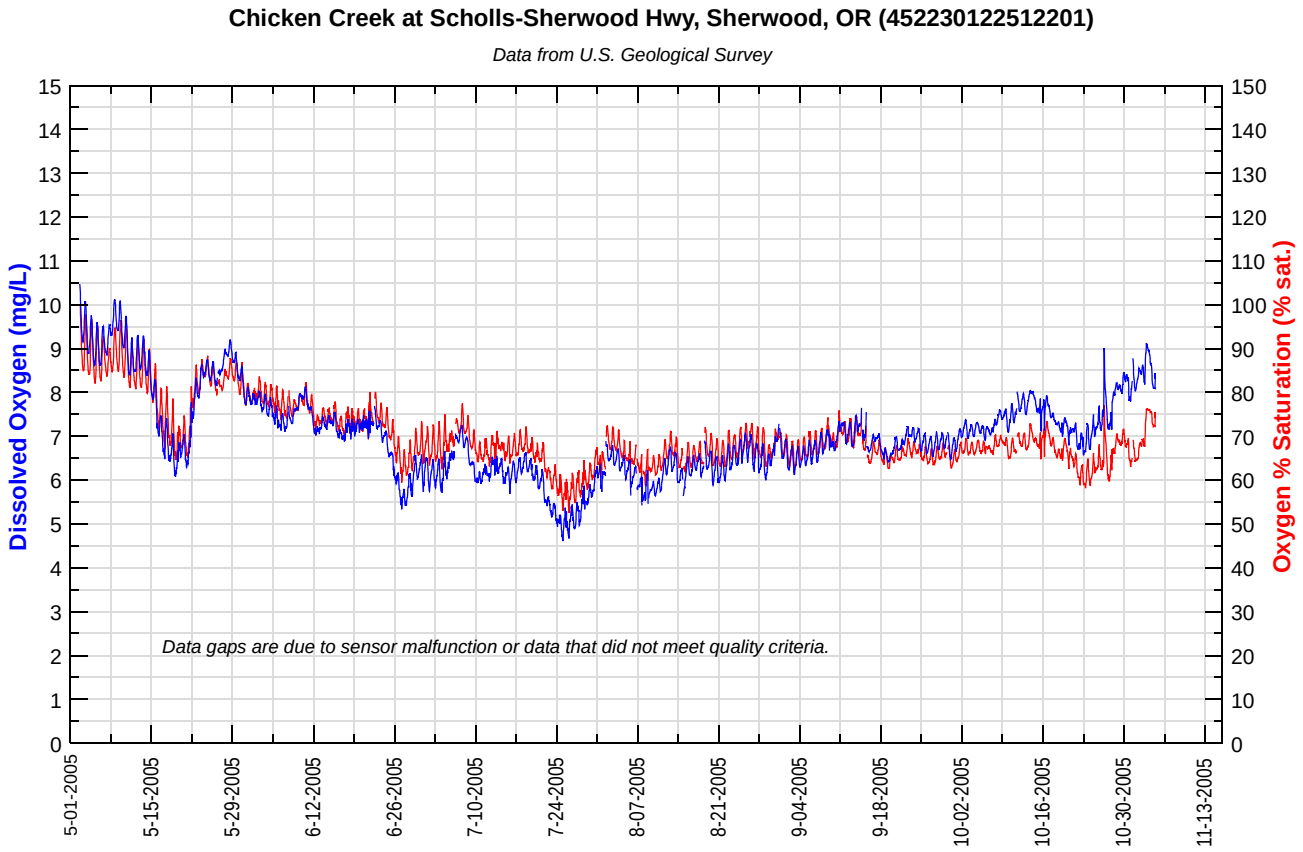
Data from U.S. Geological Survey

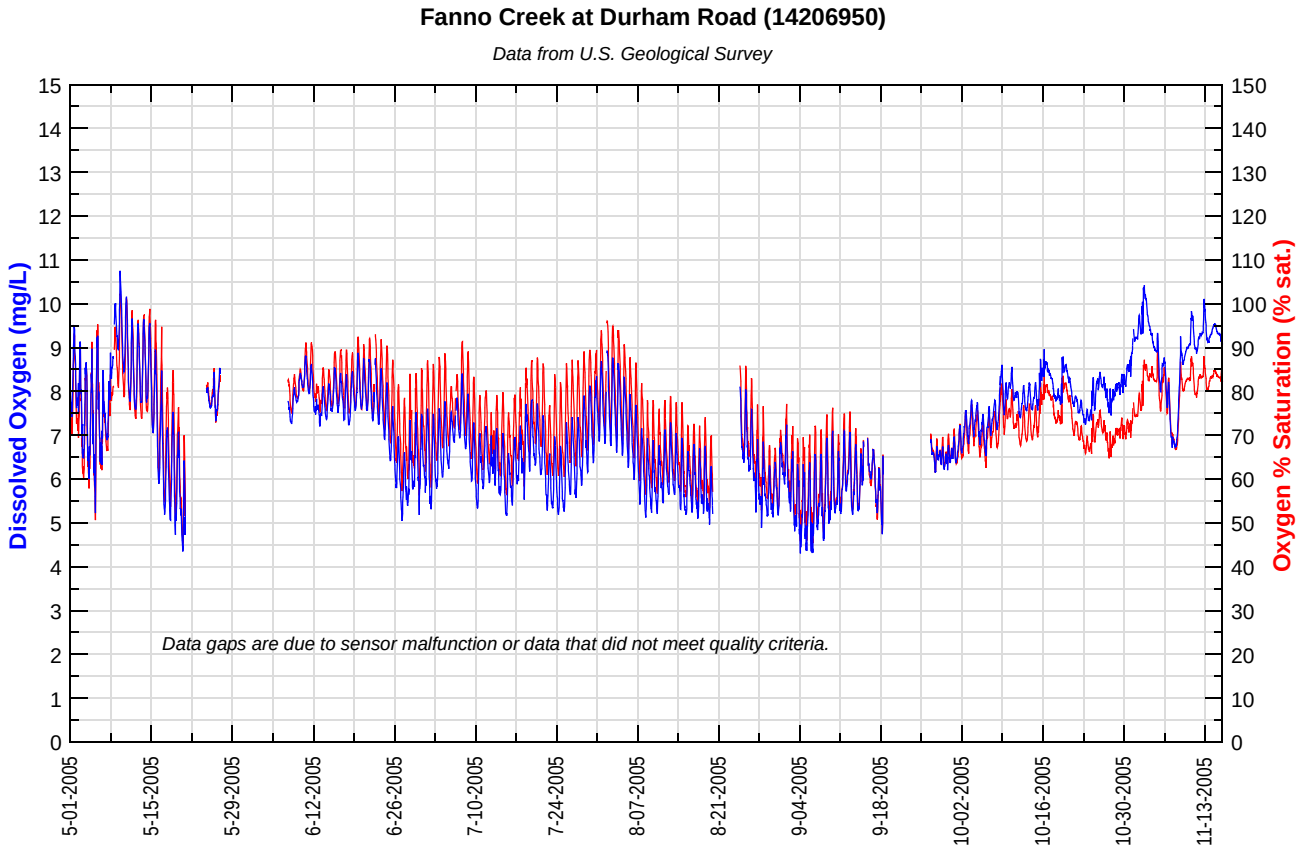


Beaverton Creek at 170th Ave, Beaverton, OR (453004122510301)

Data from U.S. Geological Survey




Chicken Creek at Scholls-Sherwood Hwy, Sherwood, OR (452230122512201)
Data from U.S. Geological Survey
Dissolved Oxygen (mg/L)
Oxygen % Saturation (% sat.)
Data gaps are due to sensor malfunction or data that did not meet quality criteria.
5-01-2005
5-15-2005
5-29-2005
6-12-2005
6-26-2005
7-10-2005
7-24-2005
8-07-2005
8-21-2005
9-04-2005
9-18-2005
10-02-2005
10-16-2005
10-30-2005
11-13-2005


Fanno Creek at Durham Road (14206950)
Data from U.S. Geological Survey
Dissolved Oxygen (mg/L)
Oxygen % Saturation (% sat.)
Data gaps are due to sensor malfunction or data that did not meet quality criteria.
5-01-2005
5-15-2005
5-29-2005
6-12-2005
6-26-2005
7-10-2005
7-24-2005
8-07-2005
8-21-2005
9-04-2005
9-18-2005
10-02-2005
10-16-2005
10-30-2005
11-13-2005

Bacteria TMDL

This TMDL applies to both the Tualatin River and its tributaries. Unlike the other TMDLs on the Tualatin, it has both a summer and a winter component. The goal is to meet an instream concentration of 406 colony forming units/100 mL (#/100 mL) of *E.coli* in both the summer and winter. The following table shows the current levels of bacteria. The statistic used was the 90th percentile. This statistic is interpreted as 90% of the data evaluated are below this number. Therefore if the 90th percentile is less than 406/100 mL, the site meets the water quality criteria for that season. Two different methods were used to measure *E.coli* (membrane filtration for winter analyses and Colilert -18 (Most Probable Number) for summer analyses). The results from these two methods are expected to be comparable.

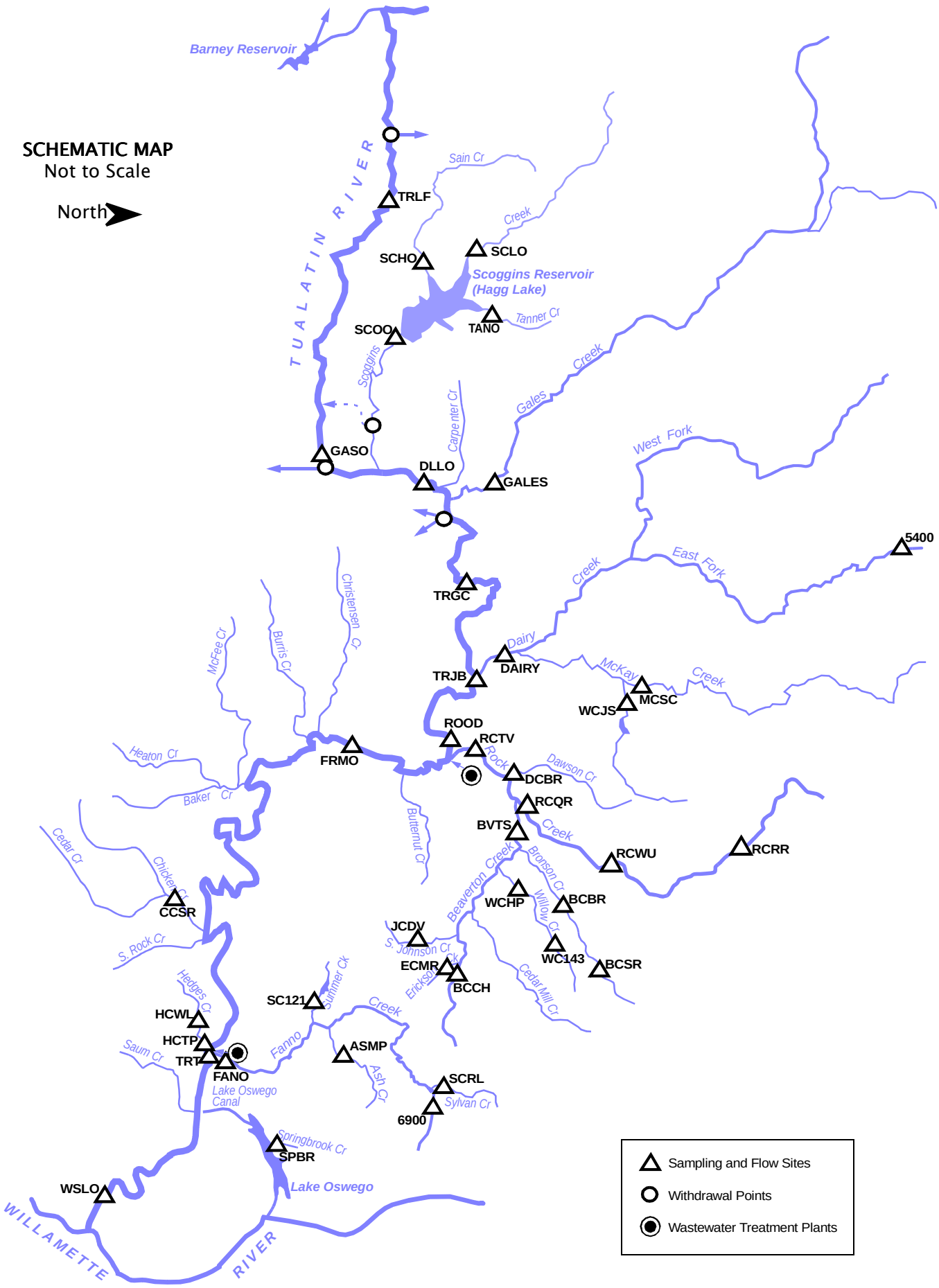
90TH PERCENTILES OF *E.COLI* CONCENTRATIONS FOR 2006

Location Code	Location	River Mile	**Winter** (Nov-04 – Apr-05) (#/100 mL)	**Summer** (May-05 – Oct-05) (#/100 mL)
Tualatin River				
3701715	Cherry Grove	71.5	12	58
3701612	Springhill	61.2	109	156
3701528	Golf Course Road	52.8	120	242
3701450	Hwy 219	44.4	320	341
3701391	Rood Bridge Road	39.1	261	335
3701333	Farmington Road	33.3	172	167
3701271	Scholls	27.1	168	95
3701165	Elsner	16.5	169	74
3701087	Boones Ferry Road	8.7	140	213
3701054	Stafford Road	5.4	249	78
3701002	Weiss Bridge	0.2	158	63
Tributaries				
3805017	Scoggins @ Hwy 47		654	186
3805050	Scoggins below Hagg		3	2
3810015	Gales @ New Hwy 47		198	986
3810070	Gales @ Stringtown		—	672
3811010	McFee @ Hwy 219		—	380
3815021	Dairy @ Hwy 8		98	752
3815058	Dairy @ Susbauer		—	495
3820022	Rock @ Brookwood		441	1220
3820047	Rock @ Quatama		396	770
3821008	Beaverton @ Beaman		400	790
3821050	Beaverton @ 170th		540	324
3824001	Bronson @ 205th		560	1672
3824015	Bronson @ Walker		382	—
3824018	Bronson @ 185th		960	2179
3824020	Bronson @ Bronson Park		120	941
3824072	Bronson @ Saltzman		180	598
3827014	South Johnson @ Davis		149	—
3835020	Chicken @ Scholls-Sherwood		596	582
3835060	Chicken @ Kruger		—	899
3838001	Nyberg @ Brown		197	659
3840012	Fanno @ Durham		734	1338
3820074	Fanno @ Tuckerwood		540	—
3840095	Fanno near Allen		956	1998
3500035	unnamed trib to Fanno @ Walnut		882	1882
3845014	Ash @ Hemlock		2850	1757
3850006	Dawson @ Brookwood		170	2365
3859010	Bannister @ 124th		190	531

Appendix A

Stream Gage Records

STREAM GAGE SITES — LOCATIONS



STREAM GAGE SITES — ALPHABETICAL LISTING BY SITE CODE

SITE CODE	SITE NAME	RIVER MILE	STATION ID	PAGE
5400	East Fork Dairy Creek near Meacham Corner, OR	12.4	14205400	A-13
6900	Fanno Creek at 56th Avenue	11.9	14206900	A-34
ASMP	Ash Creek at Metzger Park at Metzger, Oregon	1.25	14206933	A-36
BCBR	Bronson Creek at Bronson Road near Orenco, Oregon	2.1	14206423	A-28
BCCH	Beaverton Creek at Cedar Hills Blvd at Beaverton, Oregon	7.45	14206360	A-22
BCSR	Bronson Creek at Saltzman Road near Orenco, Oregon	5.1	14206419	A-27
BVTS	Beaverton Creek at 216th Ave near Orenco, Oregon	1.2	14206435	A-29
CCSR	Chicken Creek at Scholls-Sherwood Road near Sherwood, Oregon	2.3	14206750	A-33
DAIRY	Dairy Creek at Hwy 8 near Hillsboro, Oregon	2.06	14206200	A-16
DCBR	Dawson Creek at Brookwood Road near Hillsboro, Oregon	0.7	14206443	A-30
DLLO	Tualatin River at Dilley, Oregon	58.8	14203500	A-10
ECMR	Erickson Creek at Menlo Drive at Beaverton, Oregon	0.76	14206365	A-23
FANO	Fanno Creek at Durham Road near Tigard, Oregon	1.2	14206950	A-38
FRMO	Tualatin River at Farmington, Oregon	33.3	14206500	A-32
GALES	Gales Creek at Old Hwy 47 near Forest Grove, Oregon	2.36	14204530	A-11
GASO	Tualatin River at Gaston, Oregon	62.3	14202510	A-5
HCTP	Hedges Creek at Tualatin Park at Tualatin, Oregon	0.3	14206958	A-40
HCWL	Hedges Creek Wetland near Tualatin	1.2	14206957	A-39
JCDV	Johnson Creek at Davis Road near Beaverton, Oregon	1.3	14206372	A-24
MCSC	McKay Creek at Scotch Church Rd near North Plains, Oregon	6.3	14206070	A-14
RCQR	Rock Creek at Quatama Road near Orenco, Oregon	4.9	14206347	A-21
RCRR	Rock Creek at NW Rock Creek Road near Bowers Junction, Oregon	15.8	14206305	A-19
RCTV	Rock Creek at Hwy 8 near Hillsboro, Oregon	1.2	14206450	A-31
RCWU	Rock Creek at West Union Road near Bethany, Oregon	9.0	14206338	A-20
ROOD	Tualatin River at Rood Bridge Road near Hillsboro, Oregon	38.4	14206295	A-18
SC121	Summer Creek at 121st Avenue near Tigard, Oregon	1.0	14206938	A-37
SCHO	Sain Creek above Henry Hagg Lake near Gaston, Oregon	1.6	14202920	A-7
SCLO	Scoggins Creek above Henry Hagg Lake near Gaston, Oregon	8.0	14202850	A-6
SCOO	Scoggins Creek below Henry Hagg Lake near Gaston, Oregon	4.80	14202980	A-9
SCRL	Sylvan Creek at Raleighwood Lane near West Slope, Oregon	1.0	14206905	A-35
SPBR	Springbrook Creek at Iron Mountain Rd near Lake Oswego, Oregon	0.18	14211116	A-43
TANO	Tanner Creek above Henry Hagg Lake	1.6	14202860	A-8
TRGC	Tualatin River at Golf Course Road near Cornelius, Oregon	51.5	14204800	A-12
TRJB	Tualatin River at Hwy 219 Bridge	44.4	14206241	A-17
TRLF	Tualatin River below Lee Falls near Cherry Grove, Oregon	70.7	14202450	A-4
TRT	Tualatin River at Tualatin, Oregon	8.9	14206956	A-41
WC143	Willow Creek at 143rd Avenue near Beaverton, Oregon	3.5	14206410	A-25
WCHP	Willow Creek at Heritage Parkway near Beaverton, Oregon	0.75	14206413	A-26
WCJS	Waible Creek at Jackson School Road near Hillsboro, Oregon	1.0	14206100	A-15
WSLO	Tualatin River at West Linn	1.75	14207500	A-42

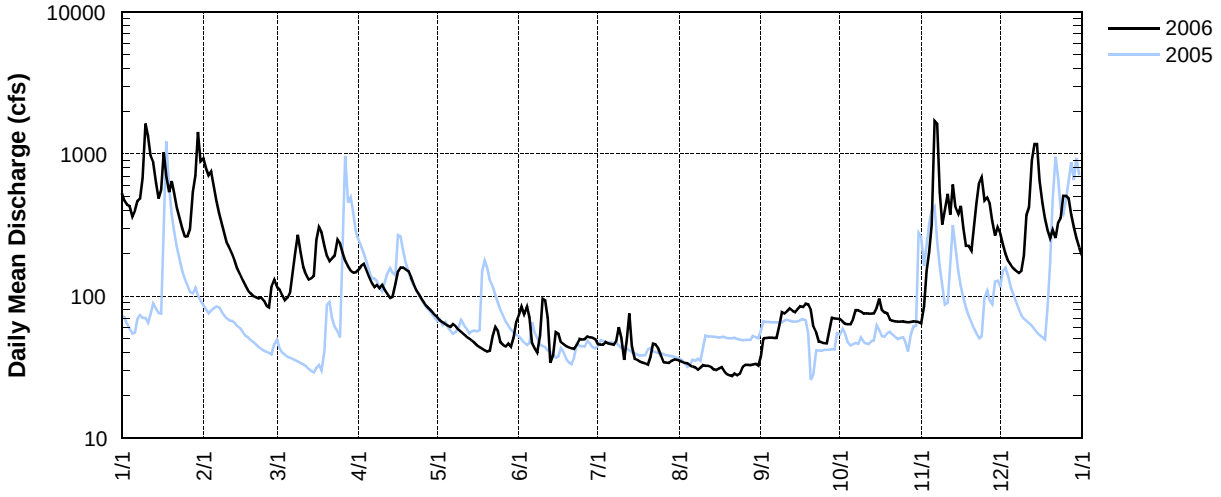
TRLF – 14202450 – TUALATIN RIVER BELOW LEE FALLS NEAR CHERRY GROVE, OREGON [RM 70.7]

Latitude: 45 30 21 Longitude: 123 13 06 Source Agency: District 18 Watermaster

Day	2006 Daily Mean Discharge in Cubic Feet per Second											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	469	796	111	164	67.6	84.5	45.6	34.6	50.6	66.6	84.9	233
2	441	709	101	169	65.8	75.0	45.5	33.8	50.8	63.6	151	200
3	432	754	93.4	152	63.8	84.7	47.7	33.7	51.1	63.4	205	176
4	363	601	97.9	137	62.1	70.7	46.6	32.6	50.9	63.5	320	165
5	401	464	107	124	60.9	46.4	45.9	32.0	50.8	68.9	1,710	157
6	469	382	145	116	63.4	42.7	45.6	31.5	50.7	79.5	1,630	151
7	485	324	203	120	61.3	39.9	48.5	30.4	62.6	79.8	542	145
8	677	277	270	114	58.0	53.0	60.4	31.4	77.2	78.2	319	151
9	1,630	236	202	120	55.9	96.1	51.0	32.6	75.8	75.3	399	193
10	1,330	216	161	110	54.0	93.7	35.7	32.4	78.6	75.7	526	374
11	969	196	142	103	52.2	70.2	49.3	32.4	81.8	75.4	376	423
12	872	176	131	97.2	50.5	34.1	75.7	31.8	79.0	75.3	611	907
13	625	155	134	99.1	48.6	38.7	44.3	30.5	77.1	75.7	423	1,170
14	485	141	139	122	47.1	56.1	36.3	30.3	81.2	83.0	378	1,170
15	560	129	248	149	45.2	54.6	35.7	31.1	85.0	96.0	432	650
16	1,030	119	305	159	43.9	47.5	34.8	31.7	83.7	79.9	300	453
17	699	110	281	159	42.7	45.8	34.0	29.7	88.6	76.7	226	351
18	538	105	226	154	41.6	44.5	33.7	28.4	87.6	75.6	226	291
19	644	100	191	150	40.8	43.7	33.1	27.9	79.9	68.5	208	255
20	526	98.6	176	136	41.3	43.1	37.4	27.4	61.2	67.1	299	292
21	418	96.5	184	121	52.4	42.6	46.2	28.5	55.5	66.3	457	257
22	348	97.8	192	110	60.4	45.8	45.8	27.9	48.0	66.2	630	330
23	298	93.2	249	102	56.9	49.9	43.3	28.5	47.5	66.2	691	356
24	262	85.7	234	95.2	47.4	49.5	38.0	31.8	46.8	66.3	472	507
25	264	83.3	201	89.5	45.2	49.8	34.2	32.9	46.6	65.9	494	506
26	297	118	177	84.7	44.4	52.0	34.0	32.8	57.1	65.6	449	486
27	542	131	161	81.2	46.5	51.4	33.8	32.7	70.2	65.8	338	374
28	707	—	151	77.8	44.1	51.0	35.1	33.1	69.8	66.5	266	306
29	1,430	—	146	73.6	50.8	50.0	35.8	33.3	69.1	66.2	305	257
30	888	—	147	—	66.8	—	35.6	32.4	—	65.8	—	220
31	19,631	7,724	5,422	3,642	1,653	1,681	1,315	976	1,952	2,217	13,532	11,783
TOTAL	633	276	175	121	53.3	56.0	42.4	31.5	65.1	71.5	451	380
MEAN	1,630	930	305	169	71.0	96.1	75.7	35.4	88.6	96.0	1,710	1,170
MAX	262	83.3	93.4	73.6	40.8	34.1	33.1	27.4	37.6	63.4	64.3	145
MIN	38,938	15,321	10,755	7,225	3,278	3,335	2,608	1,935	3,873	4,398	26,841	23,372
AC-FT	469	796	111	164	67.6	84.5	45.6	34.6	50.6	66.6	84.9	233

YEAR 2006 TOTAL=71,529 MEAN=196 MAX=1,710 MIN=27.4 AC-FT=141,878

TRLF — 14202450 — Tualatin River below Lee Falls near Cherry Grove, Oregon [RM 70.7]



GASO – 14202510 – TUALATIN RIVER AT GASTON, OREGON [RM 62.3]

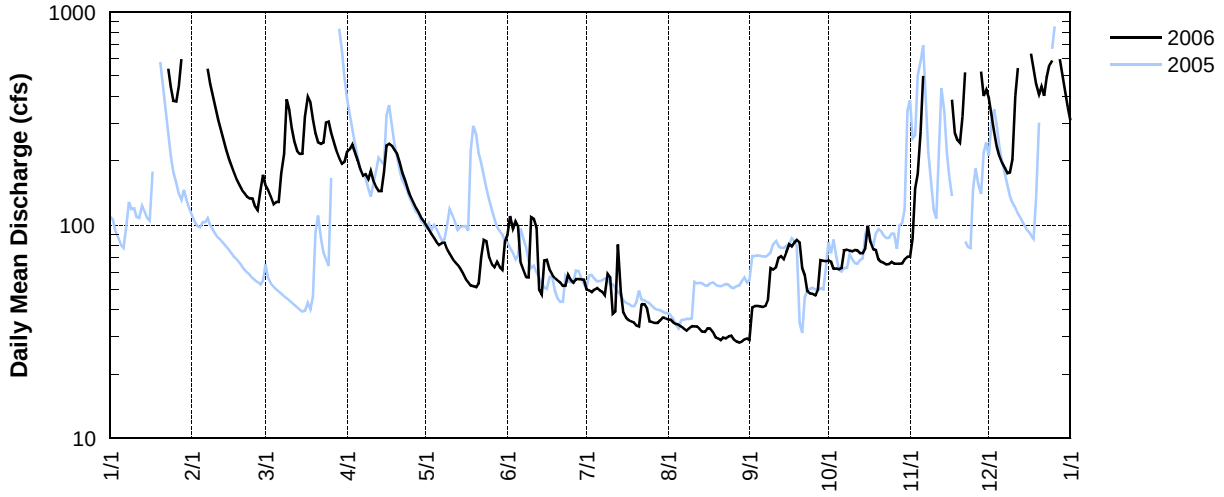
Latitude: 45 26 21 Longitude: 123 07 85 Source Agency: District 18 Watermaster

Day	2006 Daily Mean Discharge in Cubic Feet per Second											
	JAN*	FEB*	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV*	DEC*
1			153	221	99.9	90.2	49.9	36.1	28.9	68.3	71.1	396
2			145	227	95.0	110	49.4	36.0	41.1	67.4	86.5	325
3			136	239	90.9	96.2	48.4	35.0	41.7	62.3	149	272
4			125	220	87.1	104	49.7	34.4	41.7	62.5	174	233
5			128	201	83.3	98.2	50.7	34.1	41.6	62.1	273	210
6			128	183	80.8	66.7	49.4	33.4	41.3	62.9	500	196
7		542	175	171	82.4	61.3	48.7	32.7	41.8	76.2		185
8		459	216	173	82.7	57.0	47.0	32.0	44.9	76.5		175
9		399	388	164	76.8	56.8	59.1	32.8	63.0	75.8	427	176
10		351	347	179	73.2	109	57.0	33.6	61.9	75.4		203
11		312	284	161	69.5	107	38.4	33.5	63.3	76.4		404
12		282	246	151	67.3	96.9	39.4	33.5	70.2	76.1	471	546
13		254	222	144	65.1	49.6	81.0	32.7	71.4	73.8		
14		225	215	144	62.5	47.1	49.1	31.6	69.3	73.7		
15	847	206	216	177	59.6	68.2	38.8	31.5	74.5	78.0		
16		190	322	236	55.9	68.6	36.9	32.8	81.4	99.2		
17		176	399	240	54.1	61.5	35.8	32.8	79.3	83.2	387	636
18		163	377	235	52.1	58.4	35.4	31.6	82.6	77.0	270	542
19		154	314	224	51.6	56.4	35.0	29.7	85.1	76.4	251	459
20		146	269	215	51.1	55.0	33.8	29.4	82.8	69.0	243	409
21		141	245	197	53.4	53.9	33.4	28.8	62.9	67.1	324	446
22		136	240	177	71.0	51.8	42.6	29.6	58.3	66.5	520	403
23	542	133	244	162	85.2	51.8	42.5	29.4	48.9	65.4		494
24	443	133	303	148	84.0	58.4	40.6	30.0	47.7	65.7		560
25	382	122	306	137	70.4	55.4	35.3	30.3	47.5	67.3		590
26	379	117	270	129	65.6	53.7	35.1	29.0	47.0	65.9		
27	449	145	243	121	63.6	55.8	34.8	28.4	49.9	65.9		
28	600	172	221	115	67.2	55.8	34.8	28.1	68.3	65.9	524	600
29		—	206	109	63.4	55.5	35.7	28.4	67.8	66.1	403	493
30		—	194	105	61.7	55.4	36.9	29.1	67.7	69.1	432	419
31		—	198	—	83.6	—	36.6	29.4	—	71.0	—	357
TOTAL			7,475	5,305	2,210	2,066	1,341	980	1,774	2,208		9,729
MEAN	520	225	241	177	71.3	68.9	43.3	31.6	59.1	71.2	324	389
MAX	847	542	399	240	99.9	110	81.0	36.1	85.1	99.2	524	636
MIN	379	117	125	105	51.1	47.1	33.4	28.1	28.9	62.1	71.1	175
AC-FT			14,827	10,522	4,384	4,097	2,660	1,943	3,518	4,380		19,297

YEAR 2006* MEAN=149 MAX=847 MIN=28.1

*Incomplete record; Monthly and yearly totals were computed when at least 80% of the record was complete for a month or for all high flow months, respectively.

GASO — 14202510 — Tualatin River at Gaston, Oregon [RM 62.3]



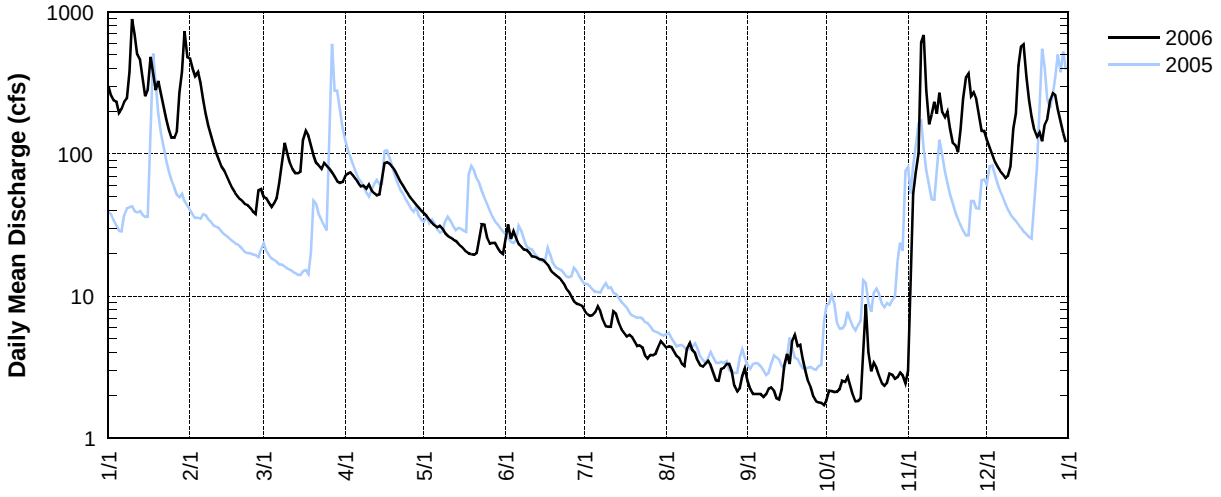
SCLO – 14202850 – SCOGGINS CREEK ABOVE HENRY HAGG LAKE NEAR GASTON, OREGON [RM 8.0]

Latitude: 45 30 06 Longitude: 123 15 06 Source Agency: District 18 Watermaster

Day	2006 Daily Mean Discharge in Cubic Feet per Second											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	300	471	50.2	70.1	38.2	25.1	7.92	4.37	2.55	1.86	2.98	126
2	258	401	48.8	72.8	36.5	32.0	7.50	4.43	2.22	2.16	14.2	110
3	239	354	45.4	74.4	34.5	25.3	7.25	4.39	2.05	2.15	52.5	98.3
4	233	379	42.5	70.9	32.9	28.6	7.34	4.08	2.05	2.11	74.1	88.3
5	195	315	45.2	66.7	31.4	25.5	7.71	3.79	2.05	2.13	102	81.4
6	208	242	49.1	62.4	30.5	23.2	8.49	3.66	2.05	2.22	609	76.4
7	232	192	62.9	59.3	31.3	22.2	7.84	3.34	1.96	2.53	686	72.0
8	247	158	88.3	59.9	29.9	21.2	6.82	3.22	2.04	2.50	280	67.6
9	378	134	120	57.2	27.8	21.1	6.14	4.28	2.24	2.72	162	70.1
10	889	116	101	61.2	26.7	20.2	6.10	4.70	2.29	2.35	190	81.6
11	692	102	86.6	55.5	25.8	19.0	6.08	4.17	2.17	2.03	232	151
12	501	90.9	78.3	53.2	25.1	18.9	7.81	4.01	1.92	1.82	192	193
13	459	81.7	73.2	51.2	24.5	18.6	7.53	3.53	1.88	1.83	270	417
14	336	76.2	73.0	51.9	23.5	18.2	6.46	3.26	2.20	1.91	196	571
15	255	69.4	75.0	67.6	22.4	18.1	5.88	3.20	3.24	3.92	181	591
16	284	63.3	125	86.2	21.5	17.5	5.54	3.36	3.91	8.75	200	349
17	482	57.9	145	87.9	20.6	16.6	5.21	3.50	3.34	4.06	151	241
18	369	53.6	134	85.1	19.9	15.4	5.34	3.27	4.89	2.96	119	183
19	282	50.7	114	80.7	19.7	14.6	5.16	2.85	5.37	3.39	115	149
20	325	48.0	97.6	75.4	19.5	14.1	4.79	2.55	4.46	3.14	103	132
21	267	46.6	87.0	69.5	20.1	13.6	4.45	2.53	4.56	2.75	148	142
22	213	44.4	82.9	64.1	25.4	13.1	4.50	3.09	3.61	2.45	245	123
23	175	43.5	78.5	59.6	32.0	12.4	4.36	3.13	3.00	2.34	347	162
24	148	41.5	86.7	55.3	31.8	11.4	3.83	3.33	2.54	2.46	368	177
25	130	39.0	82.8	52.0	25.6	10.8	3.64	3.33	2.27	2.86	255	240
26	130	37.8	79.0	49.2	23.4	9.92	3.86	2.97	1.97	2.81	271	267
27	145	55.7	74.0	46.3	23.6	9.15	3.83	2.35	1.83	2.63	243	259
28	270	56.7	69.1	44.0	23.7	8.82	3.94	2.14	1.79	2.70	184	205
29	379	—	64.4	42.1	21.7	8.74	4.41	2.25	1.77	2.90	145	167
30	732	—	62.7	39.9	20.4	8.56	4.85	2.75	1.71	2.79	145	140
31	481	—	63.7	—	19.7	—	4.62	3.10	—	2.45	—	121
TOTAL	10,234	3,821	2,486	1,872	810	522	179	105	79.9	85.7	6,283	5,852
MEAN	330	136	80.2	62.4	26.1	17.4	5.78	3.38	2.66	2.76	209	189
MAX	889	471	145	87.9	38.2	32.0	8.49	4.70	5.37	8.75	686	591
MIN	130	37.8	42.5	39.9	19.5	8.56	3.64	2.14	1.71	1.82	2.98	67.6
AC-FT	20,299	7,579	4,931	3,712	1,606	1,035	355	208	159	170	12,462	11,607

YEAR 2006 TOTAL=32,328 MEAN=88.6 MAX=889 MIN=1.71 AC-FT=64,123

SCLO — 14202850 — Scoggins Creek above Henry Hagg Lake near Gaston, Oregon [RM 8.0]



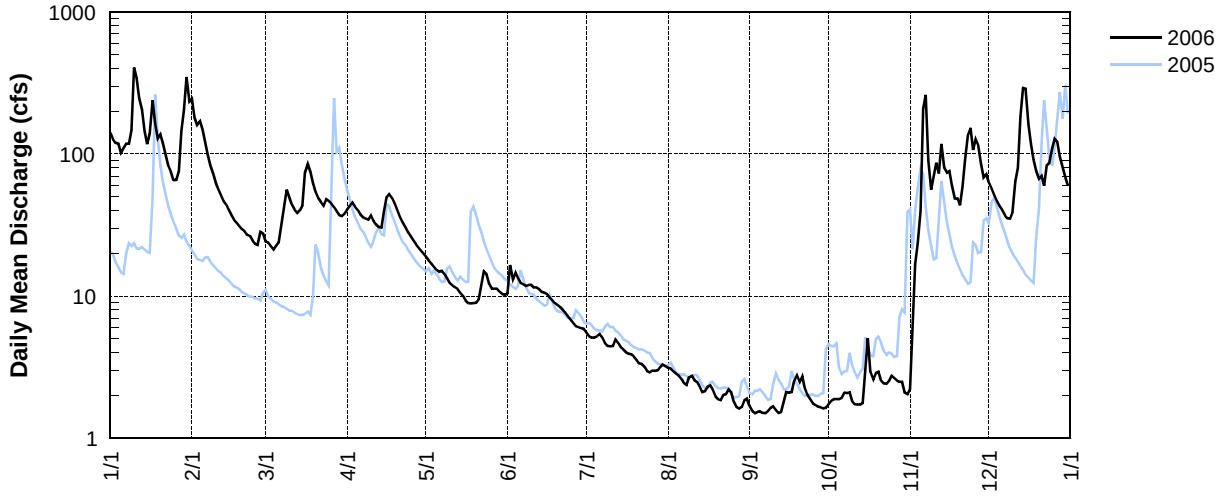
SCHO – 14202920 – SAIN CREEK ABOVE HENRY HAGG LAKE NEAR GASTON, OREGON [RM 1.6]

Latitude: 45 28 50 Longitude: 123 14 40 Source Agency: District 18 Watermaster

Day	2006 Daily Mean Discharge in Cubic Feet per Second											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	141	244	24.3	40.8	19.0	10.5	5.54	3.13	1.69	1.74	2.23	63.1
2	127	180	23.9	43.3	17.8	16.5	5.23	3.11	1.55	1.83	6.75	56.8
3	120	160	22.6	45.5	17.0	13.2	5.11	2.96	1.50	1.89	16.8	51.1
4	118	170	21.3	42.8	16.1	14.7	5.11	2.85	1.53	1.89	23.5	46.7
5	102	149	22.7	40.4	15.3	13.3	5.23	2.78	1.55	1.89	40.1	43.2
6	110	122	23.9	37.6	14.8	12.4	5.44	2.63	1.51	1.93	208	40.6
7	118	99.2	30.7	35.9	15.1	12.1	5.12	2.45	1.50	2.09	260	37.2
8	118	83.6	41.6	35.3	14.3	11.8	4.70	2.37	1.56	2.08	91.0	35.2
9	147	73.0	56.3	34.6	13.3	12.0	4.47	2.68	1.64	2.11	56.3	35.1
10	405	63.4	49.7	37.0	12.4	12.0	4.44	2.76	1.68	1.83	70.0	38.9
11	343	56.6	44.0	33.8	11.9	11.5	4.46	2.56	1.58	1.74	86.9	64.4
12	247	51.4	40.7	32.0	11.6	11.5	4.98	2.50	1.51	1.73	72.8	79.8
13	204	46.9	38.4	30.7	11.2	11.2	4.72	2.32	1.53	1.73	118	184
14	144	44.1	40.2	30.4	10.6	10.7	4.37	2.12	1.79	1.77	79.7	291
15	117	40.3	43.3	39.6	10.1	10.6	4.21	2.15	2.11	2.85	74.0	287
16	139	37.1	74.1	49.7	9.30	10.4	4.05	2.31	2.09	5.08	75.9	162
17	239	34.6	84.9	52.3	8.93	9.82	3.93	2.36	2.11	2.93	59.7	117
18	164	32.8	75.2	49.2	8.87	9.35	3.89	2.20	2.55	2.60	48.7	90.8
19	129	31.1	62.6	45.0	8.91	8.95	3.76	1.97	2.78	2.88	48.5	76.1
20	138	29.6	54.2	40.4	8.97	8.67	3.56	1.89	2.49	2.94	43.5	67.0
21	119	28.6	49.0	36.4	9.49	8.33	3.37	1.86	2.74	2.56	58.8	70.2
22	98.1	27.1	46.0	33.3	11.9	7.99	3.33	2.02	2.25	2.43	91.6	59.9
23	82.4	26.5	43.3	30.7	14.9	7.63	3.18	2.04	2.02	2.42	137	82.7
24	74.7	24.7	48.2	28.3	14.3	7.22	2.97	2.21	1.90	2.53	153	86.6
25	65.2	23.4	46.6	26.6	12.1	6.84	2.92	2.11	1.76	2.75	107	109
26	65.6	22.9	45.0	25.0	11.3	6.46	2.99	1.81	1.72	2.66	127	128
27	75.6	28.3	42.3	23.3	11.3	6.14	2.98	1.67	1.67	2.55	115	122
28	146	27.6	39.6	22.1	11.3	6.05	3.01	1.62	1.66	2.50	84.7	95.7
29	204	—	37.2	21.0	10.7	5.95	3.17	1.67	1.62	2.49	68.3	80.8
30	348	—	36.6	20.0	10.3	5.87	3.30	1.86	1.64	2.10	71.9	68.7
31	234	—	38.0	—	10.2	—	3.23	1.91	—	2.05	—	60.2
TOTAL	4,883	1,958	1,346	1,063	383	300	127	70.9	55.2	72.6	2,497	2,831
MEAN	158	69.9	43.4	35.4	12.4	9.99	4.09	2.29	1.84	2.34	83.2	91.3
MAX	405	244	84.9	52.3	19.0	16.5	5.54	3.13	2.78	5.08	260	291
MIN	65.2	22.9	21.3	20.0	8.87	5.87	2.92	1.62	1.50	1.73	2.23	35.1
AC-FT	9,685	3,883	2,671	2,108	760	594	251	141	110	144	4,952	5,615

YEAR 2006 TOTAL=15,586 MEAN=42.7 MAX=405 MIN=1.50 AC-FT=30,914

SCHO — 14202920 — Sain Creek above Henry Hagg Lake near Gaston, Oregon [RM 1.6]



TANO – 14202860 – TANNER CREEK ABOVE HENRY HAGG LAKE [RM 1.6]

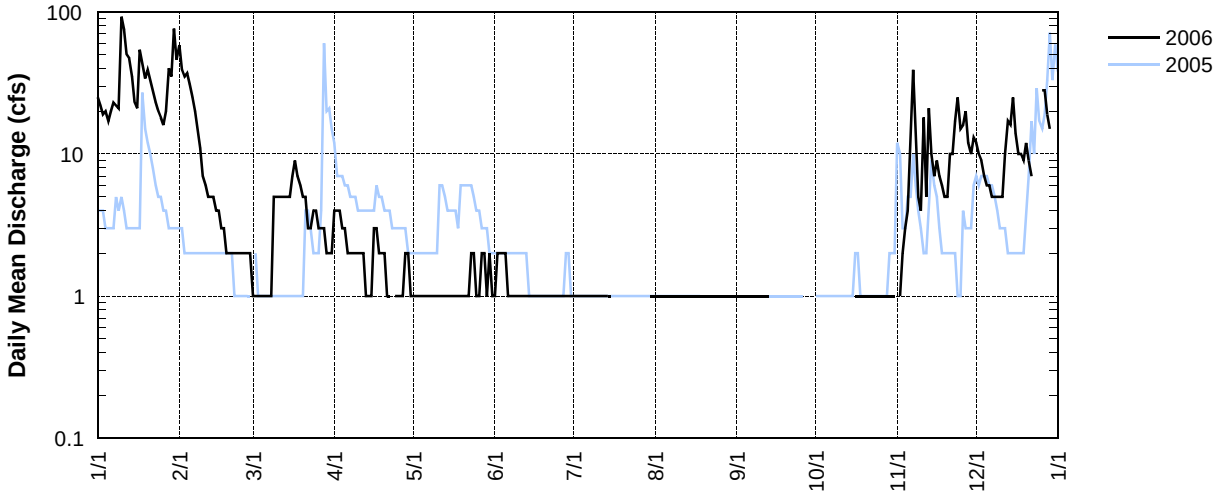
Latitude: 45 30 21 Longitude: 123 13 10 Source Agency: Tualatin Valley Irrigation District

Day	2006 Daily Mean Discharge in Cubic Feet per Second[a]											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC*
1	25	58	1	4	1	1	1	1	1	0	0	12
2	22	39	1	4	1	2	1	1	1	0	1	10
3	19	35	1	4	1	2	1	1	1	0	2	9
4	20	37	1	3	1	2	1	1	1	0	3	7
5	17	31	1	3	1	2	1	1	1	0	4	6
6	20	25	1	2	1	1	1	1	1	0	16	6
7	23	20	1	2	1	1	1	1	1	0	39	5
8	22	15	1	2	1	1	1	1	1	0	13	5
9	21	11	5	2	1	1	1	1	1	0	5	5
10	92	7	5	2	1	1	1	1	1	0	4	5
11	75	6	5	2	1	1	1	1	1	0	18	5
12	50	5	5	2	1	1	1	1	1	0	5	10
13	47	5	5	1	1	1	1	1	1	0	21	17
14	35	5	5	1	1	1	1	1	0	0	10	16
15	23	4	5	1	1	1	1	1	0	0	7	25
16	21	4	7	3	1	1	0	1	0	1	9	14
17	54	3	9	3	1	1	0	1	0	1	7	10
18	43	3	7	2	1	1	0	1	0	1	6	10
19	34	2	6	2	1	1	0	1	0	1	5	9
20	39	2	5	2	1	1	1	1	0	1	5	12
21	33	2	5	1	1	1	0	1	0	1	10	9
22	28	2	3	1	1	1	0	1	0	1	10	7
23	23	2	3	0	2	1	0	1	0	1	17	0
24	20	2	4	1	2	1	0	1	0	1	25	0
25	18	2	4	1	1	1	0	1	0	1	15	0
26	16	2	3	1	1	1	0	1	0	1	16	28
27	20	2	3	1	2	1	0	1	0	1	20	28
28	40	2	3	2	2	1	0	1	0	1	12	19
29	35	—	2	2	1	1	0	1	0	1	10	15
30	76	—	2	1	2	1	1	1	0	1	13	
31	46	—	2	—	1	—	1	1	—	1	—	
TOTAL	1,057	333	111	58	36	34	18	31	17	16	328	304
AC-FT	2,097	661	220	115	71	67	36	61	34	32	651	603

YEAR 2006* AC-FT=2,339

*Incomplete record; [a]Values are read from a staff plate. Some values are from daily readings at about 0800; others are based on averages over several days.

TANO — 14202860 — Tanner Creek above Henry Hagg Lake [RM 1.6]



UNITED STATES DEPARTMENT OF THE INTERIOR – GEOLOGICAL SURVEY – OREGON WATER SCIENCE CENTER

STATION NUMBER: 14202980 SCOGGINS CREEK BL HENRY HAGG LK NR GASTON,OREG.

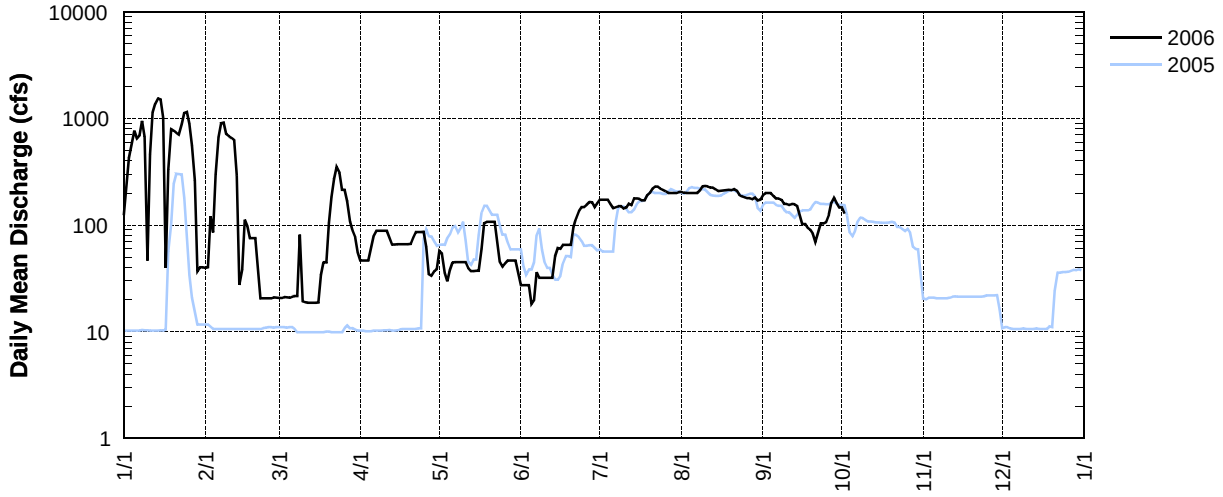
LATITUDE: 452810 LONGITUDE: 1231156 DRAINAGE AREA: 38.80 DATUM: 87.48

Discharge, Cubic Feet per Second, Calendar Year January to December 2006 Daily Mean Values

Day	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT†	NOV†	DEC†
1	123	40	21	46	57	27	172	205	190			
2	229	40	21	46	54	27	172	201	200			
3	425	120	21	46	36	27	172	200	200			
4	561	87	21	46	30	27	172	200	200			
5	763	295	21	59	38	18	158	200	187			
6	655	667	21	79	45	20	144	200	177			
7	688	898	22	88	45	36	147	199	177			
8	945	913	22	88	45	32	150	211	172			
9	685	711	81	88	45	32	150	230	158			
10	45	684	19	88	45	32	143	233	158			
11	453	655	19	88	45	32	146	230	154			
12	1130	626	19	76	40	32	159	225	158			
13	1370	300	19	66	37	32	154	225	157			
14	1540	28	19	66	37	51	177	216	151			
15	1510	38	19	66	37	61	177	209	125			
16	1030	125	19	66	37	60	176	210	102			
17	40	99	34	66	59	65	171	211	102			
18	325	75	45	66	104	65	170	213	94			
19	792	75	44	66	107	65	190	213	90			
20	767	75	104	66	107	65	201	213	83			
21	729	42	183	76	107	95	220	218	69			
22	708	21	270	86	107	116	229	211	85			
23	876	21	348	86	72	135	228	193	104			
24	1130	21	310	86	45	147	220	186	104			
25	1150	21	214	86	41	147	213	182	107			
26	893	21	214	64	44	154	208	179	124			
27	559	21	168	35	46	165	199	178	162			
28	267	21	109	34	46	163	200	175	180			
29	37	—	88	37	46	147	200	181	161			
30	40	—	77	38	46	159	199	170	147			
31	40	—	55	—	35	—	203	172	—		—	
TOTAL	20505	6740	2647	1994	1685	2234	5620	6289	4278			
MEAN	661	241	85.4	66.5	54.4	74.5	181	203	143			
MAX	1540	913	348	88	107	165	229	233	200			
MIN	37	21	19	34	30	18	143	170	69			
AC-FT	40670	13370	5250	3960	3340	4430	11150	12470	8490			

† Operation of this station changed from the USGS to OWRD as of October 1, 2006

SCOO — 14202980 — Scoggins Creek below Henry Hagg Lake near Gaston, Oregon [RM 4.80]



UNITED STATES DEPARTMENT OF THE INTERIOR – GEOLOGICAL SURVEY – OREGON WATER SCIENCE CENTER

STATION NUMBER: 14203500 TUALATIN RIVER NEAR DILLEY, OREG.

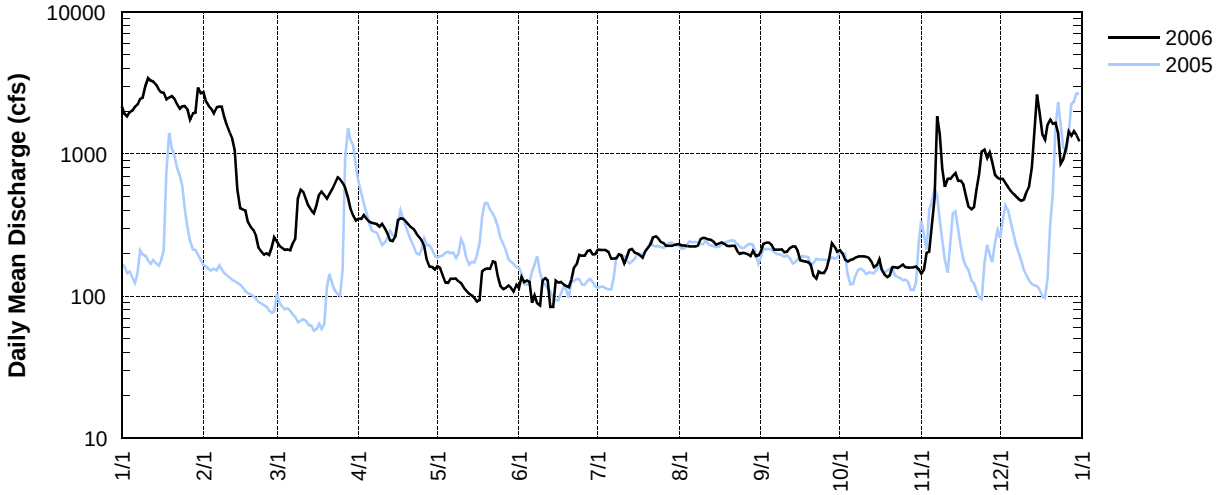
LATITUDE: 452830 LONGITUDE: 1230723 DRAINAGE AREA: 125.00 DATUM: 147.57

Discharge, Cubic Feet per Second, Calendar Year January to December 2006 Daily Mean Values

Day	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT†	NOV†	DEC†
1	2160	2710	240	350	162	114	212	233	206	210	143	668
2	1910	2340	224	348	159	136	211	227	234	201	154	668
3	1840	2190	217	373	141	126	210	227	238	181	202	625
4	1970	2090	211	352	124	129	211	224	237	175	205	584
5	2020	1930	213	337	124	127	206	223	230	180	308	551
6	2150	2130	209	329	132	91	183	224	212	181	488	525
7	2240	2150	235	325	132	101	183	223	212	188	1830	503
8	2440	2150	253	321	133	89	185	226	213	190	1400	480
9	2480	1830	481	308	127	86	196	251	213	191	789	468
10	3020	1590	560	322	123	128	195	257	203	190	590	479
11	3400	1420	541	299	115	134	170	256	206	190	669	542
12	3280	1280	485	275	110	129	188	251	218	187	669	590
13	3250	1060	432	246	104	84	212	250	224	176	700	804
14	3070	566	401	244	102	84	216	243	224	160	737	1510
15	2840	416	384	264	98	128	203	230	208	165	648	2620
16	2710	408	434	344	92	124	199	235	179	183	645	1970
17	2690	402	513	353	94	126	193	239	176	153	609	1360
18	2430	331	545	348	150	121	187	234	175	142	506	1250
19	2490	309	516	336	155	118	205	226	174	136	424	1610
20	2560	293	487	320	156	116	219	224	167	140	407	1740
21	2450	267	525	306	155	130	231	225	140	160	420	1640
22	2240	220	564	295	175	159	259	226	133	159	565	1650
23	2070	208	616	277	174	169	263	208	149	158	719	1400
24	2160	196	685	261	139	195	256	199	145	162	1040	860
25	2170	200	665	246	118	192	241	202	145	168	1070	919
26	2070	195	626	225	112	192	237	201	158	160	938	1100
27	1750	219	579	180	114	208	226	197	186	159	1030	1440
28	1930	259	493	162	118	210	225	191	236	159	877	1340
29	1940	—	408	160	114	196	226	207	224	159	711	1440
30	2920	—	369	154	108	197	230	192	206	161	682	1360
31	2670	—	340	—	121	—	230	193	—	155	—	1230
TOTAL	75320	29359	13451	8660	3981	4139	6608	6944	5871	5279	18587	33926
MEAN	2430	1049	434	289	128	138	213	224	196	170	664	1094
MAX	3400	2710	685	373	175	210	263	257	238	210	1830	2620
MIN	1750	195	209	154	92	84	170	191	133	136	143	468
AC-FT	149400	58230	26680	17180	7900	8210	13110	13770	11650	10470	36870	67290

† Provisional data–subject to revision

DLLO — 14203500 — Tualatin River near Dilley, Oregon [RM 58.8]



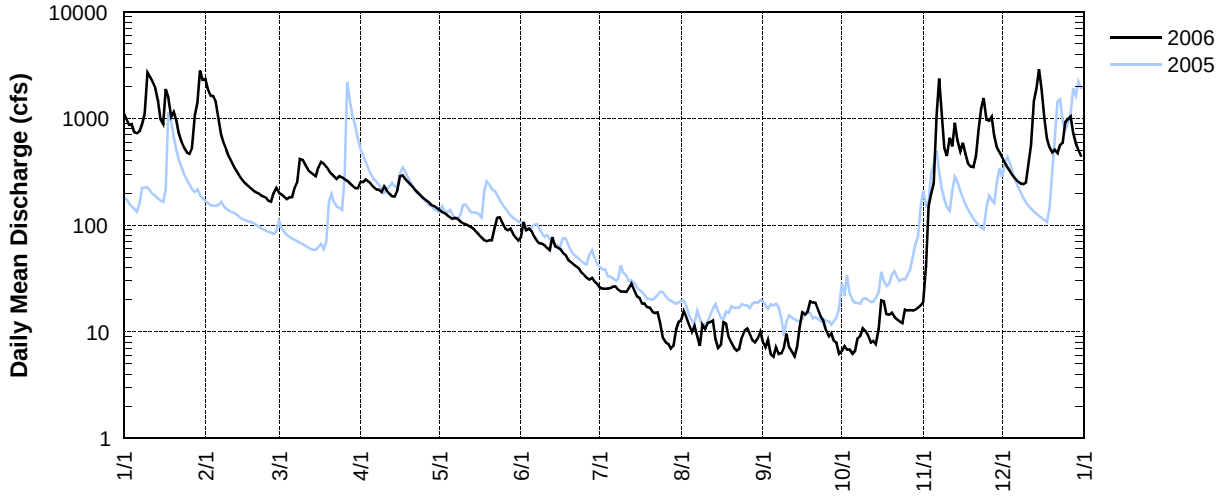
GALES – 14204530 – GALES CREEK AT OLD HWY 47 NEAR FOREST GROVE, OREGON [RM 2.36]

Latitude: 45 30 39 Longitude: 123 06 56 Source Agency: District 18 Watermaster

Day	2006 Daily Mean Discharge in Cubic Feet per Second											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1,120	2,340	201	254	138	76.7	25.8	12.9	8.01	6.63	18.9	428
2	986	1,860	194	253	133	107	25.3	15.6	7.12	7.34	41.5	383
3	870	1,630	184	266	129	89.2	25.2	13.3	8.35	6.79	150	347
4	888	1,620	175	255	123	92.4	25.3	11.4	6.10	6.82	197	314
5	739	1,440	182	243	118	87.7	25.7	9.98	5.81	6.24	246	291
6	726	979	182	226	115	77.9	26.6	11.4	7.14	6.59	1,070	272
7	755	704	226	215	116	71.9	26.5	9.07	6.16	8.69	2,360	255
8	880	588	256	214	114	67.5	24.8	7.41	6.32	9.07	1,150	243
9	1,090	510	414	204	108	67.0	23.8	11.6	7.19	10.7	528	242
10	2,670	439	405	231	104	64.7	23.8	10.6	9.63	10.1	445	250
11	2,430	386	366	209	102	60.7	23.6	12.1	7.12	9.18	659	370
12	2,190	347	333	197	99.1	58.1	25.6	12.3	6.54	7.93	548	562
13	1,940	316	313	186	96.2	76.8	28.3	12.8	5.86	8.18	915	1,450
14	1,450	290	298	185	92.5	63.2	24.7	8.47	7.20	7.64	622	1,910
15	969	267	287	214	86.7	61.6	21.5	7.05	11.0	10.6	489	2,890
16	881	248	349	287	81.6	59.6	20.9	7.54	15.2	19.7	589	1,890
17	1,880	235	393	294	76.3	54.7	18.4	12.3	14.4	19.3	468	991
18	1,570	224	379	273	72.4	51.9	18.4	11.9	15.4	14.5	378	641
19	1,040	213	351	256	70.9	46.6	17.1	8.90	19.3	14.4	355	531
20	1,150	205	324	240	72.2	44.9	16.7	7.90	18.8	15.1	348	478
21	956	199	302	226	71.9	42.8	15.4	7.03	18.7	13.8	446	512
22	721	192	285	211	94.3	41.1	15.0	6.67	15.9	13.0	780	474
23	594	186	271	199	117	39.0	15.2	6.91	13.8	12.5	1,230	567
24	526	181	288	187	118	35.8	12.1	8.84	12.6	12.1	1,550	590
25	479	169	279	177	104	34.2	8.68	10.3	10.4	16.1	972	924
26	465	165	268	170	92.4	32.3	7.98	10.7	9.05	15.8	953	985
27	532	200	261	163	89.3	30.9	7.68	9.56	9.70	15.9	1,040	1,040
28	1,070	223	246	155	92.5	32.0	6.95	8.34	8.19	15.8	685	726
29	1,400	—	232	150	83.2	29.5	7.43	7.94	7.86	16.1	524	587
30	2,820	—	221	144	76.8	28.1	10.5	8.71	6.24	16.8	477	504
31	2,300	—	222	—	71.8	—	12.4	10.1	—	17.6	—	438
TOTAL	38,087	16,356	8,687	6,484	3,059	1,726	587	310	305	371	20,234	22,085
MEAN	1,229	584	280	216	98.7	57.5	18.9	9.99	10.2	12.0	674	712
MAX	2,820	2,340	414	294	138	107	28.3	15.6	19.3	19.7	2,360	2,890
MIN	465	165	175	144	70.9	28.1	6.95	6.67	5.81	6.24	18.9	242
AC-FT	75,546	32,442	17,231	12,861	6,068	3,423	1,165	614	605	736	40,135	43,806

YEAR 2006 TOTAL=118,291 MEAN=324 MAX=2,890 MIN=5.81 AC-FT=234,631

GALES — 14204530 — Gales Creek at Old Hwy 47 near Forest Grove, Oregon [RM 2.36]



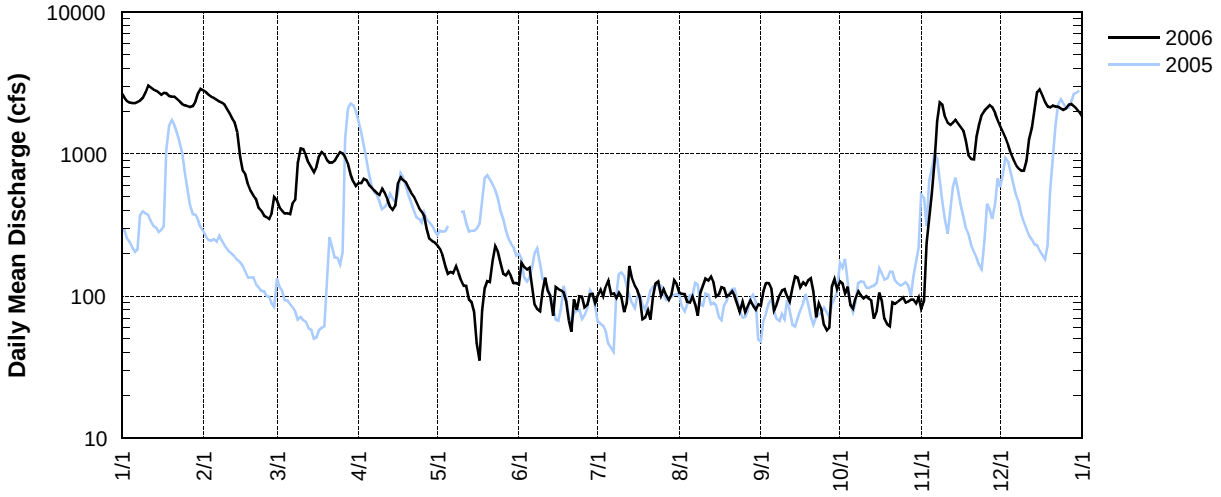
TRGC – 14204800 – TUALATIN RIVER AT GOLF COURSE ROAD NEAR CORNELIUS, OREGON [RM 51.5]

Latitude: 45 30 08 Longitude: 123 03 22 Source Agency: District 18 Watermaster

Day	2006 Daily Mean Discharge in Cubic Feet per Second											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	2,660	2,800	472	624	228	121	101	106	85.6	127	81.7	1,560
2	2,480	2,720	420	624	216	171	111	104	108	123	93.6	1,430
3	2,360	2,600	400	669	194	160	99.7	103	124	105	236	1,300
4	2,300	2,530	381	655	163	154	117	91.2	123	117	358	1,150
5	2,280	2,490	382	606	144	159	129	90.3	113	86.6	519	1,010
6	2,280	2,410	377	581	148	116	103	100	79.8	81.9	898	916
7	2,320	2,350	452	553	145	86.9	105	87.5	87.6	97.3	1,700	838
8	2,370	2,300	479	532	163	80.9	97.2	73.1	101	108	2,300	788
9	2,470	2,230	864	516	146	78.0	106	106	110	101	2,220	757
10	2,720	2,070	1,090	570	129	109	98.9	119	112	96.4	1,830	763
11	3,020	1,920	1,080	527	118	135	77.3	133	99.4	100	1,650	890
12	2,930	1,770	977	479	118	109	89.7	129	91.2	96.1	1,600	1,260
13	2,850	1,650	867	428	94.3	100	163	137	115	93.1	1,660	1,530
14	2,790	1,410	798	406	90.5	72.8	134	125	138	69.7	1,740	2,060
15	2,700	955	745	436	77.4	116	118	99.8	135	78.8	1,630	2,710
16	2,610	762	810	627	46.8	112	110	103	116	106	1,540	2,850
17	2,680	718	965	686	35.3	110	97.6	116	125	92.6	1,460	2,570
18	2,670	609	1,030	653	79.4	106	69.0	114	120	69.2	1,230	2,310
19	2,550	549	989	634	114	91.3	70.7	99.6	130	63.2	979	2,150
20	2,520	510	904	576	128	67.4	80.2	102	134	61.3	919	2,130
21	2,530	484	868	534	126	56.2	68.4	108	108	90.9	914	2,180
22	2,440	420	869	504	179	95.2	99.7	99.9	71.2	88.5	1,320	2,150
23	2,330	401	894	461	225	80.1	123	88.4	89.0	91.3	1,610	2,150
24	2,240	370	975	417	206	99.5	127	77.7	80.6	94.5	1,880	2,090
25	2,200	359	1,030	392	172	99.1	101	91.2	62.9	98.0	2,020	2,040
26	2,170	349	1,010	364	144	83.3	112	77.6	57.5	90.2	2,110	2,100
27	2,140	382	945	296	140	87.2	101	85.5	60.1	91.8	2,200	2,220
28	2,170	498	847	253	149	103	94.1	93.0	117	94.6	2,130	2,240
29	2,340	—	716	244	138	104	104	86.3	132	94.4	1,940	2,160
30	2,670	—	641	239	123	89.7	129	80.7	113	89.1	1,720	2,080
31	2,880	—	595	—	124	—	121	87.8	—	98.5	—	1,970
TOTAL	77,670	38,616	23,872	15,086	4,304	3,153	3,258	3,115	3,139	2,895	42,488	54,352
MEAN	2,505	1,379	770	503	139	105	105	100	105	93.4	1,416	1,753
MAX	3,020	2,800	1,090	686	228	171	163	137	138	127	2,300	2,850
MIN	2,140	349	377	239	35.3	56.2	68.4	73.1	57.5	61.3	81.7	757
AC-FT	154,058	76,595	47,350	29,923	8,536	6,253	6,461	6,178	6,226	5,742	84,276	107,807

YEAR 2006 TOTAL=271,947 MEAN=745 MAX=3,018 MIN=35.3 AC-FT=539,406

TRGC — 14204800 — Tualatin River at Golf Course Road near Cornelius, Oregon [RM 51.5]



UNITED STATES DEPARTMENT OF THE INTERIOR – GEOLOGICAL SURVEY – OREGON WATER SCIENCE CENTER

STATION NUMBER: 14205400 EAST FORK DAIRY CREEK NEAR MEACHAM CORNER, OR

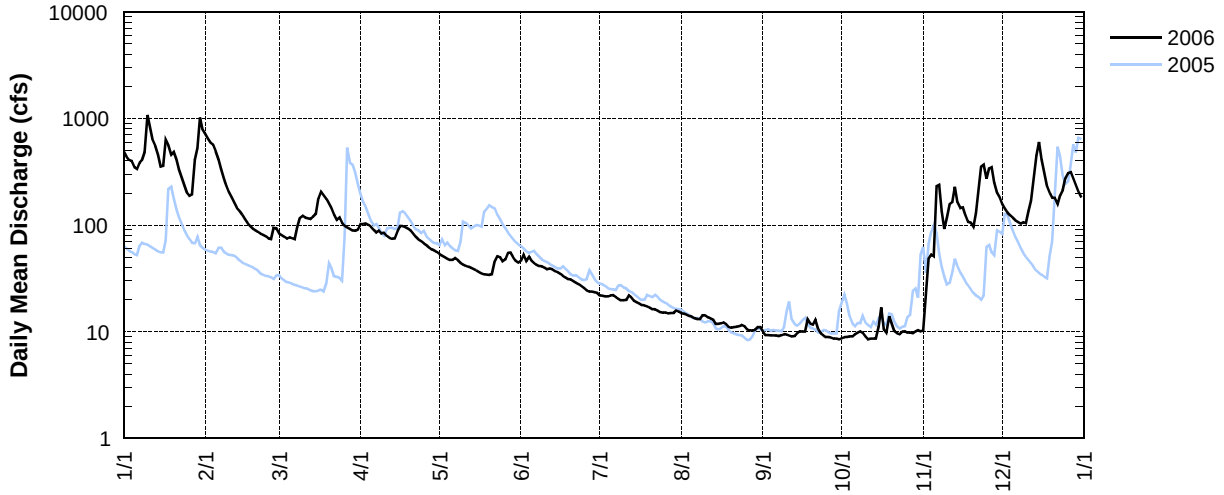
LATITUDE: 454051 LONGITUDE: 1230412 DRAINAGE AREA: 32.92 DATUM: 290

Discharge, Cubic Feet per Second, Calendar Year January to December 2006 Daily Mean Values

Day	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT†	NOV†	DEC†
1	486	706	84	102	54	46	22	15	10	8.7	10	157
2	437	640	81	102	52	53	22	15	9.3	8.9	25	142
3	409	590	78	103	50	46	21	14	9.3	8.9	49	131
4	401	566	75	101	49	50	21	14	9.3	8.9	53	123
5	348	494	77	97	47	46	22	14	9.2	9.0	51	117
6	336	414	75	90	47	44	22	13	9.2	9.4	230	111
7	382	335	74	85	49	42	21	13	9.1	9.8	239	107
8	410	278	95	89	47	41	20	13	9.3	10	135	104
9	480	235	117	83	44	41	20	14	9.5	9.8	92	106
10	1070	205	123	85	43	40	20	14	9.4	9.0	115	104
11	832	182	117	79	42	39	20	14	9.2	8.5	158	133
12	631	162	116	76	41	39	22	13	9.0	8.6	164	169
13	556	146	114	74	40	39	21	13	9.1	8.6	229	278
14	455	137	121	75	39	37	20	12	9.7	8.6	164	447
15	356	125	127	87	38	36	19	12	10	11	144	606
16	356	114	178	98	36	35	18	12	10	17	146	413
17	634	105	207	98	35	33	18	12	10	11	123	301
18	564	99	191	96	34	32	18	12	13	9.8	107	232
19	457	94	176	94	34	31	17	11	12	14	106	201
20	486	89	159	89	34	31	17	11	12	12	96	179
21	418	87	144	83	34	30	16	11	13	10	129	180
22	335	83	125	78	46	29	16	11	11	9.7	214	157
23	280	81	111	74	51	28	16	11	9.6	9.5	353	190
24	239	78	118	71	50	27	15	12	9.2	10	370	211
25	202	75	105	68	46	26	15	11	8.9	10	273	274
26	189	74	98	65	48	25	15	11	8.9	9.8	338	308
27	194	94	95	61	55	24	15	10	8.8	9.8	350	315
28	407	93	92	59	55	24	15	10	8.6	9.7	251	274
29	519	—	89	58	50	23	15	10	8.5	10	200	238
30	1020	—	88	56	47	23	16	11	8.5	10	182	205
31	783	—	90	—	45	—	16	11	—	10	—	181
TOTAL	14672	6381	3540	2476	1382	1060	571	380	292.6	310.0	5096	6694
MEAN	473	228	114	82.5	44.6	35.3	18.4	12.3	9.75	10.0	170	216
MAX	1070	706	207	103	55	53	22	15	13	17	370	606
MIN	189	74	74	56	34	23	15	10	8.5	8.5	10	104
AC-FT	29100	12660	7020	4910	2740	2100	1130	754	580	615	10110	13280

† Provisional data–subject to revision

5400 — 14205400 — East Fork Dairy Creek near Meacham Corner, Oregon [RM 12.4]



MCSC – 14206070 – MCKAY CREEK AT SCOTCH CHURCH RD NEAR NORTH PLAINS, OREGON [RM 6.3]

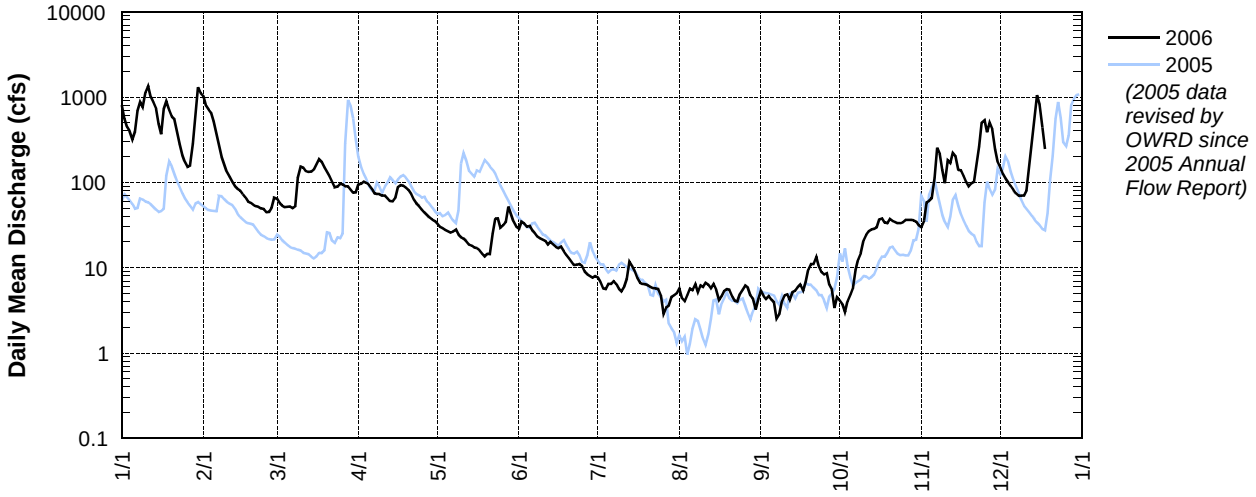
Latitude: 45 57 21 Longitude: 122 99 18 Source Agency: District 18 Watermaster

Day	2006 Daily Mean Discharge in Cubic Feet per Second											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC*
1	804	1,030	63.9	94.6	32.9	28.5	7.76	5.74	5.32	4.11	29.7	149
2	561	791	57.3	96.7	30.4	34.9	6.76	4.44	4.69	3.74	35.7	126
3	449	717	53.6	102	29.3	33.2	5.72	4.10	4.30	3.04	58.2	112
4	401	657	51.2	98.9	27.7	30.4	5.64	4.81	4.64	4.10	60.8	100
5	321	517	51.5	94.0	26.9	31.2	6.47	5.72	4.24	4.89	65.1	90.3
6	393	370	52.0	84.8	26.0	27.5	6.46	5.49	3.94	5.87	113	81.9
7	688	270	50.1	74.0	26.5	25.6	6.97	6.43	2.54	9.40	256	74.5
8	872	199	52.6	72.9	28.1	23.3	6.45	5.19	2.89	12.5	217	69.5
9	761	162	113	72.9	24.5	22.2	5.67	6.25	4.07	14.8	139	69.8
10	1,150	133	153	70.0	22.7	21.5	5.30	5.98	4.78	21.0	98.1	70.2
11	1,350	115	149	70.2	21.9	20.7	6.03	6.67	4.90	24.3	181	80.1
12	1,010	101	136	65.1	20.6	18.6	7.39	6.35	4.19	26.9	169	151
13	878	90.5	132	60.4	18.7	20.0	11.7	5.76	5.21	27.9	223	305
14	731	84.6	134	60.0	18.2	18.6	10.5	6.43	5.38	28.5	204	554
15	486	80.2	142	66.2	17.2	17.6	9.01	5.57	5.92	29.8	140	1,050
16	367	72.8	163	88.7	17.0	17.0	7.57	4.19	6.34	36.9	138	819
17	728	67.2	187	93.4	16.0	17.7	6.69	4.64	5.38	37.8	120	439
18	893	59.9	175	91.6	14.7	15.6	6.46	5.33	6.78	33.9	101	247
19	699	57.7	150	86.8	13.6	14.1	6.40	5.63	9.49	33.2	90.0	
20	588	54.4	132	80.8	14.5	13.0	6.24	5.51	11.0	37.1	97.8	
21	553	52.5	117	73.3	14.4	11.8	5.95	4.62	11.0	35.3	101	
22	398	51.5	101	63.2	25.3	10.7	5.77	4.09	13.4	34.4	166	
23	279	49.7	87.9	57.0	37.6	10.8	5.74	4.02	10.4	33.3	263	
24	209	48.6	89.4	52.5	38.0	11.0	5.62	4.91	8.90	33.2	500	
25	173	44.7	96.2	48.3	29.5	10.5	4.66	5.50	8.35	34.2	535	
26	152	44.9	94.8	44.8	31.5	9.00	2.88	6.18	8.69	36.4	386	
27	158	50.5	89.8	41.8	34.6	8.33	3.45	5.86	6.30	36.4	501	
28	283	66.0	90.0	38.9	52.1	8.00	3.59	4.79	5.52	36.4	422	
29	573	—	82.5	36.6	42.7	7.64	4.57	4.37	3.37	35.9	244	
30	1,310	—	75.4	35.4	34.8	7.99	4.76	3.22	4.54	34.9	173	
31	1,120	—	76.1	—	29.9	—	5.03	4.27	—	31.4	—	
TOTAL	19,338	6,038	3,198	2,116	818	547	193	162	186	782	5,827	
MEAN	624	216	103	70.5	26.4	18.2	6.23	5.23	6.22	25.2	194	255
MAX	1,350	1,030	187	102	52.1	34.9	11.7	6.67	13.4	37.8	535	1,050
MIN	152	44.7	50.1	35.4	13.6	7.64	2.88	3.22	2.54	3.04	29.7	69.5
AC-FT	38,357	11,976	6,344	4,197	1,622	1,085	383	321	370	1,550	11,559	

YEAR 2006* MEAN=124 MAX=1,350 MIN=2.54

*Incomplete record; Monthly and yearly totals were computed when at least 80% of the record was complete for a month or for all high flow months, respectively.

MCSC — 14206070 — McKay Creek at Scotch Church Road near North Plains, Oregon [RM 6.3]



WCJS – 14206100 – WAIBLE CREEK AT JACKSON SCHOOL ROAD NEAR HILLSBORO, OREGON [RM 1.0]

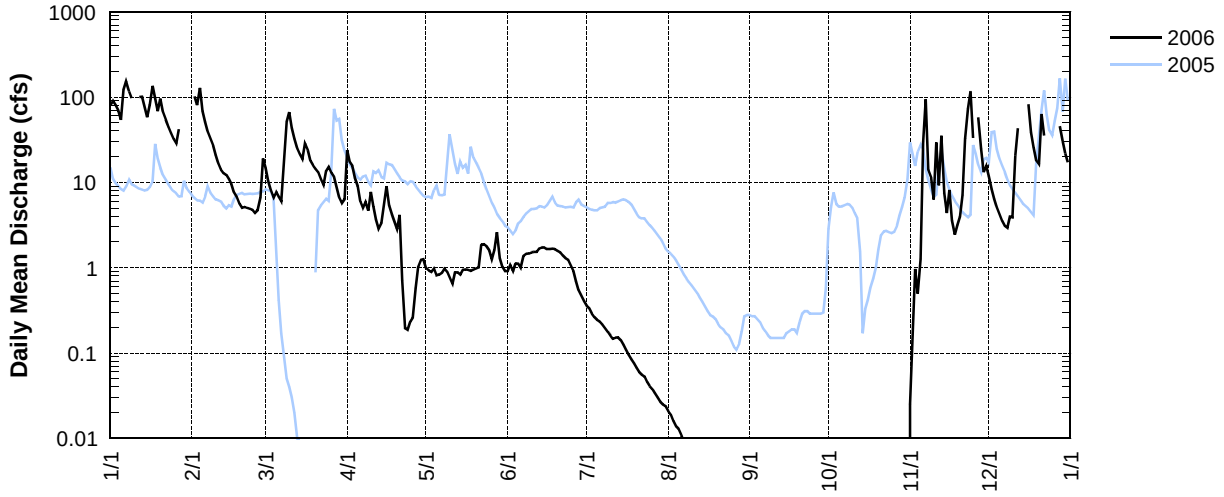
Latitude: 45 33 55 Longitude: 122 58 12 Source Agency: District 18 Watermaster

Day	2006 Daily Mean Discharge in Cubic Feet per Second											
	JAN*	FEB*	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV*	DEC*
1	80.5		14.8	23.8	1.00	0.91	0.36	0.02	<0.01	<0.01	0.03	11.8
2	90.3	102	10.4	17.3	0.93	1.08	0.33	0.02	<0.01	<0.01	0.15	8.35
3	80.8	80.4	8.17	15.6	0.89	0.91	0.29	0.02	<0.01	<0.01	0.97	6.34
4	69.2	129	6.64	11.3	0.98	1.12	0.27	0.01	<0.01	<0.01	0.50	5.08
5	54.2	68.6	7.69	9.05	0.81	1.11	0.25	0.01	<0.01	<0.01	1.27	4.25
6	122	51.0	6.74	5.98	0.83	1.00	0.24	0.01	<0.01	<0.01	29.8	3.56
7	153	39.5	5.99	5.02	0.88	1.38	0.22	<0.01	<0.01	<0.01	94.3	3.09
8	117	33.1	16.6	5.94	0.98	1.45	0.20	<0.01	<0.01	<0.01	13.9	2.92
9	97.1	27.2	51.6	4.68	0.90	1.46	0.18	<0.01	<0.01	<0.01	11.3	3.94
10		20.9	66.7	7.78	0.78	1.51	0.16	<0.01	<0.01	<0.01	6.32	3.88
11		16.7	43.1	5.21	0.64	1.53	0.15	<0.01	<0.01	<0.01	29.3	20.8
12	99.9	14.2	32.6	3.65	0.88	1.53	0.15	<0.01	<0.01	<0.01	9.20	43.2
13	101	12.9	25.0	2.87	0.88	1.69	0.15	<0.01	<0.01	<0.01	35.2	
14	77.5	12.3	21.3	3.36	0.83	1.72	0.14	<0.01	<0.01	<0.01	7.51	
15	58.2	11.0	18.8	5.41	0.94	1.73	0.13	<0.01	<0.01	<0.01	4.37	
16	80.7	9.54	28.6	9.08	0.95	1.66	0.11	<0.01	<0.01	<0.01	8.19	82.7
17	135	7.65	23.9	5.39	0.95	1.66	0.10	<0.01	<0.01	<0.01	3.56	38.8
18	96.6	6.68	17.9	4.21	0.92	1.67	0.08	<0.01	<0.01	<0.01	2.43	25.7
19	68.5	5.62	15.9	3.44	0.96	1.66	0.08	<0.01	<0.01	<0.01	3.16	18.3
20	95.7	5.06	14.5	2.84	0.99	1.59	0.07	<0.01	<0.01	<0.01	3.95	16.4
21	67.1	5.16	13.2	4.15	1.01	1.52	0.06	<0.01	<0.01	<0.01	7.12	63.3
22	54.5	5.06	10.9	0.71	1.86	1.39	0.06	<0.01	<0.01	<0.01	32.5	35.5
23	44.6	4.92	9.31	0.20	1.88	1.30	0.05	<0.01	<0.01	<0.01	73.5	
24	38.1	4.78	13.6	0.19	1.78	1.24	0.05	<0.01	<0.01	<0.01	117	
25	32.4	4.39	15.2	0.23	1.60	1.07	0.04	<0.01	<0.01	<0.01	33.1	
26	28.7	4.69	13.0	0.26	1.26	0.91	0.04	<0.01	<0.01	<0.01		
27	42.3	6.67	11.5	0.58	1.61	0.69	0.03	<0.01	<0.01	<0.01	57.8	
28		19.0	8.78	1.04	2.61	0.55	0.03	<0.01	<0.01	<0.01	24.9	45.5
29		—	6.63	1.23	1.29	0.47	0.03	<0.01	<0.01	<0.01	13.2	30.3
30		—	5.72	1.26	1.02	0.41	0.03	<0.01	<0.01	<0.01	15.7	21.9
31		—	6.43	—	0.91	—	0.02	<0.01	—	<0.01	—	17.2
TOTAL	1,985	708	551	162	34.7	37.9	4.07	0.16			640	
MEAN	79.4	26.2	17.8	5.39	1.12	1.26	0.13	0.02			22.1	22.3
MAX	153	129	66.7	23.8	2.61	1.73	0.36	0.02	<0.01	<0.01	117	82.7
MIN	28.7	4.39	5.72	0.19	0.64	0.41	0.02	0.01	<0.01	<0.01	0.03	2.92
AC-FT	3,937	1,404	1,093	321	68.9	75.2	8.06	0.32			1,270	

YEAR 2006* MEAN=17.6 MAX=153 MIN=<0.01

*Incomplete record; Monthly and yearly totals were computed when at least 80% of the record was complete for a month or for all high flow months, respectively.

WCJS — 14206100 — Waible Creek at Jackson School Road near Hillsboro, Oregon [RM 1.0]



DAIRY – 14206200 – DAIRY CREEK AT HWY 8 NEAR HILLSBORO, OREGON [RM 2.06]

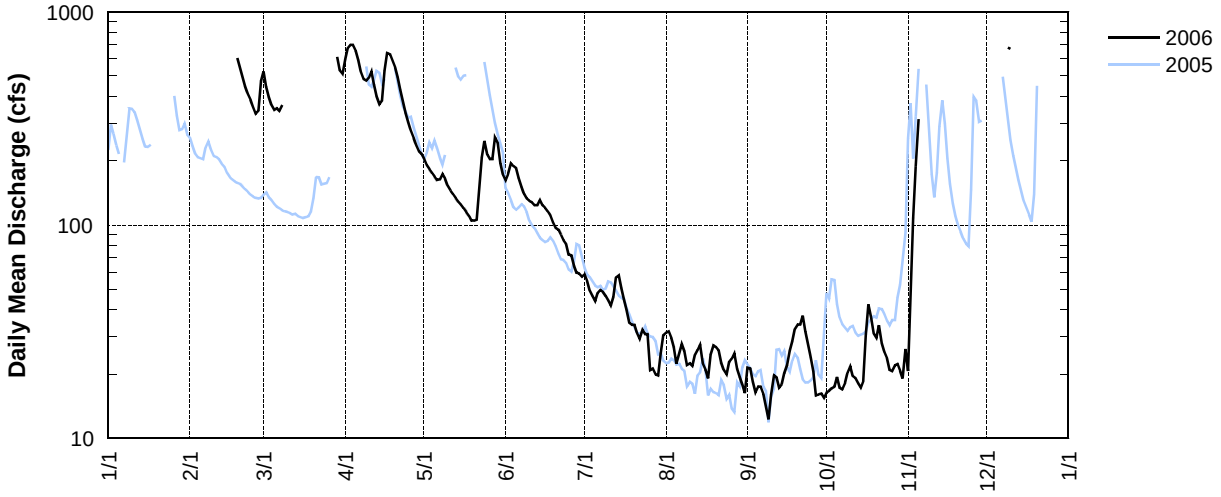
Latitude: 45 30 38 Longitude: 123 06 56 Source Agency: District 18 Watermaster

Day	2006 Daily Mean Discharge in Cubic Feet per Second											
	JAN*	FEB*	MAR*	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV*	DEC*
1			524	596	205	162	58.8	31.3	21.4	16.4	20.7	
2			445	676	191	174	54.7	31.8	21.3	16.7	41.5	
3			399	698	183	195	49.2	29.6	18.4	17.2	108	
4			364	698	176	189	46.6	26.7	16.5	17.5	189	
5			347	655	169	185	44.0	22.4	17.5	19.4	314	
6			353	592	163	166	48.0	25.0	17.5	17.3		
7			343	522	164	151	49.6	27.7	16.1	17.0		
8			365	484	173	140	48.6	25.6	14.1	18.2		
9				477	165	133	46.4	22.1	12.3	20.4		681
10				492	153	130	44.3	22.5	16.0	21.8		670
11				526	145	128	41.9	21.9	19.7	19.6		
12				456	140	124	46.0	24.7	19.3	19.2		
13				402	134	124	56.7	26.0	17.3	18.1		
14				369	129	131	58.2	27.6	17.9	17.3		
15				383	125	124	50.7	22.3	20.2	18.6		
16				530	120	121	44.9	21.0	22.1	30.6		
17				641	115	116	40.1	19.1	25.6	42.4		
18				633	111	111	34.8	24.7	28.4	36.6		
19		607		589	105	103	34.0	27.3	32.5	30.9		
20		548		548	105	97.4	34.0	26.8	34.2	29.5		
21		496		494	106	95.2	31.1	25.9	34.2	33.9		
22		448		431	145	90.2	29.2	22.6	37.6	27.9		
23		410		376	208	84.9	32.2	20.9	31.8	25.4		
24		387		334	248	81.7	30.8	19.9	27.9	23.8		
25		356		303	214	72.8	30.8	22.9	23.9	21.0		
26		333		277	204	72.0	20.9	23.7	20.6	20.7		
27		344		256	204	64.4	21.3	25.1	15.9	22.0		
28		473		236	257	59.8	19.9	21.1	16.1	22.3		
29		—	616	222	241	59.4	19.7	19.4	16.2	20.8		
30		—	532	216	195	57.3	25.0	17.9	15.5	19.1		
31		—	512	—	172	—	30.5	16.3	—	26.3	—	
TOTAL				14,112	5,165	3,542	1,223	742	648	708		
MEAN		440	436	470	167	118	39.4	23.9	21.6	22.8	135	676
MAX		607	616	698	257	195	58.8	31.8	37.6	42.4	314	681
MIN		333	343	216	105	57.3	19.7	16.3	12.3	16.4	20.7	670
AC-FT				27,991	10,245	7,026	2,426	1,471	1,285	1,404		

YEAR 2006* MEAN=154 MAX=698 MIN=12.3

*Incomplete record; Monthly and yearly totals were computed when at least 80% of the record was complete for a month or for all high flow months, respectively.

DAIRY — 14206200 — Dairy Creek at Hwy 8 near Hillsboro, Oregon [RM 2.06]



TRJB – 14206241 – TUALATIN RIVER AT HWY 219 BRIDGE [RM 44.4]

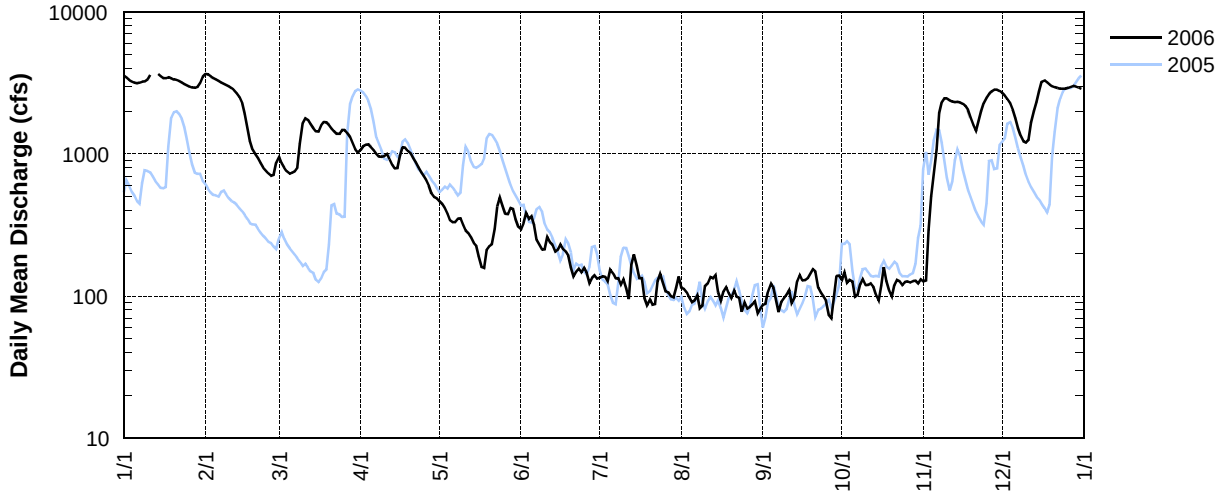
Latitude: 45 30 01 Longitude: 122 59 24 Source Agency: Jackson Bottom Wetland Education Center

Day	2006 Daily Mean Discharge in Cubic Feet per Second											
	JAN**	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	3,554	3,644	954	1,065	465	296	134	115	87	130	127	2,682
2	3,439	3,627	858	1,139	447	326	138	113	88	146	129	2,572
3	3,330	3,524	798	1,162	416	383	137	106	108	124	293	2,435
4	3,242	3,432	754	1,169	380	349	127	97	122	131	504	2,264
5	3,174	3,363	730	1,121	341	363	154	91	115	127	701	2,046
6	3,140	3,276	741	1,062	332	316	145	93	95	99	1,074	1,786
7	3,177	3,192	756	1,003	332	248	133	102	77	102	1,941	1,526
8	3,222	3,123	801	957	351	230	134	82	92	121	2,313	1,334
9	3,234	3,062	1,187	951	353	212	121	86	97	132	2,455	1,228
10	3,342	2,988	1,650	961	317	213	132	118	103	120	2,462	1,206
11	3,592	2,898	1,782	1,001	289	259	113	122	111	120	2,389	1,255
12	>3,700	2,796	1,737	918	277	240	96	137	90	123	2,337	1,659
13	>3,700	2,679	1,625	843	258	230	167	134	98	117	2,310	2,000
14	3,649	2,525	1,516	793	238	205	196	141	127	103	2,325	2,317
15	3,527	2,275	1,440	797	227	212	163	107	141	93	2,304	2,754
16	3,412	1,908	1,435	974	190	230	133	93	129	119	2,248	3,221
17	3,414	1,521	1,584	1,116	160	214	134	108	130	160	2,176	3,291
18	3,455	1,229	1,675	1,105	158	205	97	116	134	128	2,042	3,191
19	3,406	1,072	1,672	1,052	212	192	87	105	144	109	1,805	3,082
20	3,338	993	1,601	1,007	224	158	95	97	154	99	1,594	2,994
21	3,315	935	1,508	936	231	138	87	110	149	120	1,450	2,946
22	3,265	862	1,440	871	297	148	88	99	114	130	1,692	2,910
23	3,187	803	1,384	807	427	156	128	98	106	128	2,000	2,881
24	3,109	763	1,386	742	492	148	143	78	100	120	2,276	2,871
25	3,039	727	1,473	697	433	158	124	90	93	126	2,491	2,880
26	2,983	703	1,476	655	380	147	108	82	74	127	2,650	2,913
27	2,934	711	1,405	597	377	124	106	84	70	125	2,759	2,971
28	2,924	868	1,312	532	417	135	100	88	99	127	2,823	3,004
29	2,972	—	1,189	498	413	140	98	92	139	128	2,823	2,981
30	3,153	—	1,078	488	349	133	114	76	139	123	2,767	2,930
31	3,490	—	1,025	—	307	—	138	82	—	131	—	2,930
TOTAL	102,418	59,501	39,968	27,018	10,093	6,509	3,869	3,140	3,325	3,788	57,260	77,061
MEAN	3,276	2,125	1,289	901	326	217	125	101	111	122	1,909	2,486
MAX	>3,700	3,644	1,782	1,169	492	383	196	141	154	160	2,823	3,291
MIN	2,924	703	730	488	158	124	87	76	70	93	127	1,206
AC-FT	203,145	118,020	79,277	53,590	20,020	12,911	7,675	6,228	6,595	7,513	113,575	152,851

YEAR 2006** TOTAL=393,950 MEAN=1,065 MAX=3,649 MIN=70.0 AC-FT=781,400

**At least one value exceeded the rating curve.

TRJB — 14206241 —Tualatin River at Hwy 219 Bridge [RM 44.4]



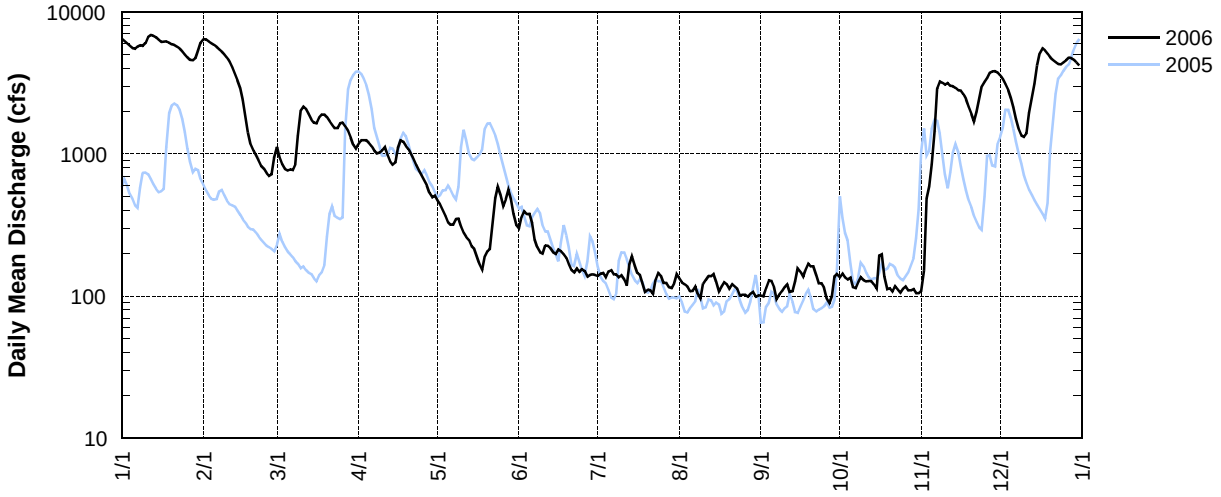
ROOD – 14206295 – TUALATIN RIVER AT ROOD BRIDGE ROAD NEAR HILLSBORO, OREGON [RM 38.44]

Latitude: 45 29 24 Longitude: 122 57 06 Source Agency: District 18 Watermaster

Day	2006 Daily Mean Discharge in Cubic Feet per Second											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	6,440	6,420	1,120	1,170	471	300	139	133	101	136	109	3,580
2	6,230	6,380	945	1,250	442	361	144	125	99.5	144	152	3,350
3	5,990	6,190	844	1,250	406	398	145	121	114	135	487	3,100
4	5,770	6,030	785	1,250	368	377	136	117	129	131	590	2,810
5	5,560	5,870	765	1,200	332	379	149	108	128	135	848	2,490
6	5,500	5,660	778	1,130	318	327	152	109	116	116	1,450	2,130
7	5,690	5,440	771	1,050	318	251	142	117	95.7	114	2,900	1,770
8	5,800	5,240	845	1,010	349	221	142	103	103	126	3,230	1,490
9	5,750	5,030	1,340	1,020	350	204	136	95.9	109	136	3,170	1,350
10	6,030	4,780	2,020	1,060	308	199	140	122	116	130	3,080	1,320
11	6,660	4,450	2,150	1,120	279	227	131	130	121	127	3,150	1,400
12	6,880	4,060	2,070	990	261	226	119	139	107	128	3,010	1,950
13	6,790	3,670	1,920	890	248	218	167	138	108	128	3,000	2,510
14	6,610	3,310	1,750	841	225	204	190	143	127	121	2,920	3,120
15	6,350	2,910	1,660	871	216	198	164	127	157	113	2,800	4,180
16	6,110	2,400	1,640	1,110	191	213	145	108	149	193	2,780	5,080
17	6,140	1,840	1,800	1,250	167	208	141	117	137	197	2,630	5,520
18	6,190	1,410	1,890	1,220	153	197	123	125	155	137	2,430	5,360
19	6,070	1,170	1,890	1,140	190	186	107	121	170	112	2,150	5,080
20	5,920	1,060	1,810	1,080	207	167	111	113	162	114	1,910	4,770
21	5,850	978	1,700	995	214	152	110	121	162	108	1,690	4,580
22	5,700	900	1,610	913	337	147	104	117	141	118	1,980	4,410
23	5,500	825	1,520	834	489	157	131	113	123	112	2,450	4,290
24	5,260	786	1,520	759	590	148	146	101	123	106	2,980	4,250
25	5,010	737	1,640	702	520	155	139	102	115	113	3,220	4,400
26	4,770	701	1,660	651	432	151	124	102	95.6	117	3,420	4,550
27	4,570	722	1,570	601	482	137	124	99.0	89.2	110	3,730	4,740
28	4,560	945	1,450	533	560	141	116	104	100	110	3,810	4,730
29	4,720	—	1,310	496	480	142	114	107	137	112	3,820	4,610
30	5,330	—	1,160	510	379	141	123	99.1	143	105	3,750	4,420
31	6,070	—	1,090	—	316	—	142	101	—	105	—	4,190
TOTAL	179,820	89,914	45,023	28,896	10,598	6,532	4,196	3,578	3,733	3,889	73,646	111,530
MEAN	5,801	3,211	1,452	963	342	218	135	115	124	125	2,455	3,598
MAX	6,880	6,420	2,150	1,250	590	398	190	143	170	197	3,820	5,520
MIN	4,560	701	765	496	153	137	104	95.9	89.2	105	109	1,320
AC-FT	356,673	178,344	89,303	57,315	21,021	12,956	8,323	7,097	7,404	7,714	146,077	221,220

YEAR 2006 TOTAL=561,355 MEAN=1,538 MAX=6,880 MIN=89.2 AC-FT=1,113,448

ROOD — 14206295 — Tualatin River at Rood Bridge Road near Hillsboro, Oregon [RM 38.4]



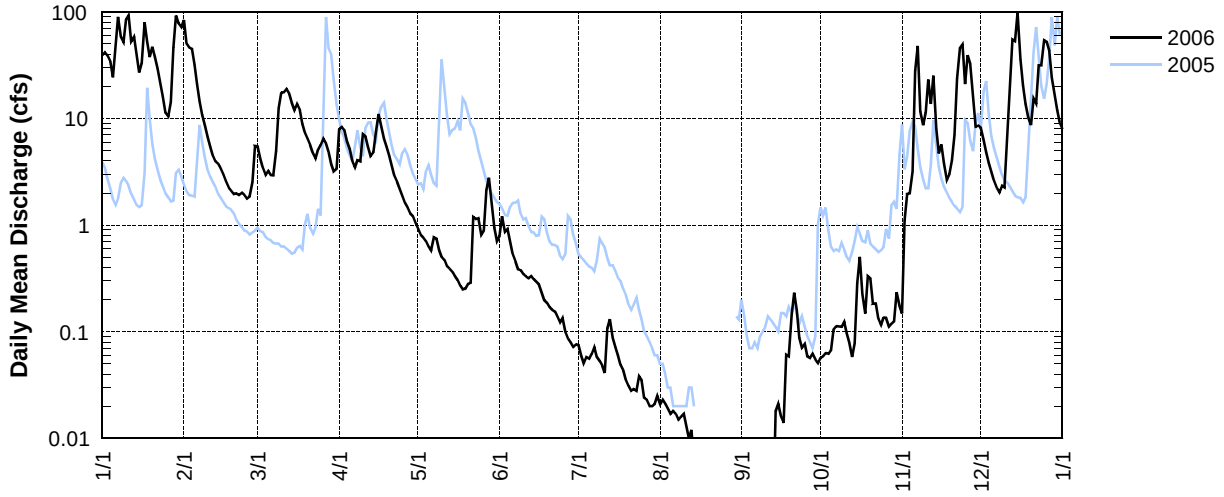
RCRR – 14206305 – ROCK CREEK AT NW ROCK CREEK ROAD NEAR BOWERS JUNCTION, OREGON [RM 15.8]

Latitude: 45 37 04 Longitude: 12 53 13 Source Agency: District 18 Watermaster

Day	2006 Daily Mean Discharge in Cubic Feet per Second											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	39.3	84.0	5.48	7.92	0.93	0.79	0.08	0.02	<0.01	0.06	0.15	8.19
2	41.8	50.3	4.25	8.34	0.81	1.21	0.06	0.02	<0.01	0.06	1.11	6.23
3	39.0	46.2	3.47	7.79	0.77	0.86	0.05	0.02	<0.01	0.06	1.96	4.81
4	34.1	45.0	2.95	6.14	0.71	0.92	0.06	0.02	<0.01	0.06	1.98	3.83
5	24.4	32.1	3.21	5.18	0.63	0.71	0.06	0.02	<0.01	0.07	3.19	3.14
6	45.0	20.9	2.94	3.99	0.58	0.54	0.06	0.02	<0.01	0.11	27.9	2.61
7	90.0	14.4	2.91	3.46	0.77	0.46	0.07	0.02	<0.01	0.11	47.9	2.23
8	57.5	10.8	4.96	4.07	0.75	0.39	0.06	0.02	<0.01	0.11	11.6	2.02
9	51.7	8.44	12.5	3.95	0.59	0.38	0.05	0.02	<0.01	0.11	8.62	2.34
10	85.0	6.68	17.5	7.10	0.51	0.35	0.05	0.02	<0.01	0.12	11.4	2.25
11	93.0	5.42	17.6	6.79	0.47	0.33	0.04	0.01	<0.01	0.10	23.1	7.45
12	52.6	4.49	18.9	5.38	0.41	0.32	0.11	0.01	<0.01	0.08	13.7	19.7
13	58.6	3.96	17.0	4.46	0.39	0.33	0.13	0.01	<0.01	0.06	25.1	55.0
14	40.2	3.73	14.0	4.82	0.37	0.31	0.09	<0.01	0.02	0.08	8.06	53.0
15	27.0	3.38	12.0	7.50	0.33	0.30	0.07	<0.01	0.02	0.29	4.69	98.0
16	32.9	2.98	13.7	11.0	0.30	0.28	0.06	<0.01	0.02	0.50	5.72	36.1
17	80.0	2.58	12.0	8.52	0.27	0.23	0.05	<0.01	0.01	0.23	3.79	20.5
18	52.3	2.24	8.86	6.47	0.25	0.20	0.04	<0.01	0.06	0.15	2.67	13.6
19	37.6	2.10	7.29	5.45	0.25	0.19	0.04	<0.01	0.06	0.33	3.02	10.3
20	47.0	1.96	6.45	4.52	0.28	0.17	0.03	<0.01	0.14	0.32	4.05	8.66
21	37.8	1.98	5.65	3.62	0.29	0.16	0.03	<0.01	0.23	0.18	7.04	15.3
22	29.0	1.91	4.70	2.91	1.19	0.16	0.03	<0.01	0.16	0.18	23.8	13.7
23	21.3	2.01	4.20	2.54	1.14	0.14	0.03	<0.01	0.09	0.13	45.8	31.5
24	16.0	1.91	5.10	2.18	1.16	0.12	0.04	<0.01	0.07	0.12	49.5	31.5
25	11.4	1.77	5.68	1.87	0.81	0.14	0.04	<0.01	0.08	0.14	21.1	54.1
26	10.5	1.85	6.45	1.62	0.89	0.10	0.02	<0.01	0.06	0.14	39.3	52.4
27	14.3	2.52	5.78	1.45	2.12	0.09	0.02	<0.01	0.06	0.11	32.5	43.1
28	46.2	5.49	4.84	1.28	2.77	0.08	0.02	<0.01	0.06	0.12	15.3	24.2
29	92.0	—	3.74	1.21	1.52	0.07	0.02	<0.01	0.06	0.13	8.40	16.4
30	78.0	—	3.20	1.06	0.94	0.08	0.02	<0.01	0.05	0.23	8.55	11.9
31	72.0	—	3.37	—	0.71	—	0.03	<0.01	—	0.18	—	9.05
TOTAL	1,458	371	241	143	23.9	10.4	1.54	0.23	1.24	4.65	461	663
MEAN	47.0	13.3	7.76	4.75	0.77	0.35	0.05	0.02	0.07	0.15	15.4	21.4
MAX	93.0	84.0	18.9	11.0	2.77	1.21	0.13	0.02	0.23	0.50	49.5	98.0
MIN	10.5	1.77	2.91	1.06	0.25	0.07	0.02	0.01	<0.01	0.06	0.15	2.02
AC-FT	2,891	736	477	283	47.4	20.6	3.05	0.46	2.47	9.22	914	1,315

YEAR 2006 TOTAL=3,378 MEAN=10.1 MAX=98.0 MIN=<0.01 AC-FT=6,700

RCRR — 14206305 — Rock Creek at NW Rock Creek Road near Bowers Junction, Oregon [RM 15.8]



RCWU – 14206338 – ROCK CREEK AT WEST UNION ROAD NEAR BETHANY, OREGON [RM 9.0]

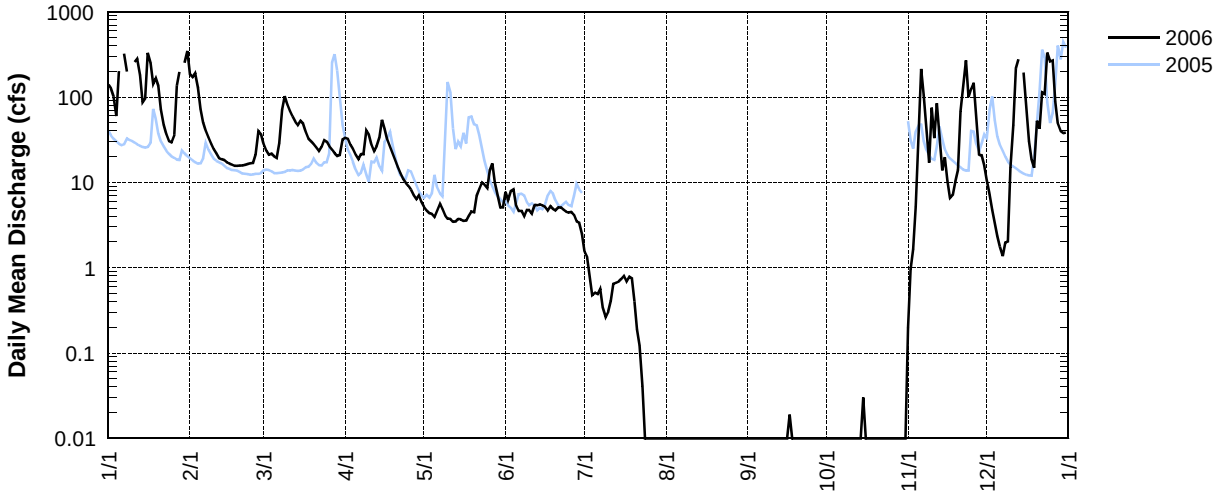
Latitude: 45 33 34 Longitude: 122 52 30 Source Agency: District 18 Watermaster

Day	2006 Daily Mean Discharge in Cubic Feet per Second											
	JAN*	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	181	346	36.8	31.9	5.91	5.08	2.48	0.01	0.01	0.01	0.01	15.9
2	140	185	28.1	33.4	5.17	7.75	1.54	0.01	0.01	0.01	0.20	10.6
3	126	173	23.7	32.6	4.66	6.20	1.33	0.01	0.01	0.01	0.96	7.16
4	103	191	21.2	27.6	4.34	7.98	0.80	0.01	0.01	0.01	1.65	4.80
5	59.9	128	21.7	24.6	4.27	8.30	0.48	0.01	0.01	0.01	5.17	3.34
6	202	72.7	20.2	20.9	3.94	5.35	0.51	0.01	0.01	0.01	46.0	2.34
7		50.6	19.3	18.7	4.67	4.62	0.50	0.01	0.01	0.01	214	1.76
8	323	40.5	28.9	21.5	5.64	4.61	0.57	0.01	0.01	0.01	105	1.37
9	200	34.1	71.5	21.3	4.87	4.01	0.34	0.01	0.01	0.01	40.7	1.99
10		28.4	103	40.5	4.14	4.75	0.27	0.01	0.01	0.01	17.0	2.03
11		24.4	82.2	36.0	3.75	4.73	0.31	0.01	0.01	0.01	75.5	14.9
12	258	21.8	69.2	27.7	3.74	4.33	0.41	0.01	0.01	0.01	33.2	47.3
13	283	19.4	59.7	23.2	3.45	5.44	0.65	0.01	0.01	0.01	84.6	217
14	181	18.7	51.4	26.5	3.47	5.39	0.67	0.01	0.01	0.01	33.3	276
15	87.4	18.3	47.0	33.8	3.72	5.53	0.69	0.01	0.01	0.01	13.8	
16	96.7	17.2	52.6	54.0	3.70	5.38	0.74	0.01	0.01	0.03	19.7	195
17	330	16.7	49.3	42.5	3.53	5.23	0.80	0.01	0.01	0.01	10.5	66.2
18	249	16.2	38.8	32.0	3.57	4.69	0.69	0.01	0.02	0.01	6.56	30.3
19	144	15.6	32.5	26.3	4.07	5.24	0.79	0.01	0.01	0.01	7.19	18.6
20	168	15.6	30.4	21.9	4.56	4.90	0.76	0.01	0.01	0.01	10.3	14.8
21	137	15.7	28.3	18.3	4.47	4.72	0.41	0.01	0.01	0.01	14.0	52.9
22	72.0	15.7	25.9	15.2	7.01	5.07	0.19	0.01	0.01	0.01	68.4	42.5
23	47.3	16.0	23.5	12.9	8.44	5.08	0.12	0.01	0.01	0.01	125	114
24	36.8	16.5	26.3	11.0	9.95	4.77	0.04	0.01	0.01	0.01	271	109
25	30.6	16.8	31.5	9.85	9.48	4.54	0.01	0.01	0.01	0.01	100	333
26	29.5	16.9	30.0	9.12	8.60	4.44	0.01	0.01	0.01	0.01	125	262
27	36.2	21.2	26.7	8.25	13.8	4.49	0.01	0.01	0.01	0.01	147	270
28	137	40.2	24.3	7.05	16.7	4.15	0.01	0.01	0.01	0.01	53.6	89.3
29	197	—	21.8	6.38	9.78	3.52	0.01	0.01	0.01	0.01	21.0	49.0
30		—	20.4	7.05	6.92	3.40	0.01	0.01	0.01	0.01	20.8	39.7
31	252	—	20.9	—	5.09	—	0.01	0.01	—	0.01	—	37.7
TOTAL	4,107	1,592	1,167	702	185	154	16.1	0.31	0.31	0.33	1,671	2,330
MEAN	152	56.9	37.6	23.4	5.98	5.12	0.52	0.01	0.01	0.01	55.7	77.7
MAX	330	346	103	54.0	16.7	8.30	2.48	0.01	0.02	0.03	271	333
MIN	29.5	15.6	19.3	6.38	3.45	3.40	0.01	0.01	0.01	0.01	0.01	1.37
AC-FT	8,147	3,158	2,315	1,392	368	305	32.0	0.61	0.61	0.65	3,315	4,623

YEAR 2006* TOTAL=11,927 MEAN=33.1 MAX=346 MIN=0.01 AC-FT=23,656

*Incomplete record; Monthly and yearly totals were computed when at least 80% of the record was complete for a month or for all high flow months, respectively.

RCWU — 14206338 — Rock Creek at West Union Road near Bethany, Oregon [RM 9.0]



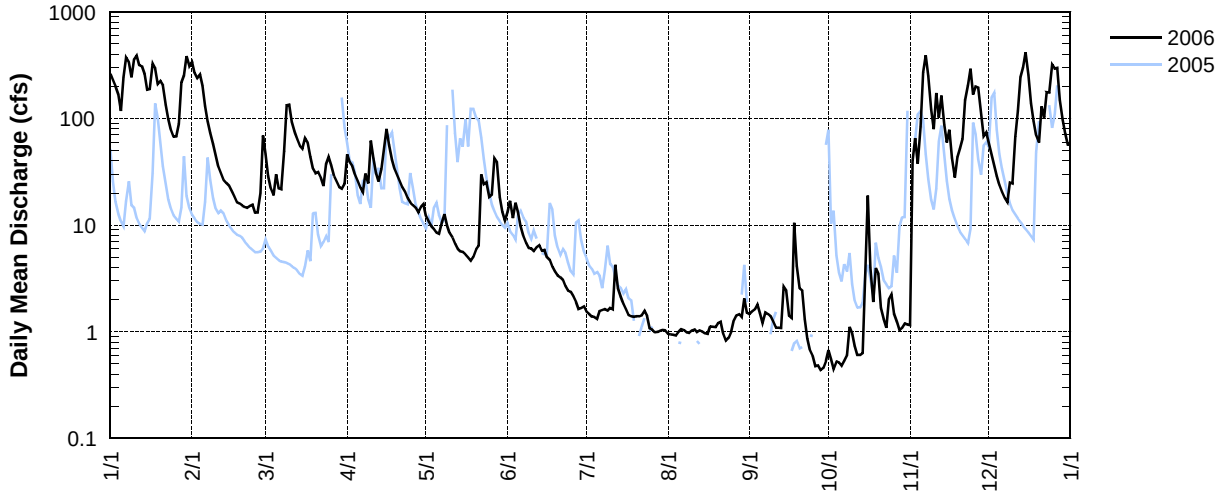
RCQR – 14206347 – ROCK CREEK AT QUATAMA ROAD NEAR ORENCO, OREGON [RM 4.9]

Latitude: 45 31 25 Longitude: 122 54 34 Source Agency: District 18 Watermaster

Day	2006 Daily Mean Discharge in Cubic Feet per Second											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	263	338	46.4	46.0	12.1	13.2	1.54	0.96	1.46	0.67	1.15	58.9
2	228	266	28.8	38.7	10.7	16.9	1.46	0.94	1.56	0.55	40.1	45.3
3	201	238	22.1	35.6	9.74	11.6	1.39	0.93	1.63	0.45	65.3	35.8
4	168	258	19.0	29.7	9.17	16.2	1.38	0.93	1.80	0.53	37.6	28.8
5	118	202	30.0	25.8	8.51	13.1	1.32	1.00	1.48	0.52	84.2	23.7
6	244	131	22.2	22.5	8.28	9.74	1.57	1.06	1.21	0.48	272	20.5
7	370	93.8	21.6	20.2	10.6	7.78	1.60	1.04	1.52	0.54	391	17.9
8	335	73.0	49.5	30.5	12.6	6.80	1.64	0.99	1.46	0.60	250	16.3
9	244	57.4	132	24.6	9.90	6.08	1.58	0.98	1.40	1.11	122	25.1
10	358	45.0	134	61.9	8.43	6.03	1.67	1.03	1.25	0.97	79.4	24.6
11	390	35.4	92.2	42.5	7.63	5.71	1.63	1.05	1.09	0.74	173	67.6
12	316	30.8	76.2	30.9	6.69	6.19	4.25	1.00	1.09	0.61	102	118
13	307	26.6	63.6	25.5	5.98	6.47	2.56	1.03	1.08	0.60	164	244
14	262	24.9	55.6	33.4	5.66	5.76	2.13	1.01	2.63	0.63	87.7	299
15	186	23.6	52.0	52.0	5.59	5.89	1.83	0.97	2.42	4.98	59.6	416
16	189	21.1	65.2	80.1	5.30	5.01	1.62	0.95	1.41	18.9	78.3	256
17	325	18.9	58.6	56.2	4.96	4.72	1.43	1.12	1.34	4.02	42.7	139
18	294	16.4	43.5	40.8	4.64	4.08	1.40	1.11	10.5	1.90	27.9	94.2
19	211	16.0	33.7	33.6	5.06	3.66	1.38	1.10	4.15	3.97	43.2	69.0
20	224	15.3	30.7	29.3	5.96	3.39	1.40	1.21	2.55	3.49	52.1	59.6
21	204	14.8	31.5	25.7	6.42	3.25	1.40	1.24	2.43	1.67	63.9	130
22	134	14.5	27.6	22.6	29.7	3.06	1.42	0.96	1.31	1.30	148	102
23	98.3	15.1	23.3	20.4	24.2	2.68	1.57	0.83	0.86	1.09	204	176
24	77.8	15.6	37.3	17.9	25.2	2.42	1.41	0.88	0.67	2.03	294	174
25	67.1	13.1	43.5	16.3	18.3	2.38	1.08	1.00	0.59	2.25	167	319
26	67.8	13.1	36.3	15.3	19.3	2.14	1.05	1.28	0.48	1.47	199	293
27	88.6	20.0	28.7	14.5	42.0	1.91	0.99	1.42	0.48	1.24	195	297
28	218	69.3	25.6	13.2	38.7	1.64	1.00	1.46	0.44	1.04	108	149
29	253	—	22.7	14.8	18.2	1.67	1.02	1.38	0.46	1.09	68.0	97.1
30	384	—	22.0	15.8	13.3	1.73	1.04	2.06	0.53	1.19	74.2	71.9
31	309	—	24.5	—	11.0	—	1.03	1.52	—	1.17	—	56.7
TOTAL	7,135	2,107	1,400	936	404	181	47.8	34.4	51.3	61.8	3,694	3,925
MEAN	230	75.2	45.2	31.2	13.0	6.04	1.54	1.11	1.71	1.99	123	127
MAX	390	338	134	80.1	42.0	16.9	4.25	2.06	10.5	18.9	391	416
MIN	67.1	13.1	19.0	13.2	4.64	1.64	0.99	0.83	0.44	0.45	1.15	16.3
AC-FT	14,151	4,179	2,777	1,857	801	359	94.8	68.3	102	123	7,328	7,785

YEAR 2006 TOTAL=19,977 MEAN=54.7 MAX=416 MIN=0.44AC-FT=39,625

RCQR — 14206347 — Rock Creek at Quatama Road near Orenco, Oregon [RM 4.9]



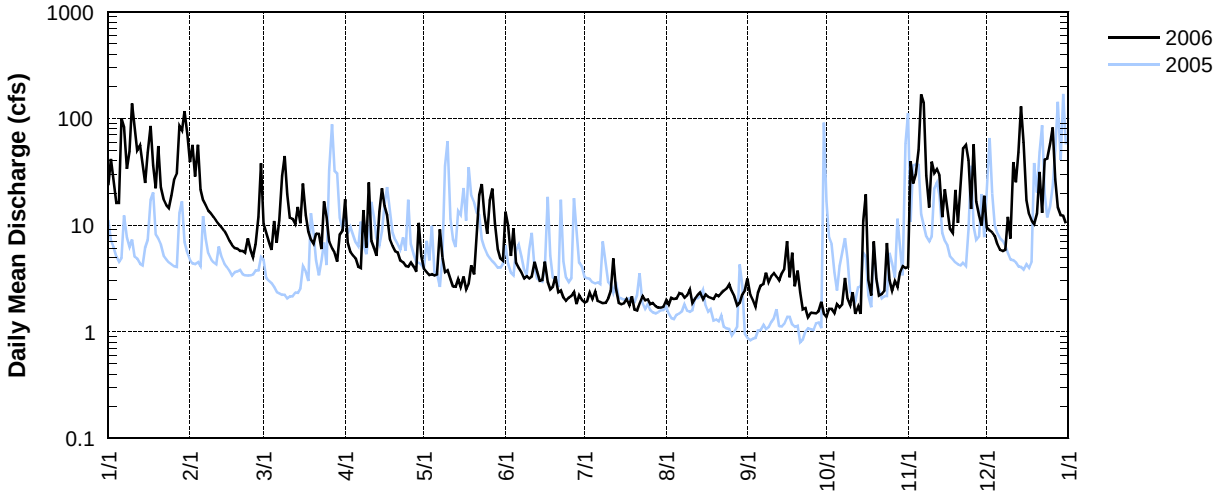
BCCH – 14206360 – BEAVERTON CREEK AT CEDAR HILLS BLVD AT BEAVERTON, OREGON [RM 7.45]

Latitude: 45 49 31 Longitude: 122 81 05 Source Agency: District 18 Watermaster

Day	2006 Daily Mean Discharge in Cubic Feet per Second											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	23.7	39.1	10.3	17.5	3.90	13.4	1.88	1.98	3.16	1.38	4.04	9.45
2	41.7	56.5	8.53	6.84	3.61	10.0	1.93	1.79	2.22	1.64	39.7	8.87
3	27.2	28.5	7.08	5.65	3.41	5.15	2.33	2.09	1.97	1.64	24.5	8.55
4	16.1	56.5	5.88	5.21	3.48	9.35	2.02	2.02	1.71	1.50	29.8	7.90
5	16.1	21.5	10.9	4.86	3.38	4.39	2.39	2.04	2.33	1.81	51.0	6.61
6	100	17.0	6.84	4.07	3.44	3.96	1.95	2.30	2.70	1.69	168	5.86
7	83.0	15.3	11.0	3.95	9.15	3.58	1.90	2.27	2.81	1.80	140	5.73
8	33.7	13.6	28.9	13.8	5.02	3.16	1.85	2.09	3.56	3.19	29.1	5.86
9	48.9	12.8	44.6	6.11	3.61	3.30	1.86	2.18	2.93	2.03	14.6	12.0
10	138	11.9	19.6	25.0	3.78	3.16	2.05	2.51	3.30	1.76	39.3	7.46
11	84.9	10.9	11.7	7.13	3.11	3.28	2.42	1.87	3.54	2.35	30.9	39.0
12	50.4	10.2	11.5	6.13	2.66	4.52	4.86	2.04	3.28	1.47	33.6	25.3
13	56.3	9.59	10.2	5.14	2.63	3.65	2.57	2.20	3.03	1.74	29.4	48.3
14	36.8	8.82	14.8	13.5	3.12	3.01	1.86	2.33	3.52	1.47	11.9	130
15	24.9	8.02	10.4	22.1	2.61	3.04	1.82	2.01	3.89	10.9	21.6	59.8
16	48.0	7.11	24.6	15.1	3.29	4.55	1.85	2.24	7.06	19.4	14.5	17.1
17	85.0	6.50	12.4	12.4	2.51	2.94	2.03	2.13	3.25	3.05	9.22	12.6
18	36.5	6.07	8.65	7.27	2.84	2.50	1.76	2.08	5.50	2.19	8.42	11.0
19	22.1	6.01	7.29	6.35	4.19	2.64	2.14	2.03	2.68	7.03	21.4	10.2
20	54.9	5.72	6.63	5.69	3.44	3.30	1.61	2.23	3.75	3.15	10.5	12.8
21	22.6	5.71	8.30	5.55	7.42	2.35	1.58	2.16	2.35	2.18	25.5	31.4
22	17.3	5.48	8.24	4.66	19.2	2.45	1.85	2.30	1.62	2.27	52.5	13.0
23	15.3	7.47	5.95	4.50	24.2	2.10	2.15	2.42	1.67	2.42	56.6	41.2
24	14.4	5.87	16.7	4.14	12.6	1.96	1.97	2.54	1.37	6.81	40.7	42.1
25	18.9	5.01	11.9	4.08	8.30	2.09	2.01	2.78	1.51	3.04	14.1	57.6
26	27.3	6.60	7.00	4.44	17.0	2.17	1.82	2.40	1.50	2.42	56.9	82.4
27	30.8	12.0	6.04	4.06	21.9	2.36	1.87	2.14	1.48	2.99	16.7	27.1
28	84.5	37.8	5.49	3.64	10.4	1.82	1.74	1.76	1.55	2.62	12.3	14.7
29	76.5	—	4.56	10.5	5.93	2.19	1.68	1.87	1.90	3.65	9.88	12.4
30	117	—	8.20	5.11	4.84	1.97	1.68	2.24	1.47	4.12	18.9	12.2
31	70.4	—	8.95	—	4.61	—	1.72	2.45	—	3.97	—	10.4
TOTAL	1,523	438	363	244	210	114	63.2	67.5	82.6	108	1,036	789
MEAN	49.1	15.6	11.7	8.15	6.76	3.81	2.04	2.18	2.75	3.47	34.5	25.4
MAX	138	56.5	44.6	25.0	24.2	13.4	4.86	2.78	7.06	19.4	168	130
MIN	14.4	5.01	4.56	3.64	2.51	1.82	1.58	1.76	1.37	1.38	4.04	5.73
AC-FT	3,021	868	720	485	416	227	125	134	164	214	2,054	1,565

YEAR 2006 TOTAL=5,038 MEAN=13.8 MAX=168 MIN=1.37 AC-FT=9,992

BCCH — 14206360 — Beaverton Creek at Cedar Hills Blvd at Beaverton, Oregon [RM 7.45]



ECMR – 14206365 – ERICKSON CREEK AT MENLO DRIVE AT BEAVERTON, OREGON [RM 0.76]

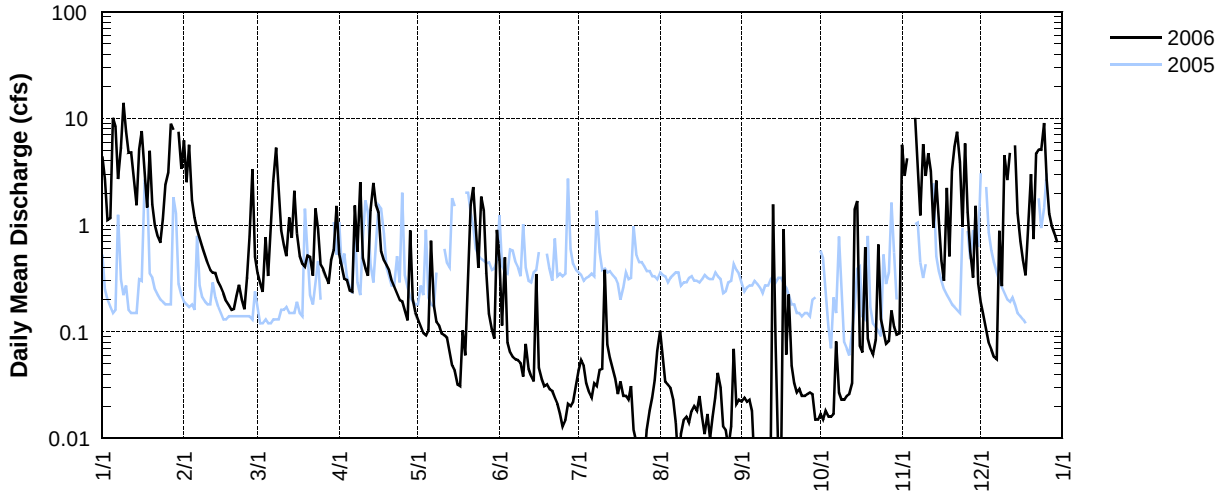
Latitude: 45 29 14 Longitude: 122 58 54 Source Agency: District 18 Watermaster

Day	2006 Daily Mean Discharge in Cubic Feet per Second											
	JAN*	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV*	DEC*
1	1.97	3.37	0.50	1.51	0.15	0.90	0.03	0.07	0.02	0.02	0.10	0.28
2	4.42	6.23	0.36	0.54	0.13	0.47	0.04	0.10	0.02	0.02	5.65	0.19
3	2.70	2.52	0.29	0.41	0.11	0.11	0.05	0.06	0.02	0.02	2.90	0.14
4	1.12	5.65	0.24	0.31	0.10	0.50	0.05	0.03	0.02	0.02	4.25	0.10
5	1.16	1.71	0.77	0.31	0.09	0.08	0.03	0.03	0.02	0.02		0.08
6	10.1	1.17	0.33	0.25	0.10	0.06	0.03	0.03	0.02	0.02		0.07
7	8.41	0.90	0.98	0.24	0.71	0.06	0.02	0.02	<0.01	0.02	10.1	0.06
8	2.70	0.75	2.58	1.52	0.18	0.06	0.03	0.01	<0.01	0.08	3.62	0.06
9	5.33	0.62	5.32	0.56	0.12	0.05	0.03	<0.01	<0.01	0.03	1.23	0.89
10	14.0	0.52	2.09	2.53	0.12	0.05	0.04	0.01	<0.01	0.02	5.73	0.27
11	7.62	0.44	0.89	0.49	0.10	0.04	0.05	0.02	<0.01	0.02	2.90	4.52
12	4.76	0.38	0.66	0.40	0.09	0.08	0.38	0.02	<0.01	0.03	4.74	2.65
13	4.78	0.36	0.51	0.34	0.09	0.05	0.08	0.01	<0.01	0.03	3.21	4.75
14	2.57	0.36	1.18	1.38	0.07	0.04	0.06	0.02	1.56	0.03	0.94	
15	1.53	0.29	0.76	2.49	0.05	0.03	0.05	0.02	0.08	1.40	2.62	5.58
16	5.13	0.26	2.09	1.54	0.04	0.35	0.04	0.02	<0.01	1.68	1.06	1.30
17	7.61	0.23	0.84	1.32	0.03	0.05	0.03	0.03	<0.01	0.07	0.46	0.70
18	3.10	0.19	0.51	0.57	0.03	0.04	0.03	0.02	0.92	0.06	0.30	0.47
19	1.46	0.18	0.43	0.46	0.10	0.03	0.03	0.01	0.06	0.62	2.23	0.34
20	4.96	0.16	0.41	0.42	0.06	0.03	0.03	0.02	0.22	0.09	0.51	1.04
21	1.57	0.16	0.52	0.38	0.41	0.03	0.02	0.01	0.05	0.07	3.28	3.00
22	1.00	0.22	0.51	0.30	1.55	0.03	0.03	0.02	0.03	0.06	5.48	0.74
23	0.78	0.28	0.34	0.26	2.28	0.02	0.01	0.02	0.03	0.08	7.53	4.70
24	0.68	0.20	1.43	0.23	1.03	0.02	<0.01	0.04	0.03	0.65	3.90	5.11
25	1.14	0.16	0.92	0.20	0.40	0.02	<0.01	0.03	0.03	0.13	0.96	5.07
26	2.38	0.32	0.42	0.19	1.85	0.01	<0.01	0.01	0.03	0.10	5.82	9.08
27	3.11	0.79	0.38	0.16	1.37	0.02	<0.01	0.01	0.03	0.08	1.33	2.67
28	8.91	3.32	0.32	0.13	0.35	0.02	0.01	<0.01	0.03	0.08	0.57	1.27
29	7.83	—	0.28	0.89	0.15	0.02	0.02	0.01	0.03	0.16	0.32	0.98
30		—	0.47	0.20	0.11	0.02	0.02	0.07	0.02	0.11	1.51	0.83
31	7.52	—	0.59	—	0.09	—	0.04	0.02	—	0.09	—	0.69
TOTAL	130	31.7	27.9	20.5	12.1	3.28	1.27	0.79	3.25	5.90	83.2	57.6
MEAN	4.35	1.13	0.90	0.68	0.39	0.11	0.05	0.03	0.15	0.19	2.97	1.92
MAX	14.0	6.23	5.32	2.53	2.28	0.90	0.38	0.10	1.56	1.68	10.1	9.08
MIN	0.68	0.16	0.24	0.13	0.03	0.01	0.01	0.01	0.02	0.02	0.10	0.06
AC-FT	259	62.9	55.4	40.7	23.9	6.51	2.52	1.57	6.44	11.7	165	114

YEAR 2006* TOTAL=378 MEAN=1.09 MAX=14.0 MIN=<0.01 AC-FT=750

*Incomplete record; Monthly and yearly totals were computed when at least 80% of the record was complete for a month or for all high flow months, respectively.

ECMR — 14206365 — Erickson Creek at Menlo Drive at Beaverton, Oregon [RM 0.76]



JCDV – 14206372 – JOHNSON CREEK AT DAVIS ROAD NEAR BEAVERTON, OREGON [RM 1.3]

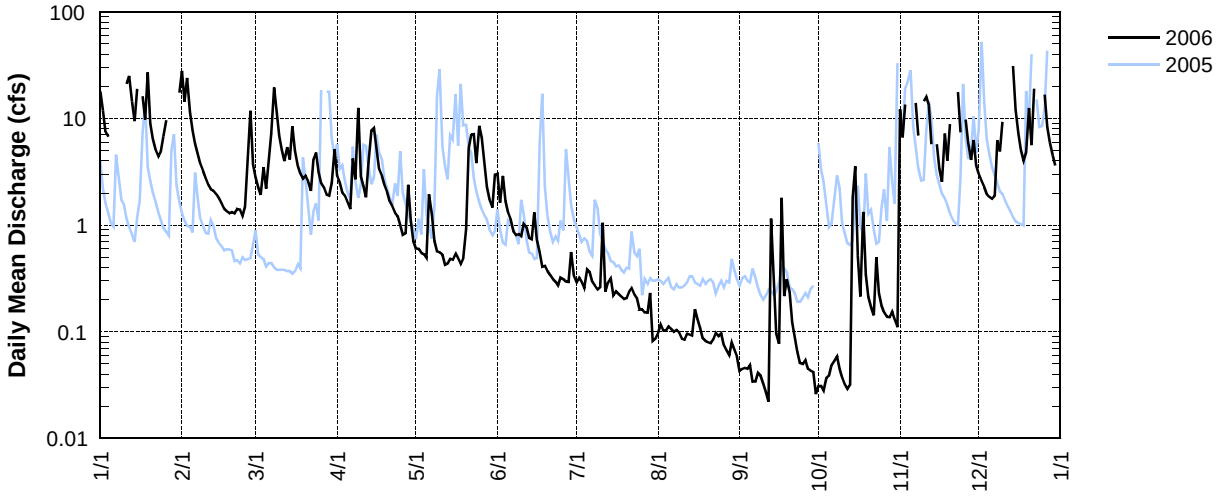
Latitude:45 28 30 Longitude:122 49 52 Source Agency: District 18 Watermaster

Day	2006 Daily Mean Discharge in Cubic Feet per Second											
	JAN*	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV*	DEC*
1	13.0	17.5	3.74	5.15	0.71	2.97	0.33	0.09	0.06	0.03	0.11	3.62
2	18.0	28.0	2.80	2.87	0.61	3.03	0.29	0.10	0.04	0.03	12.2	3.00
3	11.9	14.4	2.27	2.50	0.59	1.62	0.32	0.12	0.05	0.03	6.65	2.57
4	7.44	24.0	1.93	2.02	0.55	2.89	0.29	0.10	0.05	0.03	13.5	2.27
5	6.73	11.5	3.50	1.89	0.53	1.68	0.26	0.10	0.05	0.04		1.96
6		7.77	2.20	1.62	0.49	1.31	0.38	0.11	0.05	0.04		1.84
7		5.78	3.87	1.41	1.94	1.13	0.36	0.11	0.03	0.05		1.76
8	15.1	4.63	7.19	4.21	1.26	0.87	0.30	0.10	0.03	0.05	14.0	1.89
9		3.77	19.5	2.69	0.71	0.81	0.27	0.10	0.04	0.06	6.93	6.22
10		3.21	12.0	12.5	0.57	0.83	0.25	0.10	0.04	0.05		4.90
11		2.74	6.88	2.85	0.56	0.79	0.26	0.09	0.03	0.04	14.5	9.30
12	21.0	2.39	5.06	2.33	0.52	1.03	1.05	0.08	0.03	0.03	16.0	
13	25.0	2.17	3.98	1.82	0.42	0.95	0.24	0.10	0.02	0.03	13.3	
14	14.4	2.11	5.36	3.89	0.44	0.76	0.29	0.09	1.15	0.03	5.75	
15	9.42	1.96	4.12	7.68	0.48	0.74	0.32	0.09	0.41	1.81		31.0
16	19.0	1.78	8.44	8.10	0.48	1.32	0.22	0.16	0.10	3.57	5.74	12.2
17		1.61	4.99	5.28	0.54	0.73	0.24	0.13	0.08	0.52	3.34	7.14
18	16.2	1.43	3.58	3.36	0.49	0.55	0.23	0.11	1.80	0.21	2.54	5.01
19	9.79	1.35	3.01	2.87	0.43	0.41	0.21	0.09	0.22	1.33	7.19	4.00
20	27.0	1.29	2.73	2.35	0.49	0.42	0.20	0.08	0.31	0.35	4.02	4.81
21	8.97	1.33	2.90	2.03	0.92	0.37	0.21	0.08	0.23	0.21	8.89	12.5
22	6.42	1.29	2.57	1.67	5.26	0.34	0.24	0.08	0.12	0.17		5.62
23	5.05	1.41	2.09	1.50	7.07	0.31	0.26	0.09	0.09	0.14		19.0
24	4.40	1.39	4.18	1.30	7.09	0.30	0.22	0.10	0.07	0.50	17.7	
25	4.94	1.21	4.80	1.21	3.81	0.27	0.20	0.09	0.05	0.23	7.43	
26	6.80	1.48	3.13	1.00	8.52	0.32	0.16	0.10	0.05	0.18		
27	9.63	3.50	2.45	0.81	6.53	0.31	0.16	0.08	0.05	0.15	9.74	16.7
28		11.8	2.23	0.84	3.77	0.30	0.15	0.07	0.05	0.14	5.89	8.37
29		—	1.93	2.39	2.28	0.29	0.15	0.06	0.04	0.14	4.10	5.98
30		—	1.89	1.12	1.69	0.56	0.23	0.08	0.04	0.16	6.28	4.51
31		—	2.47	—	1.46	—	0.08	0.07	—	0.13	—	3.61
TOTAL		163	138	91.3	61.2	28.2	8.37	2.93	5.37	10.5		180
MEAN	12.4	5.81	4.44	3.04	1.97	0.94	0.27	0.09	0.18	0.34	8.45	7.19
MAX	27.0	28.0	19.5	12.5	8.52	3.03	1.05	0.16	1.80	3.57	17.7	31.0
MIN	4.40	1.21	1.89	0.81	0.42	0.27	0.08	0.06	0.02	0.03	0.11	1.76
AC-FT		323	273	181	121	55.9	16.6	5.80	10.6	20.7		357

YEAR 2006* MEAN=3.33 MAX=31.0 MIN=0.02

*Incomplete record; Monthly and yearly totals were computed when at least 80% of the record was complete for a month or for all high flow months, respectively.

JCDV — 14206372 — Johnson Creek at Davis Road near Beaverton, Oregon [RM 1.3]



WC143 – 14206410 – WILLOW CREEK AT NW 143RD AVE NEAR BEAVERTON, OREGON [RM 3.5]

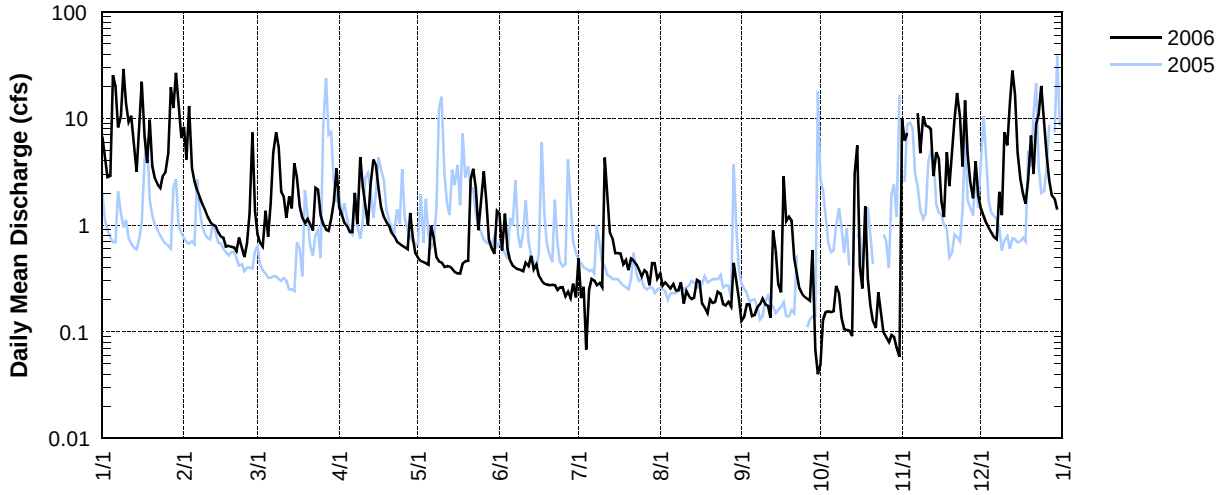
Latitude: 45 32 12 Longitude: 122 49 24 Source Agency: District 18 Watermaster

Day	2006 Daily Mean Discharge in Cubic Feet per Second											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV*	DEC
1	3.63	6.54	1.36	3.41	0.55	1.36	0.21	0.32	0.21	0.04	0.06	1.90
2	6.76	8.36	0.81	1.47	0.50	1.28	0.49	0.35	0.13	0.05	9.89	1.44
3	4.35	4.12	0.68	1.26	0.46	0.58	0.21	0.27	0.14	0.13	6.18	1.21
4	2.81	13.1	0.63	1.06	0.45	1.28	0.26	0.29	0.18	0.15	7.31	1.04
5	2.89	3.44	1.36	0.99	0.44	0.60	0.07	0.27	0.18	0.16		0.93
6	25.3	2.56	0.78	0.86	0.42	0.46	0.25	0.25	0.14	0.15		0.85
7	20.1	2.11	1.60	0.86	0.99	0.42	0.31	0.28	0.14	0.16		0.77
8	8.22	1.84	4.77	2.01	0.75	0.40	0.30	0.24	0.17	0.27	11.2	0.73
9	10.5	1.58	7.40	1.02	0.50	0.39	0.27	0.24	0.18	0.23	4.74	2.05
10	29.1	1.37	5.38	4.33	0.46	0.38	0.29	0.29	0.21	0.14	10.5	1.24
11	13.8	1.19	2.03	2.29	0.45	0.37	0.26	0.18	0.18	0.11	8.56	7.39
12	9.28	1.07	1.82	1.56	0.40	0.45	4.30	0.24	0.18	0.10	8.38	5.59
13	10.6	1.01	1.17	1.01	0.41	0.41	1.79	0.22	0.14	0.10	7.95	13.9
14	5.45	0.99	1.86	2.38	0.41	0.52	0.84	0.20	0.89	0.09	2.87	28.1
15	3.14	0.85	1.43	4.12	0.39	0.39	0.73	0.21	0.59	3.06	4.82	16.9
16	9.33	0.78	3.78	3.62	0.36	0.43	0.55	0.31	0.28	5.59	4.17	4.82
17	22.1	0.76	2.79	2.21	0.35	0.33	0.55	0.30	0.23	0.42	1.68	2.69
18	6.72	0.63	1.48	1.46	0.35	0.30	0.54	0.18	2.85	0.25	1.19	1.97
19	3.82	0.64	1.16	1.18	0.44	0.28	0.43	0.17	1.09	1.49	4.83	1.59
20	9.70	0.63	1.04	1.06	0.46	0.28	0.47	0.15	1.20	0.32	2.33	2.64
21	3.57	0.62	1.14	0.99	0.46	0.27	0.38	0.20	1.09	0.18	4.52	6.94
22	2.74	0.57	1.02	0.85	2.66	0.27	0.49	0.19	0.49	0.13	9.85	3.02
23	2.38	0.76	0.89	0.79	3.38	0.27	0.46	0.19	0.35	0.11	17.3	8.89
24	2.23	0.61	2.23	0.70	2.25	0.25	0.43	0.24	0.25	0.24	10.5	10.9
25	2.89	0.50	2.14	0.67	0.89	0.26	0.38	0.23	0.23	0.15	3.54	20.2
26	3.13	0.68	1.24	0.64	1.67	0.26	0.33	0.18	0.21	0.10	14.7	9.84
27	4.74	1.28	1.02	0.62	3.20	0.22	0.38	0.18	0.20	0.09	4.63	4.51
28	19.6	7.34	0.91	0.60	1.67	0.24	0.36	0.19	0.20	0.08	2.55	2.63
29	12.5	—	0.88	1.30	0.73	0.21	0.27	0.17	0.58	0.09	1.78	1.90
30	26.8	—	1.14	0.78	0.60	0.28	0.44	0.44	0.07	0.09	3.97	1.76
31	13.7	—	1.63	—	0.54	—	0.44	0.30	—	0.07	—	1.39
TOTAL	302	65.9	57.6	46.1	27.6	13.4	17.5	7.46	13.0	14.3	170	170
MEAN	9.74	2.35	1.86	1.54	0.89	0.45	0.56	0.24	0.43	0.46	6.30	5.48
MAX	29.1	13.1	7.40	4.33	3.38	1.36	4.30	0.44	2.85	5.59	17.3	28.1
MIN	2.23	0.50	0.63	0.60	0.35	0.21	0.07	0.15	0.07	0.04	0.06	0.73
AC-FT	599	131	114	91.4	54.7	26.6	34.6	14.8	25.7	28.4	337	337

YEAR 2006* TOTAL=904 MEAN=2.50 MAX=29.1 MIN=0.04 AC-FT=1,794

*Incomplete record; Monthly and yearly totals were computed when at least 80% of the record was complete for a month or for all high flow months, respectively.

WC143 — 14206410 — Willow Creek at 143rd Avenue near Beaverton, Oregon [RM 3.5]



WCHP – 14206413 – WILLOW CREEK AT HERITAGE PARKWAY NEAR BEAVERTON, OREGON [RM 0.75]

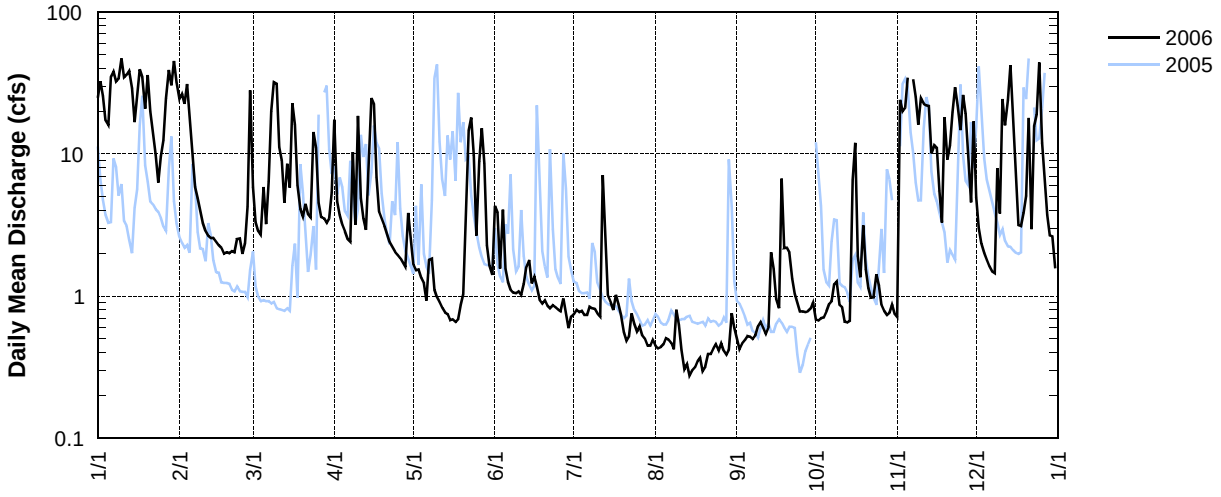
Latitude: 45 31 12 Longitude: 122 51 35 Source Agency: District 18 Watermaster

Day	2006 Daily Mean Discharge in Cubic Feet per Second											
	JAN	FEB	MAR*	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV*	DEC
1	24.9	24.5	5.86	17.4	1.67	4.32	0.75	0.45	0.50	0.69	0.71	4.97
2	32.5	26.5	3.31	4.64	1.52	3.88	0.80	0.43	0.43	0.67	24.0	3.01
3	25.7	22.5	2.87	3.71	1.55	1.56	0.77	0.44	0.47	0.70	20.0	2.35
4	17.2	31.0	2.69	3.18	1.34	4.05	0.79	0.46	0.49	0.71	21.2	2.01
5	15.9	16.9	5.85	2.86	1.23	1.56	0.74	0.51	0.52	0.79	34.5	1.80
6	35.0	9.51	3.21	2.52	0.93	1.26	0.74	0.50	0.52	0.88		1.62
7	38.0	5.85	6.38	2.41	1.81	1.11	0.84	0.47	0.50	0.92	33.5	1.50
8	32.4	4.89	20.0	10.3	1.84	1.06	0.82	0.42	0.53	1.21	25.3	1.45
9	34.0	3.98	32.0	3.17	1.11	1.05	0.81	0.81	0.62	1.27	16.1	7.94
10	47.1	3.28	31.3	18.5	0.98	1.08	0.76	0.63	0.66	0.87	24.6	3.80
11	34.7	2.85	11.2	4.92	0.91	1.02	0.72	0.42	0.60	0.83	22.5	24.4
12	36.1	2.65	8.99	3.52	0.83	1.22	7.10	0.31	0.54	0.66	22.0	15.9
13	38.5	2.56	4.55	2.92	0.77	1.61	2.67	0.33	0.61	0.65	21.7	23.8
14	29.0	2.57	8.57	8.75	0.75	1.80	1.01	0.28	2.04	0.67	10.1	42.1
15	16.8	2.42	5.81	24.7	0.68	1.23	0.90	0.30	1.56	6.61	11.5	18.6
16	26.0	2.28	22.8	22.4	0.69	1.37	0.80	0.32	0.96	12.0	11.0	7.29
17	39.4	2.19	16.1	6.87	0.66	1.17	1.02	0.35	0.82	1.91	5.53	3.16
18	34.8	1.99	6.04	3.91	0.69	0.94	0.88	0.37	6.71	1.36	3.30	3.12
19	20.8	2.03	4.12	3.50	0.87	0.89	0.74	0.30	2.18	3.15	18.1	3.84
20	36.0	2.00	3.64	3.10	1.03	0.94	0.56	0.32	2.19	1.55	9.16	5.07
21	20.0	2.08	4.44	2.72	2.80	0.86	0.49	0.39	2.02	1.14	11.5	17.8
22	14.3	2.03	3.78	2.39	14.6	0.82	0.52	0.39	1.33	0.98	19.7	2.96
23	9.81	2.52	3.58	2.22	18.0	0.86	0.76	0.43	1.04	0.98	29.5	15.7
24	6.29	2.54	14.3	2.05	9.78	0.84	0.64	0.46	0.90	1.42	22.0	19.0
25	9.61	1.98	11.1	1.95	2.67	0.81	0.57	0.42	0.78	1.19	14.7	44.0
26	12.5	2.35	4.55	1.85	8.87	0.79	0.61	0.46	0.78	0.87	26.0	12.0
27	24.6	4.26	3.59	1.72	15.2	0.97	0.53	0.41	0.77	0.79	19.2	6.84
28	39.0	28.0	3.53	1.60	8.55	0.76	0.51	0.39	0.78	0.74	9.16	3.74
29	30.5	—	3.27	3.84	2.28	0.60	0.45	0.42	0.82	0.77	4.56	2.68
30	45.0	—	3.53	2.58	1.64	0.72	0.45	0.76	0.91	0.87	16.9	2.64
31	32.0	—	5.35	—	1.41	—	0.49	0.60	—	0.75	—	1.57
TOTAL	858	218	266	176	108	41.1	30.2	13.5	33.6	48.6	508	307
MEAN	27.7	7.79	8.59	5.87	3.47	1.37	0.98	0.44	1.12	1.57	17.5	9.89
MAX	47.1	31.0	32.0	24.7	18.0	4.32	7.10	0.81	6.71	12.0	34.5	44.0
MIN	6.29	1.98	2.69	1.60	0.66	0.60	0.45	0.28	0.43	0.65	0.71	1.45
AC-FT	1,703	433	528	349	214	81.6	60.0	26.8	66.6	96.4	1,008	608

YEAR 2006* TOTAL=2,608 MEAN=7.17 MAX=47.1 MIN=0.28 AC-FT=5,174

*Incomplete record; Monthly and yearly totals were computed when at least 80% of the record was complete for a month or for all high flow months, respectively.

WCHP — 14206413 — Willow Creek at Heritage Parkway near Beaverton, Oregon [RM 0.75]



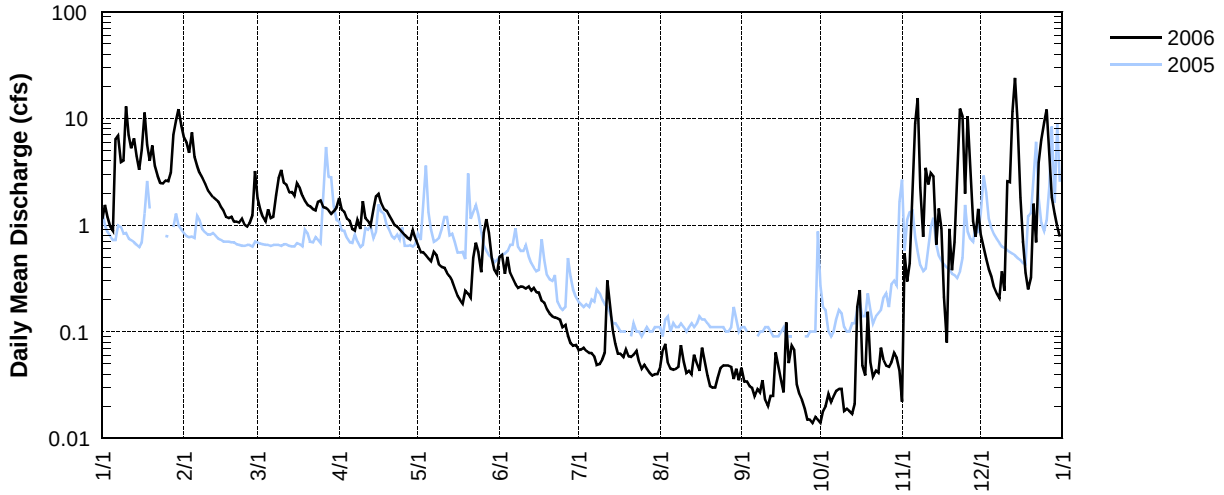
BCSR – 14206419 – BRONSON CREEK AT SALTZMAN ROAD NEAR ORENCO, OREGON [RM 5.1]

Latitude: 45 33 19 Longitude: 122 48 25 Source Agency: District 18 Watermaster

Day	2006 Daily Mean Discharge in Cubic Feet per Second											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1.14	6.57	1.79	1.78	0.65	0.50	0.07	0.05	0.05	0.01	0.02	0.81
2	1.54	5.96	1.41	1.39	0.56	0.52	0.07	0.07	0.03	0.02	0.54	0.62
3	1.19	4.77	1.20	1.33	0.56	0.35	0.07	0.08	0.03	0.02	0.30	0.49
4	0.96	7.41	1.08	1.15	0.52	0.51	0.07	0.05	0.03	0.03	0.44	0.39
5	0.88	4.35	1.40	1.09	0.49	0.36	0.06	0.05	0.03	0.02	1.65	0.33
6	6.43	3.59	1.16	0.92	0.46	0.32	0.06	0.04	0.03	0.03	9.00	0.26
7	6.94	3.06	1.20	0.89	0.56	0.28	0.06	0.05	0.03	0.03	15.5	0.23
8	3.89	2.77	1.92	1.12	0.53	0.26	0.05	0.05	0.03	0.03	2.24	0.21
9	4.03	2.44	2.76	0.92	0.43	0.27	0.05	0.08	0.04	0.03	0.77	0.37
10	13.0	2.14	3.29	1.68	0.41	0.26	0.06	0.05	0.02	0.02	3.44	0.24
11	6.99	1.98	2.49	1.16	0.40	0.26	0.06	0.04	0.02	0.02	2.41	2.57
12	5.25	1.83	2.38	1.09	0.36	0.27	0.30	0.04	0.03	0.02	3.09	2.53
13	6.49	1.75	2.02	0.98	0.33	0.24	0.18	0.04	0.03	0.02	2.87	11.5
14	4.46	1.66	2.04	1.40	0.30	0.26	0.10	0.06	0.06	0.02	0.66	24.0
15	3.31	1.48	1.88	1.85	0.25	0.24	0.08	0.05	0.05	0.17	1.43	9.30
16	5.08	1.36	2.46	1.95	0.22	0.23	0.06	0.04	0.04	0.25	0.93	1.81
17	11.4	1.20	2.22	1.61	0.20	0.20	0.06	0.07	0.03	0.05	0.21	0.70
18	5.67	1.16	1.87	1.41	0.18	0.19	0.06	0.05	0.12	0.04	0.08	0.36
19	4.00	1.20	1.68	1.36	0.24	0.16	0.07	0.04	0.05	0.15	0.92	0.25
20	5.58	1.07	1.55	1.23	0.23	0.15	0.06	0.03	0.07	0.05	0.38	0.32
21	3.60	1.08	1.50	1.12	0.21	0.14	0.06	0.03	0.07	0.04	0.70	1.59
22	2.88	1.06	1.41	1.01	0.49	0.14	0.06	0.03	0.03	0.04	3.50	0.69
23	2.47	1.15	1.37	0.97	0.68	0.13	0.07	0.04	0.03	0.04	12.4	3.88
24	2.46	1.01	1.65	0.91	0.55	0.13	0.05	0.05	0.02	0.07	10.5	6.30
25	2.62	0.97	1.70	0.86	0.36	0.11	0.05	0.05	0.02	0.05	1.97	9.15
26	2.58	1.04	1.47	0.81	0.85	0.12	0.05	0.05	0.02	0.05	10.5	12.1
27	3.11	1.24	1.44	0.76	1.14	0.09	0.05	0.05	0.02	0.05	3.13	4.19
28	7.08	3.21	1.37	0.73	0.85	0.08	0.04	0.05	0.01	0.05	1.09	1.82
29	9.51	—	1.27	0.90	0.49	0.07	0.04	0.04	0.02	0.06	0.78	1.27
30	12.2	—	1.35	0.75	0.38	0.08	0.04	0.05	0.02	0.06	1.42	0.97
31	8.51	—	1.47	—	0.35	—	0.04	0.04	—	0.04	—	0.78
TOTAL	155	68.5	53.8	35.1	14.2	6.89	2.18	1.47	1.05	1.57	92.9	100
MEAN	5.01	2.45	1.74	1.17	0.46	0.23	0.07	0.05	0.03	0.05	3.10	3.23
MAX	13.0	7.41	3.29	1.95	1.14	0.52	0.30	0.08	0.12	0.25	15.5	24.0
MIN	0.88	0.97	1.08	0.73	0.18	0.07	0.04	0.03	0.01	0.01	0.02	0.21
AC-FT	308	136	107	69.7	28.2	13.7	4.33	2.92	2.08	3.11	184	198

YEAR 2006 TOTAL=533 MEAN=1.46 MAX=24.0 MIN=0.01 AC-FT=1,057

BCSR — 14206419 — Bronson Creek at Saltzman Road near Orenco, Oregon [RM 5.1]



BCBR – 14206423 – BRONSON CREEK AT BRONSON ROAD NEAR ORENCO, OREGON [RM 2.1]

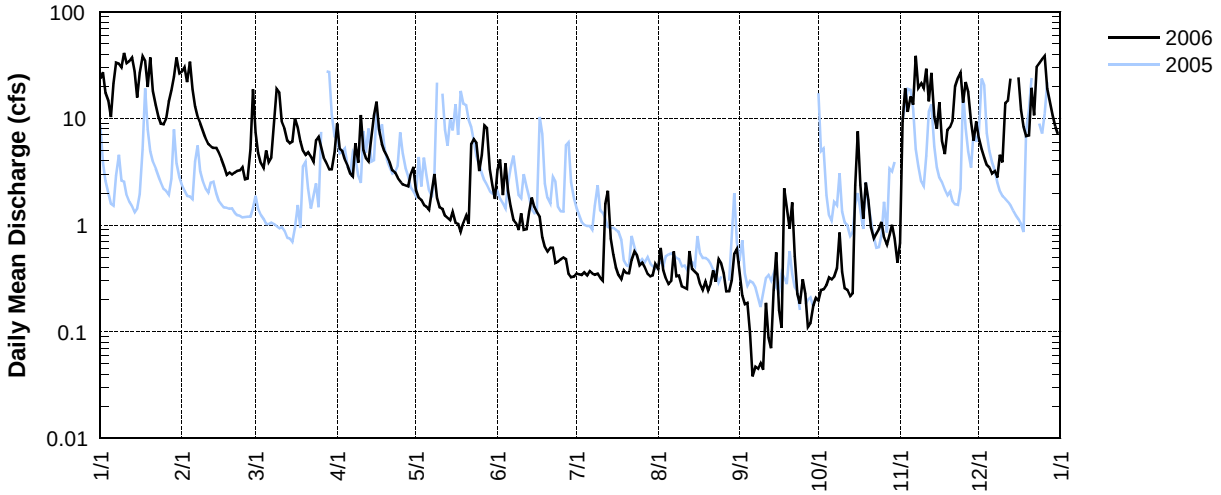
Latitude: 45 32 18 Longitude: 122 51 15 Source Agency: District 18 Watermaster

Day	2006 Daily Mean Discharge in Cubic Feet per Second											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC*
1	23.7	27.6	7.43	9.00	2.13	3.27	0.35	0.38	0.38	0.20	0.68	6.57
2	27.1	30.3	4.74	5.19	1.80	4.11	0.35	0.61	0.22	0.25	9.41	5.15
3	17.5	21.9	3.81	4.92	1.71	1.91	0.34	0.38	0.18	0.25	19.2	4.29
4	14.7	34.1	3.42	4.10	1.55	3.78	0.36	0.32	0.19	0.28	11.5	3.67
5	10.3	18.8	4.99	3.56	1.49	2.09	0.34	0.28	0.10	0.32	16.1	3.47
6	21.3	13.0	3.89	3.04	1.39	1.50	0.37	0.30	0.04	0.31	13.4	3.04
7	33.1	10.3	4.28	2.85	2.10	1.12	0.35	0.57	0.05	0.33	38.6	3.22
8	32.6	9.02	8.90	5.85	3.02	1.04	0.34	0.33	0.05	0.40	19.4	2.79
9	30.2	7.53	19.0	3.85	1.80	0.90	0.35	0.34	0.05	0.85	21.4	4.58
10	41.2	6.44	17.6	10.8	1.47	1.29	0.32	0.27	0.04	0.36	19.1	3.88
11	33.0	5.73	9.27	5.03	1.42	0.90	0.30	0.26	0.19	0.26	29.4	14.0
12	34.4	5.47	8.07	4.25	1.22	0.91	1.58	0.25	0.09	0.25	14.5	14.7
13	37.4	5.27	6.18	3.95	1.16	1.34	2.09	0.57	0.07	0.22	26.8	23.7
14	27.7	5.30	5.85	6.53	1.11	1.81	0.75	0.39	0.25	0.23	10.4	
15	15.7	4.77	6.08	10.7	1.33	1.47	0.53	0.36	0.56	2.35	7.99	
16	26.8	4.19	10.0	14.4	1.05	1.32	0.40	0.35	0.16	7.59	14.2	24.3
17	38.0	3.60	8.16	7.89	1.03	1.19	0.34	0.28	0.11	2.38	6.17	12.1
18	34.4	2.95	6.09	5.74	0.87	0.77	0.31	0.25	2.22	1.15	4.63	8.31
19	19.8	3.10	4.96	4.88	1.06	0.62	0.38	0.29	1.47	2.50	7.84	6.84
20	37.4	2.97	4.55	4.39	1.24	0.56	0.36	0.24	0.92	1.73	8.34	6.93
21	18.1	3.10	4.78	3.87	1.03	0.61	0.35	0.28	1.63	0.95	9.57	19.3
22	13.3	3.21	4.35	3.26	5.78	0.61	0.47	0.37	0.51	0.75	20.1	10.7
23	10.5	3.25	3.90	3.10	6.39	0.44	0.57	0.30	0.23	0.84	24.1	30.6
24	8.91	3.49	6.23	2.77	5.95	0.46	0.52	0.48	0.18	0.92	27.0	33.0
25	8.80	2.69	6.71	2.57	3.21	0.48	0.42	0.44	0.31	1.07	14.1	36.0
26	10.1	2.72	5.34	2.41	4.55	0.50	0.44	0.35	0.23	0.76	21.9	38.6
27	14.4	5.09	4.18	2.35	8.57	0.48	0.40	0.24	0.11	0.65	17.7	19.0
28	18.3	18.7	3.77	2.30	8.11	0.35	0.35	0.24	0.12	0.80	9.26	14.5
29	24.6	—	3.32	3.04	3.35	0.32	0.33	0.30	0.18	1.01	6.21	10.6
30	37.3	—	3.32	3.51	2.37	0.33	0.34	0.54	0.21	0.75	9.38	8.46
31	26.5	—	4.83	—	1.76	—	0.43	0.60	—	0.45	—	7.15
TOTAL	747	265	198	150	81.0	36.5	15.1	11.1	11.0	31.2	458	379
MEAN	24.1	9.45	6.39	5.00	2.61	1.22	0.49	0.36	0.37	1.00	15.3	13.1
MAX	41.2	34.1	19.0	14.4	8.57	4.11	2.09	0.61	2.22	7.59	38.6	38.6
MIN	8.80	2.69	3.32	2.30	0.87	0.32	0.30	0.24	0.04	0.20	0.68	2.79
AC-FT	1,482	525	393	298	161	72.4	30.0	22.1	21.9	61.8	909	753

YEAR 2006* TOTAL=2,384 MEAN=6.57 MAX=41.2 MIN=0.04 AC-FT=4,728

*Incomplete record; Monthly and yearly totals were computed when at least 80% of the record was complete for a month or for all high flow months, respectively.

BCBR — 14206423 — Bronson Creek at Bronson Road near Orenco, Oregon [RM 2.1]



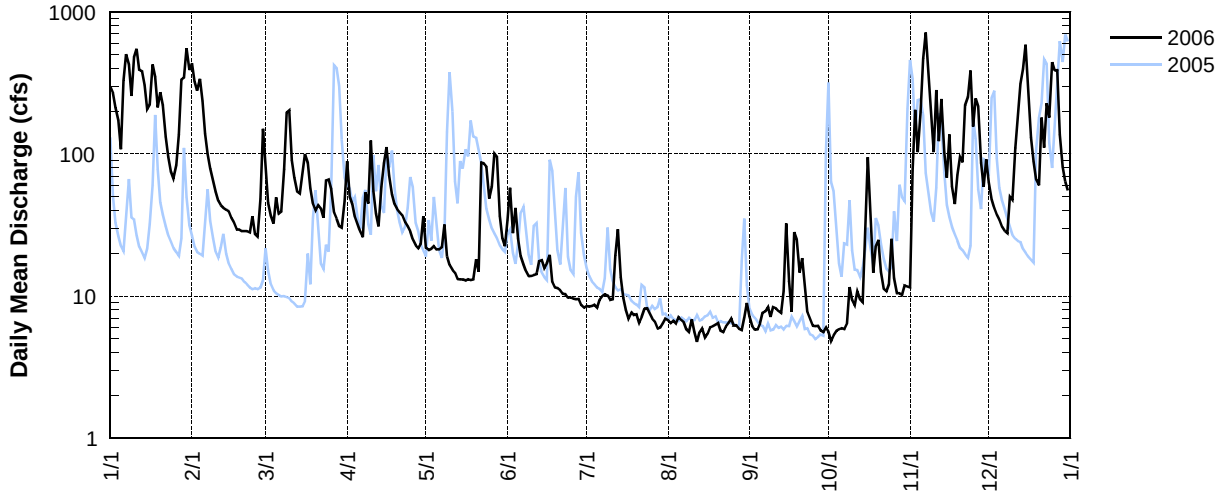
BVTS – 14206435 – BEAVERTON CREEK AT SW 216TH AVE NEAR ORENCO, OREGON [RM 1.2]

Latitude: 45 31 15 Longitude: 122 53 59 Source Agency: District 18 Watermaster

Day	2006 Daily Mean Discharge in Cubic Feet per Second											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	296	436	88.7	89.0	21.9	34.1	8.54	6.77	7.23	5.61	11.5	63.4
2	269	324	45.1	50.2	21.1	58.1	8.45	6.47	6.14	4.85	75.8	47.8
3	212	278	37.1	44.4	21.5	27.8	8.54	6.71	5.81	5.31	204	41.6
4	172	337	32.4	36.0	22.4	41.8	8.71	6.43	5.85	5.73	103	37.4
5	108	236	49.5	31.7	21.3	25.4	8.31	7.14	6.45	5.88	198	34.4
6	327	139	38.1	28.4	21.3	19.2	9.46	6.77	7.64	5.96	468	30.8
7	503	99.8	39.2	26.0	22.1	16.7	10.0	6.55	7.86	5.87	715	28.6
8	426	79.2	78.1	53.6	31.9	14.9	10.3	5.84	8.37	6.48	380	27.7
9	257	64.6	196	44.8	19.0	13.8	10.1	5.61	7.15	11.6	180	50.1
10	481	54.2	203	124	16.5	13.9	9.42	6.87	8.40	9.35	103	47.5
11	549	46.9	90.6	54.7	15.3	14.1	9.52	5.61	8.21	8.63	281	110
12	392	43.6	68.0	38.0	14.6	14.3	19.3	4.76	7.84	10.8	123	180
13	382	41.8	54.3	31.0	13.2	17.7	29.5	5.56	7.61	9.49	243	313
14	306	40.6	52.4	58.8	13.1	18.0	13.6	5.94	10.9	9.09	103	397
15	207	39.2	72.5	86.4	13.1	15.8	9.69	5.14	32.4	22.9	68.0	588
16	223	35.4	100	112	12.9	17.1	7.98	5.46	12.8	94.9	137	282
17	427	33.0	86.7	70.8	13.2	19.5	6.96	6.06	7.76	35.1	59.1	131
18	349	29.4	57.5	52.0	13.0	12.6	7.70	6.16	28.2	14.6	44.4	88.6
19	213	29.4	44.4	44.2	13.1	11.5	7.36	6.30	25.1	22.7	71.2	66.0
20	272	28.6	40.2	40.9	18.2	11.4	7.45	6.49	14.7	24.9	95.1	60.2
21	220	28.7	43.9	38.9	14.8	11.0	6.51	5.73	18.5	14.8	87.3	180
22	132	28.6	41.4	37.1	86.8	10.4	7.15	5.60	11.5	11.2	221	111
23	95.1	28.0	35.7	33.2	85.8	10.3	8.17	6.11	7.74	10.8	253	228
24	75.4	36.5	65.2	30.9	81.7	9.76	8.24	6.50	6.97	12.1	386	180
25	67.4	27.3	66.4	28.5	48.7	9.81	7.55	6.98	6.18	25.3	156	441
26	83.5	26.2	56.8	25.1	58.8	9.58	6.95	6.22	6.15	13.4	246	387
27	137	48.4	38.6	22.8	101	9.48	6.63	6.26	6.17	10.5	216	388
28	334	150	35.0	21.8	95.7	9.57	5.94	5.90	5.75	10.5	86.8	137
29	345	—	31.2	23.4	36.7	8.65	6.01	5.78	5.60	10.2	58.8	81.0
30	554	—	30.3	36.6	25.5	8.30	6.45	7.06	6.03	11.9	91.8	63.9
31	391	—	46.6	—	22.5	—	6.96	8.99	—	11.7	—	55.4
TOTAL	8,805	2,789	1,965	1,415	1,017	515	287	194	307	462	5,466	4,877
MEAN	284	99.6	63.4	47.2	32.8	17.2	9.27	6.25	10.2	14.9	182	157
MAX	554	436	203	124	101	58.1	29.5	8.99	32.4	94.9	715	588
MIN	67.4	26.2	30.3	21.8	12.9	8.30	5.94	4.76	5.60	4.85	11.5	27.7
AC-FT	17,466	5,533	3,897	2,807	2,017	1,021	570	384	609	917	10,841	9,674

YEAR 2006 TOTAL=28,100 MEAN=77.0 MAX=715 MIN=4.76 AC-FT=55,736

BVTS — 14206435 — Beaverton Creek at SW 216th Ave near Orenco, Oregon [RM 1.2]



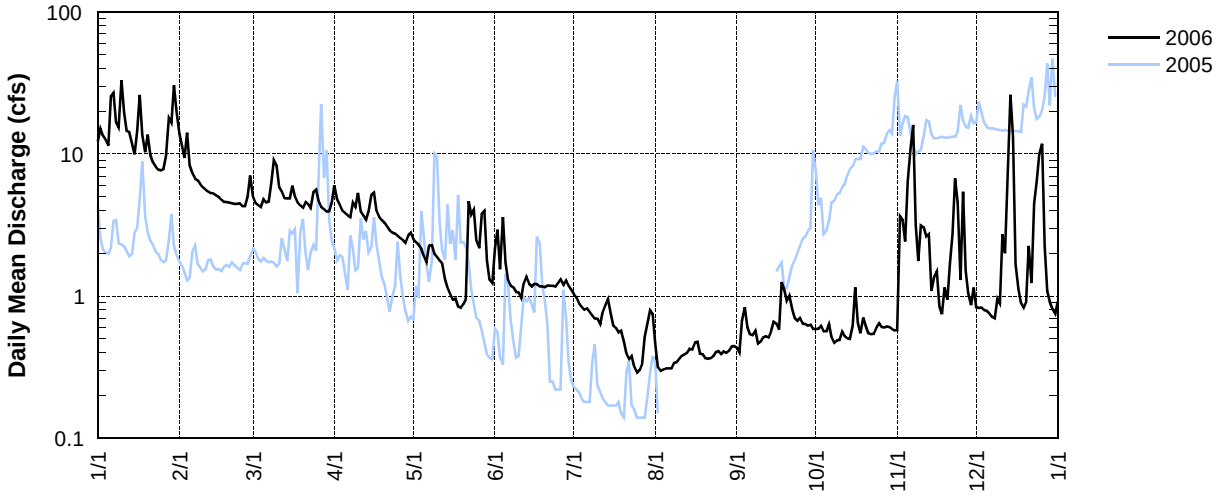
DCBR – 14206443 – DAWSON CREEK AT BROOKWOOD ROAD NEAR HILLSBORO, OREGON [RM 0.7]

Latitude: 45 31 27 Longitude:122 56 01 Source Agency: District 18 Watermaster

Day	2006 Daily Mean Discharge in Cubic Feet per Second											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	12.2	13.9	5.00	6.01	2.52	2.15	1.04	0.47	0.44	0.59	0.57	0.83
2	15.0	11.5	4.50	4.76	2.40	2.94	0.97	0.32	0.40	0.59	3.66	0.83
3	13.4	9.39	4.36	4.39	2.30	1.55	0.89	0.30	0.67	0.62	3.46	0.83
4	12.6	14.1	4.22	4.00	2.16	3.59	0.84	0.31	0.84	0.57	2.43	0.80
5	11.4	8.33	4.80	3.84	1.90	1.73	0.81	0.31	0.61	0.57	6.43	0.79
6	25.5	7.27	4.56	3.69	1.73	1.30	0.82	0.31	0.54	0.63	11.0	0.76
7	27.0	6.69	4.62	3.59	2.27	1.19	0.78	0.31	0.53	0.51	16.0	0.72
8	16.6	6.53	6.22	4.55	2.28	1.16	0.73	0.34	0.57	0.47	3.19	0.70
9	15.3	6.15	9.00	4.23	1.98	1.07	0.70	0.34	0.47	0.49	1.77	0.96
10	33.1	5.84	8.22	5.33	1.89	1.06	0.69	0.36	0.48	0.49	3.15	0.89
11	19.8	5.58	5.81	3.91	1.79	0.97	0.63	0.38	0.51	0.56	3.05	2.72
12	14.6	5.44	5.42	3.67	1.71	1.24	0.78	0.39	0.53	0.52	2.64	2.00
13	14.3	5.32	4.89	3.43	1.32	1.37	0.87	0.40	0.51	0.50	2.73	9.07
14	11.8	5.29	4.86	3.92	1.14	1.22	0.96	0.43	0.57	0.50	1.09	26.0
15	9.92	5.12	4.86	5.17	1.03	1.17	0.75	0.42	0.66	0.62	1.38	13.3
16	14.5	4.98	5.98	5.35	0.95	1.22	0.62	0.47	0.64	1.16	1.50	1.68
17	26.1	4.76	5.02	3.98	0.96	1.21	0.60	0.48	0.58	0.65	0.85	1.12
18	13.6	4.60	4.57	3.61	0.85	1.17	0.56	0.39	1.26	0.55	0.75	0.90
19	10.3	4.60	4.33	3.43	0.83	1.17	0.57	0.39	1.11	0.71	1.15	0.83
20	13.7	4.54	4.19	3.28	0.88	1.16	0.48	0.37	0.93	0.62	0.95	0.92
21	9.86	4.50	4.60	3.08	0.95	1.19	0.39	0.36	1.01	0.55	1.71	2.26
22	8.74	4.46	4.42	2.90	4.66	1.18	0.36	0.37	0.81	0.54	2.73	1.24
23	8.11	4.45	4.16	2.79	3.76	1.18	0.38	0.38	0.70	0.54	6.75	4.50
24	7.74	4.50	5.43	2.75	4.07	1.17	0.32	0.41	0.67	0.60	4.59	6.39
25	7.67	4.30	5.61	2.65	2.45	1.24	0.29	0.41	0.70	0.64	1.30	9.92
26	7.82	4.29	4.67	2.55	2.18	1.31	0.30	0.39	0.64	0.61	5.42	11.8
27	9.62	4.98	4.22	2.48	3.80	1.20	0.34	0.41	0.64	0.60	1.52	2.25
28	17.8	7.05	4.08	2.38	4.00	1.29	0.52	0.40	0.62	0.61	1.05	1.09
29	16.5	—	3.92	2.68	1.79	1.18	0.66	0.41	0.63	0.61	0.87	0.91
30	30.5	—	3.95	2.79	1.31	1.11	0.80	0.44	0.59	0.59	1.15	0.81
31	20.0	—	4.54	—	1.24	—	0.75	0.45	—	0.58	—	0.75
TOTAL	475	178	155	111	63.1	41.7	20.2	11.9	19.8	18.4	94.8	109
MEAN	15.3	6.37	5.00	3.71	2.04	1.39	0.65	0.38	0.66	0.59	3.16	3.50
MAX	33.1	14.1	9.00	6.01	4.66	3.59	1.04	0.48	1.26	1.16	16.0	26.0
MIN	7.67	4.29	3.92	2.38	0.83	0.97	0.29	0.30	0.40	0.47	0.57	0.70
AC-FT	942	354	308	221	125	82.7	40.1	23.6	39.4	36.4	188	215

YEAR 2006 TOTAL=1,298 MEAN=3.56 MAX=33.1 MIN=0.29 AC-FT=2,575

DCBR — 14206443 — Dawson Creek at Brookwood Road near Hillsboro, Oregon [RM 0.7]



RCTV – 14206450 – ROCK CREEK AT HWY 8 NEAR HILLSBORO, OREGON [RM 1.2]

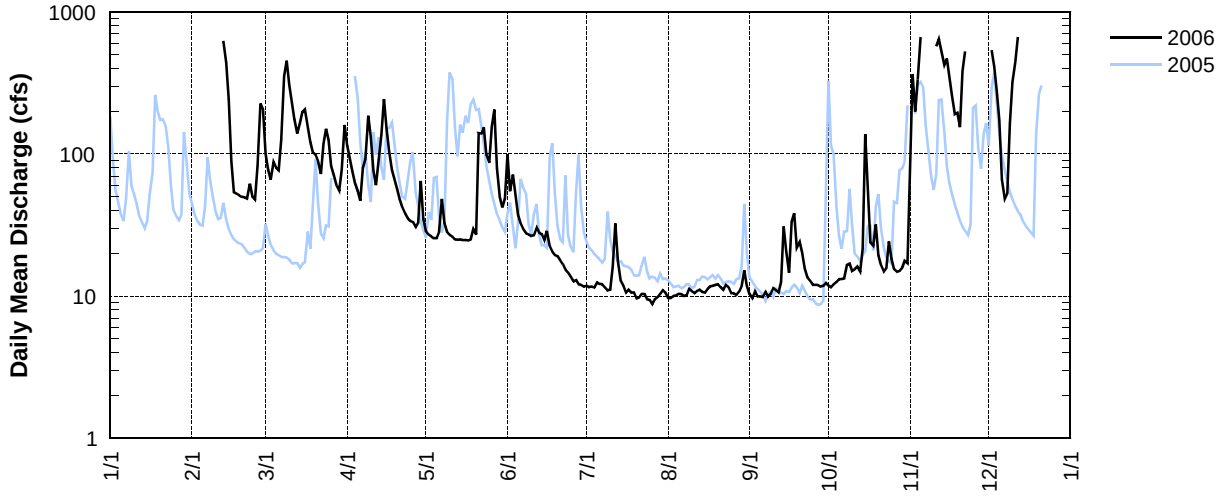
Latitude: 45 30 08 Longitude: 122 56 52 Source Agency: District 18 Watermaster

Day	2006 Daily Mean Discharge in Cubic Feet per Second											
	JAN*	FEB*	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV*	DEC*
1			205	160	34.8	48.6	11.7	10.6	11.8	12.4	17.0	
2			101	115	28.6	99.5	11.9	9.67	10.4	11.9	96.4	
3			77.4	93.9	27.1	54.8	11.6	9.69	9.71	11.6	362	537
4			65.9	75.7	26.2	71.5	11.7	10.0	10.8	12.1	199	412
5			87.9	63.1	25.5	52.7	11.5	10.1	9.98	12.6	334	279
6			80.0	54.9	25.5	37.3	12.5	10.4	9.94	13.2	665	173
7			76.8	46.9	28.3	32.4	12.2	10.3	9.87	13.2		66.4
8			126	79.5	48.4	29.4	12.1	10.0	10.7	13.3		48.6
9			353	91.9	32.6	27.7	11.6	10.1	9.92	16.6		53.0
10			454	186	28.4	27.2	11.0	11.3	10.4	17.0	564	163
11			308	131	27.1	26.5	11.1	10.8	11.4	15.1		321
12			231	76.6	26.3	26.8	16.2	10.5	11.0	15.5	573	443
13			176	60.5	25.0	30.3	32.5	10.9	10.6	16.1	643	664
14		624	139	88.7	24.9	27.9	17.7	11.1	12.6	14.8	524	
15		440	163	137	25.1	27.4	12.8	10.7	31.0	21.6	423	
16		241	197	243	24.8	24.8	11.8	10.6	20.8	138	470	
17		89.6	205	152	24.8	28.8	10.6	11.2	14.6	64.6	351	
18		53.9	155	105	24.6	22.5	11.1	11.7	33.3	23.9	258	
19		52.5	121	77.2	25.0	20.6	10.6	11.8	38.3	22.7	191	
20		51.0	102	66.0	29.6	19.5	10.6	12.0	22.0	31.9	195	
21		49.9	98.9	56.9	27.0	19.1	9.64	12.1	24.1	19.4	154	
22		49.6	88.8	48.2	140	17.8	9.78	11.6	20.1	16.5	384	
23		48.6	72.4	42.2	139	16.8	10.4	11.1	15.6	14.9	527	
24		61.8	118	38.0	154	15.4	10.3	12.0	13.6	15.8		
25		50.1	150	35.3	98.2	14.7	9.51	11.5	12.9	24.3		
26		47.9	125	33.9	86.7	13.7	9.40	10.5	12.0	18.3		
27		82.8	82.1	33.3	156	12.7	8.80	10.5	12.0	15.5		
28		227	69.8	30.7	205	13.0	9.50	10.2	12.0	14.8		
29		—	59.7	33.0	79.8	12.1	9.87	10.8	11.7	15.1		
30		—	55.0	64.7	49.7	12.0	10.4	11.9	11.8	15.8		
31		—	77.4	—	42.1	—	11.0	15.2	—	17.7	—	
TOTAL			4,421	2,520	1,740	884	371	341	455	686		
MEAN		145	143	84.0	56.1	29.5	12.0	11.0	15.2	22.1	365	287
MAX		624	454	243	205	99.5	32.5	15.2	38.3	138	665	664
MIN		47.9	55.0	30.7	24.6	12.0	8.80	9.67	9.71	11.6	17.0	48.6
AC-FT			8,769	4,999	3,451	1,752	737	676	902	1,361		

YEAR 2006* MEAN=81.6 MAX=665 MIN=8.80

*Incomplete record; Monthly and yearly totals were computed when at least 80% of the record was complete for a month or for all high flow months, respectively.

RCTV — 14206450 — Rock Creek at Hwy 8 near Hillsboro, Oregon [RM 1.2]



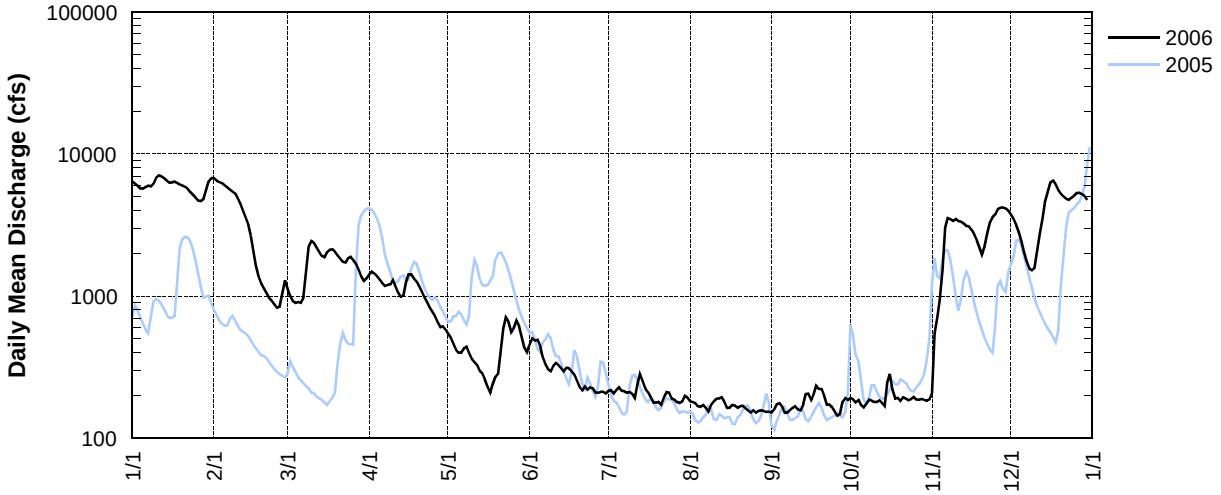
FRMO – 14206500 – TUALATIN RIVER AT FARMINGTON, OREGON [RM 33.3]

Latitude: 45 26 58 Longitude: 122 57 02 Source Agency: District 18 Watermaster

Day	2006 Daily Mean Discharge in Cubic Feet per Second											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	6,630	6,760	1,290	1,340	583	403	207	195	154	186	189	4,000
2	6,400	6,740	1,130	1,420	546	457	216	183	152	193	210	3,760
3	6,170	6,510	1,000	1,480	509	506	218	180	161	189	550	3,470
4	5,970	6,370	925	1,440	462	488	207	177	175	179	699	3,160
5	5,720	6,240	896	1,390	421	494	218	168	177	186	942	2,820
6	5,700	6,010	910	1,310	401	448	229	167	168	171	1,550	2,440
7	5,850	5,820	897	1,240	399	374	216	172	151	165	3,030	2,060
8	5,970	5,610	970	1,180	429	331	215	164	152	175	3,540	1,740
9	5,910	5,450	1,460	1,200	441	306	209	155	158	187	3,490	1,560
10	6,200	5,290	2,240	1,210	398	296	212	172	164	185	3,380	1,520
11	6,820	4,890	2,440	1,300	365	323	205	182	168	180	3,480	1,580
12	7,040	4,470	2,360	1,170	344	338	192	190	160	180	3,360	2,130
13	6,970	4,030	2,200	1,060	329	327	238	191	157	185	3,340	2,780
14	6,770	3,610	2,030	989	300	312	282	195	172	177	3,260	3,490
15	6,500	3,190	1,920	1,010	287	296	249	182	205	169	3,110	4,620
16	6,280	2,670	1,880	1,250	261	314	224	163	206	247	3,090	5,350
17	6,310	2,100	2,030	1,420	230	312	211	164	187	284	2,940	6,340
18	6,380	1,640	2,120	1,420	209	296	196	172	205	221	2,730	6,480
19	6,250	1,360	2,130	1,330	241	281	178	170	234	191	2,460	6,100
20	6,090	1,220	2,060	1,270	270	255	178	164	223	193	2,200	5,580
21	6,010	1,130	1,940	1,170	285	231	180	168	222	184	1,960	5,250
22	5,880	1,050	1,840	1,080	400	218	173	169	199	194	2,230	5,010
23	5,680	971	1,740	986	591	232	193	163	173	191	2,730	4,840
24	5,400	927	1,720	900	706	220	212	157	173	186	3,320	4,770
25	5,180	875	1,850	832	662	228	209	152	166	189	3,590	4,910
26	4,950	832	1,890	777	560	225	191	157	153	196	3,760	5,100
27	4,680	845	1,800	726	599	209	188	152	145	188	4,090	5,320
28	4,660	1,050	1,680	654	673	209	180	156	148	187	4,190	5,340
29	4,800	—	1,530	604	618	213	177	157	180	190	4,200	5,220
30	5,570	—	1,370	614	511	213	182	156	192	187	4,140	5,030
31	6,410	—	1,280	—	432	—	200	153	—	184	—	4,770
TOTAL	185,150	97,660	51,528	33,772	13,462	9,355	6,385	5,246	5,280	5,919	81,760	126,540
MEAN	5,973	3,488	1,662	1,126	434	312	206	169	176	191	2,725	4,082
MAX	7,040	6,760	2,440	1,480	706	506	282	195	234	284	4,200	6,480
MIN	4,660	832	896	604	209	209	173	152	145	165	189	1,520
AC-FT	367,245	193,709	102,206	66,987	26,702	18,556	12,665	10,405	10,473	11,740	162,171	250,992

YEAR 2006 TOTAL=622,057 MEAN=1,704 MAX=7,040 MIN=145 AC-FT=1,233,850

FRMO — 14206500 — Tualatin River at Farmington, Oregon [RM 33.3]



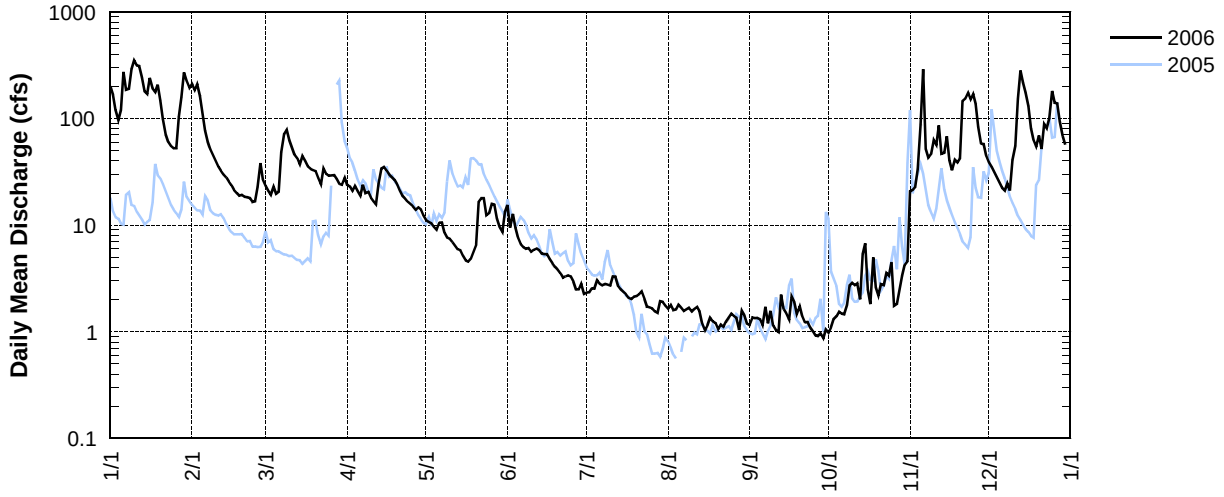
CCSR – 14206750 – CHICKEN CREEK AT SCHOLLS-SHERWOOD ROAD NEAR SHERWOOD, OREGON [RM 2.3]

Latitude: 45 22 31 Longitude: 122 51 24 Source Agency: District 18 Watermaster

Day	2006 Daily Mean Discharge in Cubic Feet per Second											
	JAN	FEB	MAR*	APR	MAY	JUN	JUL	AUG*	SEP	OCT	NOV	DEC*
1	226	193	26.3	28.0	12.3	13.3	2.26	1.76	1.20	1.05	4.58	44.4
2	200	211	23.2	23.9	11.2	15.4	2.33	1.65	1.16	0.98	20.8	38.6
3	168	185	20.9	23.1	10.7	9.43	2.34	1.78	1.36	1.10	21.4	35.0
4	120	211	19.2	20.9	10.4	12.7	2.55	1.59	1.34	1.31	22.8	31.3
5	96.5	162	22.9	23.2	9.69	9.39	2.52	1.61	1.35	1.40	33.4	28.0
6	119	113	19.7	20.7	9.06	7.56	3.05	1.79	1.31	1.54	88.3	25.0
7	273	76.5	20.5	18.8	10.5	6.64	2.83	1.68	1.15	1.47	290	22.5
8	186	60.5	48.3	23.8	10.6	6.21	2.72	1.57	1.72	1.45	51.9	21.1
9	190	51.3	71.8	19.9	8.49	5.99	2.81	1.62	1.20	1.78	43.0	24.6
10	290	44.9	78.6	20.5	7.61	6.09	2.77	1.68	1.57	2.70	46.5	21.1
11	349	39.7	62.8	18.1	7.46	5.64	2.70	1.55	1.14	2.86	62.3	40.7
12	314	35.4	53.5	16.8	6.95	5.89	3.29	1.64	1.03	2.72	56.1	55.2
13	310	32.4	46.1	15.7	6.42	6.03	3.28	1.70	0.99	2.84	86.0	152
14	240	30.0	42.4	24.3	5.97	5.85	2.71	1.55	2.24	2.01	46.7	282
15	180	27.9	37.0	33.9	5.83	5.40	2.49	1.20	1.63	5.33	47.7	216
16	170	25.6	44.3	35.2	5.19	5.33	2.36	1.03	1.48	6.76	68.3	174
17	240	23.7	40.0	32.6	4.67	5.33	2.25	1.16	1.29	2.50	40.4	130
18	191	21.3	35.3	29.7	4.55	4.78	2.09	1.36	2.14	1.82	32.6	80.6
19	177	20.0	33.7	28.0	4.83	4.39	2.02	1.26	1.90	4.96	40.8	62.4
20	207	18.9	32.7	26.4	5.58	4.07	2.12	1.21	1.47	2.59	38.7	54.2
21	148	19.1	32.2	24.1	6.55	3.85	2.16	1.06	1.74	2.19	42.4	69.3
22	98.9	18.4	27.7	21.1	16.6	3.55	2.25	1.17	1.40	2.78	146	51.8
23	70.8	18.2	24.1	18.9	17.9	3.22	2.40	1.11	1.22	2.73	153	88.3
24	59.9	17.8	34.0	17.7	17.9	3.30	2.02	1.24	1.23	3.55	175	80.5
25	54.9	16.4	30.2	16.6	12.4	3.39	1.72	1.36	1.10	3.35	151	100
26	52.3	16.7	29.0	15.8	13.0	3.32	1.69	1.47	1.01	4.47	170	181
27	52.6	22.8	29.2	15.0	15.8	2.95	1.66	1.41	0.92	1.75	137	140
28	104	38.2	29.4	13.9	15.6	2.50	1.56	1.36	0.91	1.83	83.4	138
29	158	—	27.1	14.6	11.5	2.49	1.51	1.04	0.96	2.47	57.8	92.9
30	270	—	24.3	14.0	9.49	2.82	1.93	1.57	0.87	3.34	57.3	68.3
31	226	—	23.9	—	8.59	—	1.91	1.42	—	4.21	—	56.8
TOTAL	5,542	1,751	1,090	655	303	177	72.3	44.6	40.0	81.8	2,315	2,606
MEAN	179	62.5	35.2	21.8	9.78	5.89	2.33	1.44	1.33	2.64	77.2	84.1
MAX	349	211	78.6	35.2	17.9	15.4	3.29	1.79	2.24	6.76	290	282
MIN	52.3	16.4	19.2	13.9	4.55	2.49	1.51	1.03	0.87	0.98	4.58	21.1
AC-FT	10,992	3,473	2,163	1,300	602	351	143	88.5	79.4	162	4,592	5,168

YEAR 2006 TOTAL=14,678 MEAN=40.2 MAX=349 MIN=0.87 AC-FT=29,113

CCSR — 14206750 — Chicken Creek at Scholls-Sherwood Road near Sherwood, Oregon [RM 2.3]



UNITED STATES DEPARTMENT OF THE INTERIOR – GEOLOGICAL SURVEY – OREGON WATER SCIENCE CENTER

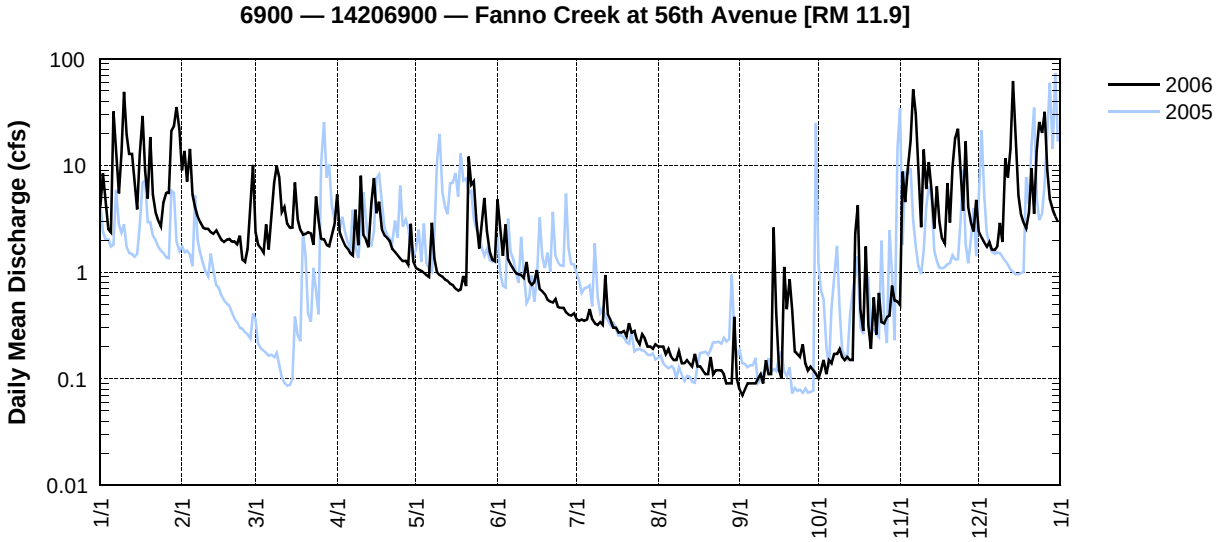
STATION NUMBER 14206900 FANNO CREEK AT 56TH AVENUE

LATITUDE: 452917 LONGITUDE: 1224401 DRAINAGE AREA: 2.37

Discharge, Cubic Feet per Second, Calendar Year January to December 2006 Daily Mean Values

Day	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT†	NOV†	DEC†
1	4.2	9.0	2.4	5.4	1.1	4.8	0.36	0.19	0.08	0.10	0.49	2.4
2	8.4	14	1.8	2.3	1.1	2.8	0.35	0.20	0.07	0.12	8.7	2.1
3	5.0	7.0	1.7	2.0	1.0	1.4	0.36	0.20	0.08	0.15	4.5	1.9
4	2.5	14	1.5	1.8	0.97	2.8	0.35	0.17	0.08	0.12	9.1	1.7
5	2.4	5.3	2.8	1.6	0.93	1.3	0.36	0.19	0.08	0.15	17	1.9
6	32	4.0	1.6	1.5	0.90	1.2	0.45	0.16	0.09	0.14	51	1.6
7	15	3.3	3.4	1.4	2.9	1.1	0.35	0.15	0.09	0.16	31	1.6
8	5.5	2.9	6.8	3.8	1.3	0.98	0.33	0.15	0.10	0.17	7.8	1.8
9	13	2.6	9.8	1.8	1.0	0.95	0.32	0.18	0.11	0.19	2.6	2.9
10	49	2.5	7.8	8.0	0.94	0.93	0.34	0.14	0.09	0.15	14	1.9
11	20	2.5	3.7	2.2	0.91	0.87	0.32	0.14	0.15	0.15	6.1	12
12	13	2.4	4.1	2.0	0.84	1.2	0.94	0.15	0.11	0.16	11	7.5
13	13	2.3	2.8	1.7	0.83	0.82	0.40	0.14	0.11	0.14	6.1	14
14	7.2	2.5	2.6	4.5	0.78	0.76	0.35	0.13	2.6	0.15	2.6	62
15	3.9	2.2	2.6	7.6	0.76	0.80	0.30	0.17	0.43	2.3	6.3	18
16	12	2.0	7.0	3.6	0.70	1.0	0.30	0.13	0.12	4.2	3.0	5.3
17	29	1.9	3.1	4.6	0.67	0.69	0.27	0.13	0.10	0.46	2.1	3.5
18	8.9	2.0	2.5	2.5	0.69	0.66	0.27	0.12	1.1	0.28	1.8	2.9
19	4.9	2.0	2.2	2.2	0.92	0.62	0.28	0.11	0.46	1.7	6.8	2.6
20	18	1.9	2.3	2.1	0.74	0.55	0.25	0.11	0.85	0.32	2.9	3.4
21	5.4	1.9	2.4	2.0	12	0.54	0.33	0.16	0.45	0.20	9.4	9.6
22	3.6	1.8	2.3	1.7	6.6	0.52	0.27	0.11	0.18	0.58	18	3.5
23	3.0	2.2	1.8	1.6	7.1	0.56	0.28	0.12	0.17	0.26	22	14
24	2.7	1.3	5.1	1.4	3.0	0.47	0.23	0.12	0.16	0.63	9.5	25
25	4.5	1.2	3.0	1.3	1.7	0.46	0.20	0.12	0.21	0.34	3.8	20
26	5.5	1.6	2.0	1.3	3.0	0.47	0.26	0.11	0.14	0.33	17	32
27	5.5	4.3	2.0	1.3	5.0	0.42	0.24	0.09	0.12	0.38	4.1	9.3
28	21	10	1.8	1.2	2.4	0.40	0.20	0.09	0.13	0.39	2.9	4.8
29	23	—	1.8	2.8	1.6	0.39	0.20	0.09	0.12	0.73	2.4	3.9
30	35	—	2.2	1.3	1.3	0.41	0.19	0.38	0.11	0.55	4.8	3.3
31	22	—	2.8	—	1.3	—	0.21	0.10	—	0.54	—	3.0
TOTAL	398.1	110.6	99.7	78.5	64.98	30.87	9.86	4.55	8.69	16.24	288.79	279.4
MEAN	12.8	3.95	3.22	2.62	2.10	1.03	0.32	0.15	0.29	0.52	9.63	9.01
MAX	49	14	9.8	8.0	12	4.8	0.94	0.38	2.6	4.2	51	62
MIN	2.4	1.2	1.5	1.2	0.67	0.39	0.19	0.09	0.07	0.10	0.49	1.6
AC-FT	790	219	198	156	129	61	20	9.0	17	32	573	554

† Provisional data–subject to revision



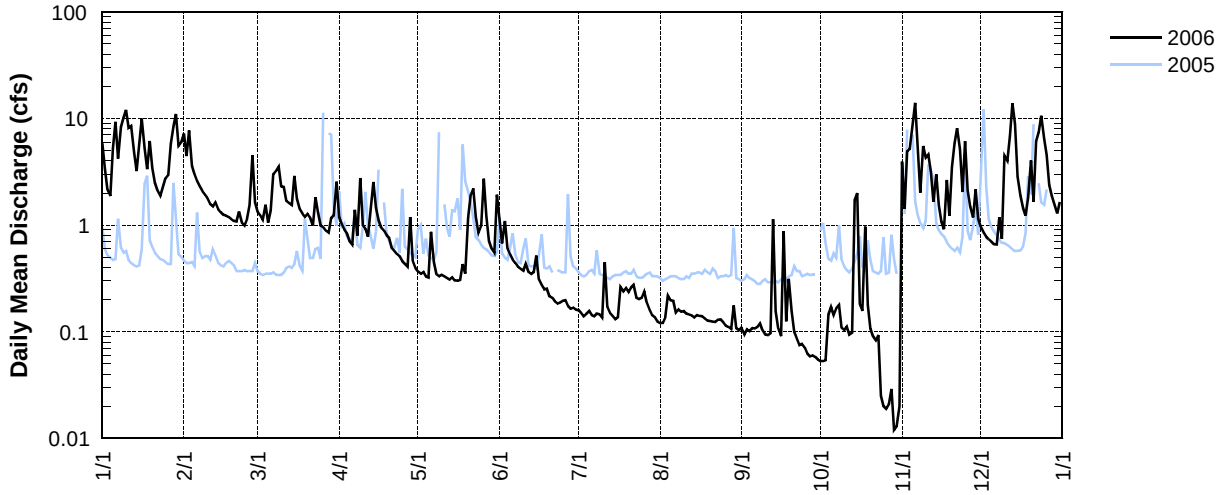
SCRL – 14206905 – SYLVAN CREEK AT RALEIGHWOOD LANE NEAR WEST SLOPE, OREGON [RM 1.0]

Latitude: 45 29 35 Longitude: 122 44 48 Source Agency: District 18 Watermaster

Day	2006 Daily Mean Discharge in Cubic Feet per Second											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	3.95	6.01	1.63	2.56	0.40	1.93	0.16	0.13	0.10	0.06	0.02	1.14
2	5.86	7.20	1.34	1.19	0.37	1.17	0.16	0.12	0.11	0.05	3.93	0.96
3	3.37	4.44	1.24	1.02	0.35	0.67	0.15	0.12	0.09	0.05	1.41	0.85
4	2.13	7.71	1.12	0.91	0.36	1.09	0.14	0.14	0.11	0.05	4.93	0.77
5	1.88	3.60	1.56	0.84	0.33	0.60	0.15	0.22	0.10	0.15	5.16	0.74
6	5.23	2.98	1.06	0.70	0.32	0.53	0.16	0.20	0.11	0.17	9.00	0.70
7	9.30	2.57	1.36	0.66	0.86	0.48	0.14	0.19	0.11	0.14	14.0	0.66
8	4.21	2.31	2.99	1.39	0.45	0.44	0.14	0.15	0.11	0.17	4.78	0.66
9	8.25	2.10	3.24	0.80	0.35	0.40	0.15	0.16	0.12	0.18	2.01	1.19
10	10.1	1.93	3.54	2.76	0.33	0.39	0.15	0.15	0.10	0.11	5.50	0.74
11	12.0	1.76	2.29	1.00	0.34	0.37	0.14	0.16	0.09	0.10	4.29	4.46
12	8.17	1.57	2.28	0.93	0.33	0.43	0.45	0.15	0.09	0.11	4.60	3.98
13	8.52	1.49	1.68	0.78	0.32	0.36	0.17	0.15	0.10	0.09	3.18	6.76
14	4.87	1.63	1.60	1.39	0.31	0.35	0.15	0.14	1.13	0.10	1.65	13.9
15	3.21	1.40	1.53	2.54	0.33	0.36	0.14	0.14	0.16	1.71	2.99	8.84
16	5.46	1.32	2.90	1.45	0.30	0.52	0.13	0.14	0.11	1.99	1.53	2.85
17	9.98	1.25	1.76	1.12	0.30	0.31	0.14	0.14	0.09	0.18	1.08	1.89
18	5.27	1.23	1.40	0.96	0.31	0.27	0.26	0.14	0.88	0.16	0.92	1.45
19	3.34	1.19	1.28	0.89	0.43	0.25	0.24	0.13	0.13	0.97	2.65	1.23
20	6.17	1.13	1.20	0.80	0.35	0.25	0.26	0.13	0.31	0.18	1.22	1.81
21	3.45	1.09	1.27	0.76	1.17	0.22	0.24	0.13	0.16	0.11	3.51	4.03
22	2.51	1.08	1.18	0.61	1.93	0.21	0.26	0.12	0.10	0.09	5.81	1.64
23	2.08	1.34	0.99	0.57	2.22	0.19	0.27	0.12	0.09	0.08	8.11	6.12
24	1.88	1.06	1.82	0.53	1.20	0.18	0.21	0.13	0.08	0.09	5.16	7.40
25	2.26	1.00	1.31	0.51	0.85	0.19	0.20	0.13	0.08	0.03	2.04	10.6
26	2.74	1.15	0.99	0.46	1.00	0.20	0.21	0.12	0.07	0.02	6.11	6.52
27	2.95	1.54	0.96	0.43	2.73	0.20	0.24	0.11	0.06	0.02	2.12	4.55
28	5.82	4.50	0.88	0.41	1.21	0.17	0.19	0.11	0.06	0.02	1.49	2.37
29	8.36	—	0.84	1.19	0.71	0.17	0.16	0.11	0.06	0.03	1.18	1.88
30	11.0	—	1.16	0.46	0.60	0.17	0.14	0.18	0.06	0.01	2.17	1.53
31	5.56	—	1.23	—	0.55	—	0.14	0.11	—	0.01	—	1.28
TOTAL	170	67.6	49.6	30.6	21.6	13.1	5.82	4.36	4.95	7.23	113	103
MEAN	5.48	2.41	1.60	1.02	0.70	0.44	0.19	0.14	0.16	0.23	3.75	3.34
MAX	12.0	7.71	3.54	2.76	2.73	1.93	0.45	0.22	1.13	1.99	14.0	13.9
MIN	1.88	1.00	0.84	0.41	0.30	0.17	0.13	0.11	0.06	0.01	0.02	0.66
AC-FT	337	134	98.5	60.7	42.8	25.9	11.5	8.64	9.81	14.3	223	205

YEAR 2006 TOTAL=591 MEAN=1.62 MAX=14.0 MIN=0.01 AC-FT=1,172

SCRL — 14206905 — Sylvan Creek at Raleighwood Lane near West Slope, Oregon [RM 1.0]



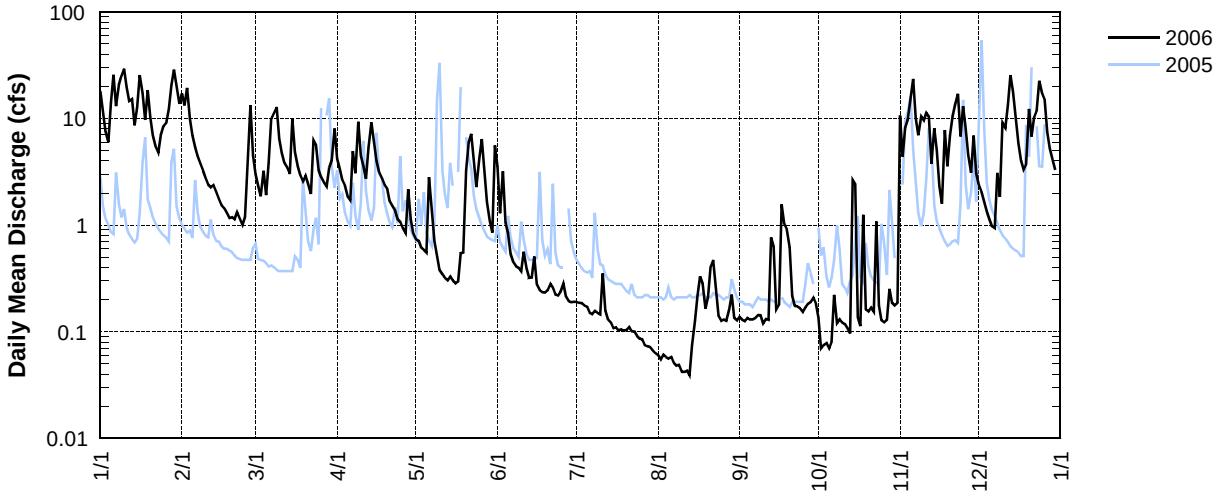
ASMP – 14206933 – ASH CREEK AT METZGER PARK AT METZGER, OREGON [RM 1.25]

Latitude: 45 27 00 Longitude: 122 45 45 Source Agency: District 18 Watermaster

Day	2006 Daily Mean Discharge in Cubic Feet per Second											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	12.5	13.7	4.54	8.07	0.83	5.58	0.19	0.06	0.13	0.18	0.19	3.05
2	18.1	17.1	2.99	4.18	0.74	3.57	0.19	0.06	0.14	0.14	10.6	2.39
3	11.7	13.2	2.34	3.38	0.71	1.29	0.19	0.06	0.13	0.07	4.37	2.02
4	7.55	19.3	1.86	2.65	0.61	3.19	0.19	0.06	0.13	0.08	8.14	1.64
5	5.98	9.85	3.24	2.35	0.59	1.06	0.18	0.06	0.14	0.08	9.68	1.35
6	14.0	6.89	1.92	1.85	0.55	0.84	0.17	0.06	0.13	0.07	15.6	1.14
7	25.7	5.41	3.87	1.71	2.81	0.54	0.15	0.06	0.13	0.08	23.5	0.98
8	13.1	4.41	9.95	4.93	1.29	0.45	0.15	0.05	0.14	0.22	10.1	0.94
9	20.8	3.79	11.4	3.06	0.71	0.41	0.16	0.05	0.14	0.12	6.97	3.08
10	25.3	3.23	12.8	9.28	0.52	0.40	0.15	0.05	0.14	0.13	10.4	1.83
11	29.4	2.74	6.46	4.48	0.38	0.37	0.15	0.04	0.12	0.12	9.56	9.08
12	19.8	2.39	4.74	3.57	0.35	0.56	0.35	0.04	0.13	0.12	11.3	8.13
13	14.6	2.26	3.82	2.72	0.32	0.39	0.16	0.04	0.13	0.11	10.5	13.3
14	15.2	2.37	3.44	5.37	0.30	0.32	0.13	0.04	0.77	0.10	3.77	25.6
15	8.61	2.03	3.02	9.19	0.33	0.32	0.12	0.08	0.63	2.63	8.10	17.8
16	12.8	1.76	9.90	5.96	0.30	0.51	0.11	0.13	0.16	2.40	4.95	10.1
17	25.6	1.54	4.83	3.99	0.28	0.28	0.11	0.22	0.18	0.14	2.31	5.82
18	17.2	1.45	3.54	3.13	0.30	0.24	0.10	0.33	1.57	0.11	1.59	4.03
19	9.72	1.30	2.92	2.74	0.55	0.24	0.11	0.28	1.03	1.25	7.77	3.33
20	18.5	1.16	2.58	2.38	0.55	0.23	0.10	0.17	0.92	0.16	3.57	3.74
21	10.3	1.19	2.92	2.22	3.25	0.24	0.10	0.21	0.62	0.16	6.92	12.3
22	6.91	1.13	2.43	1.67	5.95	0.28	0.11	0.41	0.22	0.17	10.4	6.77
23	5.40	1.32	1.95	1.51	7.14	0.26	0.10	0.47	0.17	0.15	13.4	10.3
24	4.77	1.14	6.19	1.36	3.95	0.22	0.10	0.26	0.17	1.08	17.0	11.9
25	7.02	1.00	5.59	1.13	2.27	0.22	0.09	0.14	0.17	0.18	6.79	22.6
26	8.44	1.19	3.29	1.07	4.15	0.24	0.09	0.13	0.15	0.13	13.1	17.1
27	9.12	3.74	2.79	0.93	6.39	0.28	0.09	0.13	0.17	0.12	8.10	14.9
28	12.3	13.2	2.48	0.83	3.47	0.21	0.08	0.13	0.18	0.13	4.56	7.45
29	20.4	—	2.29	2.16	1.66	0.19	0.07	0.16	0.19	0.25	3.10	5.21
30	28.8	—	3.44	1.13	1.09	0.19	0.07	0.22	0.21	0.19	6.92	4.05
31	20.6	—	4.05	—	0.85	—	0.07	0.13	—	0.18	—	3.29
TOTAL	460	140	138	99.0	53.2	23.1	4.11	4.32	9.23	11.0	253	235
MEAN	14.8	4.99	4.44	3.30	1.72	0.77	0.13	0.14	0.31	0.36	8.44	7.59
MAX	29.4	19.3	12.8	9.28	7.14	5.58	0.35	0.47	1.57	2.63	23.5	25.6
MIN	4.77	1.00	1.86	0.83	0.28	0.19	0.07	0.04	0.12	0.07	0.19	0.94
AC-FT	913	277	273	196	105	45.9	8.14	8.57	18.3	21.9	502	467

YEAR 2006 TOTAL=1,430 MEAN=3.92 MAX=29.4 MIN=0.04 AC-FT=2,836

ASMP — 14206933 — Ash Creek at Metzger Park at Metzger, Oregon [RM 1.25]



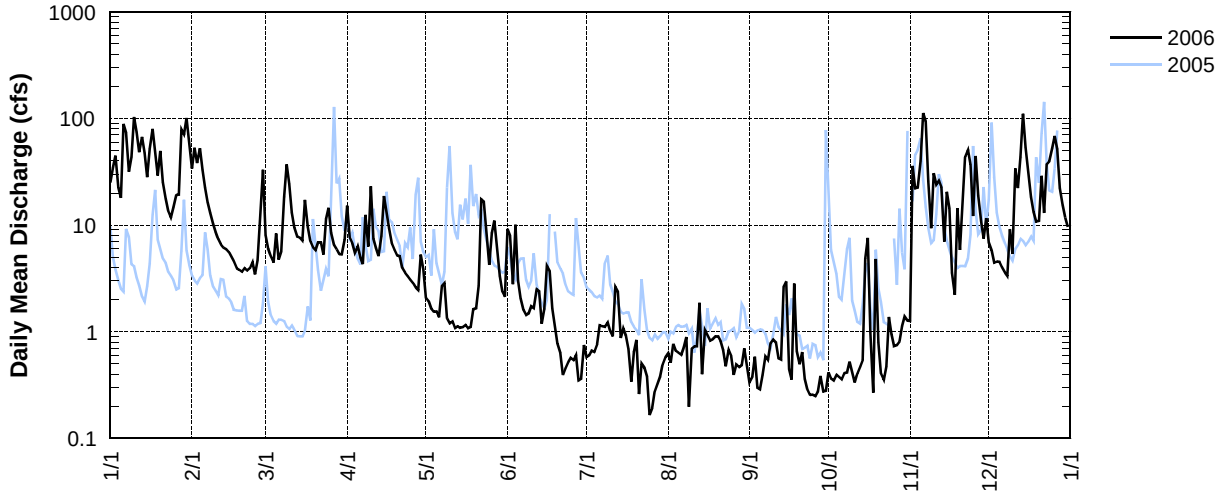
SC121 – 14206938 – SUMMER CREEK AT SW 121ST AVENUE NEAR TIGARD, OREGON [RM 1.0]

Latitude: 45 26 06 Longitude: 122 47 55 Source Agency: District 18 Watermaster

Day	2006 Daily Mean Discharge in Cubic Feet per Second											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	25.1	33.9	8.09	15.2	2.08	9.19	0.58	0.63	0.34	0.42	1.26	6.90
2	34.5	53.1	6.02	7.64	1.93	7.97	0.60	0.51	0.38	0.36	35.8	5.78
3	44.9	38.1	5.13	6.75	1.65	2.79	0.67	0.77	0.58	0.35	22.2	4.46
4	22.5	52.6	4.46	5.50	1.54	10.1	0.65	0.66	0.30	0.39	22.4	4.56
5	18.0	33.1	8.38	6.39	1.55	3.02	0.77	0.63	0.29	0.38	40.2	4.51
6	88.4	22.5	4.73	5.02	1.37	2.05	1.15	0.61	0.39	0.36	112	4.01
7	73.7	16.3	5.64	4.30	2.69	1.59	1.13	0.71	0.59	0.41	93.7	3.60
8	31.7	13.0	18.4	12.5	2.87	1.43	1.11	0.89	0.55	0.41	25.7	3.34
9	43.4	10.3	37.2	6.28	1.33	1.49	1.22	0.20	0.78	0.52	9.34	9.11
10	103	8.61	24.3	23.0	1.20	1.73	1.01	0.69	0.84	0.42	30.7	5.37
11	74.7	7.39	13.1	7.41	1.25	1.66	0.90	0.73	0.79	0.34	24.1	34.0
12	48.4	6.60	9.45	6.06	1.08	2.50	2.61	0.73	0.56	0.41	26.1	22.3
13	67.5	6.15	7.80	5.11	1.13	2.40	2.36	1.87	0.55	0.47	22.6	43.6
14	47.6	5.95	7.64	7.89	1.09	1.19	0.88	0.40	2.66	0.55	7.00	111
15	28.1	5.61	7.19	18.7	1.10	1.64	1.07	1.03	2.97	4.85	20.5	53.7
16	52.2	5.03	17.2	13.5	1.16	4.14	0.92	0.92	0.45	7.56	14.4	31.3
17	80.1	4.54	9.59	9.33	1.08	3.67	0.69	0.83	0.36	0.98	3.58	18.3
18	46.9	3.93	7.04	6.63	1.11	1.66	0.34	0.85	2.83	0.27	2.22	13.3
19	29.1	3.80	6.19	5.82	1.62	1.15	0.64	0.90	0.66	4.81	14.4	10.8
20	49.7	3.64	5.84	5.18	1.66	0.77	0.84	0.90	0.50	0.80	5.84	10.9
21	25.3	3.94	6.90	5.10	2.70	0.64	0.26	0.81	0.64	0.41	14.2	29.0
22	17.6	3.76	6.90	3.96	17.4	0.39	0.50	0.67	0.36	0.35	43.7	13.0
23	13.5	3.95	5.28	3.57	16.5	0.46	0.46	0.48	0.29	0.47	50.9	37.1
24	11.7	4.53	11.4	3.33	8.44	0.52	0.38	0.68	0.26	1.38	36.8	39.4
25	14.6	3.46	14.5	3.08	4.25	0.57	0.17	0.59	0.26	0.95	12.1	52.0
26	19.1	4.67	8.41	2.89	8.35	0.54	0.19	0.39	0.25	0.73	44.6	68.3
27	19.3	14.3	6.46	2.59	11.0	0.61	0.28	0.49	0.28	0.75	19.0	51.5
28	78.2	33.1	5.91	2.46	6.37	0.35	0.33	0.47	0.39	0.81	10.9	22.3
29	70.8	—	5.32	5.31	3.33	0.36	0.38	0.49	0.28	1.13	7.48	15.3
30	101	—	5.30	3.86	2.38	0.75	0.50	0.70	0.28	1.39	11.6	11.7
31	57.3	—	7.27	—	2.13	—	0.58	0.48	—	1.27	—	9.58
TOTAL	1,438	406	297	214	113	67.3	24.1	21.7	20.6	34.7	785	750
MEAN	46.4	14.5	9.58	7.15	3.66	2.24	0.78	0.70	0.69	1.12	26.2	24.2
MAX	103	53.1	37.2	23.0	17.4	10.1	2.61	1.87	2.97	7.56	112	111
MIN	11.7	3.46	4.46	2.46	1.08	0.35	0.17	0.20	0.25	0.27	1.26	3.34
AC-FT	2,852	805	589	425	225	134	47.9	43.1	40.9	68.8	1,558	1,488

YEAR 2006 TOTAL=4,172 MEAN=11.4 MAX=112 MIN=0.17AC-FT=8,276

SC121 — 14206938 — Summer Creek at SW 121st Avenue near Tigard, Oregon [RM 1.0]



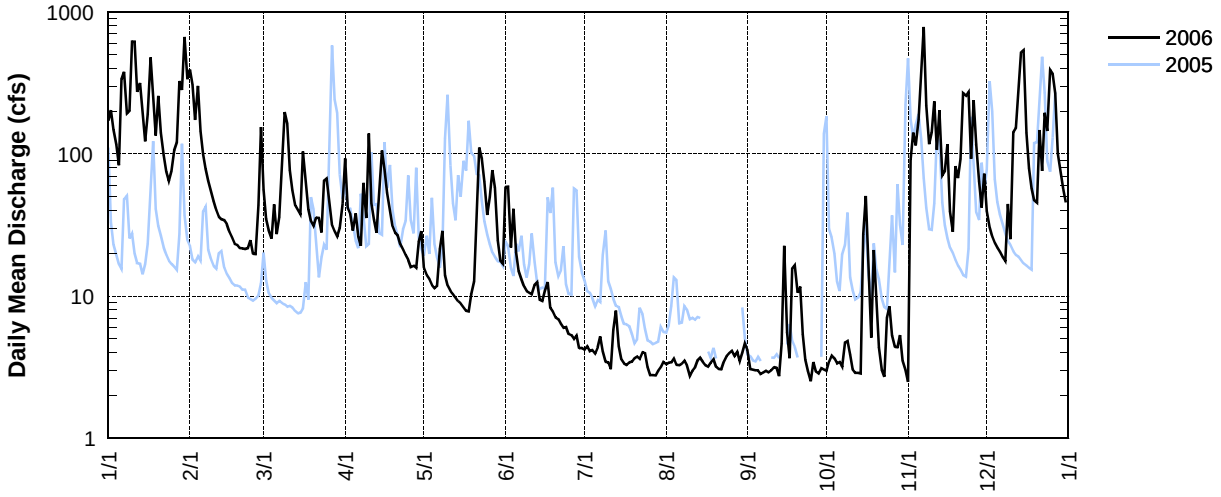
FANO – 14206950 – FANNO CREEK AT DURHAM ROAD NEAR TIGARD, OREGON [RM 1.2]

Latitude: 45 24 12 Longitude: 122 45 18 Source Agency: District 18 Watermaster

Day	2006 Daily Mean Discharge in Cubic Feet per Second											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	171	392	56.2	92.7	15.8	58.5	4.22	3.32	4.16	3.00	2.49	39.8
2	203	307	34.8	41.6	14.0	59.0	4.43	3.41	3.07	3.47	91.1	30.5
3	148	174	29.1	37.8	13.2	22.0	4.11	3.43	3.04	3.81	141	26.3
4	116	301	25.4	28.9	12.0	41.2	4.20	3.64	3.01	3.64	115	23.7
5	83.4	145	44.2	38.2	11.4	20.5	3.95	3.29	3.01	3.37	175	21.9
6	335	100	27.4	26.3	11.8	15.1	4.37	3.26	2.84	3.45	371	20.5
7	379	78.3	36.0	22.6	21.6	13.1	5.22	3.35	2.92	3.18	780	18.7
8	193	64.6	90.2	62.8	28.8	11.7	4.09	3.52	3.00	4.73	220	17.6
9	201	54.4	197	35.5	14.0	10.9	3.45	3.25	2.92	4.84	117	44.5
10	614	46.4	163	139	11.9	10.6	3.43	2.75	3.01	3.90	142	25.2
11	616	40.3	76.9	44.9	10.9	10.3	3.07	3.00	3.16	3.05	235	143
12	273	36.1	55.5	34.5	10.3	12.0	5.81	3.15	3.13	2.88	107	153
13	315	34.7	43.3	27.9	9.77	12.5	7.94	3.54	2.74	2.88	203	294
14	203	34.1	40.4	54.4	9.19	9.43	4.44	3.69	4.64	2.86	71.1	519
15	123	32.1	37.6	106	8.90	9.27	3.59	3.44	22.6	27.3	75.7	539
16	191	28.4	104	77.9	8.36	10.9	3.37	3.27	5.57	50.6	117	141
17	478	25.9	64.3	53.3	7.88	12.6	3.29	3.20	3.66	14.9	39.6	79.6
18	253	23.3	40.7	40.1	7.79	8.26	3.43	3.41	15.7	5.11	28.4	57.3
19	135	22.9	33.7	31.0	10.3	7.78	3.46	3.61	16.5	21.1	82.0	47.1
20	256	21.8	31.1	27.9	12.7	7.11	3.66	3.19	10.6	9.26	67.7	45.3
21	141	21.7	35.6	26.8	41.8	6.89	3.75	3.07	11.7	4.36	92.6	147
22	97.6	21.4	35.4	23.2	111	6.36	3.62	3.05	5.40	3.04	267	75.7
23	75.2	21.8	28.1	21.2	93.1	5.99	4.04	3.46	3.57	2.71	257	195
24	64.5	24.8	65.0	19.4	63.9	6.07	3.97	3.80	2.98	7.05	273	145
25	75.5	19.8	67.2	18.0	37.4	5.44	3.16	3.97	2.52	8.47	92.6	389
26	107	19.7	47.9	16.0	50.0	5.33	2.78	4.12	3.44	5.28	238	364
27	121	43.7	31.5	16.4	76.9	5.00	2.78	3.80	2.95	4.40	117	267
28	326	154	28.5	15.8	58.0	5.29	2.77	4.06	2.86	4.36	64.3	101
29	282	—	26.3	24.2	24.6	4.29	2.99	3.49	3.12	5.33	42.1	73.7
30	665	—	30.2	28.7	17.8	4.32	3.17	4.01	3.06	3.51	72.8	56.8
31	336	—	44.6	—	16.9	—	3.44	4.66	—	3.03	—	45.6
TOTAL	7,577	2,289	1,671	1,233	842	418	120	108	161	229	4,697	4,147
MEAN	244	81.8	53.9	41.1	27.2	13.9	3.87	3.49	5.36	7.38	157	134
MAX	665	392	197	139	111	59.0	7.94	4.66	22.6	50.6	780	539
MIN	64.5	19.7	25.4	15.8	7.79	4.29	2.77	2.75	2.52	2.71	2.49	17.6
AC-FT	15,029	4,541	3,315	2,446	1,670	829	238	215	319	454	9,317	8,225

YEAR 2006 TOTAL=23,492 MEAN=64.4 MAX=780 MIN=2.49 AC-FT=46,597

FANO — 14206950 — Fanno Creek at Durham Road near Tigard, Oregon [RM 1.2]



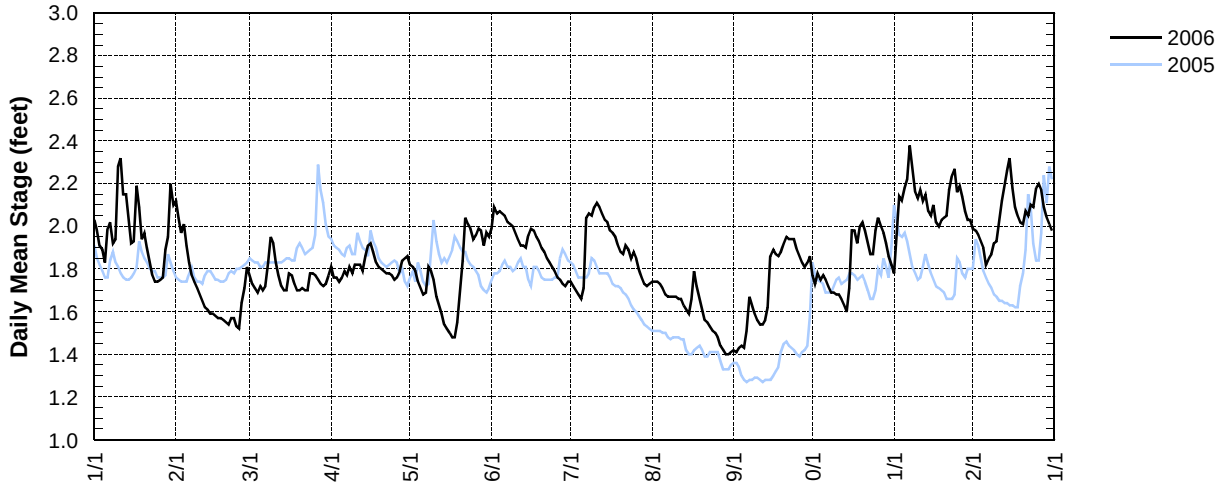
HCWL – 14206957 – HEDGES CREEK WETLAND NEAR TUALATIN [RM 1.2]

Latitude: 45 22 53 Longitude:122 46 35 Source Agency: District 18 Watermaster

Day	Daily Mean Stage in Feet above Gage Datum for 2006											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	2.03	2.12	1.77	1.81	1.82	1.99	1.74	1.74	1.42	1.77	1.78	1.99
2	1.98	2.04	1.73	1.76	1.81	2.09	1.72	1.74	1.41	1.73	1.95	1.98
3	1.91	1.97	1.71	1.76	1.79	2.06	1.70	1.74	1.43	1.78	2.14	1.96
4	1.89	2.01	1.69	1.74	1.74	2.07	1.68	1.73	1.44	1.75	2.12	1.93
5	1.83	1.91	1.72	1.76	1.71	2.06	1.66	1.71	1.43	1.77	2.18	1.90
6	1.99	1.83	1.70	1.79	1.68	2.05	1.71	1.68	1.51	1.75	2.22	1.82
7	2.02	1.77	1.72	1.77	1.69	2.02	2.04	1.67	1.67	1.72	2.38	1.85
8	1.92	1.74	1.83	1.81	1.81	2.01	2.06	1.67	1.63	1.69	2.28	1.87
9	1.94	1.71	1.95	1.78	1.79	2.00	2.05	1.67	1.59	1.69	2.16	1.92
10	2.28	1.68	1.92	1.82	1.75	1.97	2.09	1.67	1.56	1.68	2.13	1.93
11	2.32	1.65	1.83	1.82	1.67	1.94	2.11	1.66	1.54	1.68	2.17	2.03
12	2.15	1.62	1.77	1.82	1.63	1.91	2.09	1.66	1.54	1.66	2.12	2.12
13	2.15	1.61	1.72	1.79	1.59	1.91	2.06	1.63	1.56	1.63	2.15	2.19
14	2.03	1.59	1.70	1.86	1.54	1.90	2.03	1.61	1.62	1.60	2.07	2.26
15	1.92	1.59	1.70	1.91	1.52	1.96	2.02	1.59	1.86	1.71	2.05	2.32
16	1.93	1.58	1.78	1.92	1.50	1.99	1.98	1.66	1.89	1.98	2.10	2.18
17	2.19	1.57	1.77	1.88	1.48	1.98	1.97	1.79	1.87	1.98	2.02	2.09
18	2.09	1.57	1.73	1.83	1.48	1.95	1.95	1.72	1.86	1.92	2.00	2.05
19	1.94	1.56	1.70	1.81	1.55	1.93	1.91	1.66	1.88	2.00	2.03	2.02
20	1.97	1.55	1.70	1.80	1.69	1.90	1.88	1.61	1.92	2.02	2.04	2.01
21	1.90	1.54	1.71	1.79	1.84	1.88	1.87	1.56	1.95	1.98	2.05	2.07
22	1.83	1.57	1.70	1.78	2.04	1.85	1.91	1.55	1.94	1.92	2.17	2.05
23	1.77	1.57	1.70	1.78	2.01	1.83	1.89	1.53	1.94	1.87	2.24	2.10
24	1.74	1.53	1.78	1.77	1.99	1.81	1.85	1.51	1.94	1.87	2.27	2.09
25	1.74	1.52	1.78	1.75	1.94	1.79	1.88	1.50	1.89	1.98	2.16	2.18
26	1.75	1.64	1.77	1.76	1.96	1.76	1.85	1.48	1.86	2.04	2.19	2.20
27	1.76	1.71	1.75	1.79	1.99	1.75	1.80	1.44	1.83	2.00	2.14	2.17
28	1.89	1.81	1.73	1.84	1.98	1.73	1.76	1.42	1.81	1.97	2.07	2.09
29	1.95	—	1.72	1.85	1.91	1.72	1.73	1.40	1.83	1.92	2.03	2.04
30	2.20	—	1.73	1.86	1.97	1.74	1.72	1.40	1.86	1.86	2.03	2.01
31	2.10	—	1.77	—	1.95	—	1.73	1.41	—	1.82	—	1.98
MEAN	1.97	1.70	1.75	1.81	1.77	1.92	1.89	1.61	1.72	1.83	2.11	2.05
MAX	2.32	2.12	1.95	1.92	2.04	2.09	2.11	1.79	1.95	2.04	2.38	2.32
MIN	1.74	1.52	1.69	1.74	1.48	1.72	1.66	1.40	1.41	1.60	1.78	1.82

YEAR 2006 MEAN=1.84 MAX=2.38 MIN=1.40

HCWL — 14206957 — Hedges Creek Wetland near Tualatin, Oregon [RM 1.2]



HCTP – 14206958 – HEDGES CREEK AT TUALATIN PARK AT TUALATIN, OREGON [RM 0.3]

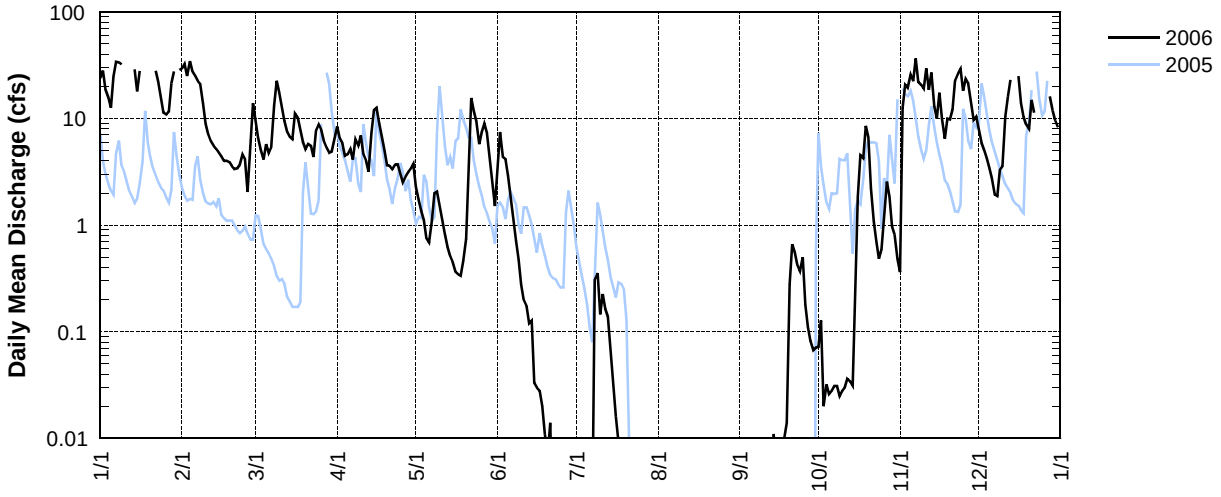
Latitude: 45 22 53 Longitude:122 46 35 Source Agency: District 18 Watermaster

Day	2006 Daily Mean Discharge in Cubic Feet per Second											
	JAN*	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC*
1	24.0	29.6	9.53	8.37	2.28	3.17	<0.01	<0.01	<0.01	0.07	0.36	8.01
2	28.2	32.5	6.55	6.48	1.70	7.45	<0.01	<0.01	<0.01	0.13	12.5	5.87
3	18.7	25.0	5.10	5.87	1.35	4.31	<0.01	<0.01	<0.01	0.02	20.8	5.05
4	15.7	34.3	4.11	4.47	1.11	4.16	<0.01	<0.01	<0.01	0.03	19.3	4.23
5	12.6	27.4	5.73	4.62	0.75	2.89	<0.01	<0.01	<0.01	0.03	25.7	3.44
6	24.9	25.0	4.77	5.18	0.69	1.92	<0.01	<0.01	<0.01	0.03	22.4	2.74
7	34.0	22.5	5.42	4.13	1.10	1.13	<0.01	<0.01	<0.01	0.03	36.5	1.94
8	33.5	21.0	13.2	6.36	2.00	0.71	0.31	<0.01	<0.01	0.03	21.9	1.88
9	32.0	13.7	22.5	5.54	2.07	0.48	0.36	<0.01	<0.01	0.03	20.6	3.31
10		8.90	17.4	6.90	1.54	0.28	0.15	<0.01	<0.01	0.03	19.0	3.56
11		7.07	13.0	4.61	1.11	0.20	0.23	<0.01	<0.01	0.03	29.5	10.5
12		6.12	9.53	4.04	0.81	0.17	0.16	<0.01	<0.01	0.04	18.6	16.0
13		5.60	7.43	3.17	0.62	0.12	0.14	<0.01	<0.01	0.03	27.0	23.0
14	29.0	5.19	6.66	7.24	0.51	0.13	0.06	<0.01	0.01	0.03	13.0	
15	18.0	4.77	6.36	12.0	0.45	0.03	0.03	<0.01	<0.01	0.17	10.0	
16	28.0	4.39	11.1	12.6	0.36	0.03	0.02	<0.01	<0.01	1.83	17.5	25.0
17		3.98	10.1	9.12	0.35	0.03	<0.01	<0.01	<0.01	4.51	9.97	13.9
18		4.02	7.82	6.59	0.34	0.02	<0.01	<0.01	0.01	4.23	6.47	10.3
19	21.0	3.89	6.04	5.00	0.46	0.01	<0.01	<0.01	0.01	8.50	10.0	8.72
20		3.57	5.19	3.63	0.74	<0.01	<0.01	<0.01	0.28	6.64	9.76	7.96
21		3.34	5.78	3.59	2.48	0.01	<0.01	<0.01	0.66	2.23	12.1	14.9
22	28.0	3.40	5.55	3.34	15.5	<0.01	<0.01	<0.01	0.56	1.08	22.9	11.3
23	22.0	3.72	4.36	3.70	11.7	<0.01	<0.01	<0.01	0.42	0.70	26.5	
24	15.7	4.57	7.77	3.72	9.36	<0.01	<0.01	<0.01	0.37	0.48	29.4	
25	11.4	4.13	8.79	3.07	5.74	<0.01	<0.01	<0.01	0.50	0.59	18.2	
26	10.9	2.05	7.84	2.52	7.44	<0.01	<0.01	<0.01	0.18	1.15	23.4	
27	11.6	5.11	6.01	2.88	8.94	<0.01	<0.01	<0.01	0.11	2.55	21.2	
28	21.3	13.9	5.30	3.15	7.30	<0.01	<0.01	<0.01	0.08	1.85	13.7	16.1
29	27.5	—	4.76	3.40	4.37	<0.01	<0.01	<0.01	0.07	0.96	9.70	11.8
30		—	4.90	3.77	2.66	<0.01	<0.01	<0.01	0.07	0.81	10.4	9.52
31	28.6	—	6.45	—	1.51	—	<0.01	<0.01	—	0.48	—	8.30
TOTAL		329	245	159	97.3	27.3	1.49		3.35	39.3	538	
MEAN	22.6	11.7	7.90	5.30	3.14	1.36	0.16		0.24	1.27	17.9	9.47
MAX	34.0	34.3	22.5	12.6	15.5	7.45	0.36	<0.01	0.66	8.50	36.5	25.0
MIN	10.9	2.05	4.11	2.52	0.34	0.01	<0.01	<0.01	<0.01	0.02	0.36	1.88
AC-FT		652	486	315	193	54.1	2.96		6.64	78.0	1,068	

YEAR 2006 MEAN=8.01 MAX=36.5 MIN=<0.01

*Incomplete record; Monthly and yearly totals were computed when at least 80% of the record was complete for a month or for all high flow months, respectively.

HCTP — 14206958 — Hedges Creek at Tualatin Park at Tualatin, Oregon [RM 0.3]



TRT – 14206956 (formerly 14206960) – TUALATIN RIVER AT TUALATIN, OREGON [RM 8.9]

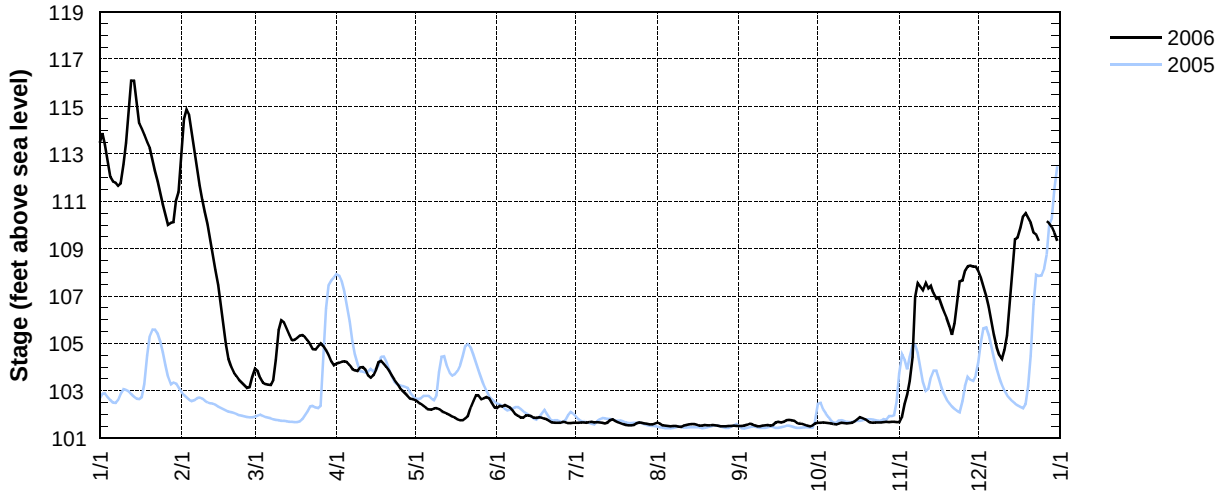
Latitude: 45 23 14 Longitude: 122 45 46 Source Agency: District 18 Watermaster

Day	Daily Elevation in Feet above Mean Sea Level for 2002											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC*
1	113.47	112.85	103.94	104.15	102.61	102.28	101.65	101.67	101.52	101.66	101.68	108.06
2	113.87	114.47	103.84	104.20	102.53	102.37	101.65	101.63	101.52	101.66	101.92	107.78
3	113.39	114.88	103.55	104.24	102.46	102.35	101.67	101.55	101.53	101.67	102.45	107.42
4	112.72	114.65	103.36	104.25	102.37	102.41	101.67	101.54	101.57	101.65	102.85	107.00
5	112.02	113.96	103.29	104.22	102.29	102.36	101.65	101.52	101.61	101.64	103.42	106.54
6	111.83	113.14	103.26	104.09	102.22	102.30	101.68	101.51	101.06	101.63	104.44	105.93
7	111.80	112.37	103.25	103.92	102.21	102.18	101.70	101.52	101.55	101.60	106.98	105.37
8	111.66	111.67	103.46	103.87	102.26	102.04	101.67	101.52	101.51	101.59	107.56	104.83
9	111.75	111.08	104.31	103.84	102.27	101.95	101.68	101.49	101.51	101.63	107.41	104.51
10	112.56	110.55	105.57	103.99	102.23	101.87	101.67	101.48	101.53	101.65	107.26	104.34
11	113.47	110.01	105.98	104.01	102.16	101.87	101.66	101.54	101.55	101.64	107.57	104.73
12	114.83	109.42	105.89	103.90	102.10	101.96	101.63	101.56	101.56	101.63	107.32	105.34
13	116.09	108.79	105.65	103.66	102.05	101.97	101.65	101.59	101.54	101.64	107.43	106.66
14	116.09	108.12	105.37	103.56	101.99	101.94	101.77	101.60	101.56	101.66	107.13	108.00
15	115.25	107.47	105.14	103.67	101.92	101.87	101.81	101.60	101.67	101.72	106.90	109.40
16	114.29	106.71	105.15	103.89	101.88	101.86	101.74	101.57	101.70	101.81	106.95	109.47
17	114.06	105.83	105.23	104.22	101.81	101.89	101.68	101.53	101.67	101.90	106.65	109.89
18	113.80	104.98	105.33	104.28	101.76	101.87	101.64	101.54	101.69	101.86	106.34	110.36
19	113.50	104.35	105.35	104.15	101.76	101.83	101.60	101.56	101.77	101.81	106.08	110.50
20	113.25	104.00	105.28	104.00	101.85	101.80	101.56	101.55	101.78	101.72	105.73	110.29
21	112.77	103.78	105.14	103.84	101.94	101.73	101.55	101.55	101.77	101.67	105.37	110.10
22	112.29	103.62	104.96	103.65	102.32	101.67	101.55	101.56	101.74	101.65	105.86	109.67
23	111.83	103.46	104.76	103.48	102.58	101.65	101.56	101.55	101.66	101.67	106.71	109.59
24	111.34	103.34	104.75	103.31	102.82	101.66	101.63	101.54	101.61	101.67	107.62	109.34
25	110.87	103.24	104.88	103.14	102.81	101.66	101.67	101.51	101.61	101.67	107.67	
26	110.43	103.13	105.00	103.02	102.66	101.70	101.65	101.51	101.58	101.68	108.08	
27	110.01	103.16	104.89	102.91	102.70	101.68	101.63	101.51	101.53	101.69	108.26	110.16
28	110.09	103.59	104.71	102.80	102.75	101.64	101.61	101.52	101.51	101.68	108.28	110.07
29	110.12	—	104.51	102.67	102.70	101.64	101.59	101.52	101.55	101.69	108.24	109.92
30	111.03	—	104.25	102.65	102.50	101.65	101.59	101.54	101.63	101.69	108.24	109.67
31	111.39	—	104.09	—	102.31	—	101.63	101.52	—	101.68	—	109.34
MEAN	112.64	108.09	104.65	103.72	102.28	101.92	101.65	101.55	101.60	101.68	106.28	108.08
MAX	116.09	114.88	105.98	104.28	102.82	102.41	101.81	101.67	101.78	101.90	108.28	110.50
MIN	110.01	103.13	103.25	102.65	101.76	101.64	101.55	101.48	101.51	101.59	101.68	104.34

YEAR 2006* MEAN=104.48 MAX=116.09 MIN=101.48

*Incomplete record

TRT — 14206956 (formerly 14206960) **— Tualatin River at Tualatin, Oregon [RM 8.9]**



UNITED STATES DEPARTMENT OF THE INTERIOR - GEOLOGICAL SURVEY - OREGON WATER SCIENCE CENTER

STATION NUMBER: 14207500 TUALATIN RIVER AT WEST LINN,OREG.

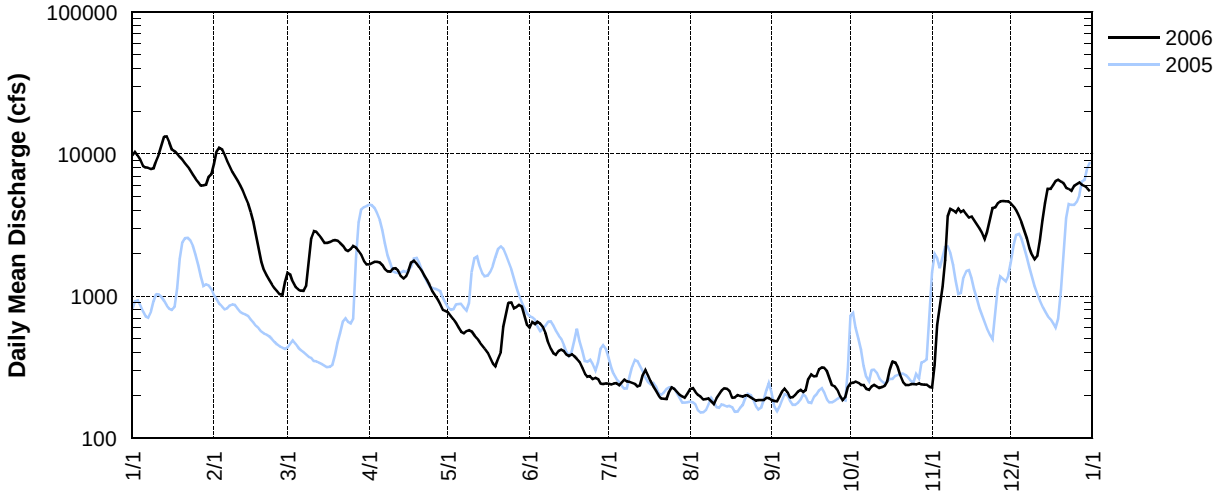
LATITUDE: 452103 LONGITUDE: 1224030 DRAINAGE AREA: 706.00 DATUM: 85.61

Discharge, Cubic Feet per Second, Calendar Year January to December 2006 Daily Mean Values

Day	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT†	NOV†	DEC†
1	9750	8470	1460	1670	772	600	242	222	186	245	228	4500
2	10400	10400	1430	1700	728	658	239	226	182	245	325	4270
3	9810	11100	1270	1740	690	635	244	213	182	251	626	3990
4	9040	10800	1160	1740	650	662	245	203	196	246	833	3670
5	8250	9910	1120	1720	602	644	236	198	214	237	1170	3340
6	8020	8920	1090	1650	563	613	247	188	224	237	1780	2970
7	8010	8150	1090	1550	549	550	258	189	212	223	3630	2570
8	7830	7490	1190	1490	570	472	250	191	194	219	4120	2200
9	7900	6940	1710	1480	578	427	250	183	194	232	4010	1950
10	8930	6460	2560	1560	567	399	245	175	201	238	3870	1810
11	9860	6000	2860	1570	531	387	242	191	214	233	4130	1920
12	11400	5520	2830	1520	506	412	233	204	219	227	3920	2470
13	13200	4980	2690	1390	475	422	235	216	211	230	4020	3410
14	13300	4450	2510	1330	452	413	279	225	218	234	3780	4510
15	12100	3900	2370	1380	428	390	303	223	261	251	3590	5680
16	10800	3330	2360	1510	403	380	277	214	281	306	3640	5690
17	10500	2710	2410	1720	368	390	253	193	273	345	3410	6030
18	10100	2150	2460	1780	337	379	231	194	274	341	3190	6460
19	9560	1740	2480	1700	321	363	217	202	306	315	2990	6610
20	9150	1530	2450	1600	365	346	201	199	315	276	2780	6400
21	8630	1400	2370	1500	402	314	191	197	314	250	2510	6200
22	8150	1310	2250	1390	608	286	189	201	299	237	2830	5780
23	7640	1210	2130	1290	741	271	189	201	267	237	3460	5690
24	7140	1140	2080	1190	895	273	213	195	237	241	4160	5500
25	6720	1090	2150	1090	903	261	229	190	232	241	4200	5970
26	6340	1030	2250	1020	820	267	224	184	219	239	4490	6150
27	6000	1020	2200	948	838	262	214	186	199	244	4640	6300
28	6010	1260	2080	878	868	242	203	185	186	240	4670	6080
29	6070	—	1950	801	847	240	197	185	195	238	4630	5940
30	6870	—	1780	789	736	244	194	193	230	239	4630	5730
31	7180	—	1670	—	631	—	205	191	—	230	—	5470
TOTAL	274660	134410	62410	42696	18744	12202	7175	6157	6935	7767	96262	145260
MEAN	8860	4800	2013	1423	605	407	231	199	231	251	3209	4686
MAX	13300	11100	2860	1780	903	662	303	226	315	345	4670	6610
MIN	6000	1020	1090	789	321	240	189	175	182	219	228	1810
AC-FT	544800	266600	123800	84690	37180	24200	14230	12210	13760	15410	190900	288100

† Provisional data–subject to revision

WSLO — 14207500 —Tualatin River at West Linn, Oregon [RM 1.75]



SPBR – 14211116 – SPRINGBROOK CR AT IRON MOUNTAIN RD NEAR LAKE OSWEGO, OREGON [RM 0.18]

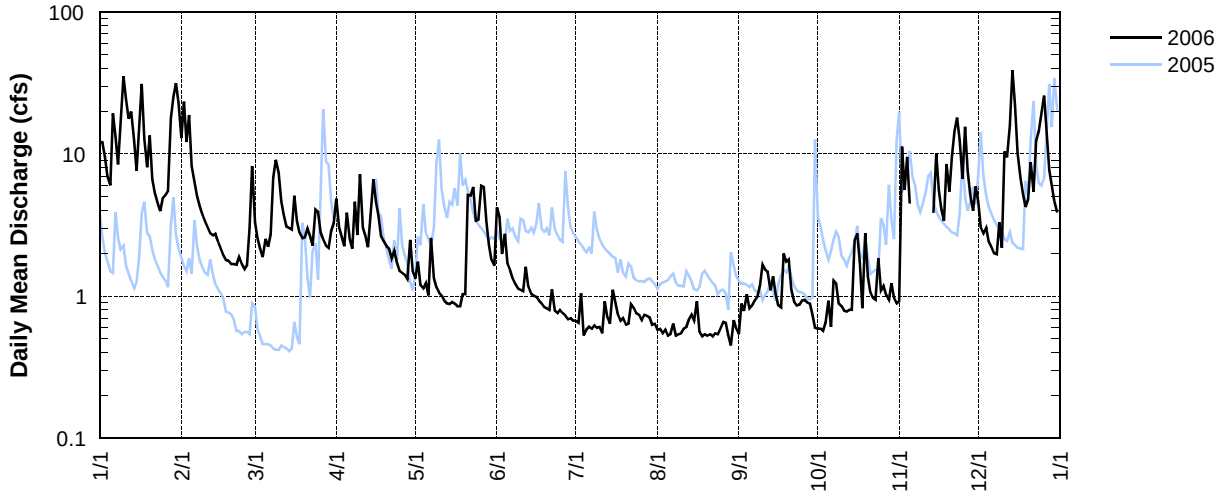
Latitude: 45 24 46 Longitude: 122 42 13 Source Agency: District 18 Watermaster

Day	2006 Daily Mean Discharge in Cubic Feet per Second											
	JAN	FEB	MAR	APR*	MAY	JUN	JUL	AUG	SEP	OCT	NOV*	DEC
1	12.1	13.0	3.33	4.86	1.33	4.20	0.67	0.58	0.54	0.59	0.92	4.66
2	12.1	23.3	2.54	3.03	1.75	3.62	0.65	0.59	0.89	0.59	11.3	3.04
3	9.52	12.2	2.15	2.61	1.20	1.98	1.05	0.55	0.79	0.57	5.60	2.76
4	6.96	18.8	1.88	2.24	1.14	2.75	0.53	0.58	1.03	0.65	9.53	3.03
5	6.00	8.25	2.53	3.87	1.24	1.69	0.58	0.53	0.82	0.93	4.47	2.40
6	19.2	6.33	2.22	2.53	1.01	1.52	0.61	0.54	0.86	0.61		2.21
7	13.4	5.05	2.72	2.15	2.57	1.33	0.59	0.64	0.93	1.29		2.00
8	8.47	4.32	6.84	4.62	1.34	1.22	0.62	0.53	0.99	1.23		1.97
9	15.5	3.77	9.11	2.69	1.15	1.13	0.60	0.54	1.19	0.89	4.06	3.32
10	35.1	3.38	7.35	7.19	1.06	1.11	0.61	0.55	1.66	0.85		2.19
11	24.3	3.04	4.69	3.04	1.01	1.09	0.55	0.59	1.53	0.79	5.83	10.4
12	17.7	2.77	3.72	2.65	0.93	1.61	0.92	0.61	1.48	0.78		9.49
13	19.9	2.68	3.10	2.21	0.89	1.17	0.71	0.69	1.10	0.80		15.9
14	12.6	2.75	3.01	3.87	0.88	1.04	0.64	0.74	1.38	0.80	3.85	38.9
15	7.64	2.39	2.94	6.62	0.91	1.01	1.11	0.67	1.03	2.51	10.1	22.1
16	15.8	2.16	5.09	4.61	0.89	0.99	0.91	0.92	0.86	2.76	5.55	10.2
17	31.1	1.93	3.39	3.66	0.85	0.93	0.74	0.56	0.83	1.74	4.07	6.84
18	12.9	1.79	2.79	2.62	0.85	0.89	0.67	0.52	1.99	0.82	3.39	5.23
19	8.06	1.78	2.55	2.43	1.03	0.84	0.70	0.54	1.75	2.78	8.51	4.24
20	13.5	1.68	2.59	2.25	1.03	0.82	0.63	0.53	1.82	1.39	5.44	4.80
21	6.68	1.68	2.98	2.15	5.14	0.80	0.64	0.54	1.11	1.06	9.67	8.76
22	5.30	1.66	2.65	1.84	5.09	1.12	0.88	0.52	0.91	0.97	14.5	5.41
23	4.50	1.88	2.27	2.08	5.86	0.79	0.83	0.55	0.86	0.94	18.1	12.4
24	3.98	1.67	4.05	1.71	3.40	0.76	0.76	0.54	0.87	1.85	12.6	14.4
25	4.92	1.55	3.91	1.50	3.46	0.80	0.74	0.60	0.93	1.10	6.70	19.1
26	5.15	1.65	2.82	1.45	5.97	0.76	0.68	0.66	0.94	1.18	15.5	25.8
27	5.49	3.01	2.51	1.41	5.86	0.73	0.74	0.65	0.90	1.02	7.61	13.5
28	17.8	8.21	2.26	1.32	3.37	0.69	0.73	0.53	0.89	0.94	5.20	7.73
29	25.3	—	2.18	2.49	2.29	0.70	0.71	0.45	0.74	1.24	4.00	6.01
30	31.6	—	2.88	1.48	1.80	0.67	0.63	0.68	0.60	0.97	5.92	4.64
31	22.8	—	3.26	—	1.64	—	0.64	0.59	—	0.89	—	3.86
TOTAL	435	143	106	87.2	66.9	38.8	22.1	18.3	32.2	35.5	182	277
MEAN	14.0	5.10	3.43	2.91	2.16	1.29	0.71	0.59	1.07	1.15	7.60	8.94
MAX	35.1	23.3	9.11	7.19	5.97	4.20	1.11	0.92	1.99	2.78	18.1	38.9
MIN	3.98	1.55	1.88	1.32	0.85	0.67	0.53	0.45	0.54	0.57	0.92	1.97
AC-FT	863	283	211	173	133	76.9	43.8	36.3	63.9	70.5	362	550

YEAR 2006* TOTAL=1,445 MEAN=4.02 MAX=38.9 MIN=0.45 AC-FT=2,866

*Incomplete record; Monthly and yearly totals were computed when at least 80% of the record was complete for a month or for all high flow months, respectively.

SPBR — 14211116 — Springbrook Creek at Iron Mountain Rd near Lake Oswego, Oregon [RM 0.18]



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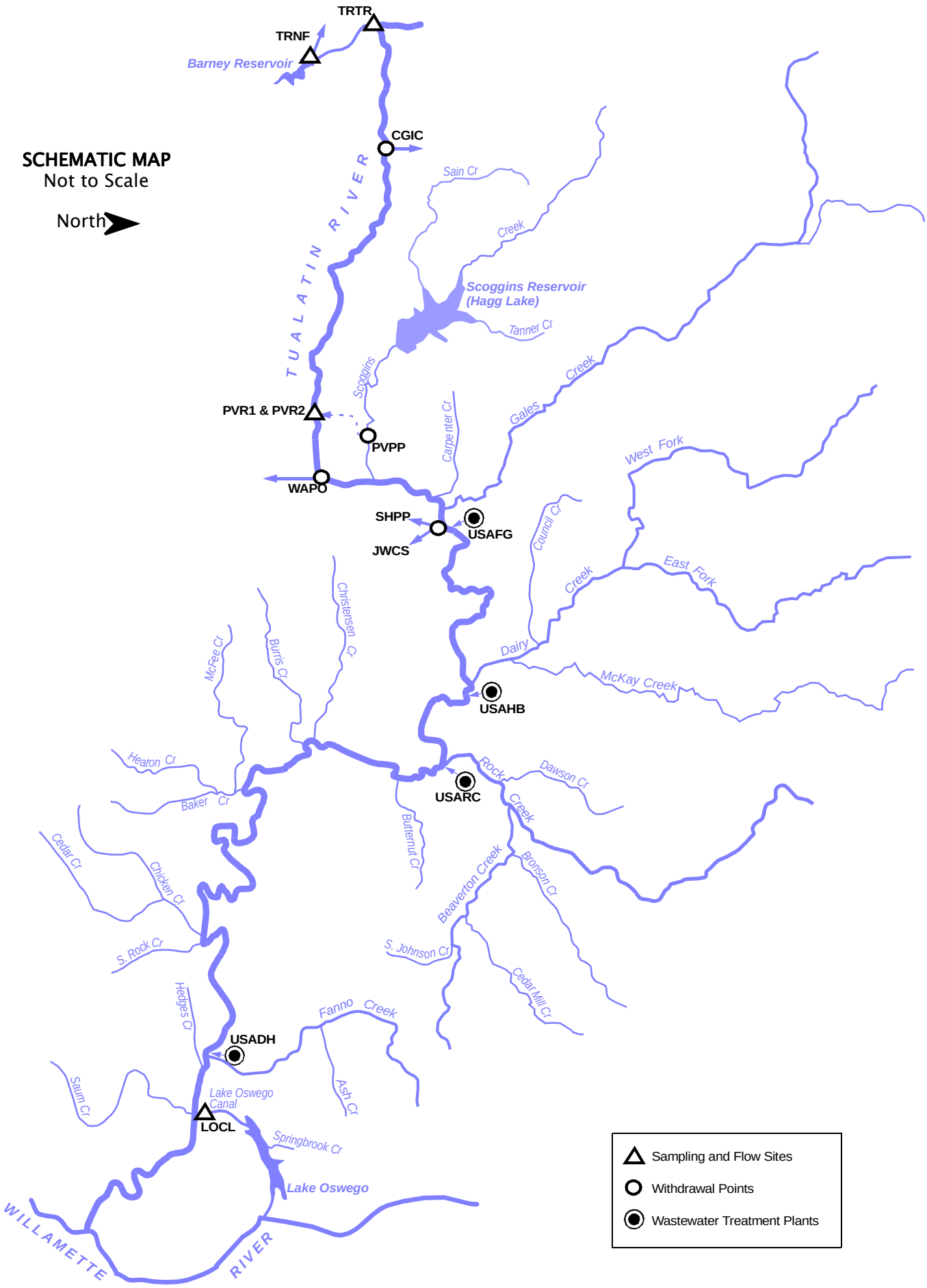
Appendix B

Selected Releases and Withdrawals

The following information is for selected water releases to and withdrawals from the Tualatin River and its tributaries. It is not a comprehensive listing of releases and withdrawals. Some of the data represent daily mean flows and some represent instantaneous measurements. All streamflow measurements are in Appendix A.

SELECTED RELEASES AND WITHDRAWALS — LOCATIONS



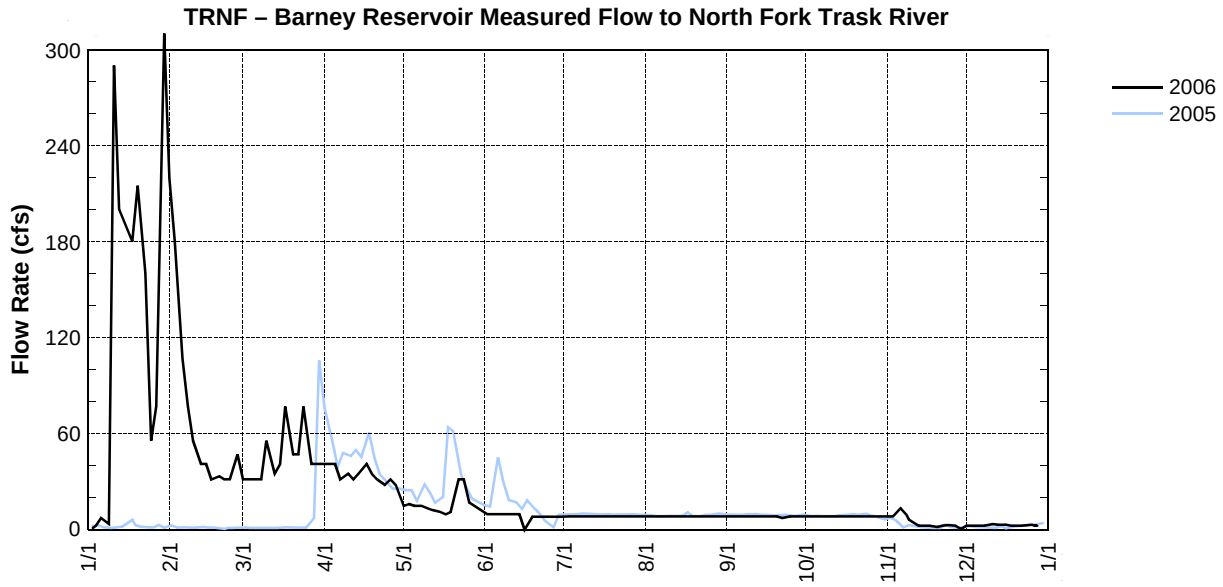
SELECTED RELEASE AND WITHDRAWAL SITES — ALPHABETICAL LISTING BY SITE CODE

SITE CODE	SITE NAME	RIVER MILE	PAGE
CGIC	City of Hillsboro Withdrawal at Cherry Grove	73.3	B-6
JWCS	Joint Water Commission Withdrawal at Springhill Pump Plant	56.1	B-10
PVPP	TVID Withdrawal at Patton Valley Pump Plant	1.71	B-7
PVR1	TVID—Patton Valley River Turnout #1 Release	63.13	B-7
PVR2	TVID—Patton Valley River Turnout #2 Release	64.26	B-7
SHPP	TVID–Withdrawal at Springhill Pump Plant	56.1	B-9
TRNF	Barney Reservoir Measured Flow to North Fork Trask River	—	B-4
TRTR	Barney Reservoir Release to Tualatin River	78.0	B-5
USADH	CWS Durham WWTP Release	9.33	B-14
USAFG	CWS Forest Grove WWTP Release	55.2	B-11
USAHB	CWS Hillsboro WWTP Release	43.8	B-12
USARC	CWS Rock Creek WWTP Release	38.08	B-13
WAPO	Wapato Canal Diversion	62.0	B-8

TRNF – BARNEY RESERVOIR MEASURED FLOW TO NORTH FORK TRASK RIVER

Source Agency: Joint Water Commission

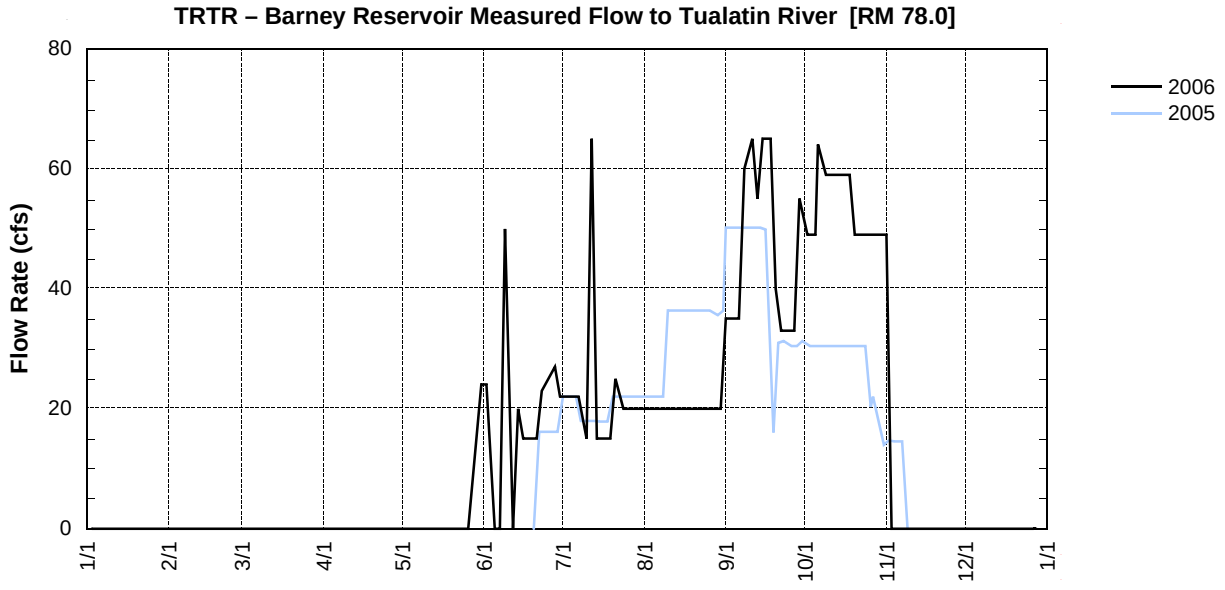
Day	2006 — Instantaneous Measured Flow Rate in Cubic Feet per Second											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1		220.0	31.5		14.8				8.2		8.2	2.4
2						9.6		8.2		8.2		
3	1.1	180.0	31.5	41.0	16.0		8.2				8.2	
4	2.3							8.2	8.2			2.4
5				41.0	14.8	9.6	8.2			8.2		
6	7.3	107.0	31.5						8.2	8.2	13.5	2.4
7				31.5		9.6	8.2	8.2				
8		77.0	31.5		14.8				8.2		9.6	2.4
9	3.5					9.6		8.2		8.2	6.4	
10		55.5	55.5	35.0	13.5		8.2					
11	290.0							8.2	8.2	8.2		3.5
12				31.5	12.3	9.6	8.2					
13	200.0	41.0	35.0						8.2	8.2	2.4	3.0
14				35.0		9.6	8.2	8.2				
15		41.0	41.0		11.0				8.2		2.4	
16						9.6		8.2		8.2		3.0
17		31.5	77.0	41.0	9.6		8.2				2.4	
18	180.0							8.2	8.2	8.2		2.4
19				35.0	11.0	8.0	8.2					
20	215.1	33.5	47.0						8.2	8.2	1.7	2.4
21				31.5		8.0	8.2	8.2				
22		31.5	47.0		31.5				7.3		2.4	2.4
23	160.3					8.0		8.2		8.2		
24		31.5	77.0	28.0	31.5		8.2				2.8	
25	55.5							8.2	8.2	8.2		
26				31.5	17.0		8.2					3.0
27	77.0	47.0	41.0						8.2	8.2	2.3	2.4
28			41.0	28.0		8.0	8.2	8.2				2.4
29		—	41.0						8.2		0.3	
30	310.0	—				8.0		8.2		8.2		
31		—	41.0	—		—	8.2				—	



TRTR — BARNEY RESERVOIR RELEASE TO TUALATIN RIVER [RM 78.0]

Source Agency: Joint Water Commission

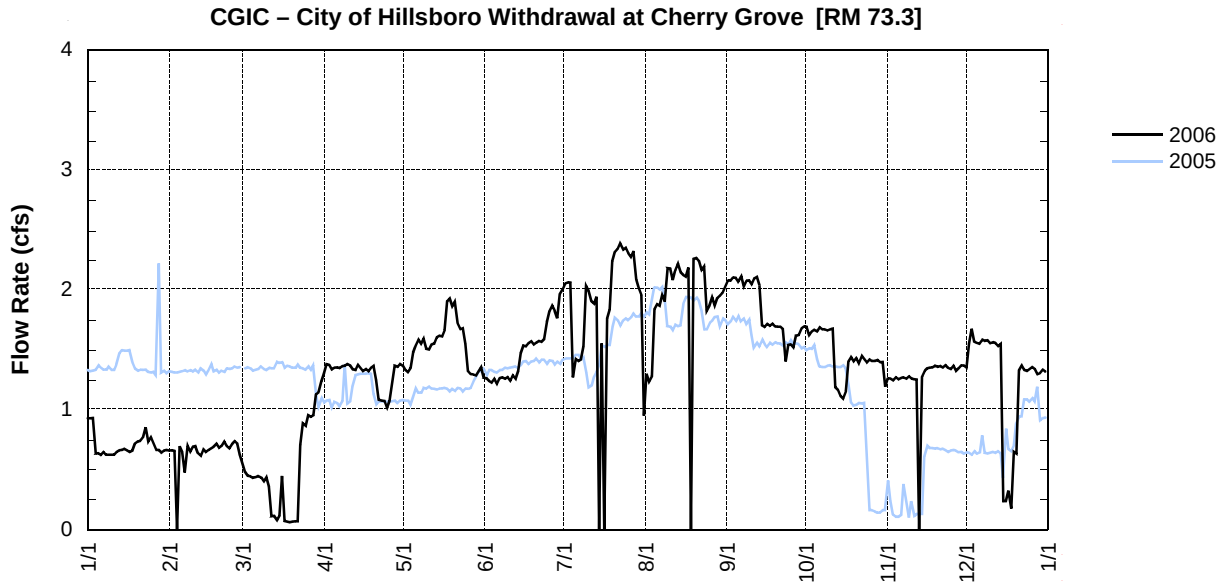
Day	2006 — Instantaneous Measured Flow Rate in Cubic Feet per Second											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1		0.0	0.0		0.0				35.0		49.0	0.0
2						24.0		20.0		49.0		
3	0.0	0.0	0.0	0.0	0.0		22.0				0.0	
4	0.0							20.0	35.0			0.0
5				0.0	0.0	0.0	22.0			49.0		
6	0.0	0.0	0.0						35.0	64.0	0.0	0.0
7				0.0		0.0	22.0	20.0				
8		0.0	0.0		0.0				60.0		0.0	0.0
9	0.0					50.0		20.0		59.0	0.0	
10		0.0	0.0	0.0	0.0		15.0					
11	0.0							20.0	65.0	59.0		0.0
12				0.0	0.0	0.0	65.0					
13	0.0	0.0	0.0						55.0	59.0	0.0	0.0
14				0.0		20.0	15.0	20.0				
15		0.0	0.0		0.0				65.0		0.0	
16						15.0		20.0		59.0		0.0
17		0.0	0.0	0.0	0.0		15.0				0.0	
18	0.0							20.0	65.0	59.0		0.0
19				0.0	0.0	15.0	15.0					
20	0.0	0.0	0.0						40.0	49.0	0.0	0.0
21				0.0		15.0	25.0	20.0				
22		0.0	0.0		0.0				33.0		0.0	0.0
23	0.0					23.0		20.0		49.0		
24		0.0	0.0	0.0	0.0		20.0				0.0	
25	0.0							20.0	33.0	49.0		
26				0.0	0.0		20.0					0.0
27	0.0	0.0	0.0						33.0	49.0	0.0	0.0
28			0.0	0.0		27.0	20.0	20.0				0.0
29		—	0.0						55.0		0.0	
30	0.0	—				22.0		20.0		49.0		
31		—	0.0	—	24.0	—	20.0		—		—	



CGIC — CITY OF HILLSBORO WITHDRAWAL AT CHERRY GROVE [RM 73.3]

Source Agency: Joint Water Commission

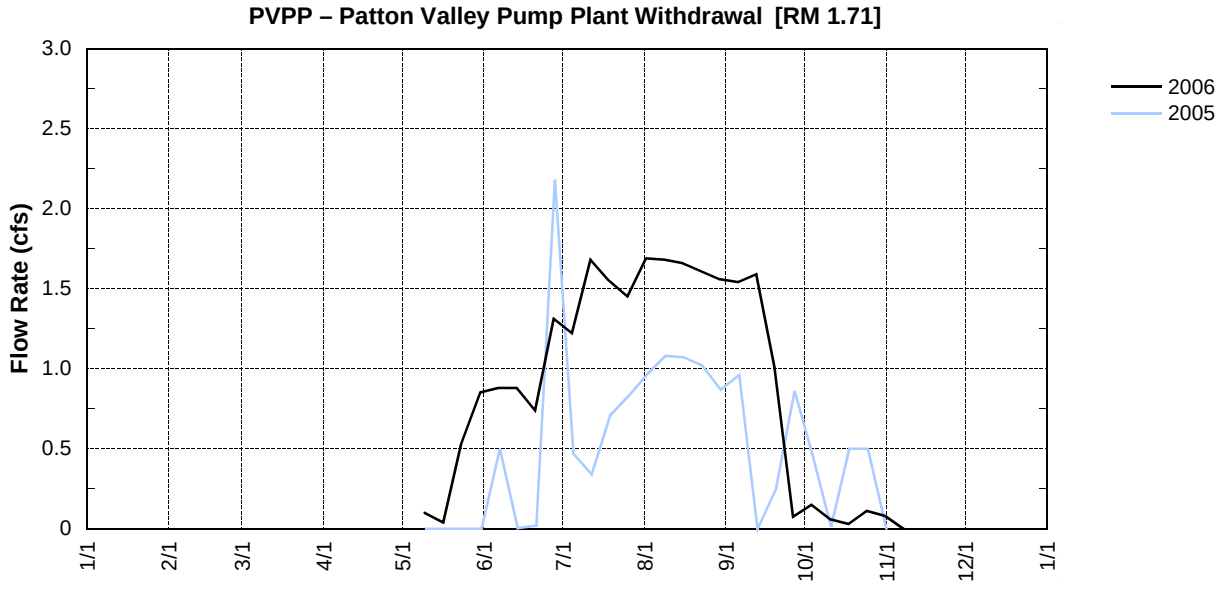
Day	2006 — Calculated Average Flow Rate in Cubic Feet per Second											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0.93	0.66	0.48	1.38	1.33	1.26	2.05	1.30	2.08	1.69	1.26	1.35
2	0.93	0.66	0.45	1.37	1.31	1.24	2.06	1.23	2.07	1.62	1.26	1.55
3	0.93	0.66	0.45	1.34	1.35	1.23	2.06	1.28	2.10	1.65	1.25	1.68
4	0.63	0.00	0.43	1.35	1.48	1.26	1.27	1.84	2.10	1.67	1.27	1.57
5	0.64	0.70	0.44	1.35	1.54	1.22	1.42	1.88	2.07	1.65	1.25	1.56
6	0.62	0.65	0.45	1.35	1.58	1.26	1.41	1.87	2.11	1.68	1.26	1.55
7	0.65	0.48	0.43	1.36	1.55	1.27	1.42	1.95	2.03	1.67	1.27	1.58
8	0.63	0.70	0.40	1.37	1.60	1.26	1.53	1.90	2.07	1.67	1.26	1.57
9	0.63	0.65	0.44	1.38	1.51	1.27	2.03	2.18	2.08	1.66	1.28	1.58
10	0.62	0.69	0.36	1.37	1.50	1.24	1.99	2.18	2.05	1.67	1.26	1.55
11	0.62	0.70	0.11	1.34	1.55	1.29	1.90	2.08	2.09	1.68	1.25	1.56
12	0.65	0.64	0.12	1.33	1.55	1.26	1.88	2.16	2.11	1.19	1.25	1.55
13	0.66	0.62	0.08	1.38	1.60	1.32	1.94	2.22	2.04	1.17	0.00	1.53
14	0.66	0.67	0.12	1.35	1.62	1.47	0.00	2.15	1.71	1.12	1.28	1.55
15	0.67	0.65	0.45	1.32	1.61	1.53	1.55	2.12	1.69	1.09	1.32	0.24
16	0.66	0.67	0.07	1.34	1.66	1.53	0.00	2.11	1.71	1.16	1.34	0.24
17	0.65	0.68	0.07	1.32	1.90	1.55	1.76	2.18	1.70	1.40	1.35	0.33
18	0.66	0.69	0.06	1.35	1.93	1.57	1.84	0.00	1.72	1.44	1.35	0.18
19	0.72	0.71	0.07	1.36	1.86	1.54	2.24	2.26	1.70	1.40	1.36	0.65
20	0.73	0.68	0.07	1.25	1.90	1.56	2.31	2.26	1.69	1.43	1.36	0.63
21	0.74	0.70	0.07	1.08	1.72	1.57	2.34	2.24	1.69	1.39	1.37	1.33
22	0.78	0.73	0.71	1.08	1.67	1.57	2.39	2.17	1.67	1.45	1.35	1.37
23	0.86	0.70	0.89	1.07	1.68	1.59	2.33	2.20	1.40	1.42	1.37	1.33
24	0.74	0.68	0.86	1.02	1.55	1.73	2.35	1.83	1.54	1.39	1.35	1.32
25	0.77	0.71	0.95	1.08	1.32	1.82	2.31	1.86	1.54	1.42	1.34	1.34
26	0.72	0.74	0.94	1.23	1.30	1.87	2.28	1.94	1.52	1.41	1.36	1.36
27	0.66	0.72	0.95	1.37	1.29	1.83	2.32	1.87	1.62	1.41	1.32	1.34
28	0.66	0.63	1.13	1.36	1.29	1.76	2.09	1.93	1.62	1.41	1.34	1.30
29	0.64	—	1.14	1.38	1.32	1.96	2.01	1.95	1.68	1.40	1.37	1.30
30	0.66	—	1.24	1.37	1.36	2.01	1.96	1.97	1.70	1.40	1.37	1.33
31	0.66	—	1.30	—	1.27	—	0.95	2.02	—	1.19	—	1.32



PATTON VALLEY PUMP PLANTS AND TURNOUTS

Source Agency: District 18 Watermaster

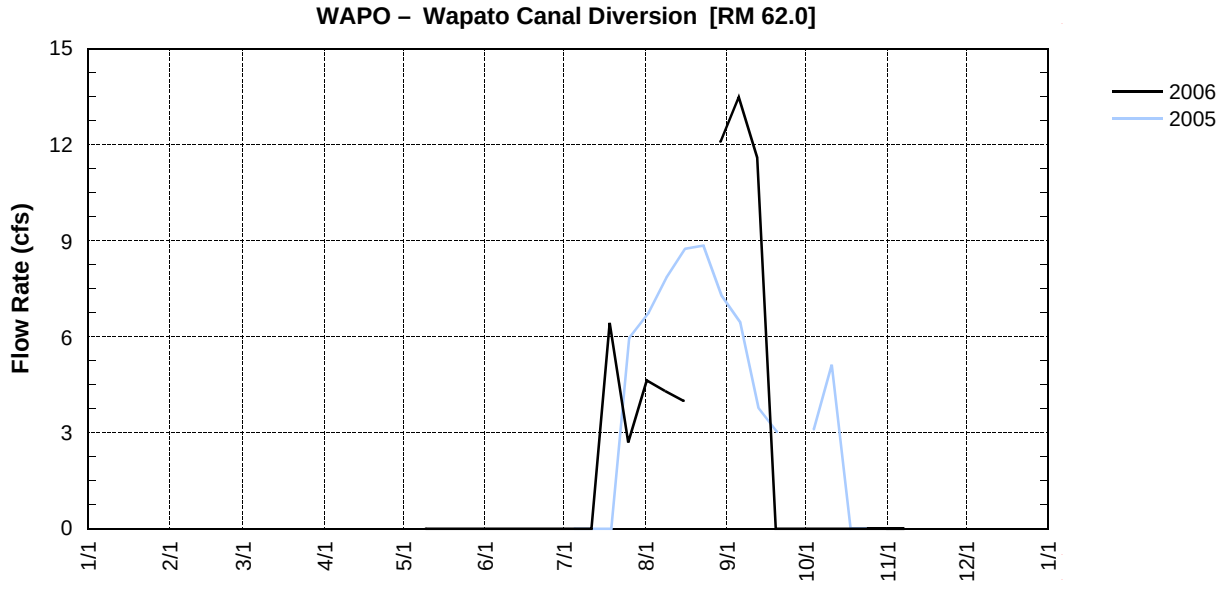
Date	2006 — Calculated Average Flow Rate in Cubic Feet per Second		
	PVPP — [RM 1.71] Patton Valley Pump Plant	PVR1 — [RM 63.13] Patton Valley River Turnout #1	PVR2 — [RM 64.26] Patton Valley River Turnout #2
5/9/2006	0.10	0.00	0.00
5/16/2006	0.04	0.00	0.00
5/23/2006	0.54	0.00	0.00
5/30/2006	0.85	0.00	0.00
6/6/2006	0.88	0.00	0.00
6/13/2006	0.88	0.00	0.00
6/20/2006	0.74	0.00	0.00
6/27/2006	1.31	0.00	0.00
7/4/2006	1.22	0.00	0.00
7/11/2006	1.68	0.00	0.00
7/18/2006	1.55	0.00	0.00
7/25/2006	1.45	0.00	0.00
8/1/2006	1.69	0.00	0.00
8/8/2006	1.68	0.00	0.00
8/15/2006	1.66	0.00	0.00
8/22/2006	1.61	0.00	0.00
8/29/2006	1.56	0.00	0.00
9/5/2006	1.54	0.00	0.00
9/12/2006	1.59	0.00	0.00
9/19/2006	1.01	0.00	0.00
9/26/2006	0.08	0.00	0.00
10/3/2006	0.15	0.00	0.00
10/10/2006	0.06	0.00	0.00
10/17/2006	0.03	0.00	0.00
10/24/2006	0.11	0.00	0.00
10/31/2006	0.08	0.00	0.00
11/7/2006	0.00	0.00	0.00



WAPO – WAPATO CANAL DIVERSION [RM 62.0]

Source Agency: District 18 Watermaster

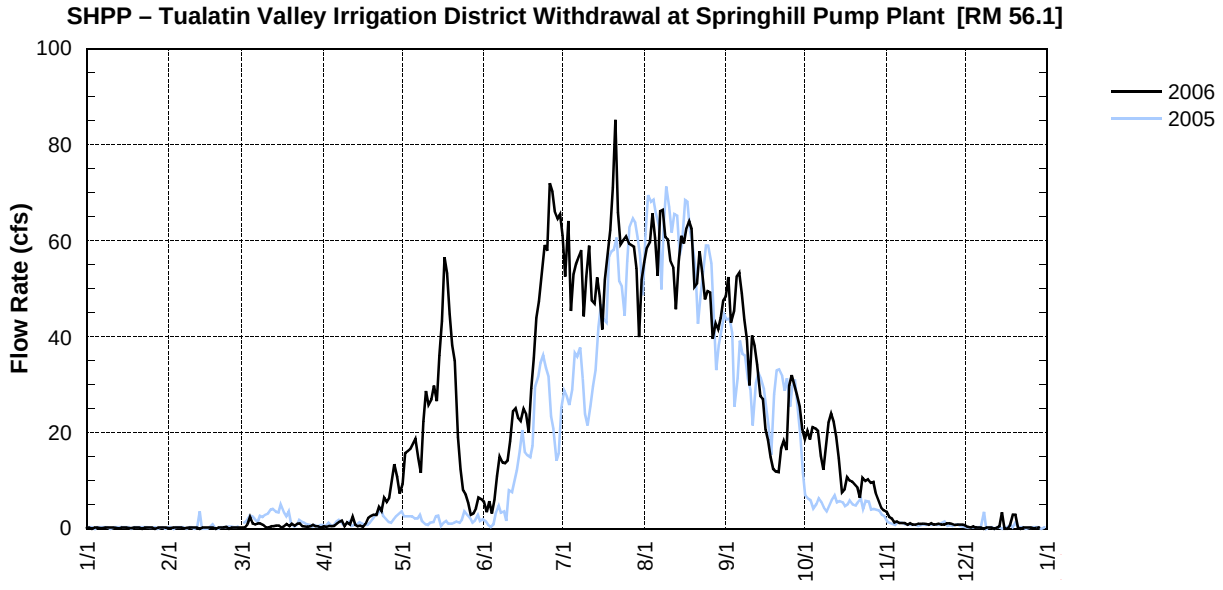
Date	Instantaneous Measured Flow Rate in Cubic Feet per Second
5/9/2006	0.00
5/16/2006	0.00
5/23/2006	0.00
5/30/2006	0.00
6/6/2006	0.00
6/13/2006	0.00
6/20/2006	0.00
6/27/2006	0.00
7/4/2006	0.00
7/11/2006	0.00
7/18/2006	6.44
7/25/2006	2.70
8/1/2006	4.64
8/8/2006	4.31
8/15/2006	4.00
8/22/2006	—
8/29/2006	12.10
9/5/2006	13.50
9/12/2006	11.60
9/19/2006	0.00
9/26/2006	0.00
10/3/2006	0.00
10/10/2006	0.00
10/17/2006	0.00
10/24/2006	0.00
10/31/2006	0.00
11/7/2006	0.00



SHPP – TVID WITHDRAWAL AT SPRINGHILL PUMP PLANT [RM 56.1]

Source Agency: US Geological Survey, Oregon Water Science Center

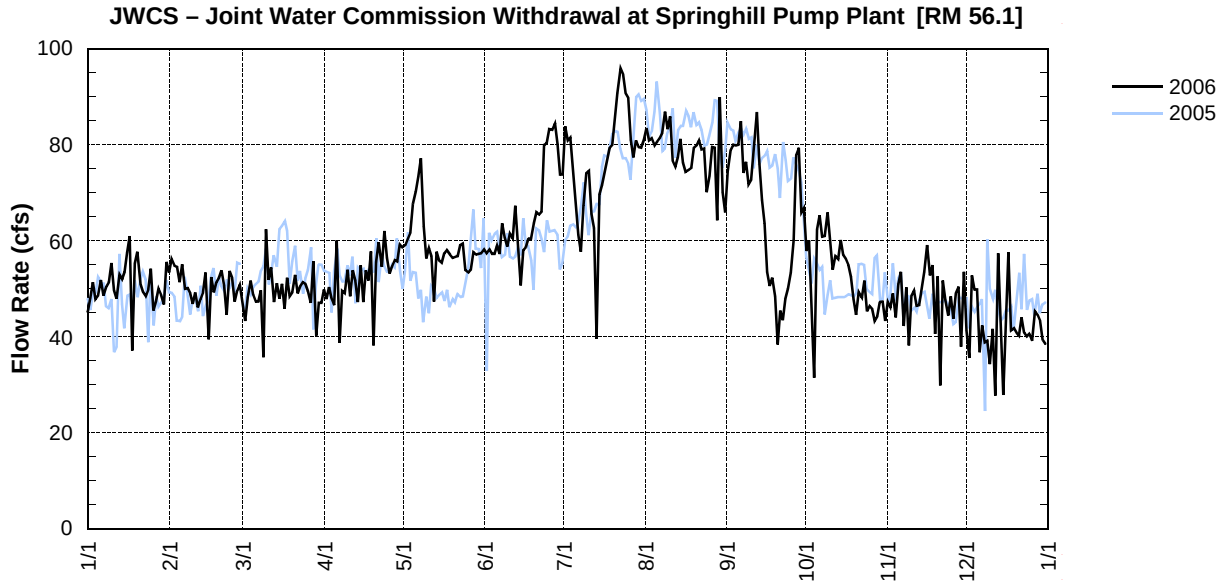
Day	2006 — Mean Daily Water Withdrawal in Cubic Feet per Second											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0.21	0.14	0.26	0.52	9.3	5.7	61	56	48	19	3.6	0.70
2	0.24	0.10	0.26	0.37	16	3.4	52	59	52	20	2.5	0.36
3	0.00	0.24	0.88	0.58	16	5.7	64	60	43	19	2.2	0.26
4	0.24	0.22	2.5	0.52	17	3.2	45	66	45	21	1.3	0.52
5	0.24	0.24	1.1	0.62	18	6.0	53	61	53	21	1.5	0.26
6	0.14	0.24	0.93	1.0	19	11	55	53	53	20	1.2	0.25
7	0.10	0.05	1.1	1.4	15	15	57	66	49	15	1.2	0.25
8	0.24	0.20	1.1	1.7	12	14	58	66	44	12	1.1	0.00
9	0.25	0.24	0.84	0.52	22	14	44	61	39	17	0.87	0.25
10	0.24	0.24	0.26	1.4	29	14	53	60	30	22	1.1	0.25
11	0.24	0.24	0.26	0.85	26	18	59	56	40	24	0.84	0.25
12	0.18	0.25	0.51	2.5	27	25	48	54	38	22	0.84	0.00
13	0.06	0.00	0.56	0.87	30	25	47	46	34	19	1.0	0.25
14	0.24	0.25	0.69	0.54	27	23	52	56	28	15	0.95	0.57
15	0.24	0.25	0.67	0.66	36	22	48	61	27	7.6	1.0	3.4
16	0.24	0.25	0.26	0.37	43	25	42	59	21	8.2	0.96	0.00
17	0.11	0.25	0.52	1.0	57	24	52	63	18	11	0.86	0.00
18	0.13	0.25	0.94	2.3	53	20	57	64	15	10	1.1	0.72
19	0.24	0.00	0.51	2.6	45	29	62	62	12	9.9	0.87	2.9
20	0.24	0.25	1.0	2.9	38	36	71	50	12	9.3	0.92	2.9
21	0.24	0.25	0.68	2.9	35	44	85	51	12	8.7	1.0	0.25
22	0.00	0.25	1.0	4.6	19	47	66	58	17	6.5	0.85	0.00
23	0.24	0.34	1.1	3.6	12	53	59	54	18	11	0.83	0.25
24	0.24	0.00	0.51	6.5	8.0	59	60	48	16	10	1.1	0.25
25	0.24	0.25	0.41	5.6	7.2	58	61	50	30	10	1.1	0.25
26	0.24	0.25	0.36	6.5	5.4	72	59	49	32	9.6	0.98	0.25
27	0.00	0.25	0.54	9.8	2.9	70	59	40	30	9.8	0.80	0.05
28	0.24	0.25	0.86	13	3.2	66	59	43	28	7.3	0.82	0.20
29	0.24	—	0.52	11	4.3	65	54	41	25	5.8	0.83	0.25
30	0.24	—	0.54	7.3	6.6	66	40	44	21	4.4	0.83	0.25
31	0.24	—	0.27	—	6.2	—	52	48	—	3.8	—	0.25



JWCS – JOINT WATER COMMISSION WITHDRAWAL AT SPRINGHILL PUMP PLANT [RM 56.1]

Source Agency: Joint Water Commission

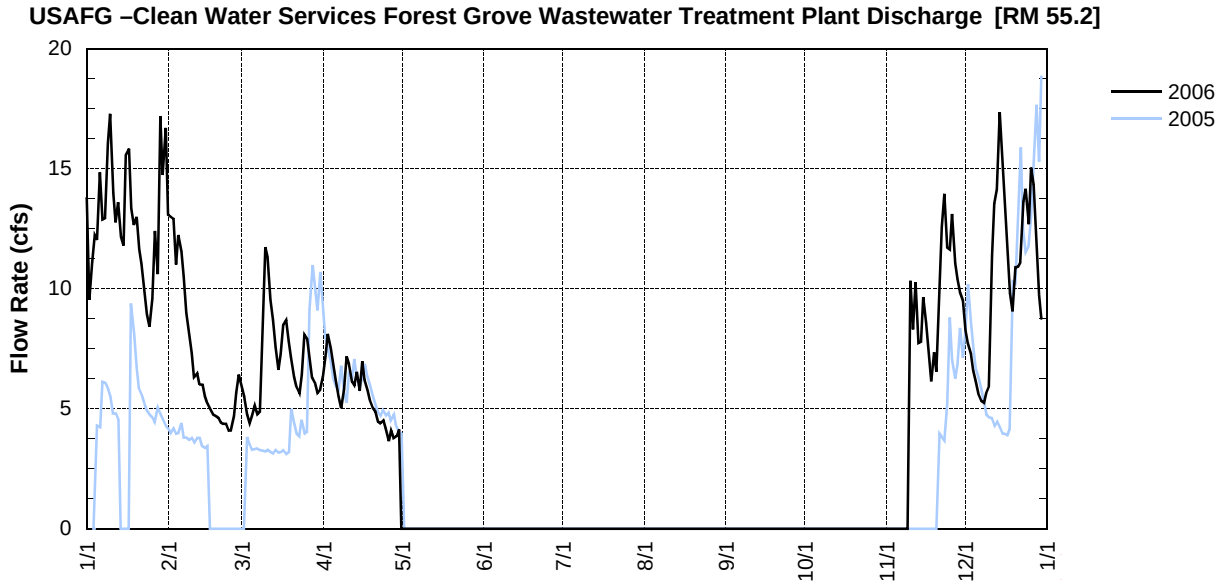
Day	2006 — Calculated Average Flow Rate in Cubic Feet per Second											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	45	53	43	48	59	57	84	83	75	58	47	41
2	48	56	48	50	60	58	81	81	79	60	46	36
3	51	55	52	48	62	57	82	81	80	45	49	53
4	48	55	49	47	68	57	76	80	80	31	44	50
5	49	51	47	60	70	59	69	81	80	62	51	50
6	52	55	47	39	73	57	61	81	85	65	54	37
7	49	50	50	50	77	64	58	82	74	61	42	42
8	50	50	36	49	63	61	67	87	76	61	50	39
9	51	49	62	54	56	59	74	83	72	66	38	39
10	55	47	52	48	58	61	75	86	73	60	49	34
11	50	49	54	54	57	60	66	77	80	54	50	42
12	48	46	47	52	47	67	63	75	87	57	46	28
13	53	48	51	47	58	58	40	77	76	56	47	57
14	52	49	48	55	56	51	70	81	69	60	50	40
15	54	53	51	47	55	58	72	76	64	57	54	28
16	58	39	46	54	57	59	74	74	54	56	59	44
17	61	52	52	52	58	60	77	75	51	55	53	58
18	37	49	48	58	57	60	79	75	52	52	55	41
19	55	51	49	38	56	64	80	79	48	48	41	42
20	58	52	53	56	57	66	85	80	38	45	53	41
21	51	54	49	60	57	65	91	81	45	49	30	40
22	49	51	51	55	59	66	96	79	43	48	52	44
23	48	45	51	62	59	80	95	79	48	52	48	41
24	50	54	51	56	54	80	91	70	50	45	44	40
25	54	52	50	53	53	83	90	73	53	46	48	41
26	45	47	47	55	54	83	81	80	60	46	44	39
27	47	50	56	56	58	84	77	79	78	43	49	45
28	50	51	40	56	57	80	81	64	79	44	50	45
29	49	—	47	59	57	74	80	90	66	47	38	43
30	47	—	47	59	57	74	79	70	67	47	54	39
31	56	—	50	—	58	—	81	66	—	43	—	39



USAFG – CLEAN WATER SERVICES FOREST GROVE WASTEWATER TREATMENT PLANT DISCHARGE [RM 55.2]

Source Agency: Clean Water Services

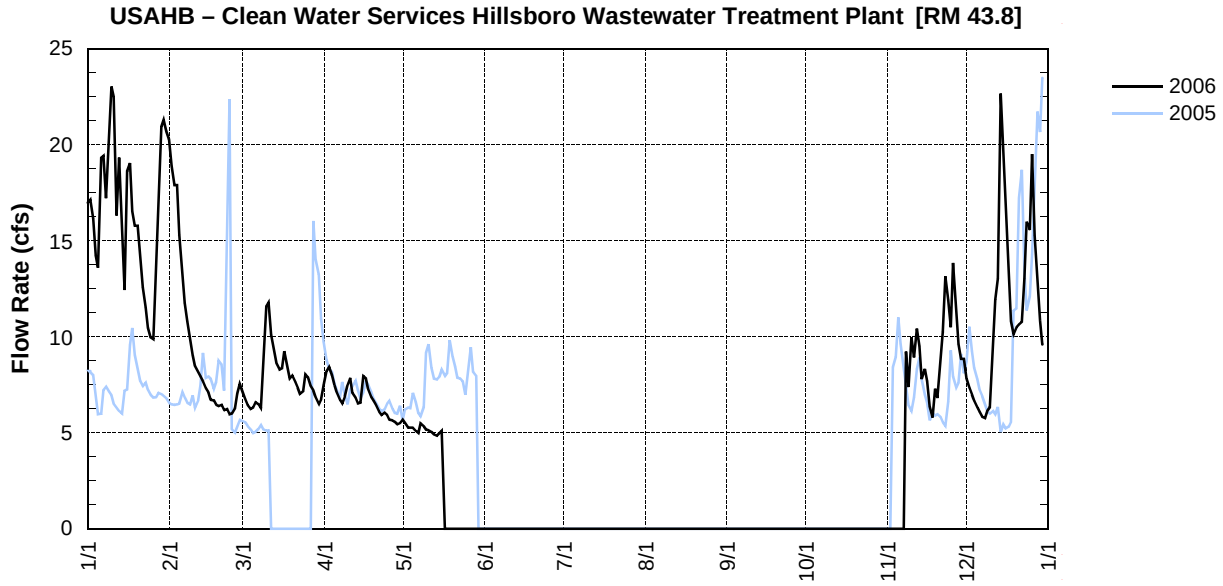
Day	2006 — Mean Daily Water Discharge in Cubic Feet per Second											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	13.8	13.1	5.5	7.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.3
2	9.5	13.0	4.8	8.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7
3	11.1	12.9	4.4	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.3
4	12.2	11.0	4.7	6.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.6
5	12.0	12.2	5.1	6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1
6	14.9	11.5	4.8	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6
7	12.9	10.5	4.9	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3
8	12.9	9.0	8.5	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3
9	16.1	8.1	11.7	7.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7
10	17.3	7.3	11.3	6.9	0.0	0.0	0.0	0.0	0.0	0.0	10.3	6.0
11	14.0	6.3	9.5	6.1	0.0	0.0	0.0	0.0	0.0	0.0	8.3	11.4
12	12.8	6.5	8.7	6.0	0.0	0.0	0.0	0.0	0.0	0.0	10.3	13.5
13	13.6	6.0	7.6	6.5	0.0	0.0	0.0	0.0	0.0	0.0	7.7	14.1
14	12.2	6.0	6.6	5.8	0.0	0.0	0.0	0.0	0.0	0.0	7.8	17.4
15	11.8	5.5	7.3	7.0	0.0	0.0	0.0	0.0	0.0	0.0	9.7	15.2
16	15.6	5.2	8.5	6.2	0.0	0.0	0.0	0.0	0.0	0.0	8.6	13.9
17	15.8	5.0	8.7	5.7	0.0	0.0	0.0	0.0	0.0	0.0	7.4	11.5
18	13.4	4.8	7.8	5.3	0.0	0.0	0.0	0.0	0.0	0.0	6.1	9.8
19	12.7	4.7	7.2	5.1	0.0	0.0	0.0	0.0	0.0	0.0	7.3	9.1
20	13.0	4.6	6.3	4.9	0.0	0.0	0.0	0.0	0.0	0.0	6.6	10.9
21	11.7	4.4	5.9	4.5	0.0	0.0	0.0	0.0	0.0	0.0	10.4	10.9
22	11.0	4.4	5.6	4.4	0.0	0.0	0.0	0.0	0.0	0.0	12.6	11.1
23	9.8	4.4	6.4	4.5	0.0	0.0	0.0	0.0	0.0	0.0	14.0	13.6
24	8.9	4.1	8.1	4.2	0.0	0.0	0.0	0.0	0.0	0.0	11.7	14.2
25	8.4	4.1	7.9	3.7	0.0	0.0	0.0	0.0	0.0	0.0	11.6	12.7
26	9.6	4.7	7.0	4.1	0.0	0.0	0.0	0.0	0.0	0.0	13.1	15.1
27	12.4	5.7	6.3	3.8	0.0	0.0	0.0	0.0	0.0	0.0	11.1	14.3
28	10.6	6.4	6.1	3.9	0.0	0.0	0.0	0.0	0.0	0.0	10.4	11.8
29	17.2	—	5.7	4.1	0.0	0.0	0.0	0.0	0.0	0.0	9.9	9.7
30	14.7	—	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.5	8.8
31	16.7	—	6.4	—	0.0	—	0.0	0.0	—	0.0	—	7.8



USAHB – CLEAN WATER SERVICES HILLSBORO WASTEWATER TREATMENT PLANT DISCHARGE [RM 43.8]

Source Agency: Clean Water Services

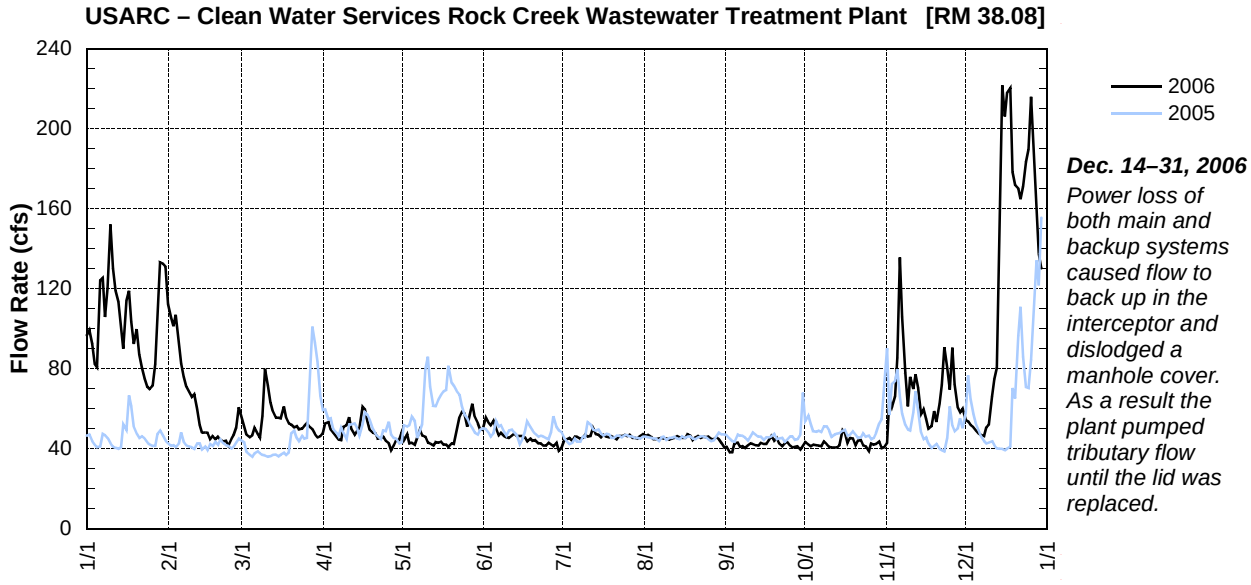
Day	2006 — Mean Daily Water Discharge in Cubic Feet per Second											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	17.0	20.3	6.7	8.2	5.5	0.0	0.0	0.0	0.0	0.0	0.0	7.8
2	17.1	18.9	6.5	8.4	5.3	0.0	0.0	0.0	0.0	0.0	0.0	7.4
3	16.2	17.9	6.2	8.0	5.2	0.0	0.0	0.0	0.0	0.0	0.0	7.0
4	14.2	17.9	6.3	7.5	5.3	0.0	0.0	0.0	0.0	0.0	0.0	6.7
5	13.6	15.3	6.6	7.1	5.1	0.0	0.0	0.0	0.0	0.0	0.0	6.3
6	19.3	13.3	6.5	6.7	5.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1
7	19.4	11.7	6.3	6.5	5.5	0.0	0.0	0.0	0.0	0.0	0.0	5.8
8	17.2	10.8	8.6	6.9	5.3	0.0	0.0	0.0	0.0	0.0	9.2	5.8
9	20.5	9.9	11.6	7.5	5.2	0.0	0.0	0.0	0.0	0.0	7.4	6.2
10	23.0	9.0	11.8	7.9	5.1	0.0	0.0	0.0	0.0	0.0	10.0	6.3
11	22.5	8.5	10.1	7.1	5.0	0.0	0.0	0.0	0.0	0.0	8.9	9.8
12	16.3	8.1	9.3	6.8	4.9	0.0	0.0	0.0	0.0	0.0	10.4	11.9
13	19.3	7.9	8.6	6.5	4.9	0.0	0.0	0.0	0.0	0.0	9.5	13.0
14	15.1	7.7	8.3	6.6	5.0	0.0	0.0	0.0	0.0	0.0	7.8	22.6
15	12.4	7.3	8.4	8.0	5.1	0.0	0.0	0.0	0.0	0.0	8.3	19.5
16	18.6	7.1	9.2	7.8	0.0	0.0	0.0	0.0	0.0	0.0	7.7	16.9
17	19.0	6.7	8.4	7.2	0.0	0.0	0.0	0.0	0.0	0.0	6.4	12.8
18	16.5	6.7	7.8	6.8	0.0	0.0	0.0	0.0	0.0	0.0	5.8	10.8
19	15.8	6.5	8.0	6.7	0.0	0.0	0.0	0.0	0.0	0.0	7.3	10.1
20	15.8	6.4	7.7	6.4	0.0	0.0	0.0	0.0	0.0	0.0	6.8	10.5
21	14.3	6.5	7.4	6.1	0.0	0.0	0.0	0.0	0.0	0.0	9.0	10.6
22	12.6	6.2	7.0	5.9	0.0	0.0	0.0	0.0	0.0	0.0	10.3	10.8
23	11.5	6.2	7.2	6.0	0.0	0.0	0.0	0.0	0.0	0.0	13.1	13.0
24	10.4	5.9	8.0	5.9	0.0	0.0	0.0	0.0	0.0	0.0	11.9	16.0
25	10.0	6.0	7.9	5.7	0.0	0.0	0.0	0.0	0.0	0.0	10.5	15.5
26	9.9	6.3	7.4	5.6	0.0	0.0	0.0	0.0	0.0	0.0	13.9	19.5
27	12.5	7.0	7.2	5.6	0.0	0.0	0.0	0.0	0.0	0.0	11.5	15.3
28	16.3	7.5	6.8	5.5	0.0	0.0	0.0	0.0	0.0	0.0	9.6	12.7
29	20.9	—	6.5	5.5	0.0	0.0	0.0	0.0	0.0	0.0	8.9	10.8
30	21.3	—	6.8	5.7	0.0	0.0	0.0	0.0	0.0	0.0	8.8	9.6
31	20.7	—	7.5	—	0.0	—	0.0	0.0	—	0.0	—	9.1



USARC – CLEAN WATER SERVICES ROCK CREEK WASTEWATER TREATMENT PLANT DISCHARGE [RM 38.08]

Source Agency: Clean Water Services

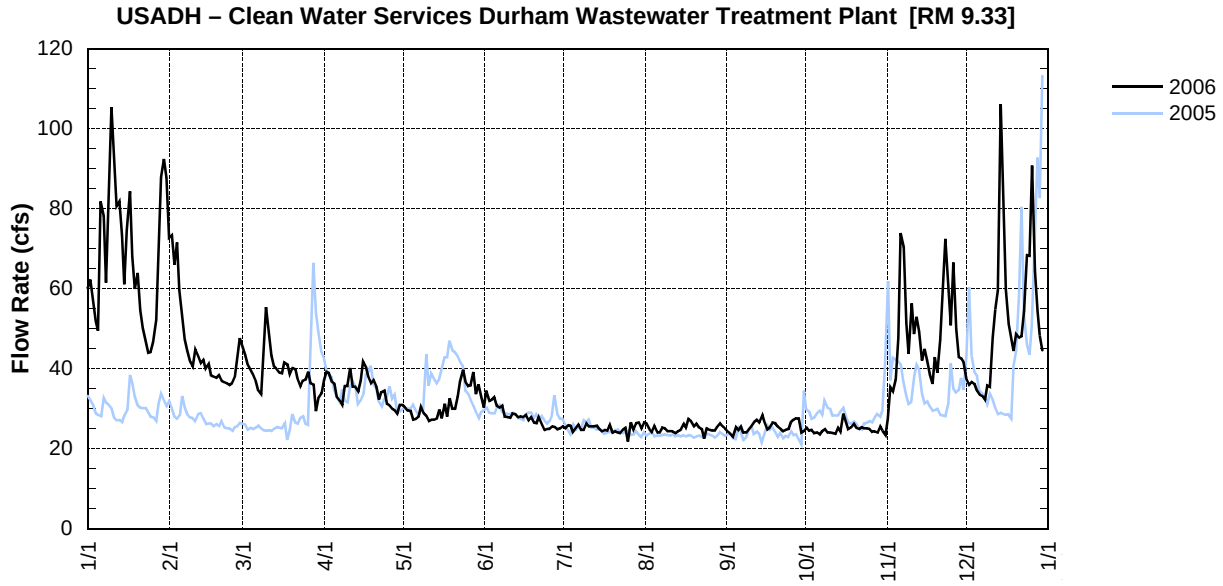
Day	2006 — Mean Daily Water Discharge in Cubic Feet per Second											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	96.6	112.1	50.9	52.8	44.3	55.4	44.1	46.4	40.9	43.3	42.9	54.2
2	99.3	106.0	45.7	49.6	42.8	51.9	45.4	45.9	38.1	41.3	60.6	53.6
3	92.3	101.1	46.8	48.1	42.9	53.9	43.9	44.8	42.8	41.9	66.3	52.0
4	82.5	107.2	50.5	46.1	42.1	50.0	46.0	44.9	42.9	41.9	85.5	50.7
5	80.8	92.1	47.4	44.5	45.8	46.6	45.9	45.3	40.8	41.4	135.7	49.0
6	124.2	82.7	45.5	44.1	49.3	48.0	45.0	45.4	41.3	41.3	105.9	47.7
7	125.3	76.0	56.3	50.9	46.7	46.4	45.4	45.0	40.4	43.6	77.9	46.9
8	105.8	71.1	79.9	51.8	46.1	45.6	46.9	45.1	41.8	42.4	61.2	46.4
9	120.4	68.2	71.7	56.0	43.0	45.5	46.0	44.5	42.7	40.9	76.1	50.7
10	152.3	65.8	63.2	49.8	42.6	46.8	46.4	45.0	42.5	40.6	69.8	52.1
11	130.2	67.2	58.8	47.0	41.9	47.5	50.4	45.6	41.8	40.6	77.0	66.1
12	118.9	59.8	55.6	48.7	43.2	46.3	47.4	46.4	41.4	40.5	70.5	74.6
13	113.6	51.8	55.4	50.3	43.0	46.5	46.8	45.8	43.0	41.8	57.5	80.6
14	100.9	47.8	55.3	61.1	43.7	46.3	45.8	45.6	42.5	49.4	59.7	162.0
15	89.9	48.1	61.0	59.7	42.1	45.8	46.8	45.6	42.4	48.3	54.9	221.6
16	114.0	47.7	55.6	53.8	42.2	43.7	46.1	47.4	44.2	43.1	50.1	206.2
17	118.9	44.9	52.6	49.5	40.8	45.2	45.8	46.6	46.2	45.3	51.3	218.0
18	103.6	46.2	52.1	48.0	42.8	44.0	46.2	44.2	43.9	45.3	58.8	220.4
19	92.3	44.9	50.6	47.6	42.5	44.1	45.8	45.7	45.3	41.8	53.5	178.3
20	99.8	46.1	51.4	45.3	48.6	42.8	44.8	46.4	42.8	44.0	62.5	172.1
21	87.1	44.6	49.9	45.5	56.0	42.6	46.2	45.5	41.3	44.3	72.0	170.0
22	80.7	43.5	50.1	46.2	58.7	41.4	46.3	46.2	42.7	41.7	90.8	164.6
23	75.1	43.9	51.7	43.9	57.7	41.5	46.9	45.8	43.7	41.1	80.6	171.0
24	71.1	41.5	52.7	42.7	51.0	43.1	46.3	46.1	41.4	38.7	69.6	183.2
25	69.7	45.1	50.7	39.3	56.9	42.2	46.9	44.9	40.7	42.6	90.5	189.8
26	71.6	47.0	49.6	41.7	62.5	41.1	45.3	44.8	40.8	42.1	72.2	216.0
27	82.4	50.7	47.2	44.1	56.1	42.9	45.4	45.8	41.2	42.2	60.4	195.8
28	103.1	60.6	45.8	44.2	52.7	39.1	45.1	44.7	39.5	43.5	58.1	159.6
29	133.4	—	46.5	48.2	49.6	40.3	46.4	42.7	41.6	40.1	60.2	137.7
30	132.5	—	47.8	44.3	49.5	44.1	47.4	40.7	43.3	40.6	54.2	130.4
31	131.0	—	52.8	—	55.4	—	46.4	40.9	—	42.9	—	108.9



USADH – CLEAN WATER SERVICES DURHAM WASTEWATER TREATMENT PLANT DISCHARGE [RM 38.08]

Source Agency: Clean Water Services

Day	2006 — Mean Daily Water Discharge in Cubic Feet per Second											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	60.2	72.8	43.4	39.3	30.3	34.6	25.1	26.3	24.2	25.3	27.3	37.3
2	62.3	73.3	41.0	39.0	29.5	32.0	26.0	24.8	23.7	24.5	35.4	35.9
3	57.1	66.0	39.9	36.8	29.4	32.3	25.8	24.3	22.9	24.6	34.3	36.7
4	52.0	71.5	38.4	36.2	27.2	32.9	24.2	25.7	25.4	23.9	37.3	36.2
5	49.5	59.7	36.8	33.0	27.4	30.8	25.1	24.1	24.7	24.0	47.6	34.4
6	81.7	52.1	34.7	32.0	28.0	30.2	26.1	24.0	25.6	23.6	73.8	33.5
7	78.1	47.4	33.6	31.0	30.5	30.8	24.7	25.3	24.1	24.4	70.4	33.2
8	61.5	44.5	43.0	35.6	28.9	28.0	24.6	25.2	24.1	24.9	51.5	32.3
9	78.4	41.7	55.4	35.6	28.3	27.8	26.3	24.3	24.8	24.1	43.7	35.7
10	105.4	40.5	48.6	40.2	26.9	27.7	25.6	24.3	25.6	24.1	56.4	35.5
11	92.4	44.8	43.2	35.5	27.2	28.8	25.5	24.3	26.8	24.0	48.8	47.9
12	80.7	43.1	40.6	35.5	27.2	28.6	25.6	23.9	27.2	23.8	53.0	54.8
13	82.0	41.4	40.1	34.2	27.5	27.9	25.8	24.3	26.7	25.3	49.3	59.6
14	73.3	42.2	39.0	37.1	29.9	28.2	25.0	24.6	28.5	24.2	42.0	106.2
15	61.1	40.0	38.8	41.8	27.5	27.8	24.4	26.2	26.5	28.8	45.0	83.1
16	74.8	41.2	41.6	40.2	31.2	28.5	24.7	25.4	24.8	26.9	42.0	59.9
17	84.3	38.3	41.1	37.9	28.0	27.0	24.6	27.4	25.2	25.0	38.4	51.2
18	68.3	38.1	38.8	36.4	32.6	27.8	26.0	26.9	26.4	25.5	36.2	47.4
19	59.9	37.7	40.2	37.2	30.0	26.5	24.1	25.6	26.4	26.2	42.9	44.4
20	64.0	38.4	39.9	35.5	30.0	26.3	24.4	26.2	25.5	25.3	39.0	48.7
21	54.6	37.1	37.4	32.4	33.1	27.9	24.1	25.4	25.0	24.9	47.3	47.9
22	50.1	36.6	35.7	34.1	36.7	26.0	23.8	24.9	24.3	25.4	59.0	48.1
23	46.8	36.5	37.0	34.6	39.8	24.7	24.9	22.6	24.7	25.1	72.4	54.5
24	44.0	35.9	37.3	31.3	36.5	25.0	25.3	25.2	25.0	25.2	60.4	68.4
25	44.2	36.4	39.3	31.0	35.6	25.0	21.8	24.7	26.7	25.0	50.9	68.3
26	46.6	38.3	36.4	29.9	35.7	25.5	26.7	24.5	27.3	24.3	66.5	90.7
27	52.3	43.0	36.0	29.6	39.1	25.4	24.8	24.5	27.6	24.3	49.9	64.5
28	65.8	47.6	29.4	28.8	33.7	24.9	26.3	25.4	27.5	24.1	43.0	54.6
29	87.9	—	32.7	30.9	36.0	25.1	26.4	26.4	24.1	25.6	42.6	48.3
30	92.4	—	34.0	30.9	33.0	25.6	25.1	25.6	24.3	24.6	41.5	44.6
31	87.7	—	37.1	—	30.3	—	26.5	25.2	—	23.4	—	42.1



Appendix C

Scoggins Reservoir Operations Monthly Records

The information presented here regarding water allocations is provisional. Final allocations for municipal use can be found in the Appendix E of this report.

SCOGGINS DAM -- RESERVOIR OPERATIONS

January 2006

[See Appendix E for breakdown of municipal use by water provider.]

Source: Tualatin Valley Irrigation District

DAY	INFLOW				HENRY HAGG LAKE						TUALATIN RIVER						WEATHER			WATER DELIVERIES				
	SCHO (cfs) [1]	SCLO (cfs) [2]	TANO (cfs) [3]	TOT INFLO (cfs) [4]	W.S. ELEV (ft) [5]	STOR CONT (ac-ft) [6]	CHNG STOR (ac-ft) [7]	CHNG STOR (cfs) [8]	REL (cfs) [9]	COMP INFLO (cfs) [10]	GASO (cfs) [11]	DLLO (cfs) [12]	GOLF (cfs) [13]	ROOD (cfs) [14]	FROM (cfs) [15]	WSLO (cfs) [16]	PRECIP (inches) [17]	TEMP MAX (°F) [18]	TEMP MIN (°F) [19]	TVID (cfs) [20]	CWS (cfs) [21]	LO (cfs) [22]	MUNI (cfs) [23]	OTHR (cfs) [24]
1	133	290	25	448	297.81	47481	1666	840	38	878	na	2227	2543		11289	9561	0.18	48	41	0	0	0	0	0
2	125	255	22	402	298.58	47949	468	236	197	433	738	1932	2337		10380	10442	0.88	48	41	0	0	0	0	0
3	102	203	19	324	298.97	48366	417	210	280	490	620	1821	2238		9411	9912	0.06	48	41	0	0	0	0	0
4	104	223	20	347	299.03	48431	65	33	500	710	661	1964	2178		8747	9180	0.54	49	44	0	0	0	0	0
5	99	180	17	296	298.64	48045	-386	-195	681	486	574	2015	2182		8003	8355	0.00	43	47	0	0	0	0	0
6	105	206	20	331	297.79	47110	-935	-471	1000	529	551	2154	2145		7468	7816	0.72	44	39	0	0	0	0	0
7	110	212	23	345	297.67	46983	-127	-64	550	486	682	2172	2191		7700	8033	0.46	50	40	0	0	0	0	0
8	110	232	22	364	297.03	46308	-675	-340	910	570	706	2439	2226	481	8278	7849	0.42	53	48	0	0	0	0	0
9	110	252	21	383	295.94	45169	-1139	-574	1225	651	657	2500	2308	444	8267	7800	0.47	45	39	0	0	0	0	0
10	381	1101	92	1574	297.69	47004	1835	925	328	1253	na	2773	2500	1745	8509	8789	2.08	50	41	0	0	0	0	0
11	305	761	75	1141	300.37	49676	2672	1347	87	1434	na	3435	2647	1273	10588	9575	1.01	55	40	0	0	0	0	0
12	218	472	50	740	301.03	50594	918	463	811	1274	na	3310	2787	877	13141	10991	0.40	48	39	0	0	0	0	0
13	193	472	47	712	300.60	50126	-468	-236	1246	1010	na	3220	2688	855	13031	12982	0.73	48	40	0	0	0	0	0
14	145	338	35	518	299.44	48871	-1255	-633	1450	817	na	3131	2640	605	12210	13439	0.04	45	39	0	0	0	0	0
15	117	240	23	380	297.61	46919	-1952	-984	1535	551	710	2906	2553	480	10974	12447	0.02	44	33	0	0	0	0	0
16	98	220	21	339	295.80	45022	-1897	-956	1426	470	649	2696	2461	417	9837	11090	0.56	40	32	0	0	0	0	0
17	218	493	54	765	296.44	45689	667	336	516	852	na	2721	2508	1029	9781	10714	1.70	50	32	0	0	0	0	0
18	149	379	43	571	298.03	47364	1675	844	40	884	na	2491	2536	668	10044	10480	0.53	49	40	0	0	0	0	0
19	120	277	34	431	298.12	47460	96	48	478	526	na	2459	2415	515	9855	10088	0.01	46	36	0	0	0	0	0
20	140	360	39	539	297.43	46729	-731	-369	975	606	na	2596	2359	660	9164	9653	0.66	48	37	0	0	0	0	0
21	100	258	33	391	297.12	46402	-327	-165	933	768	758	2450	na	495	8914	9180	0.08	48	34	0	0	0	0	0
22	115	203	28	346	296.52	45773	-629	-317	778	461	639	2302	na	393	8584	8632	0.05	47	34	0	0	0	0	0
23	85	163	23	271	296.79	45012	-761	-384	754	370	555	2015	2587	321	8053	8134	0.00	42	36	0	0	0	0	0
24	72	137	20	229	294.74	43514	-1498	-755	1080	325	497	2119	na	278	7470	7472	0.00	43	31	0	0	0	0	0
25	64	116	18	198	292.46	41610	-1904	-960	1156	196	450	2208	2527	232	6719	8961	0.02	57	31	0	0	0	0	0
26	57	109	16	182	290.62	39777	-1833	-924	1200	276	433	2084	2482	229	5891	6522	0.22	43	35	0	0	0	0	0
27	68	125	20	213	289.67	38844	-933	-470	809	339	499	1760	2431	249	5296	6129	0.86	41	35	0	0	0	0	0
28	145	281	40	466	289.51	38688	-156	-79	508	429	na	1837	2039	526	5100	6111	0.20	44	37	0	0	0	0	0
29	120	240	35	395	290.35	39511	823	415	162	577	na	1821	2169	466	5319	5948	0.54	43	37	0	0	0	0	0
30	329	871	76	1276	292.75	41922	2411	1216	42	1258	na	2679	2525	1527	6336	7026	2.12	51	38	0	0	0	0	0
31	169	434	46	649	294.89	44081	2159	1088	40	1128	na	2800	2740	758	8205	7184	0.16	50	34	0	0	0	0	0
TOTALS																	15.72 inches							
cfs	4406	10103	1057	15566				-874	21735	21037	10379	75037	67942		272564	280495	MAX	57	48	0	0	0	0	0
ac-ft	8739	20039	2097	30875			-1734	-1734	43111	41727	20587	148836	134763		540631	556362	MIN	40	31	0	0	0	0	0

Water storage elevation ± it bc curve	**7.98**
Water storage in ac-ft ± it bc curve:	**7897**
Percentage of full reservoir:	**82.7%**

Minimum Required Discharges

Dec-Sept: 10 cfs Oct-Nov: 20 cfs

SNOTEL Summary for Water Year 2006

Uptdated: January 27, 2006

SECO W/Y pc:	50.6"	sno depth/water content	5.9"/4.4"
SDMO W/Y pc:	61.9"	sno depth/water content	1.6"/1.4"

RESERVOIR DELIVERY STATUS

These allocations, amounts used and remaining are provisional and subject to daily changes as the WS elevation rises and falls. These numbers are for planning purposes only.

	USED	REMAINING
TVID	0	
CWS	0	12618
LO	0	500
MUNI	0	13500
Other	0	915

SCOGGINS DAM -- RESERVOIR OPERATIONS
February 2006

[See Appendix E for breakdown of municipal use by water provider.]

Source: Tualatin Valley Irrigation District

DAY	INFLOW				HENRY HAGG LAKE						TUALATIN RIVER						WEATHER			WATER DELIVERIES				
	SCHO (cfs) [1]	SCLO (cfs) [2]	TANO (cfs) [3]	TOT INFLO (cfs) [4]	W.S. ELEV (ft) [5]	STOR CONT (ac-ft) [6]	CHNG STOR (ac-ft) [7]	CHNG STOR (cfs) [8]	REL (cfs) [9]	COMP INFLO (cfs) [10]	GASO (cfs) [11]	DLLO (cfs) [12]	GOLF (cfs) [13]	ROOD (cfs) [14]	FROM (cfs) [15]	WSLO (cfs) [16]	PRECIP (inches) [17]	TEMP MAX (°F) [18]	TEMP MIN (°F) [19]	TVID (cfs) [20]	CWS (cfs) [21]	LO (cfs) [22]	MUNI (cfs) [23]	OTHR (cfs) [24]
1	216	434	58	708	294.89	46119	2038	1027	40	1067	na	2773	2663	908	11310	8597	1.32	47	34	0	0	0	0	0
2	154	371	39	564	298.36	47736	1617	815	40	855	na	2360	2602	709	11860	10558	0.33	53	41	0	0	0	0	0
3	145	342	35	522	299.69	49140	1404	708	40	748	na	2209	2478	661	11153	11534	0.40	50	40	0	0	0	0	0
4	154	371	37	562	300.65	50180	1040	524	193	717	na	2136	2448	718	10220	11251	0.66	50	40	0	0	0	0	0
5	140	311	31	482	301.85	51493	1313	662	31	693	na	1916	2357	573	10180	10568	0.15	48	32	0	0	0	0	0
6	123	234	25	382	301.86	51504	11	6	533	539	674	2119	2287	438	8925	9580	0.00	47	32	0	0	0	0	0
7	104	180	20	304	301.17	50747	-757	-382	784	402	582	2101	2231	354	8309	8684	0.00	53	31	0	0	0	0	0
8	86	151	15	252	299.87	49442	-1305	-658	1055	397	521	2172	2185	297	7635	7899	0.02	53	32	0	0	0	0	0
9	77	125	11	213	298.76	48142	-1300	-655	875	220	466	1884	2114	250	6953	7247	0.03	54	32	0	0	0	0	0
10	69	107	7	183	297.77	47078	-1064	-536	768	232	424	1617	2009	220	6338	6693	0.00	57	40	0	0	0	0	0
11	60	94	6	160	296.76	46026	-1052	-530	740	210	385	1433	1854		5359	6156	0.00	55	33	0	0	0	0	0
12	54	84	5	143	295.74	44960	-1066	-537	706	169	350	1295	1717		4597	5614	0.00	53	34	0	0	0	0	0
13	51	75	5	131	294.75	43937	-1023	-516	648	132	322	1183	1663		3924	5076	0.00	55	34	0	0	0	0	0
14	49	84	5	138	294.89	44081	144	73	104	177	284	599	1453	138	3471	4495	0.00	55	33	0	0	0	0	0
15	45	77	4	126	295.11	44308	227	114	15	129	265	410	1082	126	3185	3992	0.17	47	27	0	0	0	0	0
16	42	71	4	117	295.29	44494	186	94	50	144	244	369	825	114	2662	3406	0.00	48	24	0	0	0	0	0
17	39	66	3	108	295.22	44422	-72	-36	158	122	229	430	795	107	2189	2803	0.00	41	24	0	0	0	0	0
18	37	62	3	102	295.28	44484	62	31	81	112	211	321	705	97	1643	2229	0.00	30	25	0	0	0	0	0
19	35	58	2	95	295.33	44535	51	26	81	107	201	298	640	92	1383	1894	0.00	39	24	0	0	0	0	0
20	34	55	2	91	295.36	44566	31	16	82	98	192	280	576	87	1202	1539	0.00	45	21	0	0	0	0	0
21	32	54	2	88	295.40	44608	42	21	81	102	185	269	548	86	1129	1405	0.00	40	21	0	0	0	0	0
22	32	52	2	86	295.55	44763	155	78	21	99	178	204	470	86	1059	1318	0.01	50	33	0	0	0	0	0
23	31	49	2	82	295.70	44919	156	79	21	100	170	192	437	83	974	1209	0.00	53	36	0	0	0	0	0
24	30	49	2	81	295.84	45064	145	73	21	94	175	176	425	87	912	1139	0.08	54	26	0	0	0	0	0
25	29	46	2	77	296.95	45178	114	57	21	78	161	182	406	78	863	1085	0.00	44	27	0	0	0	0	0
26	28	45	2	75	296.08	45314	136	69	21	90	155	177	391	75	820	1026	0.00	46	32	0	0	0	0	0
27	32	59	2	93	296.24	45480	166	84	21	105	171	187	399	98	815	1013	0.44	48	35	0	0	0	0	0
28	33	68	2	103	296.45	45700	220	111	22	133	229	243	na	123	888	1167	0.49	53	40	0	0	0	0	0
TOTALS																	4.10 inches							
cfs	1961	3774	333	6068				816.2	7253	8071	6774	29535	37760	6605	129958	139177	MAX	57	41	0	0	0	0	0
ac-ft	3890	7486	661	12036			1619	1619	14386	16009	13436	58583	74897	13101	257772	276058	MIN	30	21	0	0	0	0	0

Water storage elevation ± it bd curve	**-1.75**
Water storage in ac-ft ± it bd curve:	**-1849**
Percentage of full reservoir:	**85.7%**

Minimum Required Discharges
Dec-Sept: 10 cfs Oct-Nov: 20 cfs

SNOTEL Summary for Water Year 2006
Uptdated: February 28, 2006

SECO W/Y pc:	59.6"	sno depth/water content	0
SDMO W/Y pc:	75.3"	sno depth/water content	0"/0"

RESERVOIR DELIVERY STATUS		USED	REMAINING
These allocations, amounts used and	TVID	0	
remaining are provisional and subject	CWS	0	12618
to daily changes as the WS elevation	LO	0	500
rises and falls. These numbers are for	MUNI	0	13500
planning purposes only.	Other	0	915

SCOGGINS DAM -- RESERVOIR OPERATIONS
March 2006

[See Appendix E for breakdown of municipal use by water provider.]

Source: Tualatin Valley Irrigation District

DAY	INFLOW				HENRY HAGG LAKE						TUALATIN RIVER						WEATHER			WATER DELIVERIES				
	SCHO (cfs) [1]	SCLO (cfs) [2]	TANO (cfs) [3]	TOT INFLO (cfs) [4]	W.S. ELEV (ft) [5]	STOR CONT (ac-ft) [6]	CHNG STOR (ac-ft) [7]	CHNG STOR (cfs) [8]	REL (cfs) [9]	COMP INFLO (cfs) [10]	GASO (cfs) [11]	DLLO (cfs) [12]	GOLF (cfs) [13]	ROOD (cfs) [14]	FROM (cfs) [15]	WSLO (cfs) [16]	PRECIP (inches) [17]	TEMP MAX (°F) [18]	TEMP MIN (°F) [19]	TVID (cfs) [20]	CWS (cfs) [21]	LO (cfs) [22]	MUNI (cfs) [23]	OTHR (cfs) [24]
1	30	59	1	90	296.61	45867	167	84	21	105	202	225	510	1123	1272	1427	0.01	48	37	1	0	0	0	0
2	28	56	1	85	296.74	46003	136	69	21	90	187	205	457	931	1153	1456	0.03	59	39	1	0	0	0	0
3	28	55	1	84	296.89	46161	158	80	21	101	182	196	442	819	1002	1347	0.08	49	32	1	0	0	0	0
4	27	57	1	85	297.04	46318	157	79	22	101	168	193	426	757	912	1160	0.00	58	36	1	0	0	0	0
5	30	58	1	89	297.20	46487	169	85	22	107	172	192	405	721	866	1112	0.23	53	40	1	0	0	0	0
6	26	51	1	78	297.32	46613	126	64	22	86	163	187	416	753	899	1085	0.04	52	39	1	0	0	0	0
7	36	74	1	111	297.51	46813	200	101	23	124	237	224	467	717	875	1085	0.27	58	36	1	0	0	0	0
8	33	69	1	103	297.67	46983	170	86	22	108	222	210	478	785	924	1092	0.10	52	34	2	0	0	0	0
9	59	133	5	197	298.14	47481	498	251	22	273	446	422	787	1131	1241	1501	1.40	43	31	3	0	0	0	0
10	44	114	5	163	298.45	47811	330	166	87	253	417	558	1016	1898	1973	2401	0.79	38	31	1	0	0	0	0
11	49	99	5	153	298.78	48163	352	177	21	198	362	549	1064	2136	2292	3005	0.12	42	30	1	0	0	0	0
12	45	90	5	140	299.07	48473	310	156	21	177	319	497	1075	2065	2237	2774	0.00	45	34	1	0	0	0	0
13	42	85	5	132	299.33	48752	279	141	21	162	291	433	913	1922	2132	2598	0.00	43	30	1	0	0	0	0
14	44	85	5	134	299.59	49032	280	141	20	161	280	397	847	1746	1965	2410	0.15	52	32	1	0	0	0	0
15	46	84	5	135	299.87	49334	302	152	20	172	280	379	799	1684	1845	2238	0.20	50	34	1	0	0	0	0
16	76	140	7	223	300.21	49702	368	186	20	206	363	404	813	1578	1765	2185	0.50	50	38	1	0	0	0	0
17	90	163	9	262	300.74	50278	576	290	21	311	464	501	969	1761	1899	2247	0.48	49	38	1	0	0	0	0
18	82	151	7	240	301.19	50769	491	248	45	293	506	549	0	1856	1996	2310	0.00	50	34	1	0	0	0	0
19	69	131	6	206	301.59	51185	416	210	45	255	428	526	0	1870	2017	2337	0.00	49	29	1	0	0	0	0
20	59	114	5	178	301.89	51537	352	177	45	222	365	465	0	1803	1961	2319	0.00	53	32	1	0	0	0	0
21	55	101	5	161	301.98	51636	99	50	153	203	334	514	0	1686	1851	2238	0.15	59	33	1	0	0	0	0
22	50	99	3	152	301.91	51559	-77	-39	249	210	319	551	0	1587	1758	2132	0.18	52	40	1	0	0	0	0
23	47	92	3	142	301.57	51185	-374	-189	352	163	327	609	0	1493	1669	2016	0.04	51	41	1	0	0	0	0
24	51	99	4	154	301.20	50780	-405	-204	407	203	397	677	0	1459	1622	1954	0.62	56	41	1	0	0	0	0
25	51	96	4	151	301.04	50605	-175	-88	285	197	412	670	0	1600	1742	1981	0.28	52	33	1	0	0	0	0
26	49	90	3	142	300.89	50441	-164	-83	246	163	362	630	0	1642	1800	2123	0.22	52	33	1	0	0	0	0
27	45	85	3	133	300.77	50311	-130	-66	246	180	326	599	0	1548	1750	2078	0.10	49	35	1	0	0	0	0
28	42	79	3	124	300.79	50332	21	11	164	175	293	518	894	1427	1648	1972	0.05	63	39	1	0	0	0	0
29	39	72	2	113	300.88	50430	98	49	101	150	267	414	783	1298	1525	1869	0.00	63	43	1	0	0	0	0
30	37	69	2	108	300.93	50485	55	28	101	129	251	379	714	1134	1339	1704	0.01	52	43	1	0	0	0	0
31	37	72	2	111	301.04	50605	120	61	76	137	251	355	674	1055	1241	1608	0.08	58	42	1	0	0	0	0
TOTALS																	6.13 inches							
cfs	1446	2822	111	4379				2473	2942	5415	9593	13228	14949	43985	49171	59764	MAX	63	43	34	0	0	0	0
ac-ft	2868	5597	220	8686			4905	4905	5835	10741	19028	26238	29651	87244	97531	118542	MIN	38	29	67	0	0	0	0

Water storage elevation ± it bd curve	**-0.59**
Water storage in ac-ft ± it bd curve:	**-643**
Percentage of full reservoir:	**94.9%**

Minimum Required Discharges

Dec-Sept: 10 cfs Oct-Nov: 20 cfs

SNOTEL Summary for Water Year 2006

Uptdated: March 29, 2006

SECO W/Y pc:	66.2"	sno depth/water content	0.1"/0.0"
SDMO W/Y pc:	82.7"	sno depth/water content	1.0"/1.3"

RESERVOIR DELIVERY STATUS		USED	REMAINING
These allocations, amounts used and	TVID	67	
remaining are provisional and subject	CWS	0	12618
to daily changes as the WS elevation	LO	0	500
rises and falls. These numbers are for	MUNI	0	13500
planning purposes only.	Other	0	915

SCOGGINS DAM -- RESERVOIR OPERATIONS
April 2006

[See Appendix E for breakdown of municipal use by water provider.]

Source: Tualatin Valley Irrigation District

DAY	INFLOW				HENRY HAGG LAKE						TUALATIN RIVER						WEATHER			WATER DELIVERIES				
	SCHO (cfs) [1]	SCLO (cfs) [2]	TANO (cfs) [3]	TOT INFLO (cfs) [4]	W.S. ELEV (ft) [5]	STOR CONT (ac-ft) [6]	CHNG STOR (ac-ft) [7]	CHNG STOR (cfs) [8]	REL (cfs) [9]	COMP INFLO (cfs) [10]	GASO (cfs) [11]	DLLO (cfs) [12]	GOLF (cfs) [13]	ROOD (cfs) [14]	FROM (cfs) [15]	WSLO (cfs) [16]	PRECIP (inches) [17]	TEMP MAX (°F) [18]	TEMP MIN (°F) [19]	TVID (cfs) [20]	CWS (cfs) [21]	LO (cfs) [22]	MUNI (cfs) [23]	OTHR (cfs) [24]
1	42	77	4	123	301.26	50846	241	122	48	170	290	360	697	1085	1241	1585	0.84	61	38	1	0	0	0	0
2	42	77	4	123	301.44	51043	197	99	48	147	268	336	687	1213		1601	0.24	53	38	1	0	0	0	0
3	44	79	4	127	301.64	51262	219	110	48	158	310	375	736	1202		1648	0.23	47	40	1	0	0	0	0
4	42	75	3	120	301.82	51460	198	100	48	148	283	355	724	1220	1389	1648	0.04	58	32	1	0	0	0	0
5	40	71	3	114	301.99	51647	187	94	48	142	255	333	686	1172	1351	1632	0.00	62	35	1	0	0	0	0
6	42	66	2	110	302.08	51746	99	50	75	125	226	323	653	1094	1278	1585	0.02	65	37	1	0	0	0	0
7	35	62	2	99	302.13	51802	56	28	103	131	209	326	630	1022	1201	1493	0.00	60	39	1	0	0	0	0
8	34	62	2	98	302.15	51824	22	11	103	114	196	314	588	956	1164	1419	0.18	68	35	2	0	0	0	0
9	33	58	2	93	302.21	51890	66	33	103	136	194	307	585	994	1143	1419	0.04	57	39	2	0	0	0	0
10	36	63	2	101	302.30	51989	99	50	103	153	224	332	639	962	1120	1486	0.52	59	40	1	0	0	0	0
11	34	56	2	92	302.32	52011	22	11	103	114	192	300	514	1105	1415	1493	0.01	60	42	2	0	0	0	0
12	32	52	2	86	302.33	52022	11	6	103	109	176	283	470	963	1269	1471	0.03	64	44	1	0	0	0	0
13	30	50	1	81	302.37	52067	45	23	74	97	164	247	417	864	1142	1347	0.00	67	41	3	0	0	0	0
14	29	50	1	80	302.39	52089	22	11	74	85	161	244	390	791	1047	1281	0.06	57	43	1	0	0	0	0
15	30	52	1	83	302.43	52133	44	22	74	96	166	239	396	880	1055	1266	0.20	42	34	1	0	0	0	0
16	44	79	3	126	302.61	52332	199	100	74	174	279	338	585	1023	1281	1403	0.86	43	34	1	0	0	0	0
17	47	82	3	132	302.77	52510	178	90	74	164	289	356	672	1203	1530	1508	0.10	52	34	1	0	0	0	0
18	44	80	2	126	302.90	52654	144	73	75	148	288	349	637	1190	1542	1696	0.05	55	31	2	0	0	0	0
19	42	77	2	121	303.04	52810	156	79	74	153	271	339	585	1110	1448	1632	0.00	62	33	2	0	0	0	0
20	38	72	2	112	303.14	52921	111	56	75	131	254	321	558	1096	1374	1539	0.00	70	37	3	0	0	0	0
21	34	66	1	101	303.24	53024	103	52	75	127	233	303	524	963	1265	1456	0.01	69	43	3	0	0	0	0
22	32	60	1	93	303.27	53066	42	21	101	122	206	297	486	880	1161	1347	0.00	58	38	4	0	0	0	0
23	30	56	0	86	303.26	53055	-11	-6	101	95	186	281	448	800	1062	1259	0.00	64	39	4	0	0	0	0
24	28	52	1	81	303.28	53077	22	11	101	112	168	262	398	728	967	1160	0.00	73	40	5	0	0	0	0
25	28	50	1	79	303.27	53066	-11	-6	101	95	153	246	382	669	882	1059	0.00	74	39	6	0	0	0	0
26	28	47	1	76	303.25	53044	-22	-11	101	90	144	238	359	619	823	994	0.00	66	42	7	0	0	0	0
27	25	45	1	71	303.26	53088	44	22	54	76	136	185	293	573	766	929	0.00	69	43	9	0	0	0	3
28	24	43	2	69	303.38	53189	101	51	30	81	127	159	248	502	681	868	0.00	72	46	15	0	0	0	3
29	22	40	2	64	303.45	53267	78	39	39	78	119	154	240	459	613	789	0.00	81	46	13	0	0	0	3
30	22	39	1	62	303.51	53334	67	34	39	73	116	156	237	470	615	778	0.20	64	34	11	0	0	0	3
TOTALS																	3.63 inches							
cfs	1033	1838	58	2929				1376	2269	3644	6283	8658	15464	27808	31825	40791	MAX	81	46	106	0	0	0	12
ac-ft	2049	3646	115	5810			2729	2729	4501	7228	12462	17173	30673	55157	63125	80909	MIN	42	31	210	0	0	0	24

Water storage elevation ± it bd curve **0.05**
Water storage in ac-ft ± it bd curve: **55**
Percentage of full reservoir: **100%**

Minimum Required Discharges
Dec-Sept: 10 cfs Oct-Nov: 20 cfs

SNOTEL Summary for Water Year 2006
Uptdated: April 30, 2006

SECO W/Y pc:	69.8"	sno depth/water content	0
SDMO W/Y pc:	86.7"	sno depth/water content	0

RESERVOIR DELIVERY STATUS		USED	REMAINING
These allocations, amounts used and	TVID	278	
remaining are provisional and subject	CWS	0	12618
to daily changes as the WS elevation	LO	0	500
rises and falls. These numbers are for	MUNI	0	13500
planning purposes only.	Other	24	891

SCOGGINS DAM -- RESERVOIR OPERATIONS
May 2006

[See Appendix E for breakdown of municipal use by water provider.]

Source: Tualatin Valley Irrigation District

DAY	INFLOW				HENRY HAGG LAKE						TUALATIN RIVER						WEATHER			WATER DELIVERIES				
	SCHO (cfs) [1]	SCLO (cfs) [2]	TANO (cfs) [3]	TOT INFLO (cfs) [4]	W.S. ELEV (ft) [5]	STOR CONT (ac-ft) [6]	CHNG STOR (ac-ft) [7]	CHNG STOR (cfs) [8]	REL (cfs) [9]	COMP INFLO (cfs) [10]	GASO (cfs) [11]	DLLO (cfs) [12]	GOLF (cfs) [13]	ROOD (cfs) [14]	FROM (cfs) [15]	WSLO (cfs) [16]	PRECIP (inches) [17]	TEMP MAX (°F) [18]	TEMP MIN (°F) [19]	TVID (cfs) [20]	CWS (cfs) [21]	LO (cfs) [22]	MUNI (cfs) [23]	OTHR (cfs) [24]
1	21	37	1	59	303.53	53233	0	0	47	47	110	167	211	442	594	761	0.00	63	36	0	0	0	0	3
2	20	36	1	57	303.52	53222	-11	-6	64	58	105	159	210	412	545	716	0.00	61	33	0	0	0	0	3
3	20	34	1	55	303.43	53244	22	11	55	66	101	145	188	412	507	674	0.00	54	41	0	0	0	0	3
4	19	32	1	52	303.46	53278	34	17	31	48	97	124	172	348	459	631	0.00	72	39	0	0	0	0	3
5	19	32	1	52	303.51	53334	56	28	31	59	92	121	150	310	413	573	0.00	75	41	0	0	0	0	3
6	19	30	1	50	303.51	53334	0	0	48	48	89	132	153	317	384	534	0.00	72	40	0	0	0	0	3
7	17	30	1	48	303.52	53345	11	6	48	54	89	132	148	291	382	518	0.08	62	44	0	0	0	0	3
8	18	30	1	49	303.55	53378	33	17	48	65	94	136	161	290	406	540	0.14	53	35	0	0	0	0	3
9	17	28	1	46	303.54	53367	-11	-6	48	42	86	128	153	334	436	545	0.00	57	33	0	0	0	0	3
10	17	27	1	45	303.56	53390	23	12	48	60	83	125	145	289	388	545	0.00	66	37	0	0	0	0	3
11	16	26	1	43	303.57	53401	11	6	48	54	79	116	133	259	350	502	0.00	75	47	0	0	0	0	3
12	15	25	1	41	303.54	53367	-34	-17	48	31	76	113	126	244	327	477	0.00	64	36	0	0	0	0	3
13	15	25	1	41	303.56	53390	23	12	39	51	75	103	94	237	317	445	0.00	62	37	0	0	0	0	3
14	14	25	1	40	303.57	53401	11	6	39	45	71	102	110	209	281	420	0.00	71	37	0	0	0	0	3
15	14	24	1	39	303.58	53412	11	6	39	45	68	99	106	201	270	397	0.00	82	41	0	0	0	0	3
16	13	23	1	37	303.59	53423	11	6	39	45	65	91	77	179	243	368	0.00	93	50	0	0	0	0	3
17	13	22	1	36	303.58	53412	-11	-6	39	33	62	89	53	155	210	330	0.00	84	50	0	0	0	0	3
18	12	21	1	34	303.49	53311	-101	-51	96	45	60	148	59	141	193	303	0.00	87	49	25	0	0	33	3
19	12	20	1	33	303.34	53144	-167	-84	128	44	59	154	128	171	212	273	0.00	83	51	44	0	0	46	3
20	12	21	1	34	303.20	52988	-156	-79	128	49	59	157	135	187	242	338	0.00	83	55	44	0	0	46	3
21	12	20	1	33	303.05	52821	-167	-84	128	44	58	154	126	201	262	366	0.00	68	54	44	0	0	46	3
22	17	27	1	45	302.98	52743	-78	-39	128	89	81	171	164	275	314	576	1.06	65	54	44	0	0	46	3
23	22	34	2	58	302.92	52665	-78	-39	128	89	88	184	202	437	569	650	0.70	61	49	16	0	0	51	3
24	13	31	2	46	302.96	52721	56	28	54	82	96	136	201	562	726	855	0.40	61	50	0	0	0	48	3
25	11	25	1	37	302.98	52743	22	11	45	56	82	119	176	512	709	891	0.18	65	45	0	0	0	42	3
26	10	24	1	35	302.99	52754	11	6	43	49	578	111	142	401	558	801	0.08	62	46	0	0	0	42	1
27	9	23	2	34	302.98	52743	-11	-6	46	40	71	95	147	446	606	806	0.06	56	42	0	0	0	46	1
28	10	24	2	36	302.98	52743	0	0	46	46	78	100	158	537	697	842	0.24	53	46	0	0	0	46	1
29	9	22	1	32	302.95	52710	-33	-17	46	29	74	96	147	469	649	836	0.02	56	47	0	0	0	46	1
30	8	21	2	31	302.95	52710	0	0	47	47	68	90	131	373	517	738	0.00	65	43	0	0	0	46	1
31	7	20	1	28	302.93	52687	-23	-12	46	34	97	107	119	311	428	629	0.00	77	52	0	0	0	46	1
																					0	0	0	0
TOTALS																	2.96 inches							
cfs	451	819	36	1306				-275	1868	1593	2991	3904	4425	9952	13194	17880	MAX	93	55	217	0	0	630	81
ac-ft	895	1624	71	2590			-546	-546	3705	3159	5933	7744	8777	19740	26170	35465	MIN	53	33	430	0	0	1250	161

Water storage elevation ± it bd curve	**-0.57**
Water storage in ac-ft ± it bd curve:	**-636**
Percentage of full reservoir:	**98.8%**

Minimum Required Discharges
Dec-Sept: 10 cfs Oct-Nov: 20 cfs

SNOTEL Summary for Water Year 2006
Uptdated: May 31, 2006

SECO W/Y pc:	72.5"	sno depth/water content	0
SDMO W/Y pc:	89.6"	sno depth/water content	0

RESERVOIR DELIVERY STATUS		USED	REMAINING
These allocations, amounts used and	TVID	708	
remaining are provisional and subject	CWS	0	12618
to daily changes as the WS elevation	LO	0	500
rises and falls. These numbers are for	MUNI	1250	12250
planning purposes only.	Other	184	731

SCOGGINS DAM -- RESERVOIR OPERATIONS
June 2006

[See Appendix E for breakdown of municipal use by water provider.]

Source: Tualatin Valley Irrigation District

DAY	INFLOW				HENRY HAGG LAKE						TUALATIN RIVER						WEATHER			WATER DELIVERIES				
	SCHO (cfs) [1]	SCLO (cfs) [2]	TANO (cfs) [3]	TOT INFLO (cfs) [4]	W.S. ELEV (ft) [5]	STOR CONT (ac-ft) [6]	CHNG STOR (ac-ft) [7]	CHNG STOR (cfs) [8]	REL (cfs) [9]	COMP INFLO (cfs) [10]	GASO (cfs) [11]	DLLO (cfs) [12]	GOLF (cfs) [13]	ROOD (cfs) [14]	FROM (cfs) [15]	WSLO (cfs) [16]	PRECIP (inches) [17]	TEMP MAX (°F) [18]	TEMP MIN (°F) [19]	TVID (cfs) [20]	CWS (cfs) [21]	LO (cfs) [22]	MUNI (cfs) [23]	OTHR (cfs) [24]
1	9	20	1	30	302.95	52710	23	12	26	38	99	112	115	288	380	560	0.07	68	56	0	0	0	23	1
2	14	33	2	49	303.07	52843	133	67	27	94	134	137	163	338	426	650	0.54	65	54	0	0	0	23	1
3	11	25	2	38	303.10	52876	33	17	27	44	113	126	139	386	498	613	0.05	66	49	0	0	0	23	1
4	12	30	2	44	303.14	52921	45	23	24	47	117	122	152	349	464	645	0.19	67	52	0	0	0	23	1
5	11	26	2	39	303.19	52977	56	28	27	55	118	128	173	368	485	629	0.05	70	53	0	0	0	23	1
6	10	24	1	35	303.23	53021	44	22	11	33	78	91	131	328	440	608	0.00	74	52	0	0	0	0	1
7	10	23	1	34	303.23	53021	0	0	31	31	71	105	78	255	354	544	0.00	72	48	0	0	0	0	1
8	10	22	1	33	303.23	53021	0	0	31	31	66	89	83	234	292	464	0.00	68	53	0	0	0	0	1
9	9	21	1	31	303.24	53024	3	2	31	33	64	85	81	199	265	413	0.00	63	43	0	0	0	0	1
10	9	20	1	30	303.24	53024	0	0	31	31	130	134	86	187	250	382	0.00	57	42	0	0	0	0	2
11	9	20	1	30	303.25	53044	20	10	31	41	126	134	135	217	270	370	0.00	67	48	0	0	0	0	2
12	8	20	1	29	303.24	53024	-20	-10	31	21	122	129	108	228	299	378	0.00	82	53	0	0	0	0	2
13	8	20	1	29	303.27	53066	42	21	31	52	59	83	118	213	280	404	0.47	68	51	0	0	0	0	2
14	8	19	1	28	303.27	53066	0	0	31	31	55	77	96	202	280	395	0.00	67	54	0	0	0	0	2
15	11	19	1	31	303.20	52988	-78	-39	70	31	80	137	121	184	247	374	0.01	64	53	0	0	0	43	2
16	11	18	1	30	303.15	52932	-56	-28	59	31	79	123	117	210	270	358	0.05	65	51	0	0	0	27	2
17	11	18	1	30	303.08	52824	-108	-54	67	13	71	125	110	201	268	382	0.10	67	48	0	0	0	35	2
18	10	17	1	28	302.96	52787	-37	-19	70	51	67	139	101	180	253	358	0.00	67	45	0	0	0	35	2
19	10	16	1	27	302.93	52687	-100	-50	70	20	66	119	97	176	237	345	0.00	66	44	0	0	0	39	2
20	10	16	1	27	302.85	52599	-88	-44	70	26	64	115	74	154	213	330	0.00	67	42	0	0	0	40	2
21	9	15	1	25	302.77	52510	-89	-45	70	25	62	115	61	136	187	300	0.00	60	45	0	0	0	40	2
22	9	15	1	25	302.59	52310	-200	-101	132	31	61	159	104	119	166	271	0.00	70	44	65	0	0	40	2
23	8	15	1	24	302.40	52100	-210	-106	132	26	59	158	69	140	185	251	0.00	74	42	59	0	0	45	4
24	8	13	1	22	302.19	51868	-232	-117	170	53	69	195	102	123	172	254	0.00	88	53	90	0	0	54	4
25	8	13	1	22	301.94	51594	-274	-138	170	32	65	191	96	134	180	245	0.00	91	63	94	0	0	50	4
26	8	12	1	21	301.69	51317	-277	-140	170	30	62	190	100	133	177	248	0.00	98	63	95	0	0	50	4
27	8	11	1	20	301.42	51021	-296	-149	191	42	65	208	94	114	167	245	0.00	102	61	117	0	0	50	4
28	8	11	1	20	301.13	50703	-318	-160	191	31	64	208	104	113	156	226	0.00	88	46	117	0	0	50	4
29	8	11	1	20	300.84	50387	-316	-159	186	27	64	200	96	118	165	223	0.00	81	47	121	0	0	41	4
30	8	11	1	20	300.60	50126	-261	-132	163	31	64	187	93	118	164	223	0.00	79	52	104	0	0	35	4
TOTALS																	1.53 inches							
cfs	283	554	34	871				-1291	2371	1080	2414	4121	3197	6145	8190	11688	MAX	102	63	862	0	0	789	67
ac-ft	561	1099	67	1728			-2561	-2561	4703	2142	4788	8174	6341	12189	16245	23183	MIN	57	42	1710	0	0	1565	133

Water storage elevation ± it bd curve	**-0.73**
Water storage in ac-ft ± it bd curve:	**-813**
Percentage of full reservoir:	**98.5%**

Minimum Required Discharges
Dec-Sept: 10 cfs Oct-Nov: 20 cfs

SNOTEL Summary for Water Year 2006
Uptdated: June 30, 2006

SECO W/Y pc:	74.4"	sno depth/water content	0
SDMO W/Y pc:	91.7"	sno depth/water content	0

RESERVOIR DELIVERY STATUS		USED	REMAINING
These allocations, amounts used and	TVID	2418	
remaining are provisional and subject	CWS	0	12618
to daily changes as the WS elevation	LO	0	500
rises and falls. These numbers are for	MUNI	2815	10685
planning purposes only.	Other	317	598

SCOGGINS DAM -- RESERVOIR OPERATIONS
July 2006

[See Appendix E for breakdown of municipal use by water provider.]

Source: Tualatin Valley Irrigation District

DAY	INFLOW				HENRY HAGG LAKE						TUALATIN RIVER						WEATHER			WATER DELIVERIES				
	SCHO (cfs) [1]	SCLO (cfs) [2]	TANO (cfs) [3]	TOT INFLO (cfs) [4]	W.S. ELEV (ft) [5]	STOR CONT (ac-ft) [6]	CHNG STOR (ac-ft) [7]	CHNG STOR (cfs) [8]	REL (cfs) [9]	COMP INFLO (cfs) [10]	GASO (cfs) [11]	DLLO (cfs) [12]	GOLF (cfs) [13]	ROOD (cfs) [14]	FROM (cfs) [15]	WSLO (cfs) [16]	PRECIP (inches) [17]	TEMP MAX (°F) [18]	TEMP MIN (°F) [19]	TVID (cfs) [20]	CWS (cfs) [21]	LO (cfs) [22]	MUNI (cfs) [23]	OTHR (cfs) [24]
1	7	10	1	18	300.31	49811	-315	-159	200	41	57	211	109	107	153	226	0.00	88	50	114	15	0	50	3
2	7	10	1	18	300.00	49475	-336	-169	200	31	57	209	109	119	167	217	0.00	89	52	114	15	0	50	3
3	7	10	1	18	299.69	49140	-335	-169	200	31	56	210	105	123	168	223	0.00	91	51	114	15	0	50	3
4	7	10	1	18	299.35	48774	-366	-185	200	15	56	208	108	110	158	226	0.00	83	54	114	15	0	50	3
5	7	10	1	18	299.05	48452	-322	-162	199	37	60	213	128	123	164	220	0.00	76	49	113	15	0	50	3
6	8	12	1	21	298.80	48184	-268	-135	172	37	59	182	102	132	179	223	0.00	65	52	95	15	0	38	3
7	7	11	1	19	298.58	47917	-267	-135	167	32	57	182	108	114	166	241	0.08	66	45	95	15	0	35	3
8	7	10	1	18	298.28	47630	-287	-145	175	30	55	184	104	114	163	232	0.00	79	52	104	15	0	35	3
9	7	9	1	17	298.00	47332	-298	-150	175	25	69	195	96	109	163	224	0.00	91	56	105	15	0	35	3
10	6	9	1	16	297.72	47035	-297	-150	174	24	69	196	106	117	163	226	0.00	89	58	105	15	0	35	3
11	7	9	1	17	297.48	46782	-253	-128	159	31	46	165	91	105	156	223	0.00	76	50	89	15	0	35	3
12	7	10	1	18	297.21	46497	-285	-144	175	31	45	177	78	88	140	217	0.03	58	51	90	15	0	50	3
13	8	11	1	20	296.93	46203	-294	-148	176	28	111	207	127	136	172	217	0.04	71	53	108	25	0	20	3
14	7	10	1	18	296.63	45888	-315	-159	195	36	58	215	131	187	240	245	0.00	79	51	106	26	0	42	3
15	6	9	1	16	296.30	45543	-345	-174	204	30	46	202	125	144	204	289	0.00	78	55	109	26	0	50	3
16	6	9	0	15	295.95	45178	-365	-184	204	20	44	199	100	124	180	261	0.00	77	48	110	26	0	50	3
17	6	8	0	14	295.61	44824	-354	-178	204	26	43	195	109	117	164	235	0.00	84	47	111	26	0	50	3
18	6	8	0	14	295.30	44504	-320	-161	194	33	43	196	72	102	150	214	0.00	72	45	91	26	0	60	3
19	6	8	0	14	294.96	44153	-351	-177	203	26	42	199	74	81	125	202	0.00	77	50	100	26	0	60	3
20	3	5	1	9	294.61	43793	-360	-181	226	45	41	214	88	83	122	186	0.00	84	54	118	36	0	60	3
21	3	4	0	7	294.20	43373	-420	-212	233	21	40	219	78	89	133	173	0.00	96	57	120	36	0	64	5
22	3	4	0	7	293.78	42945	-428	-216	261	45	50	253	86	78	122	175	0.00	105	74	128	46	3	71	5
23	3	4	0	7	293.33	42488	-457	-230	261	31	50	257	118	100	137	173	0.00	97	68	130	46	3	70	5
24	3	4	0	7	292.90	42053	-435	-219	260	41	48	256	143	120	164	188	0.00	106	66	129	46	3	70	5
25	3	3	0	6	292.46	41610	-443	-223	244	21	42	na	105	117	167	208	0.00	100	50	119	46	3	65	5
26	3	3	0	6	292.03	41178	-432	-218	244	26	41	na	112	99	144	208	0.00	88	56	119	46	3	65	5
27	3	3	0	6	291.63	40779	-399	-201	236	35	42	224	100	102	144	197	0.00	86	56	111	46	3	65	5
28	2	3	0	5	291.24	40391	-388	-196	226	30	42	219	93	90	131	186	0.00	86	49	103	60	3	52	3
29	3	4	0	7	290.82	39975	-416	-210	229	19	43	218	108	85	130	180	0.00	73	53	100	66	3	50	3
30	3	4	1	8	290.40	39560	-415	-209	229	20	44	223	122	92	135	175	0.00	68	54	99	66	3	50	3
31	3	4	1	8	290.00	39167	-393	-198	229	31	44	223	126	117	157	183	0.00	69	45	99	66	3	50	3
TOTALS																								
cfs	164	228	18	410				-5525	6454	929	1600	6051	3261	3424	4861	6593	0.15 inches MAX	106	74	3362	967	30	1577	107
ac-ft	325	452	36	813			-10959	-10959	12802	1843	3174	12002	6468	6792	9642	13077	MIN	58	45	6669	1918	60	3128	212

Water storage elevation ± it bd curve **-13.5**
Water storage in ac-ft ± it bd curve: **-14156**
Percentage of full reservoir: **73.5%**

Minimum Required Discharges
Dec-Sept: 10 cfs Oct-Nov: 20 cfs

SNOTEL Summary for Water Year 2006
Uptdated: July 31, 2006

SECO W/Y pc:	73.6"	sno depth/water content	0
SDMO W/Y pc:	92.3"	sno depth/water content	0

RESERVOIR DELIVERY STATUS		USED	REMAINING
These allocations, amounts used and	TVID	9086	
remaining are provisional and subject	CWS	1918	10700
to daily changes as the WS elevation	LO	60	440
rises and falls. These numbers are for	MUNI	5943	7557
planning purposes only.	Other	530	385

SCOGGINS DAM -- RESERVOIR OPERATIONS
August 2006

[See Appendix E for breakdown of municipal use by water provider.]

Source: Tualatin Valley Irrigation District

DAY	INFLOW				HENRY HAGG LAKE						TUALATIN RIVER						WEATHER			WATER DELIVERIES				
	SCHO (cfs) [1]	SCLO (cfs) [2]	TANO (cfs) [3]	TOT INFLO (cfs) [4]	W.S. ELEV (ft) [5]	STOR CONT (ac-ft) [6]	CHNG STOR (ac-ft) [7]	CHNG STOR (cfs) [8]	REL (cfs) [9]	COMP INFLO (cfs) [10]	GASO (cfs) [11]	DLLO (cfs) [12]	GOLF (cfs) [13]	ROOD (cfs) [14]	FROM (cfs) [15]	WSLO (cfs) [16]	PRECIP (inches) [17]	TEMP MAX (°F) [18]	TEMP MIN (°F) [19]	TVID (cfs) [20]	CWS (cfs) [21]	LO (cfs) [22]	MUNI (cfs) [23]	OTHR (cfs) [24]
1	3	4	1	8	289.58	38756	-411	-207	237	30	44	226	102	110	159	200	0.00	75	47	99	66	3	58	3
2	3	4	1	8	289.15	38337	-419	-211	233	22	44	220	106	95	136	200	0.00	74	45	109	56	3	54	3
3	2	4	1	7	288.75	37948	-389	-196	230	34	43	227	107	94	138	191	0.00	76	46	109	56	3	52	3
4	2	3	1	6	288.33	37542	-406	-205	229	24	41	218	91	102	136	183	0.00	78	47	109	56	3	52	3
5	2	3	1	6	287.89	37118	-424	-214	229	15	42	216	91	82	123	183	0.00	78	49	109	56	3	52	3
6	2	3	1	6	287.50	36744	-374	-189	229	40	41	216	93	82	124	173	0.00	86	52	109	56	3	52	3
7	2	3	1	6	287.08	36343	-401	-202	228	26	40	217	96	92	129	173	0.00	89	52	108	56	3	52	3
8	2	3	1	6	286.66	35943	-400	-202	227	25	40	214	78	82	124	175	0.00	91	52	99	56	3	58	3
9	2	3	1	6	286.20	35507	-436	-220	237	17	40	243	100	71	113	167	0.00	77	57	111	56	3	58	3
10	2	4	1	7	285.71	35045	-462	-233	232	-1	41	250	116	98	127	157	0.00	75	52	105	56	3	58	3
11	3	3	1	7	285.24	34604	-441	-222	231	9	41	249	121	100	143	167	0.00	78	45	104	56	3	58	3
12	3	3	1	7	284.73	34127	-477	-240	224	-16	41	243	121	112	150	196	0.00	73	47	102	56	3	54	3
13	2	3	1	6	284.25	33681	-446	-225	224	-1	41	342	130	110	156	207	0.00	80	56	103	56	3	52	3
14	2	3	1	6	283.78	33247	-434	-219	223	4	39	243	136	117	132	215	0.00	88	58	102	56	3	52	4
15	2	3	1	6	283.31	32814	-433	-218	210	-8	39	224	99	105	154	215	0.00	91	48	89	56	3	52	4
16	2	3	1	6	282.87	32411	-403	-203	205	2	40	227	91	86	142	213	0.00	74	48	96	46	3	50	4
17	2	3	1	6	282.39	31973	-438	-221	210	-11	41	233	108	87	122	190	0.00	73	49	106	46	3	45	4
18	2	3	1	6	281.93	31574	-399	-201	210	9	40	228	115	98	165	188	0.00	79	52	105	46	3	45	5
19	2	2	1	5	281.46	31132	-442	-223	212	-11	38	222	99	96	168	196	0.00	93	55	108	41	3	50	5
20	2	2	1	5	281.00	30718	-414	-209	212	3	37	217	89	102	157	193	0.00	93	54	108	41	3	50	5
21	2	2	1	5	280.55	30316	-402	-203	210	7	37	217	112	93	159	190	0.00	91	52	106	41	3	50	5
22	2	3	1	6	280.50	29872	-444	-224	220	-4	37	223	91	94	166	193	0.00	77	49	111	36	3	60	5
23	2	2	1	5	279.53	29474	-398	-201	200	-1	37	205	90	86	154	196	0.00	78	48	101	36	3	52	5
24	2	3	1	6	279.17	29104	-370	-187	185	-2	38	193	69	81	153	188	0.00	72	50	95	26	3	50	5
25	2	3	1	6	278.76	28736	-368	-186	184	-2	38	197	95	71	145	185	0.00	75	49	95	26	3	50	4
26	2	2	1	5	278.36	28387	-349	-176	178	2	37	194	73	79	150	175	0.00	87	57	90	26	3	50	4
27	2	2	1	5	277.95	28032	-355	-179	178	-1	36	191	85	73	139	182	0.00	92	56	90	26	3	50	4
28	2	2	1	5	277.55	27686	-346	-174	177	3	36	192	91	81	154	180	0.00	95	56	89	26	3	50	4
29	2	2	1	5	277.13	27325	-361	-182	190	8	36	210	88	88	149	177	0.00	90	50	70	36	3	72	4
30	2	2	1	5	276.71	26966	-359	-181	179	-2	37	186	80	81	159	188	0.00	68	49	81	36	3	50	4
31	2	3	1	6	276.34	26651	-315	-159	179	20	37	187	83	78	150	188	tr	65	45	80	36	3	50	4
TOTALS																	0.00 inches							
cfs	66	88	31	185				-6310	6552	240	1219	6870	3046	2826	4476	5824	MAX	95	58	3098	1421	93	1638	118
ac-ft	131	175	61	367			-12516	-12516	12996	476	2418	13627	6042	5605	8878	11552	MIN	65	45	6145	2819	184	3249	234

Water storage elevation ± it bd curve	**-27.16**
Water storage in ac-ft ± it bd curve:	**-26672**
Percentage of full reservoir:	**50.0%**

Minimum Required Discharges
Dec-Sept: 10 cfs Oct-Nov: 20 cfs

SNOTEL Summary for Water Year 2006
Uptdated: August 31, 2006

SECO W/Y pc:	74.9"	sno depth/water content	0
SDMO W/Y pc:	89.5"	sno depth/water content	0

RESERVOIR DELIVERY STATUS		USED	REMAINING
These allocations, amounts used and	TVID	15231	
remaining are provisional and subject	CWS	4737	7881
to daily changes as the WS elevation	LO	244	256
rises and falls. These numbers are for	MUNI	9192	4308
planning purposes only.	Other	764	151

[See Appendix E for breakdown of municipal use by water provider.]

SCOGGINS DAM -- RESERVOIR OPERATIONS
September 2006

Source: Tualatin Valley Irrigation District

DAY	INFLOW				HENRY HAGG LAKE						TUALATIN RIVER						WEATHER			WATER DELIVERIES				
	SCHO (cfs) [1]	SCLO (cfs) [2]	TANO (cfs) [3]	TOT INFLO (cfs) [4]	W.S. ELEV (ft) [5]	STOR CONT (ac-ft) [6]	CHNG STOR (ac-ft) [7]	CHNG STOR (cfs) [8]	REL (cfs) [9]	COMP INFLO (cfs) [10]	GASO (cfs) [11]	DLLO (cfs) [12]	GOLF (cfs) [13]	ROOD (cfs) [14]	FROM (cfs) [15]	WSLO (cfs) [16]	PRECIP (inches) [17]	TEMP MAX (°F) [18]	TEMP MIN (°F) [19]	TVID (cfs) [20]	CWS (cfs) [21]	LO (cfs) [22]	MUNI (cfs) [23]	OTHR (cfs) [24]
1	2	2	1	5	275.91	26287	-364	-184	174	-10	36	193	93	81	151	182	0.00	77	49	79	36	3	47	4
2	1	2	1	4	275.48	25924	-363	-183	199	16	50	228	103	75	150	180	0.00	89	58	82	56	3	50	4
3	1	2	1	4	275.00	25522	-402	-203	198	-5	49	231	115	88	158	177	0.00	91	54	81	56	3	50	4
4	1	2	1	4	274.55	25147	-375	-189	198	9	50	230	124	99	169	185	0.00	87	54	81	56	3	50	4
5	1	2	1	4	274.07	24749	-398	-201	198	-3	49	230	118	102	176	207	0.00	84	51	81	56	3	50	4
6	1	2	1	4	273.65	24403	-346	-174	176	2	48	206	86	95	168	213	0.00	86	52	74	36	3	55	4
7	1	2	1	4	273.23	24059	-344	-173	176	3	49	205	89	77	152	207	0.00	86	43	74	36	3	55	4
8	1	2	1	4	272.90	23708	-351	-177	176	-1	49	205	99	75	147	188	0.00	81	45	79	36	3	50	4
9	1	2	1	4	272.41	23392	-316	-159	156	-3	74	212	98	81	155	185	0.00	78	48	75	36	3	34	4
10	2	2	1	5	272.03	23086	-306	-154	156	2	71	195	96	90	162	190	0.00	72	43	83	36	3	25	4
11	1	2	1	4	271.65	22781	-305	-154	156	2	72	203	105	93	163	204	0.00	78	47	84	36	3	25	4
12	1	2	1	4	271.30	22501	-280	-141	151	10	79	208	89	86	167	210	0.00	83	48	73	36	3	33	4
13	1	2	1	4	270.89	22174	-327	-165	158	-7	83	216	101	82	153	204	0.00	82	43	82	36	3	29	4
14	1	2	0	3	270.53	21888	-286	-144	155	11	77	220	134	95	182	201	0.00	70	45	84	36	3	25	4
15	2	2	0	4	270.26	21594	-294	-148	146	-2	83	212	138	130	193	249	0.06	60	45	79	36	3	25	3
16	2	3	0	5	269.90	21389	-205	-103	105	2	94	174	111	132	209	255	0.00	61	44	68	16	3	10	3
17	2	3	0	5	269.70	21231	-158	-80	101	21	92	171	127	107	181	272	0.00	63	46	64	16	3	13	3
18	2	4	0	6	269.48	21042	-189	-95	101	6	93	171	109	123	188	255	0.25	72	47	63	16	3	10	3
19	3	5	0	8	269.34	20948	-94	-47	90	43	101	169	125	160	233	292	0.34	73	47	50	16	3	10	3
20	2	3	0	5	269.11	20767	-181	-91	90	-1	96	165	135	143	209	310	0.07	63	44	53	16	3	10	3
21	3	4	0	7	268.95	20642	-125	-63	77	14	72	138	110	145	217	310	0.03	58	46	48	16	3	0	3
22	2	3	0	5	268.82	20541	-101	-51	61	10	66	120	76	123	202	296	0.00	63	40	35	16	3	0	2
23	2	3	0	5	268.58	20354	-187	-94	103	9	55	144	109	94	171	265	0.00	70	40	41	42	3	10	2
24	2	3	0	5	268.34	20167	-187	-94	103	9	53	139	85	98	172	233	0.00	76	47	37	46	3	10	2
25	2	3	0	5	268.13	20004	-163	-82	103	21	52	141	76	92	163	227	0.00	82	47	37	46	3	10	2
26	2	2	0	4	267.86	19803	-201	-101	110	9	52	145	71	77	154	213	0.00	85	48	45	46	3	10	2
27	2	2	0	4	267.54	19549	-254	-128	132	4	52	165	69	70	146	196	0.00	86	47	45	46	3	32	2
28	2	2	0	4	267.11	19219	-330	-166	179	13	78	231	na	68	141	182	0.00	85	49	67	66	3	34	2
29	2	2	0	4	266.64	18860	-359	-181	179	-2	79	226	na	110	174	185	0.00	85	47	72	66	3	20	2
30	2	2	0	4	266.09	18594	-266	-134	145	11	79	199	na		187	218	0.00	0	0	60	56	3	20	2
TOTALS																	0.75 inches							
cfs	50	74	13	137				-4062	4252	193	2033	5692	2791	2891	5193	6691	MAX	91	58	1976	1146	90	802	95
ac-ft	99	147	26	272			-8057	-8057	8434	383	4032	11290	5536	5734	10300	13272	MIN	0	0	3919	2273	179	1591	188

Water storage elevation ± it bd curve	**-37.41**
Water storage in ac-ft ± it bd curve:	**-34729**
Percentage of full reservoir:	**34.9%**

Minimum Required Discharges

Dec-Sept: 10 cfs Oct-Nov: 20 cfs

SNOTEL Summary for Water Year 2006

Uptdated: September 30, 2006

SECO W/Y pc:	75.2"	sno depth/water content	0
SDMO W/Y pc:	94.5"	sno depth/water content	0

RESERVOIR DELIVERY STATUS

These allocations, amounts used and remaining are provisional and subject to daily changes as the WS elevation rises and falls. These numbers are for planning purposes only.

	USED	REMAINING
TVID	19151	
CWS	7010	5608
LO	422	78
MUNI	10782	2718
Other	952	0

SCOGGINS DAM -- RESERVOIR OPERATIONS
October 2006

[See Appendix E for breakdown of municipal use by water provider.]

Source: Tualatin Valley Irrigation District

DAY	INFLOW				HENRY HAGG LAKE						TUALATIN RIVER						WEATHER			WATER DELIVERIES				
	SCHO (cfs) [1]	SCLO (cfs) [2]	TANO (cfs) [3]	TOT INFLO (cfs) [4]	W.S. ELEV (ft) [5]	STOR CONT (ac-ft) [6]	CHNG STOR (ac-ft) [7]	CHNG STOR (cfs) [8]	REL (cfs) [9]	COMP INFLO (cfs) [10]	GASO (cfs) [11]	DLLO (cfs) [12]	GOLF (cfs) [13]	ROOD (cfs) [14]	FROM (cfs) [15]	WSLO (cfs) [16]	PRECIP (inches) [17]	TEMP MAX (°F) [18]	TEMP MIN (°F) [19]	TVID (cfs) [20]	CWS (cfs) [21]	LO (cfs) [22]	MUNI (cfs) [23]	OTHR (cfs) [24]
1	2	2	0	4	265.91	18307	-287	-145	145	0	81	204	na	105	181	242	0.00	72	42	59	56	3	20	3
2	2	3	0	5	265.55	18036	-271	-137	145	8	83	205	na	121	187	239	0.00	69	42	58	56	3	20	3
3	2	3	0	5	265.24	17803	-233	-117	117	0	76	179	108	116	188	246	0.00	66	43	50	46	3	10	3
4	2	3	0	5	264.96	17594	-209	-117	109	-8	78	168	125	103	173	242	0.00	65	44	42	46	3	10	3
5	2	3	0	5	264.43	17200	-394	-199	115	-84	79	173	109	115	183	233	0.00	69	47	38	46	3	20	3
6	2	3	0	5	264.14	16986	-214	-108	116	8	78	175	99	94	171	283	0.00	72	48	39	46	3	20	3
7	2	3	0	5	263.86	16780	-206	-104	110	6	98	183	101	86	161	218	0.02	57	43	39	46	3	14	3
8	2	3	0	5	263.58	16575	-205	-103	110	7	99	185	112	96	167	213	0.00	64	43	43	46	3	10	3
9	2	3	0	5	263.31	16378	-197	-99	110	11	101	186	120	109	178	224	0.04	59	46	43	46	3	10	3
10	2	3	0	5	263.04	16181	-197	-99	110	11	101	186	116	107	184	233	0.00	70	34	43	46	3	10	3
11	2	3	0	5	262.76	15978	-203	-102	109	7	104	184	119	103	177	230	0.00	73	36	42	46	3	10	3
12	2	3	0	5	262.48	15776	-202	-102	109	7	106	185	122	103	174	224	0.00	76	40	42	46	3	10	3
13	2	3	0	5	262.21	15582	-194	-98	100	2	104	176	120	103	181	221	0.00	76	40	38	46	3	5	3
14	2	3	0	5	262.01	15439	-143	-72	79	7	104	154	85	98	176	230	0.00	74	41	35	31	0	5	3
15	2	3	0	5	261.81	15296	-143	-72	79	7	106	157	89	82	159	227	0.06	58	49	35	31	0	5	3
16	8	12	1	21	261.69	15217	-79	-40	79	39	138	180	109	161	205	299	0.56	59	46	19	31	0	5	3
17	3	5	1	9	261.55	15111	-106	-53	55	2	124	150	117	198	292	333	0.01	61	40	27	11	0	5	3
18	3	4	1	8	261.45	15040	-71	-36	55	19	115	139	86	140	225	348	0.00	62	42	28	11	0	5	3
19	3	4	1	8	261.35	14969	-71	-36	46	10	115	130	79	109	187	306	0.10	54	44	19	11	0	5	3
20	3	4	1	8	261.24	14891	-78	-39	46	7	107	126	76	115	188	275	0.00	64	40	20	11	0	5	2
21	3	4	1	8	261.06	14764	-127	-64	77	13	107	155	120	99	177	249	0.01	60	37	21	41	0	5	2
22	2	4	1	7	260.84	14610	-154	-78	77	-1	106	154	106	113	190	233	0.00	70	47	22	41	0	5	2
23	2	4	1	7	260.64	14469	-141	-71	76	5	106	153	106	110	185	233	0.00	69	36	21	41	0	5	2
24	2	4	1	7	260.45	14336	-133	-67	76	9	107	153	93	105	181	230	0.00	61	38	21	41	0	5	2
25	2	4	1	7	260.25	14197	-139	-70	86	16	112	165	123	105	181	239	0.03	54	38	21	41	0	15	2
26	2	4	1	7	260.04	14051	-146	-74	77	3	111	155	114	116	193	133	0.00	58	35	22	41	0	5	2
27	2	4	1	7	259.84	13912	-139	-70	77	7	109	154	121	107	185	239	0.00	59	36	22	41	0	5	2
28	2	4	1	7	259.64	13774	-138	-70	76	6	109	154	121	106	183	236	0.00	64	39	21	41	0	5	2
29	2	4	1	7	259.44	13636	-138	-70	76	6	109	154	114	103	183	230	0.00	63	40	21	41	0	5	2
30	2	4	1	7	259.21	13478	-158	-80	76	-4	114	157	114	103	183	236	0.00	54	29	21	41	0	5	2
31	2	4	1	7	259.06	13375	-103	-52	72	20	116	154	127	98	177	227	0.00	50	30	20	41	0	2	2
TOTALS																								
cfs	73	117	16	206				-2631	2790	146	3203	5133	3151	3429	5755	7551	0.83 inches MAX	76	49	992	1206	39	266	81
ac-ft	145	232	32	409			-5219	-5219	5534	290	6353	10181	6250	6801	11415	14977	MIN	50	29	1968	2392	77	528	161

Water storage elevation ± it bd curve	**-44.44**
Water storage in ac-ft ± it bd curve:	**-39948**
Percentage of full reservoir:	**25.1%**

Minimum Required Discharges
Dec-Sept: 10 cfs Oct-Nov: 20 cfs

SNOTEL Summary for Water Year 2006
Uptdated: October 31, 2006

SECO W/Y pc:	1.7"	sno depth/water content	0
SDMO W/Y pc:	2.1"	sno depth/water content	0

RESERVOIR DELIVERY STATUS		USED	REMAINING
These allocations, amounts used and	TVID	21118	
remaining are provisional and subject	CWS	9402	3216
to daily changes as the WS elevation	LO	500	0
rises and falls. These numbers are for	MUNI	11310	2190
planning purposes only.	Other	1113	0

[See Appendix E for breakdown of municipal use by water provider.]

SCOGGINS DAM -- RESERVOIR OPERATIONS
November 2006

Source: Tualatin Valley Irrigation District

DAY	INFLOW				HENRY HAGG LAKE						TUALATIN RIVER						WEATHER			WATER DELIVERIES				
	SCHO (cfs) [1]	SCLO (cfs) [2]	TANO (cfs) [3]	TOT INFLO (cfs) [4]	W.S. ELEV (ft) [5]	STOR CONT (ac-ft) [6]	CHNG STOR (ac-ft) [7]	CHNG STOR (cfs) [8]	REL (cfs) [9]	COMP INFLO (cfs) [10]	GASO (cfs) [11]	DLLO (cfs) [12]	GOLF (cfs) [13]	ROOD (cfs) [14]	FROM (cfs) [15]	WSLO (cfs) [16]	PRECIP (inches) [17]	TEMP MAX (°F) [18]	TEMP MIN (°F) [19]	TVID (cfs) [20]	CWS (cfs) [21]	LO (cfs) [22]	MUNI (cfs) [23]	OTHR (cfs) [24]
1	2	4	0	6	258.89	13259	-116	-58	57	-1	116	139	106	108	185	224	0.00	52	35	6	41	0	2	2
2	4	9	1	14	258.80	13198	-61	-31	58	27	120	141	111	106	182	246	0.56	52	39	0	41	0	2	2
3	13	43	2	58	258.90	13266	68	34	42	76	228	203	202	446	520	589	1.53	56	40	0	41	0	1	0
4	16	43	3	62	259.19	13464	198	99	11	45	273	236	342	542	682	770	0.50	58	52	0	0	0	0	0
5	26	65	4	95	259.62	13760	296	149	11	160	448	362	550	753	892	1173	1.00	58	51	0	0	0	0	0
6	110	317	16	443	260.55	14406	646	326	11	337	927	450	683	1252	1402	1466	2.02	64	50	0	0	0	0	0
7	334	865	39	1238	264.32	17119	2713	1368	11	1379	1300	2081	1588	2812	2857	3272	2.96	64	59	0	0	0	0	0
8	96	287	13	396	265.51	18761	1642	828	11	839	891	1492	2290	3271	3552	4016	0.17	60	45	0	0	0	0	0
9	58	160	5	223	267.41	19449	688	347	11	358	583	819	2285	3211	3490	3946	0.22	51	40	0	0	0	0	0
10	42	110	4	156	267.95	19865	416	210	11	221	381	585	1905	3092	3380	3649	0.05	47	41	0	0	0	0	0
11	95	231	18	344	269.02	20697	832	419	11	430	858	644	1656	3176	3485	4087	1.24	47	41	0	0	0	0	0
12	64	163	5	232	269.84	21341	644	325	11	336	590	673	1614	3058	3399	3784	0.10	59	44	0	0	0	0	0
13	122	268	21	411	270.90	22182	841	424	11	435	944	671	1633	3014	3347	3934	1.06	53	38	0	0	0	0	0
14	83	193	10	286	271.89	22973	791	399	12	411	708	745	1760	2959	3290	3682	0.16	52	36	0	0	0	0	0
15	64	144	7	215	272.55	23506	533	269	22	291	530	654	1665	2822	3130	3472	0.00	47	37	0	0	0	0	0
16	77	193	9	279	273.38	24182	676	341	20	361	741	633	1555	2805	3103	3570	0.63	54	36	0	0	0	0	0
17	60	144	7	211	274.02	24708	526	265	20	285	534	620	1492	2661	2972	3348	0.00	53	34	0	0	0	0	0
18	49	112	6	167	274.54	25114	406	205	20	225	375	518	1284	2463	2766	3151	0.00	48	39	0	0	0	0	0
19	41	94	5	140	274.93	25463	349	176	21	197	301	411	995	2176	2492	2922	0.14	50	44	0	0	0	0	0
20	47	96	5	148	275.37	25832	369	186	21	207	337	408	950	1934	2244	2806	0.32	50	40	0	0	0	0	0
21	66	135	10	211	275.78	26177	345	174	21	195	309	362	825	1655	1959	2497	0.59	56	41	0	0	0	0	0
22	75	195	10	280	276.51	26795	618	312	21	333	667	536	1271	1846	na	2667	0.76	50	40	0	0	0	0	0
23	113	287	17	417	277.58	27712	917	462	21	483	858	675	1547	2363	2637	3160	0.77	45	39	0	0	0	0	0
24	163	383	25	571	279.13	29060	1348	680	22	702	1000	952	1929	2922	3252	4016	0.92	43	41	0	0	0	0	0
25	110	252	15	377	280.35	30128	1068	538	22	560	841	1124	na	3251	3587	4075	0.09	48	33	0	0	0	0	0
26	126	255	16	397	281.34	31024	896	452	22	474	816	893	na	3369	3664	4230	0.75	46	34	0	0	0	0	0
27	117	237	20	374	282.52	32092	1068	538	22	560	846	1030	2060	3773	4061	4495	0.43	48	33	0	0	0	0	0
28	80	177	12	269	283.38	32878	786	396	23	419	670	893	2155	3872	4190	4557	0.18	36	31	0	0	0	0	0
29	66	137	10	213	284.02	33468	590	297	23	320	538	721	1977	3897	4211	4520	0.05	36	28	0	0	0	0	0
30	71	140	13	224	284.44	33858	390	197	101	298	563	671	1746	3827	4154	4508	0.44	39	30	0	0	0	0	0
TOTALS																	17.64 inches							
cfs	2390	5739	328	8457				10327	701	10963	18293	20342	38176	73436	79085	92832	MAX	64	59	6	123	0	5	4
ac-ft	4741	11383	651	16774			20483	20483	1390	21745	36284	40348	75722	145660	156865	184132	MIN	36	28	12	244	0	10	8

Water storage elevation ± it bd curve **0.94**
Water storage in ac-ft ± it bd curve: **869**
Percentage of full reservoir: **63.5%**

Minimum Required Discharges
Dec-Sept: 10 cfs Oct-Nov: 20 cfs

SNOTEL Summary for Water Year 2006
Uptdated: November 30, 2006

SECO W/Y pc:	27.8"	sno depth/water content	4"/0.4"
SDMO W/Y pc:	39.6"	sno depth/water content	na/na

RESERVOIR DELIVERY STATUS		USED	REMAINING
These allocations, amounts used and	TVID	21130	
remaining are provisional and subject	CWS	9646	2972
to daily changes as the WS elevation	LO	500	0
rises and falls. These numbers are for	MUNI	11320	2180
planning purposes only.	Other	1121	0

SCOGGINS DAM -- RESERVOIR OPERATIONS
December 2006

[See Appendix E for breakdown of municipal use by water provider.]

Source: Tualatin Valley Irrigation District

DAY	INFLOW				HENRY HAGG LAKE						TUALATIN RIVER						WEATHER			WATER DELIVERIES				
	SCHO (cfs) [1]	SCLO (cfs) [2]	TANO (cfs) [3]	TOT INFLO (cfs) [4]	W.S. ELEV (ft) [5]	STOR CONT (ac-ft) [6]	CHNG STOR (ac-ft) [7]	CHNG STOR (cfs) [8]	REL (cfs) [9]	COMP INFLO (cfs) [10]	GASO (cfs) [11]	DLLO (cfs) [12]	GOLF (cfs) [13]	ROOD (cfs) [14]	FROM (cfs) [15]	WSLO (cfs) [16]	PRECIP (inches) [17]	TEMP MAX (°F) [18]	TEMP MIN (°F) [19]	TVID (cfs) [20]	CWS (cfs) [21]	LO (cfs) [22]	MUNI (cfs) [23]	OTHR (cfs) [24]
1	60	116	12	188	284.81	34202	344	173	102	275	528	673	1586	3672	4030	4410	0.00	42	33	0	0	0	0	0
2	55	103	10	168	284.91	34295	93	47	205	252	446	668	1448	3432	3744	4194	0.00	40	31	0	0	0	0	0
3	48	90	9	147	284.93	34314	19	10	204	214	372	625	1321	3161	3522	3922	0.00	46	31	0	0	0	0	0
4	43	80	7	130	284.87	34258	-56	10	203	213	319	583	1168	2874	3217	3599	0.00	44	29	0	0	0	0	0
5	39	75	6	120	284.78	34174	-84	-42	202	160	286	249	1034	2551	2890	3300	0.00	42	33	0	0	0	0	0
6	37	69	6	112	284.63	34034	-140	-71	202	131	266	523	920	2181	2510	2967	0.00	51	31	0	0	0	0	0
7	34	65	5	104	284.48	33895	-139	-70	201	131	251	501	845	1783	2110	2615	0.00	51	33	0	0	0	0	0
8	30	60	5	95	284.34	33765	-130	-66	200	134	235	476	792	1482	1770	2256	0.00	47	33	0	0	0	0	0
9	32	56	5	93	284.18	33617	-148	-75	200	125	228	457	750	1304	1560	1960	0.20	43	35	0	0	0	0	0
10	30	57	5	92	284.12	33561	-56	-28	199	171	239	462	758	1282	1520	1814	0.04	47	39	0	0	0	0	0
11	42	87	5	134	284.11	33552	-9	-5	200	195	386	517	822	1269	1500	1778	0.48	49	45	0	0	0	0	0
12	96	180	10	286	284.64	34044	492	248	23	271	699	576	1232	1844	2049	2391	0.83	55	42	0	0	0	0	0
13	214	453	17	684	283.83	35158	1114	562	23	585	>1000	697	1465	2398	2672	3253	1.10	51	49	0	0	0	0	0
14	227	402	16	645	287.21	36467	1309	660	26	686	>1000	1216	1972	2929	3242	3750	1.05	52	44	0	0	0	0	0
15	334	654	25	1013	290.20	39364	2897	1461	24	1485	>1000	2722	2600	4163	4538	5585	0.80	57	39	0	0	0	0	0
16	174	356	14	544	291.95	41098	1734	874	24	898	>1000	2064	2900	5045	5142	5571	0.05	44	32	0	0	0	0	0
17	119	237	10	366	292.99	42144	1046	527	24	551	843	1379	2619	5701	6704	5831	0.00	40	26	0	0	0	0	0
18	89	175	10	274	293.35	42508	364	184	233	417	684	1196	2349	5556	6537	6322	0.00	39	26	0	0	0	0	0
19	74	140	9	223	292.32	41489	-1019	-514	777	263	592	1571	2159	5252	6204	6553	0.00	32	27	0	0	0	0	0
20	63	119	12	194	290.51	39669	-1820	-918	1126	208	528	1683	2131	4919	5652	6383	0.00	32	28	0	0	0	0	0
21	66	133	9	208	289.07	38259	-1410	-711	930	219	609	1599	2180	4698	5288	6247	0.60	38	33	0	0	0	0	0
22	57	112	7	176	287.37	36619	-1640	-827	997	170	531	1655	2161	4520	5045	5758	0.07	46	36	0	0	0	0	0
23	92	175	0	267	286.24	35545	-1074	-541	812	271	648	1428	2157	4357	4844	5643	0.45	42	36	0	0	0	0	0
24	69	140	0	209	286.55	35838	293	148	145	293	590	857	2116	4323	4775	5366	0.03	48	38	0	0	0	0	0
25	106	231	0	337	287.43	36677	839	423	33	456	895	873	2034	4448	4894	5948	0.84	46	39	0	0	0	0	0
26	108	226	28	362	288.29	37503	826	416	35	451	768	990	2086	4584	5033	5816	0.56	45	43	0	0	0	0	0
27	119	255	28	402	289.43	38610	1107	558	34	592	905	1403	2207	4836	5314	6307	0.65	47	39	0	0	0	0	0
28	92	198	19	309	289.93	39099	489	247	201	448	793	1416	2247	4854	5374	6081	0.01	46	28	0	0	0	0	0
29	77	160	15	252	289.57	38746	-353	-178	510	332	631	1428	2117	4742	5252	5875	0.00	44	28	0	0	0	0	0
30																								
31																								
TOTALS																	7.76 inches							
cfs	2626	5204	304	8134				2502	8095	10597	13272	30487	50176		116932	131495	MAX	57	49	0	0	0	0	0
ac-ft	5209	10322	603	16134			4888	4963	16056	21019	26325	60471	99524		231935	260820	MIN	32	26	0	0	0	0	0

Water storage elevation ± it bd curve	**6.07**
Water storage in ac-ft ± it bd curve:	**5757**
Percentage of full reservoir:	**72.7%**

Minimum Required Discharges
Dec-Sept: 10 cfs Oct-Nov: 20 cfs

SNOTEL Summary for Water Year 2006
Uptdated: December 20, 2006

SECO W/Y pc:	36.3"	sno depth/water content	0
SDMO W/Y pc:	50.8"	sno depth/water content	0

RESERVOIR DELIVERY STATUS		USED	REMAINING
These allocations, amounts used and	TVID	21130	
remaining are provisional and subject	CWS	9646	2972
to daily changes as the WS elevation	LO	500	0
rises and falls. These numbers are for	MUNI	11320	2180
planning purposes only.	Other	1121	0

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Appendix D

Barney Reservoir Operations Monthly Records

Breakdown of allocations for municipal use by water provider can be found in Appendix E of this report.

BARNEY RESERVOIR OPERATIONS FOR THE MONTH OF JANUARY 2006

[See Appendix E for breakdown of municipal use by water provider.] Source: Joint Water Commission

DAY	SURFACE ELEVATION	STORAGE	CHANGE IN STORAGE	RAIN @ BARNEY	MEASURED FLOW TO		STORAGE RELEASED TO TRASK—ODFW		STORAGE RELEASED TO TUALATIN			
					TRASK	TUALATIN			CWS		MUNICIPAL	
	feet	ac-ft	ac-ft	in.	cfs	cfs	cfs	ac-ft	cfs	ac-ft	cfs	ac-ft
1							0	0	0	0	0	0
2							0	0	0	0	0	0
3	1635.6	17850	1012	2.51	1.1	0.0	0	0	0	0	0	0
4	1636.1	18050	200	0.57	2.3	0.0	0	0	0	0	0	0
5							0	0	0	0	0	0
6	1636.8	18400	350	1.10	7.3	0.0	0	0	0	0	0	0
7							0	0	0	0	0	0
8							0	0	0	0	0	0
9	1638.6	19200	800	3.04	3.5	0.0	0	0	0	0	0	0
10							0	0	0	0	0	0
11	1641.2	20000	800	6.13	290.0	0.0	0	0	0	0	0	0
12							0	0	0	0	0	0
13	1641.0	20000	0	1.76	200.0	0.0	0	0	0	0	0	0
14							0	0	0	0	0	0
15							0	0	0	0	0	0
16							0	0	0	0	0	0
17							0	0	0	0	0	0
18	1641.0	20000	0	4.48	180.0	0.0	0	0	0	0	0	0
19							0	0	0	0	0	0
20	1640.9	20000	0	1.45	215.1	0.0	0	0	0	0	0	0
21							0	0	0	0	0	0
22							0	0	0	0	0	0
23	1640.8	20000	0	0.38	160.3	0.0	0	0	0	0	0	0
24							0	0	0	0	0	0
25	1640.7	20000	0	0.04	55.5	0.0	0	0	0	0	0	0
26							0	0	0	0	0	0
27	1640.7	20000	0	2.30	77.0	0.0	0	0	0	0	0	0
28							0	0	0	0	0	0
29							0	0	0	0	0	0
30	1641.2	20000	0	6.74	310.0	0.0	0	0	0	0	0	0
31							0	0	0	0	0	0
Monthly Totals			3162	30.50				0		0		0
Year to Date Totals			3162	30.50				0		0		0

BARNEY RESERVOIR OPERATIONS FOR THE MONTH OF FEBRUARY 2006

[See Appendix E for breakdown of municipal use by water provider.] Source: Joint Water Commission

DAY	SURFACE ELEVATION	STORAGE	CHANGE IN STORAGE	RAIN @ BARNEY	MEASURED FLOW TO		STORAGE RELEASED TO TRASK—ODFW		STORAGE RELEASED TO TUALATIN			
					TRASK	TUALATIN			CWS		MUNICIPAL	
	feet	ac-ft	ac-ft	in.	cfs	cfs	cfs	ac-ft	cfs	ac-ft	cfs	ac-ft
1	1641.0	20000	0	1.90	220.0	0.0	0	0	0	0	0	0
2							0	0	0	0	0	0
3	1641.0	20000	0	1.70	180.0	0.0	0	0	0	0	0	0
4							0	0	0	0	0	0
5							0	0	0	0	0	0
6	1640.9	20000	0	1.83	107.0	0.0	0	0	0	0	0	0
7							0	0	0	0	0	0
8	1640.8	20000	0	0.02	77.0	0.0	0	0	0	0	0	0
9							0	0	0	0	0	0
10	1640.7	20000	0	0.00	55.5	0.0	0	0	0	0	0	0
11							0	0	0	0	0	0
12							0	0	0	0	0	0
13	1640.7	20000	0	0.00	41.0	0.0	0	0	0	0	0	0
14							0	0	0	0	0	0
15	1640.7	20000	0	0.18	41.0	0.0	0	0	0	0	0	0
16							0	0	0	0	0	0
17	1640.7	20000	0	0.00	31.5	0.0	0	0	0	0	0	0
18							0	0	0	0	0	0
19							0	0	0	0	0	0
20	1640.7	20000	0	0.00	33.5	0.0	0	0	0	0	0	0
21							0	0	0	0	0	0
22	1640.6	20000	0	0.11	31.5	0.0	0	0	0	0	0	0
23							0	0	0	0	0	0
24	1640.6	20000	0	0.53	31.5	0.0	0	0	0	0	0	0
25							0	0	0	0	0	0
26							0	0	0	0	0	0
27	1640.7	20000		0.97	47.0	0.0	0	0	0	0	0	0
28							0	0	0	0	0	0
Monthly Totals			0	7.24				0		0		0
Year to Date Totals			3162	37.74				0		0		0

BARNEY RESERVOIR OPERATIONS FOR THE MONTH OF MARCH 2006

[See Appendix E for breakdown of municipal use by water provider.] Source: Joint Water Commission

DAY	SURFACE ELEVATION	STORAGE	CHANGE IN STORAGE	RAIN @ BARNEY	MEASURED FLOW TO		STORAGE RELEASED TO TRASK—ODFW		STORAGE RELEASED TO TUALATIN			
					TRASK	TUALATIN			CWS		MUNICIPAL	
	feet	ac-ft	ac-ft	in.	cfs	cfs	cfs	ac-ft	cfs	ac-ft	cfs	ac-ft
1	1640.6	20000	0	0.34	31.5	0.0	0	0	0	0	0	0
2							0	0	0	0	0	0
3	1640.6	20000	0	0.43	31.5	0.0	0	0	0	0	0	0
4							0	0	0	0	0	0
5							0	0	0	0	0	0
6	1640.6	20000	0	0.64	31.5	0.0	0	0	0	0	0	0
7							0	0	0	0	0	0
8	1640.6	20000	0	1.24	31.5	0.0	0	0	0	0	0	0
9							0	0	0	0	0	0
10	1640.7	20000	0	2.83	55.5	0.0	0	0	0	0	0	0
11							0	0	0	0	0	0
12							0	0	0	0	0	0
13	1640.7	20000	0	0.11	35.0	0.0	0	0	0	0	0	0
14							0	0	0	0	0	0
15	1640.7	20000	0	0.63	41.0	0.0	0	0	0	0	0	0
16							0	0	0	0	0	0
17	1640.7	20000	0	1.87	77.0	0.0	0	0	0	0	0	0
18							0	0	0	0	0	0
19							0	0	0	0	0	0
20	1640.7	20000	0	0.22	47.0	0.0	0	0	0	0	0	0
21							0	0	0	0	0	0
22	1640.7	20000	0	0.63	47.0	0.0	0	0	0	0	0	0
23							0	0	0	0	0	0
24	1640.7	20000	0	0.91	77.0	0.0	0	0	0	0	0	0
25							0	0	0	0	0	0
26							0	0	0	0	0	0
27	1640.7	20000	0	0.38	41.0	0.0	0	0	0	0	0	0
28	1640.7	20000	0	0.04	41.0	0.0	0	0	0	0	0	0
29	1640.7	20000	0	0.00	41.0	0.0	0	0	0	0	0	0
30							0	0	0	0	0	0
31	1640.7	20000	0	0.50	41.0	0.0	0	0	0	0	0	0
Monthly Totals			0	10.77				0		0		0
Year to Date Totals			3162	48.51				0		0		0

BARNEY RESERVOIR OPERATIONS FOR THE MONTH OF APRIL 2006

[See Appendix E for breakdown of municipal use by water provider.] Source: Joint Water Commission

DAY	SURFACE ELEVATION	STORAGE	CHANGE IN STORAGE	RAIN @ BARNEY	MEASURED FLOW TO		STORAGE RELEASED TO TRASK—ODFW		STORAGE RELEASED TO TUALATIN			
					TRASK	TUALATIN			CWS		MUNICIPAL	
	feet	ac-ft	ac-ft	in.	cfs	cfs	cfs	ac-ft	cfs	ac-ft	cfs	ac-ft
1							0	0	0	0	0	0
2							0	0	0	0	0	0
3	1640.7	20000	0	1.06	41.0	0.0	0	0	0	0	0	0
4							0	0	0	0	0	0
5	1640.7	20000	0	0.00	41.0	0.0	0	0	0	0	0	0
6							0	0	0	0	0	0
7	1640.6	20000	0	0.00	31.5	0.0	0	0	0	0	0	0
8							0	0	0	0	0	0
9							0	0	0	0	0	0
10	1640.6	20000	0	1.15	35.0	0.0	0	0	0	0	0	0
11							0	0	0	0	0	0
12	1640.6	20000	0	0.02	31.5	0.0	0	0	0	0	0	0
13							0	0	0	0	0	0
14	1640.6	20000	0	0.27	35.0	0.0	0	0	0	0	0	0
15							0	0	0	0	0	0
16							0	0	0	0	0	0
17	1640.6	20000	0	2.20	41.0	0.0	0	0	0	0	0	0
18							0	0	0	0	0	0
19	1640.6	20000	0	0.03	35.0	0.0	0	0	0	0	0	0
20							0	0	0	0	0	0
21	1640.6	20000	0	0.00	31.5	0.0	0	0	0	0	0	0
22							0	0	0	0	0	0
23							0	0	0	0	0	0
24	1640.6	20000	0	0.00	28.0	0.0	0	0	0	0	0	0
25							0	0	0	0	0	0
26	1640.6	20000	0	0.00	31.5	0.0	0	0	0	0	0	0
27							0	0	0	0	0	0
28	1640.5	20000	0	0.00	28.0	0.0	0	0	0	0	0	0
29							0	0	0	0	0	0
30							0	0	0	0	0	0
Monthly Totals			0	4.73				0		0		0
Year to Date Totals			3162	53.24				0		0		0

BARNEY RESERVOIR OPERATIONS FOR THE MONTH OF MAY 2006

[See Appendix E for breakdown of municipal use by water provider.]

Source: Joint Water Commission

DAY	SURFACE ELEVATION	STORAGE	CHANGE IN STORAGE	RAIN @ BARNEY	MEASURED FLOW TO		STORAGE RELEASED TO TRASK—ODFW		STORAGE RELEASED TO TUALATIN			
					TRASK	TUALATIN			CWS		MUNICIPAL	
	feet	ac-ft	ac-ft	in.	cfs	cfs	cfs	ac-ft	cfs	ac-ft	cfs	ac-ft
1	1640.5	20000	0	0.06	14.8	0.0	0	0	0	0	0	0
2							0	0	0	0	0	0
3	1640.5	20000	0	0.00	16.0	0.0	0	0	0	0	0	0
4							0	0	0	0	0	0
5	1640.5	20000	0	0.00	14.8	0.0	0	0	0	0	0	0
6							0	0	0	0	0	0
7							0	0	0	0	0	0
8	1640.5	20000	0	0.37	14.8	0.0	0	0	0	0	0	0
9							0	0	0	0	0	0
10	1640.5	20000	0	0.00	13.5	0.0	0	0	0	0	0	0
11							0	0	0	0	0	0
12	1640.5	20000	0	0.00	12.3	0.0	0	0	0	0	0	0
13							0	0	0	0	0	0
14							0	0	0	0	0	0
15	1640.5	20000	0	0.00	11.0	0.0	0	0	0	0	0	0
16							0	0	0	0	0	0
17	1640.5	20000	0	0.00	9.6	0.0	0	0	0	0	0	0
18							0	0	0	0	0	0
19	1640.5	20000	0	0.00	11.0	0.0	0	0	0	0	0	0
20							0	0	0	0	0	0
21							0	0	0	0	0	0
22	1640.6	20000	0	0.87	31.5	0.0	0	0	0	0	0	0
23							0	0	0	0	0	0
24	1640.6	20000	0	1.15	31.5	0.0	0	0	0	0	0	0
25							0	0	0	0	0	0
26	1640.6	20000	0	0.16	17.0	0.0	0	0	0	0	0	0
27							0	0	0	0	0	0
28							0	0	0	0	0	0
29							0	0	0	0	0	0
30							0	0	0	0	0	0
31	1640.5	20000	0	0.45	1.1	24.0	8	16	0	0	0	0
Monthly Totals			0	3.06				16		0		0
Year to Date Totals			3162	56.30				16		0		0

BARNEY RESERVOIR OPERATIONS FOR THE MONTH OF JUNE 2006

[See Appendix E for breakdown of municipal use by water provider.] Source: Joint Water Commission

DAY	SURFACE ELEVATION	STORAGE	CHANGE IN STORAGE	RAIN @ BARNEY	MEASURED FLOW TO		STORAGE RELEASED TO TRASK—ODFW		STORAGE RELEASED TO TUALATIN			
					TRASK	TUALATIN			CWS		MUNICIPAL	
	feet	ac-ft	ac-ft	in.	cfs	cfs	cfs	ac-ft	cfs	ac-ft	cfs	ac-ft
1							8	16	0	0	24	48
2	1640.3	19920	-80	1.00	9.6	24.0	8	16	0	0	24	48
3							8	16	0	0	24	48
4							8	16	0	0	24	48
5	1640.1	19840	-80	0.71	9.6	0.0	8	16	0	0	24	48
6							8	16	0	0	0	0
7	1640.1	19840	0	0.00	9.6	0.0	8	16	0	0	0	0
8							8	16	0	0	0	0
9	1640.1	19840	0	0.08	9.6	50.0	8	16	0	0	0	0
10							8	16	0	0	0	0
11							8	16	0	0	0	0
12	1639.3	19520	-320	0.05	9.6	0.0	8	16	0	0	0	0
13							8	16	0	0	0	0
14	1639.3	19520	0	0.09	9.6	20.0	8	16	0	0	0	0
15							8	16	0	0	20	40
16	1639.1	19440	-80	0.21	9..6	15.0	8	16	0	0	20	40
17							8	16	0	0	15	30
18							8	16	0	0	15	30
19	1638.9	19360	-80	0.00	8.0	15.0	8	16	0	0	15	30
20							8	16	0	0	15	30
21	1638.7	19280	-80	0.00	8.0	15.0	8	16	0	0	15	30
22							8	16	0	0	15	30
23	1638.5	19200	-80	0.00	8.0	23.0	8	16	0	0	15	30
24							8	16	0	0	23	46
25							8	16	0	0	23	46
26							8	16	0	0	23	46
27							8	16	0	0	27	54
28	1637.7	18850	-350	0.00	8.0	27.0	8	16	0	0	27	54
29							8	16	0	0	27	54
30	1637.4	18700	-150	0.00	8.0	22.0	8	16	0	0	27	54
Monthly Totals			-1300	2.14				476		0		877
Year to Date Totals			1862	58.44				492		0		877

BARNEY RESERVOIR OPERATIONS FOR THE MONTH OF JULY 2006

[See Appendix E for breakdown of municipal use by water provider.]

Source: Joint Water Commission

DAY	SURFACE ELEVATION	STORAGE	CHANGE IN STORAGE	RAIN @ BARNEY	MEASURED FLOW TO		STORAGE RELEASED TO TRASK—ODFW		STORAGE RELEASED TO TUALATIN			
					TRASK	TUALATIN			CWS		MUNICIPAL	
	feet	ac-ft	ac-ft	in.	cfs	cfs	cfs	ac-ft	cfs	ac-ft	cfs	ac-ft
1							8	16	0	0	22	44
2							8	16	0	0	22	44
3	1636.9	18450	-250	0.00	8.2	22.0	8	16	0	0	22	44
4							8	16	0	0	22	44
5	1636.7	18350	-100	0.01	8.2	22.0	8	16	0	0	22	44
6							8	16	0	0	22	44
7	1636.3	18150	-200	0.00	8.2	22.0	8	16	0	0	22	44
8							8	16	0	0	28	56
9							8	16	0	0	37	73
10	1635.8	17925	-225	0.00	8.2	15.0	8	16	0	0	37	73
11							8	16	0	0	22	44
12	1635.6	17850	-75	0.25	8.2	65.0	8	16	0	0	15	30
13							8	16	0	0	22	44
14	1635.2	17770	-80	0.13	8.2	15.0	8	16	0	0	38	75
15							8	16	0	0	15	30
16							8	16	0	0	15	30
17	1634.8	17550	-220	0.00	8.2	15.0	8	16	0	0	15	30
18							8	16	0	0	15	30
19	1634.6	17475	-75	0.00	8.2	15.0	8	16	0	0	15	30
20							8	16	0	0	15	30
21	1634.4	17400	-75	0.00	8.2	25.0	8	16	0	0	15	30
22							8	16	0	0	25	50
23							8	16	0	0	25	50
24	1633.9	17213	-187	0.00	8.2	20.0	8	16	0	0	25	50
25							8	16	0	0	20	40
26	1633.6	17100	-113	0.00	8.2	20.0	8	16	0	0	20	40
27							8	16	0	0	20	40
28	1633.3	16988	-112	0.00	8.2	20.0	8	16	0	0	20	40
29							8	16	0	0	20	40
30							8	16	0	0	20	40
31	1632.8	16800	-188	0.00	8.2	20.0	8	16	0	0	20	40
Monthly Totals			-1900	0.39				492		0		1335
Year to Date Totals			-38	58.83				984		0		2212

BARNEY RESERVOIR OPERATIONS FOR THE MONTH OF AUGUST 2006

[See Appendix E for breakdown of municipal use by water provider.] Source: Joint Water Commission

DAY	SURFACE ELEVATION	STORAGE	CHANGE IN STORAGE	RAIN @ BARNEY	MEASURED FLOW TO		STORAGE RELEASED TO TRASK—ODFW		STORAGE RELEASED TO TUALATIN			
					TRASK	TUALATIN			CWS		MUNICIPAL	
	feet	ac-ft	ac-ft	in.	cfs	cfs	cfs	ac-ft	cfs	ac-ft	cfs	ac-ft
1							8	16	0	0	20	40
2	1632.4	16688	-112	0.00	8.2	20.0	8	16	0	0	20	40
3							8	16	0	0	20	40
4	1632.2	16575	-113	0.00	8.2	20.0	8	16	0	0	20	40
5							8	16	0	0	20	40
6							8	16	0	0	20	40
7	1631.8	16425	-150	0.00	8.2	20.0	8	16	0	0	20	40
8							8	16	0	0	20	40
9	1631.5	16313	-112	0.02	8.2	20.0	8	16	0	0	20	40
10							8	16	0	0	20	40
11	1631.2	16200	-113	0.00	8.2	20.0	8	16	0	0	20	40
12							8	16	0	0	20	40
13							8	16	0	0	20	40
14	1630.8	16050	-150	0.00	8.2	20.0	8	16	0	0	20	40
15							8	16	0	0	20	40
16	1630.4	15900	-150	0.00	8.2	20.0	8	16	0	0	20	40
17							8	16	0	0	20	40
18	1630.0	15750	-150	0.00	8.2	20.0	8	16	0	0	20	40
19							8	16	0	0	20	40
20							8	16	0	0	20	40
21	1629.6	15600	-150	0.00	8.2	20.0	8	16	0	0	20	40
22							8	16	0	0	20	40
23	1629.3	15489	-111	0.00	8.2	20.0	8	16	0	0	20	40
24							8	16	0	0	20	40
25	1629.1	15412	-77	0.00	8.2	20.0	8	16	0	0	20	40
26							8	16	0	0	20	40
27							8	16	0	0	20	40
28	1628.6	15225	-187	0.00	8.2	20.0	8	16	0	0	20	40
29							8	16	0	0	20	40
30	1628.3	15113	-112	0.05	8.2	20.0	8	16	0	0	20	40
31							8	16	0	0	20	40
Monthly Totals			-1687	0.07				492		0		1230
Year to Date Totals			-1725	58.90				1476		0		3442

BARNEY RESERVOIR OPERATIONS FOR THE MONTH OF SEPTEMBER 2006

[See Appendix E for breakdown of municipal use by water provider.] Source: Joint Water Commission

DAY	SURFACE ELEVATION	STORAGE	CHANGE IN STORAGE	RAIN @ BARNEY	MEASURED FLOW TO		STORAGE RELEASED TO TRASK—ODFW		STORAGE RELEASED TO TUALATIN			
					TRASK	TUALATIN			CWS		MUNICIPAL	
	feet	ac-ft	ac-ft	in.	cfs	cfs	cfs	ac-ft	cfs	ac-ft	cfs	ac-ft
1	1627.9	14963	-150	0.00	8.2	35.0	8	16	14	28	21	42
2							8	16	14	28	21	42
3							8	16	14	28	21	42
4	1627.3	14738	-225	0.00	8.2	35.0	8	16	14	28	21	42
5							8	16	14	28	21	42
6	1626.7	14475	-263	0.00	8.2	35.0	8	16	14	28	21	42
7							8	16	14	28	21	42
8	1626.2	14325	-150	0.00	8.2	60.0	8	16	14	28	21	42
9							8	16	14	28	44	87
10							8	16	14	28	46	91
11	1624.9	13838	-487	0.00	8.2	65.0	8	16	14	28	46	91
12							8	16	14	28	50	99
13	1624.3	13613	-225	0.00	8.2	55.0	8	16	14	28	51	101
14							8	16	14	28	42	83
15	1623.5	13313	-300	0.33	8.2	65.0	8	16	14	28	41	81
16							8	16	14	28	51	101
17							8	16	14	28	51	101
18	1622.1	12788	-525	0.48	8.2	65.0	8	16	14	28	51	101
19							8	16	14	28	51	101
20	1621.4	12525	-263	0.30	8.2	40.0	8	16	14	28	44	87
21							8	16	14	28	40	79
22	1620.8	12300	-225	0.30	7.3	33.0	8	16	14	28	40	79
23							8	16	0	0	22	44
24							8	16	0	0	19	38
25	1620.0	12000	-300	0.00	8.2	33.0	8	16	0	0	19	38
26							8	16	0	0	19	38
27	1619.9	11966	-34	0.00	8.2	33.0	8	16	0	0	19	38
28							8	16	14	28	41	81
29	1618.2	11400	-566	0.00	8.2	55.0	8	16	14	28	41	81
30							8	16	14	28	41	81
Monthly Totals			-3713	1.41				476		694		2057
Year to Date Totals			-5438	60.31				1952		694		5500

BARNEY RESERVOIR OPERATIONS FOR THE MONTH OF OCTOBER 2006

[See Appendix E for breakdown of municipal use by water provider.] Source: Joint Water Commission

DAY	SURFACE ELEVATION	STORAGE	CHANGE IN STORAGE	RAIN @ BARNEY	MEASURED FLOW TO		STORAGE RELEASED TO TRASK—ODFW		STORAGE RELEASED TO TUALATIN			
					TRASK	TUALATIN			CWS		MUNICIPAL	
	feet	ac-ft	ac-ft	in.	cfs	cfs	cfs	ac-ft	cfs	ac-ft	cfs	ac-ft
1							8	16	14	28	41	81
2	1617.7	11233	-167	0.00	8.2	49.0	8	16	14	28	41	81
3							8	16	14	28	35	69
4							8	16	14	28	35	69
5	1616.8	10933	-300	0.00	8.2	49.0	8	16	14	28	35	69
6	1616.2	10733	-200	0.08	8.2	64.0	8	16	14	28	35	69
7							8	16	14	28	50	99
8							8	16	14	28	50	99
9	1614.9	10300	-433	0.08	8.2	59.0	8	16	14	28	50	99
10							8	16	14	28	45	89
11	1614.0	10000	-300	0.00	8.2	59.0	8	16	14	28	45	89
12							8	16	14	28	45	89
13	1613.2	9800	-200	0.00	8.2	59.0	8	16	14	28	45	89
14							8	16	14	28	45	89
15							8	16	14	28	45	89
16	1610.9	9225	-575	1.21	8.2	59.0	8	16	14	28	45	89
17							8	16	14	28	45	89
18	1611.0	9250	25	0.02	8.2	59.0	8	16	14	28	45	89
19							8	16	14	28	45	89
20	1610.1	9025	-225	0.20	8.2	49.0	8	16	14	28	35	69
21							8	16	14	28	35	69
22							8	16	14	28	35	69
23	1608.9	8633	-392	0.00	8.2	49.0	8	16	14	28	35	69
24							8	16	14	28	35	69
25	1608.1	8333	-300	0.14	8.2	49.0	8	16	14	28	35	69
26							8	16	14	28	35	69
27	1607.6	8200	-133	0.00	8.2	49.0	8	16	14	28	35	69
28							8	16	14	28	35	69
29							8	16	14	28	35	69
30	1606.0	7666	-534	0.18	8.2	49.0	8	16	14	28	35	69
31							8	16	14	28	35	69
Monthly Totals			-3734	1.91				492		861		2464
Year to Date Totals			-9172	62.22				2444		1555		7964

BARNEY RESERVOIR OPERATIONS FOR THE MONTH OF NOVEMBER 2006

[See Appendix E for breakdown of municipal use by water provider.]

Source: Joint Water Commission

DAY	SURFACE ELEVATION	STORAGE	CHANGE IN STORAGE	RAIN @ BARNEY	MEASURED FLOW TO		STORAGE RELEASED TO TRASK—ODFW		STORAGE RELEASED TO TUALATIN			
					TRASK	TUALATIN			CWS		MUNICIPAL	
	feet	ac-ft	ac-ft	in.	cfs	cfs	cfs	ac-ft	cfs	ac-ft	cfs	ac-ft
1	1605.4	7400	-266	0.00	8.2	49.0	8	16	14	28	35	69
2							8	16	14	28	35	69
3	1604.9	7300	-100	2.94	8.2	0.0	8	16	0	0	0	0
4							8	16	0	0	0	0
5							8	16	0	0	0	0
6	1606.3	7766	466	6.61	13.5	0.0	4	8	0	0	0	0
7							4	8	0	0	0	0
8	1609.5	8833	1067	6.27	9.6	0.0	4	8	0	0	0	0
9	1610.1	9025	192	0.77	6.4	0.0	4	8	0	0	0	0
10							4	8	0	0	0	0
11							4	8	0	0	0	0
12							4	8	0	0	0	0
13	1612.7	9675	650	4.88	2.4	0.0	0	0	0	0	0	0
14							0	0	0	0	0	0
15	1613.6	9900	225	0.47	2.4	0.0	0	0	0	0	0	0
16							0	0	0	0	0	0
17	1614.7	10233	333	1.34	2.4	0.0	0	0	0	0	0	0
18							0	0	0	0	0	0
19							0	0	0	0	0	0
20	1615.5	10500	267	1.00	1.7	0.0	0	0	0	0	0	0
21							0	0	0	0	0	0
22	1616.5	10833	333	2.35	2.4	0.0	0	0	0	0	0	0
23							0	0	0	0	0	0
24	1619.2	11733	900	2.35	2.8	0.0	0	0	0	0	0	0
25							0	0	0	0	0	0
26							0	0	0	0	0	0
27	1620.1	12038	305	2.35	2.3	0.0	0	0	0	0	0	0
28							0	0	0	0	0	0
29	160.9	12338	300	2.35	0.3	0.0	0	0	0	0	0	0
30							0	0	0	0	0	0
Monthly Totals			4672	33.68				135		56		139
Year to Date Totals			-4500	95.90				2579		1611		8103

BARNEY RESERVOIR OPERATIONS FOR THE MONTH OF DECEMBER 2006

[See Appendix E for breakdown of municipal use by water provider.]

Source: Joint Water Commission

DAY	SURFACE ELEVATION	STORAGE	CHANGE IN STORAGE	RAIN @ BARNEY	MEASURED FLOW TO		STORAGE RELEASED TO TRASK—ODFW		STORAGE RELEASED TO TUALATIN			
					TRASK	TUALATIN			CWS		MUNICIPAL	
	feet	ac-ft	ac-ft	in.	cfs	cfs	cfs	ac-ft	cfs	ac-ft	cfs	ac-ft
1	1621.7	12638	300	0.80	2.4	0.0	0	0	0	0	0	0
2							0	0	0	0	0	0
3							0	0	0	0	0	0
4	1622.3	12863	225	0.01	2.4	0.0	0	0	0	0	0	0
5							0	0	0	0	0	0
6	1622.7	13013	150	0.00	2.4	0.0	0	0	0	0	0	0
7							0	0	0	0	0	0
8	1623.1	13163	150	0.00	2.4	0.0	0	0	0	0	0	0
9							0	0	0	0	0	0
10							0	0	0	0	0	0
11	1623.9	13463	300	2.00	3.5	0.0	0	0	0	0	0	0
12							0	0	0	0	0	0
13	1625.5	14063	600	3.15	3.0	0.0	0	0	0	0	0	0
14							0	0	0	0	0	0
15							0	0	0	0	0	0
16	1629.0	15375	1312	0.00	3.0	0.0	0	0	0	0	0	0
17							0	0	0	0	0	0
18	1630.0	15750	375	4.25	2.4	0.0	0	0	0	0	0	0
19							0	0	0	0	0	0
20	1630.5	15935	185	0.23	2.4	0.0	0	0	0	0	0	0
21							0	0	0	0	0	0
22	1630.8	16050	115	1.10	2.4	0.0	0	0	0	0	0	0
23							0	0	0	0	0	0
24							0	0	0	0	0	0
25							0	0	0	0	0	0
26	1633.5	17063	1013	3.70	3.0	0.0	0	0	0	0	0	0
27	1634.1	17288	225	0.64	2.4	0.0	0	0	0	0	0	0
28	1634.7	17513	225	0.00	2.4	0.0	0	0	0	0	0	0
29							0	0	0	0	0	0
30							0	0	0	0	0	0
31							0	0	0	0	0	0
Monthly Totals			5175	15.88				0		0		0
Year to Date Totals			675	111.78				2579		1611		8103

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Appendix E

Municipal Water Use Allocations
Monthly Records

MONTHLY SUMMARIES OF MUNICIPAL ALLOCATIONS

MONTH	PAGE
January	no stored water released for municipal water use
February	no stored water released for municipal water use
March	no stored water released for municipal water use
April	no stored water released for municipal water use
May	E–3
June	E–4
July	E–5
August	E–6
September	E–7
October	E–8
November	E–9
December	no stored water released for municipal water use

MUNICIPAL ALLOCATIONS FOR THE MONTH OF MAY 2006

Source: Joint Water Commission

DAY	TOTAL MUNICIPAL USE	MUNICIPAL USE BY RESERVOIR		BREAKDOWN OF MUNCIPAL USE BY WATER PROVIDER						
				HILLSBORO		FOREST GROVE		BEAVERTON		TVWD
		Barney	Scoggins	Barney	Scoggins	Barney	Scoggins	Barney	Scoggins	Barney
	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	33.0	0.0	33.0	0.0	10.2	0.0	10.3	0.0	12.4	0.0
19	46.0	0.0	46.0	0.0	14.5	0.0	14.7	0.0	16.7	0.0
20	46.0	0.0	46.0	0.0	14.3	0.0	15.1	0.0	16.6	0.0
21	46.0	0.0	46.0	0.0	13.9	0.0	15.7	0.0	16.4	0.0
22	46.0	0.0	46.0	0.0	12.6	0.0	16.0	0.0	17.5	0.0
23	51.0	0.0	51.0	0.0	14.5	0.0	17.3	0.0	19.2	0.0
24	48.0	0.0	48.0	0.0	9.9	0.0	19.2	0.0	18.9	0.0
25	42.0	0.0	42.0	0.0	9.8	0.0	16.2	0.0	16.1	0.0
26	42.0	0.0	42.0	0.0	9.8	0.0	16.5	0.0	15.7	0.0
27	46.0	0.0	46.0	0.0	12.0	0.0	17.0	0.0	17.0	0.0
28	46.0	0.0	46.0	0.0	10.9	0.0	17.5	0.0	17.6	0.0
29	46.0	0.0	46.0	0.0	12.2	0.0	16.4	0.0	17.4	0.0
30	46.0	0.0	46.0	0.0	12.6	0.0	16.1	0.0	17.3	0.0
31	46.0	0.0	46.0	0.0	10.3	0.0	18.7	0.0	17.0	0.0
Monthly Totals										
cfs	630.0	0.0	630.0	0.0	167.5	0.0	226.8	0.0	235.7	0.0
ac-ft	1249.6	0.0	1249.6	0.0	332.3	0.0	449.8	0.0	467.6	0.0
Year-to-Date Totals										
cfs	630.0	0.0	630.0	0.0	167.5	0.0	226.8	0.0	235.7	0.0
ac-ft	1249.6	0.0	1249.6	0.0	332.3	0.0	449.8	0.0	467.6	0.0

MUNICIPAL ALLOCATIONS FOR THE MONTH OF JUNE 2006

Source: Joint Water Commission

DAY	TOTAL MUNICIPAL USE	MUNICIPAL USE BY RESERVOIR		BREAKDOWN OF MUNCIPAL USE BY WATER PROVIDER						
				HILLSBORO		FOREST GROVE		BEAVERTON		TVWD
		Barney	Scoggins	Barney	Scoggins	Barney	Scoggins	Barney	Scoggins	Barney
	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
1	47.0	24.0	23.0	2.7	6.5	3.0	7.3	3.8	9.2	14.6
2	47.0	24.0	23.0	3.1	7.6	2.8	6.9	3.5	8.5	14.6
3	47.0	24.0	23.0	2.8	7.1	2.9	7.1	3.5	8.8	14.8
4	47.0	24.0	23.0	2.0	5.5	2.9	7.9	3.5	9.6	15.6
5	47.0	24.0	23.0	3.3	8.0	2.9	7.0	3.4	8.1	14.3
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	63.0	20.0	43.0	0.6	15.1	0.5	13.5	0.5	14.4	18.4
16	47.0	20.0	27.0	2.8	10.8	2.1	7.9	2.1	8.3	13.0
17	48.0	15.0	33.0	0.9	12.3	0.7	9.4	0.8	11.2	12.7
18	50.0	15.0	35.0	0.1	12.3	0.1	10.8	0.1	11.9	14.8
19	50.0	15.0	35.0	0.2	12.5	0.1	10.3	0.2	12.2	14.5
20	54.0	15.0	39.0	0.0	13.0	0.0	12.2	0.0	13.8	15.0
21	55.0	15.0	40.0	0.0	12.4	0.0	12.3	0.0	15.3	15.0
22	55.0	15.0	40.0	0.5	14.7	0.4	11.9	0.5	13.4	13.6
23	60.0	15.0	45.0	0.3	16.5	0.2	13.7	0.3	14.8	14.2
24	77.0	23.0	54.0	1.4	19.1	1.1	16.2	1.3	18.7	19.2
25	73.0	23.0	50.0	1.6	16.8	1.4	14.2	1.9	19.1	18.1
26	73.0	23.0	50.0	3.1	19.2	2.1	13.3	2.8	17.4	15.0
27	77.0	27.0	50.0	4.0	17.3	3.2	13.9	4.3	18.9	15.6
28	77.0	27.0	50.0	4.4	20.2	3.0	13.7	3.5	16.2	16.0
29	68.0	27.0	41.0	4.8	14.7	3.3	10.2	5.2	16.0	13.7
30	62.0	27.0	35.0	5.1	13.5	3.0	8.0	5.1	13.5	13.7
Monthly Totals										
cfs	1224.0	442.0	782.0	43.6	275.2	35.7	227.6	46.3	279.3	316.4
ac-ft	2427.8	876.7	1551.1	86.4	545.8	70.9	451.4	91.8	554.0	627.6
Year-to-Date Totals										
cfs	1854.0	442.0	1412.0	43.6	442.7	35.7	454.3	46.3	515.0	316.4
ac-ft	3677.4	876.7	2800.7	86.4	878.0	70.9	901.1	91.8	1021.5	627.6

MUNICIPAL ALLOCATIONS FOR THE MONTH OF JULY 2006

Source: Joint Water Commission

DAY	TOTAL MUNICIPAL USE	MUNICIPAL USE BY RESERVOIR		BREAKDOWN OF MUNCIPAL USE BY WATER PROVIDER						
				HILLSBORO		FOREST GROVE		BEAVERTON		TVWD
		Barney	Scoggins	Barney	Scoggins	Barney	Scoggins	Barney	Scoggins	Barney
	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
1	72.0	22.0	50.0	2.7	19.4	1.5	11.1	2.7	19.5	15.0
2	72.0	22.0	50.0	2.8	19.9	1.6	11.2	2.6	18.9	15.0
3	72.0	22.0	50.0	3.1	20.4	1.7	10.9	2.9	18.7	14.3
4	72.0	22.0	50.0	2.7	17.8	1.8	11.7	3.1	20.5	14.4
5	72.0	22.0	50.0	2.8	19.0	1.5	10.2	3.1	20.9	14.5
6	60.0	22.0	38.0	5.5	15.1	2.3	6.2	6.0	16.7	8.3
7	57.0	22.0	35.0	5.6	15.0	2.7	7.1	4.8	12.9	8.9
8	63.0	28.0	35.0	7.8	14.4	3.5	6.4	7.7	14.2	8.9
9	72.0	37.0	35.0	10.5	13.9	5.1	6.8	10.8	14.3	10.5
10	72.0	37.0	35.0	10.7	14.7	5.0	6.9	9.7	13.4	11.6
11	57.0	22.0	35.0	4.2	13.0	2.4	7.6	4.6	14.4	10.7
12	65.0	15.0	50.0	2.6	22.6	1.0	8.8	2.2	18.6	9.2
13	42.0	22.0	20.0	7.7	8.8	3.4	3.9	6.3	7.2	4.6
14	80.0	38.0	42.0	10.6	16.9	4.7	7.5	11.0	17.6	11.8
15	65.0	15.0	50.0	1.3	20.1	0.6	10.0	1.3	19.9	11.9
16	65.0	15.0	50.0	0.8	20.8	0.4	9.9	0.7	19.3	13.1
17	65.0	15.0	50.0	1.1	21.7	0.5	9.4	0.9	18.9	12.5
18	75.0	15.0	60.0	0.0	24.3	0.0	11.5	0.0	24.2	15.0
19	75.0	15.0	60.0	0.0	27.0	0.0	18.9	0.0	14.1	15.0
20	75.0	15.0	60.0	0.0	23.7	0.0	14.9	0.0	21.4	15.0
21	80.0	15.0	65.0	0.0	27.2	0.0	14.0	0.0	23.8	15.0
22	97.0	25.0	72.0	1.4	27.9	0.8	17.0	1.3	27.1	21.4
23	95.0	25.0	70.0	2.0	29.0	1.2	16.6	1.7	24.4	20.1
24	95.0	25.0	70.0	2.3	28.2	1.4	16.7	2.1	25.1	19.2
25	85.0	20.0	65.0	0.4	25.5	0.3	15.2	0.4	24.3	18.9
26	85.0	20.0	65.0	1.0	28.1	0.6	15.5	0.8	21.4	17.6
27	85.0	20.0	65.0	1.0	24.9	0.6	15.5	1.0	24.5	17.5
28	72.0	20.0	52.0	2.3	21.1	1.3	12.2	2.0	18.8	14.4
29	70.0	20.0	50.0	2.0	17.7	1.3	11.2	2.4	21.2	14.4
30	70.0	20.0	50.0	1.8	16.4	1.2	10.9	2.5	22.8	14.4
31	70.0	20.0	50.0	2.6	18.0	1.5	9.9	3.3	22.1	12.6
Monthly Totals										
cfs	2252.0	673.0	1579.0	99.4	632.2	49.8	345.5	98.1	601.3	425.8
ac-ft	4466.8	1334.9	3131.9	197.1	1254.0	98.7	685.3	194.6	1192.6	844.5
Year-to-Date Totals										
cfs	4106.0	1115.0	2991.0	142.9	1074.9	85.5	799.8	144.4	1116.3	742.2
ac-ft	8144.3	2211.6	5932.6	283.5	2132.0	169.6	1586.5	286.4	2214.2	1472.1

MUNICIPAL ALLOCATIONS FOR THE MONTH OF AUGUST 2006

Source: Joint Water Commission

DAY	TOTAL MUNICIPAL USE	MUNICIPAL USE BY RESERVOIR		BREAKDOWN OF MUNCIPAL USE BY WATER PROVIDER						
				HILLSBORO		FOREST GROVE		BEAVERTON		TVWD
		Barney	Scoggins	Barney	Scoggins	Barney	Scoggins	Barney	Scoggins	Barney
	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
1	78.0	20.0	58.0	1.9	21.0	1.0	11.7	2.3	25.3	14.8
2	74.0	20.0	54.0	1.6	18.7	1.0	11.7	2.1	23.6	15.3
3	72.0	20.0	52.0	1.9	18.9	1.2	12.0	2.1	21.1	14.8
4	72.0	20.0	52.0	1.6	19.5	1.0	12.2	1.6	20.3	15.8
5	72.0	20.0	52.0	1.5	19.9	0.9	12.5	1.5	19.6	16.1
6	72.0	20.0	52.0	1.6	19.6	1.0	12.5	1.7	20.0	15.7
7	72.0	20.0	52.0	2.6	20.9	1.5	11.7	2.4	19.4	13.4
8	78.0	20.0	58.0	1.1	22.6	0.7	13.9	1.1	21.5	17.1
9	78.0	20.0	58.0	0.0	20.5	0.0	16.4	0.0	21.1	20.0
10	78.0	20.0	58.0	0.3	21.4	0.2	14.8	0.3	21.8	19.2
11	78.0	20.0	58.0	0.7	22.1	0.4	11.7	0.8	24.2	18.1
12	74.0	20.0	54.0	0.9	19.2	0.6	11.3	1.1	23.5	17.4
13	72.0	20.0	52.0	1.5	21.4	0.8	10.8	1.4	19.8	16.3
14	72.0	20.0	52.0	1.4	20.8	0.7	10.6	1.4	20.5	16.5
15	72.0	20.0	52.0	1.4	20.1	0.8	11.1	1.5	20.7	16.3
16	70.0	20.0	50.0	1.1	16.2	0.9	13.9	1.3	19.9	16.6
17	65.0	20.0	45.0	2.5	17.3	1.9	12.8	2.2	14.9	13.5
18	65.0	20.0	45.0	2.1	15.6	1.7	12.7	2.3	16.8	13.9
19	70.0	20.0	50.0	2.1	19.3	1.3	12.1	2.0	18.5	14.5
20	70.0	20.0	50.0	1.4	15.3	1.2	13.3	1.9	21.3	15.5
21	70.0	20.0	50.0	2.3	19.5	1.3	10.9	2.3	19.6	14.0
22	80.0	20.0	60.0	0.0	17.5	0.0	17.6	0.0	24.9	20.0
23	72.0	20.0	52.0	1.1	19.7	0.8	14.2	1.0	18.1	17.2
24	70.0	20.0	50.0	1.1	15.6	1.0	14.3	1.4	20.2	16.5
25	70.0	20.0	50.0	1.5	15.5	1.2	12.6	2.2	21.9	15.1
26	70.0	20.0	50.0	1.9	16.5	1.4	11.9	2.5	21.6	14.2
27	70.0	20.0	50.0	1.9	16.8	1.3	11.6	2.4	21.6	14.3
28	70.0	20.0	50.0	1.4	15.1	1.2	12.9	2.1	22.0	15.3
29	92.0	20.0	72.0	0.5	27.2	0.3	18.0	0.5	26.8	18.6
30	70.0	20.0	50.0	0.8	15.4	0.7	14.1	1.1	20.5	17.4
31	70.0	20.0	50.0	1.1	18.4	0.8	13.4	1.1	18.2	17.0
Monthly Totals										
cfs	2258.0	620.0	1638.0	43.1	587.6	29.0	401.5	47.5	648.9	500.4
ac-ft	4478.7	1229.8	3249.0	85.4	1165.6	57.5	796.4	94.2	1287.0	992.6
Year-to-Date Totals										
cfs	6364.0	1735.0	4629.0	186.0	1662.5	114.5	1201.3	191.9	1765.2	1242.6
ac-ft	12623.0	3441.4	9181.6	368.9	3297.6	227.0	2382.8	380.7	3501.2	2464.8

MUNICIPAL ALLOCATIONS FOR THE MONTH OF SEPTEMBER 2006

Source: Joint Water Commission

DAY	TOTAL MUNICIPAL USE	MUNICIPAL USE BY RESERVOIR		BREAKDOWN OF MUNCIPAL USE BY WATER PROVIDER						
				HILLSBORO		FOREST GROVE		BEAVERTON		TVWD
		Barney	Scoggins	Barney	Scoggins	Barney	Scoggins	Barney	Scoggins	Barney
	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
1	68.0	21.0	47.0	1.8	15.9	1.4	12.9	2.0	18.2	15.8
2	71.0	21.0	50.0	1.7	17.0	1.3	12.8	2.1	20.2	15.9
3	71.0	21.0	50.0	1.4	15.6	1.2	12.7	2.0	21.7	16.4
4	71.0	21.0	50.0	1.9	17.8	1.2	11.7	2.2	20.5	15.7
5	71.0	21.0	50.0	1.1	13.5	1.1	13.6	1.9	22.9	16.9
6	76.0	21.0	55.0	1.3	17.0	1.1	14.1	1.8	23.9	16.8
7	76.0	21.0	55.0	1.9	17.4	1.5	13.2	2.7	24.4	14.9
8	71.0	21.0	50.0	1.9	15.1	1.5	11.9	2.9	23.0	14.8
9	78.0	44.0	34.0	8.2	10.3	6.6	8.3	12.1	15.3	17.2
10	71.0	46.0	25.0	8.7	7.5	7.8	6.7	12.5	10.8	17.0
11	71.0	46.0	25.0	8.1	7.1	7.1	6.2	13.3	11.7	17.5
12	82.0	50.0	32.0	8.9	9.8	7.7	8.4	12.4	13.7	21.0
13	80.0	51.0	29.0	8.5	8.4	8.8	8.7	12.1	11.9	21.6
14	67.0	42.0	25.0	5.4	6.6	5.5	6.7	9.7	11.7	21.3
15	66.0	41.0	25.0	5.3	6.4	6.5	7.7	9.1	10.9	20.1
16	61.0	51.0	10.0	12.3	3.4	10.0	2.8	13.6	3.8	15.1
17	61.0	51.0	10.0	11.7	3.2	9.1	2.5	15.5	4.3	14.7
18	61.0	51.0	10.0	10.4	2.8	10.0	2.7	16.3	4.5	14.3
19	61.0	51.0	10.0	11.8	0.8	4.8	8.0	20.0	1.3	14.3
20	54.0	44.0	10.0	5.7	2.0	12.8	4.4	10.5	3.6	15.0
21	40.0	40.0	0.0	11.1	0.0	7.3	0.0	14.6	0.0	7.0
22	40.0	40.0	0.0	10.1	0.0	6.6	0.0	17.0	0.0	6.3
23	32.0	22.0	10.0	3.5	2.1	3.5	2.1	9.9	5.9	5.1
24	29.0	19.0	10.0	4.3	3.1	3.2	2.3	6.4	4.6	5.1
25	29.0	19.0	10.0	3.0	2.3	3.5	2.7	6.5	5.0	6.0
26	29.0	19.0	10.0	2.7	2.2	3.1	2.5	6.5	5.3	6.8
27	51.0	19.0	32.0	2.2	11.2	1.7	8.4	2.5	12.4	12.6
28	78.0	41.0	37.0	6.2	10.7	5.3	9.1	10.1	17.3	19.3
29	73.0	41.0	32.0	6.4	9.5	5.7	8.6	9.3	13.9	19.5
30	61.0	41.0	20.0	7.1	5.7	6.0	4.8	11.9	9.5	16.0
Monthly Totals										
cfs	1850.0	1037.0	813.0	174.9	244.4	152.7	216.4	269.5	352.2	439.9
ac-ft	3669.5	2056.9	1612.6	346.8	484.7	302.9	429.3	534.6	698.6	872.6
Year-to-Date Totals										
cfs	8214.0	2772.0	5442.0	360.8	1906.9	267.2	1417.8	461.4	2117.3	1682.6
ac-ft	16292.5	5498.3	10794.2	715.7	3782.3	529.9	2812.2	915.3	4199.8	3337.4

MUNICIPAL ALLOCATIONS FOR THE MONTH OF OCTOBER 2006

Source: Joint Water Commission

DAY	TOTAL MUNICIPAL USE	MUNICIPAL USE BY RESERVOIR		BREAKDOWN OF MUNCIPAL USE BY WATER PROVIDER						
				HILLSBORO		FOREST GROVE		BEAVERTON		TVWD
		Barney	Scoggins	Barney	Scoggins	Barney	Scoggins	Barney	Scoggins	Barney
	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
1	61.0	41.0	20.0	6.6	5.2	5.9	4.7	12.7	10.1	15.8
2	61.0	41.0	20.0	7.3	5.6	6.3	4.8	12.4	9.6	15.0
3	45.0	35.0	10.0	5.2	2.3	6.8	3.1	10.3	4.6	12.7
4	45.0	35.0	10.0	5.8	2.6	6.0	2.6	10.8	4.8	12.4
5	55.0	35.0	20.0	3.5	3.7	5.0	5.3	10.4	11.0	16.1
6	55.0	35.0	20.0	5.0	5.2	5.4	5.6	8.9	9.2	15.7
7	64.0	50.0	14.0	5.8	2.6	9.5	4.3	15.4	7.0	19.3
8	60.0	50.0	10.0	7.3	2.4	7.7	2.5	16.1	5.2	18.9
9	60.0	50.0	10.0	8.4	2.6	8.4	2.6	15.3	4.8	17.9
10	55.0	45.0	10.0	7.6	2.5	7.7	2.6	14.7	4.9	15.0
11	55.0	45.0	10.0	6.0	2.0	7.5	2.5	16.3	5.5	15.1
12	55.0	45.0	10.0	6.2	2.0	7.0	2.3	17.3	5.7	14.5
13	50.0	45.0	5.0	6.8	1.1	8.0	1.3	15.5	2.6	14.7
14	50.0	45.0	5.0	6.5	1.1	8.6	1.4	15.2	2.5	14.7
15	50.0	45.0	5.0	5.5	0.9	8.2	1.4	16.1	2.7	15.2
16	50.0	45.0	5.0	5.8	1.0	8.3	1.4	15.2	2.6	15.7
17	50.0	45.0	5.0	4.9	0.9	9.8	1.7	13.9	2.4	16.4
18	50.0	45.0	5.0	5.9	1.0	9.5	1.6	14.3	2.4	15.4
19	50.0	45.0	5.0	7.4	1.2	9.0	1.4	15.5	2.4	13.1
20	40.0	35.0	5.0	3.2	0.7	6.9	1.4	14.0	2.9	10.9
21	40.0	35.0	5.0	5.1	1.1	6.3	1.3	12.5	2.6	11.1
22	40.0	35.0	5.0	5.0	1.1	6.3	1.4	11.7	2.5	12.0
23	40.0	35.0	5.0	7.1	1.4	5.2	1.0	12.7	2.5	9.9
24	40.0	35.0	5.0	3.1	0.6	6.6	1.4	14.3	3.0	11.0
25	50.0	35.0	15.0	4.6	3.1	5.6	3.8	12.0	8.1	12.9
26	40.0	35.0	5.0	2.9	0.6	6.7	1.5	13.5	2.9	11.9
27	40.0	35.0	5.0	5.1	1.2	7.2	1.6	9.7	2.2	13.0
28	40.0	35.0	5.0	3.0	0.7	6.3	1.4	13.4	2.9	12.3
29	40.0	35.0	5.0	4.4	0.9	6.1	1.3	13.0	2.8	11.6
30	40.0	35.0	5.0	3.6	0.8	6.3	1.4	13.1	2.9	12.1
31	37.0	35.0	2.0	3.1	0.3	6.9	0.6	13.4	1.1	11.6
Monthly Totals										
cfs	1508.0	1242.0	266.0	167.6	58.3	221.0	71.2	419.5	136.4	433.9
ac-ft	2991.1	2463.5	527.6	332.5	115.7	438.3	141.3	832.0	270.6	860.7
Year-to-Date Totals										
cfs	9722.0	4014.0	5708.0	528.5	1965.2	488.1	1489.0	880.9	2253.8	2116.5
ac-ft	19283.6	7961.8	11321.8	1048.2	3898.0	968.2	2953.5	1747.3	4470.4	4198.1

MUNICIPAL ALLOCATIONS FOR THE MONTH OF NOVEMBER 2006

Source: Joint Water Commission

DAY	TOTAL MUNICIPAL USE	MUNICIPAL USE BY RESERVOIR		BREAKDOWN OF MUNCIPAL USE BY WATER PROVIDER						
				HILLSBORO		FOREST GROVE		BEAVERTON		TVWD
		Barney	Scoggins	Barney	Scoggins	Barney	Scoggins	Barney	Scoggins	Barney
	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
1	37.0	35.0	2.0	4.9	0.4	6.5	0.5	13.9	1.1	9.6
2	37.0	35.0	2.0	5.5	0.5	7.3	0.6	11.5	0.9	10.8
3	1.0	0.0	1.0	0.0	0.4	0.0	0.3	0.0	0.3	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Monthly Totals										
cfs	75.0	70.0	5.0	10.3	1.3	13.8	1.4	25.4	2.4	20.4
ac-ft	148.8	138.8	9.9	20.5	2.5	27.4	2.8	50.4	4.7	40.5
Year-to-Date Totals										
cfs	9797.0	4084.0	5713.0	538.8	1966.5	502.0	1490.4	906.3	2256.1	2136.9
ac-ft	19432.3	8100.6	11331.7	1068.7	3900.5	995.6	2956.2	1797.7	4475.1	4238.6

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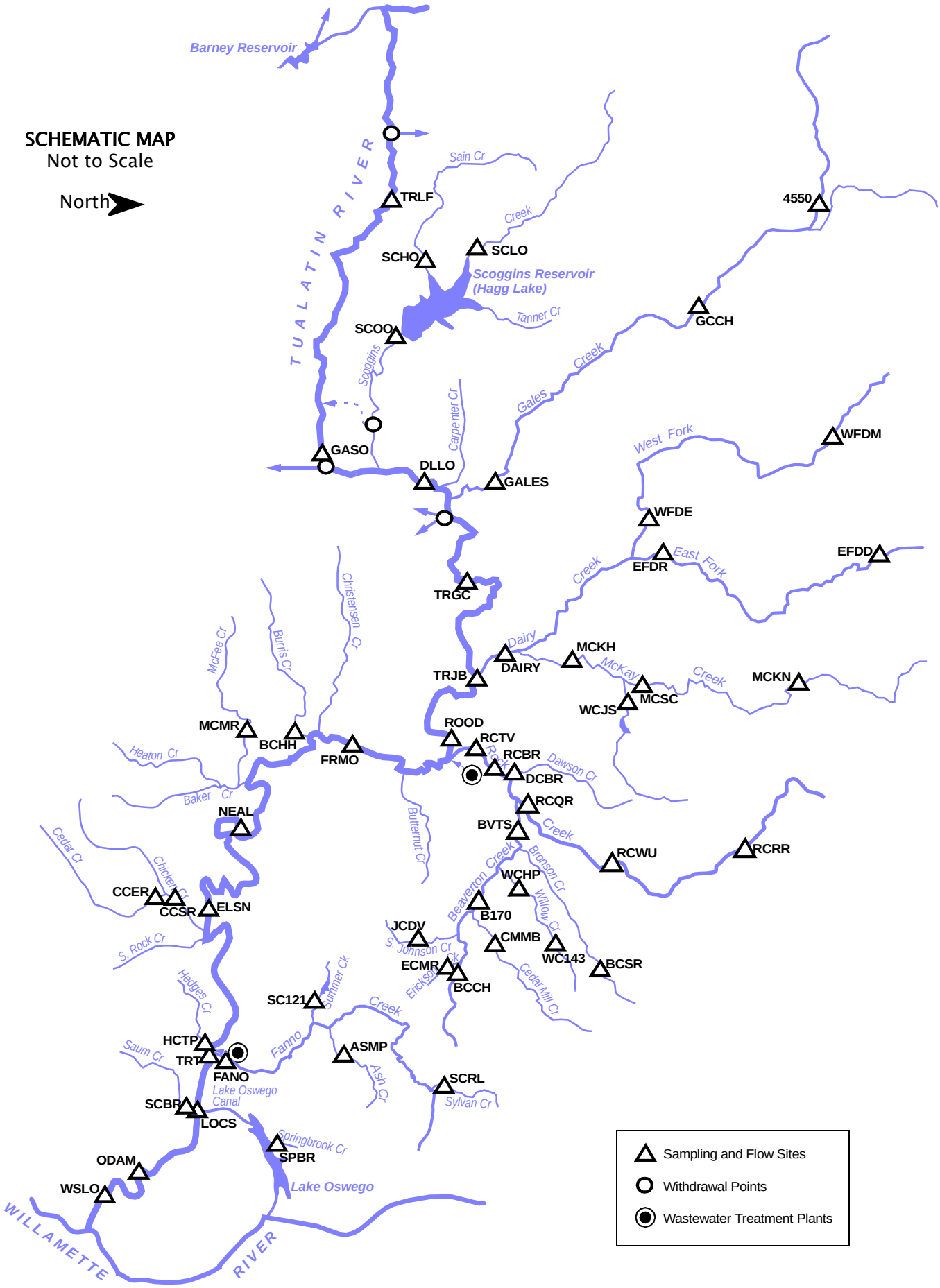
Appendix F

Stream Temperature Records

STREAM TEMPERATURE SITES — LOCATIONS



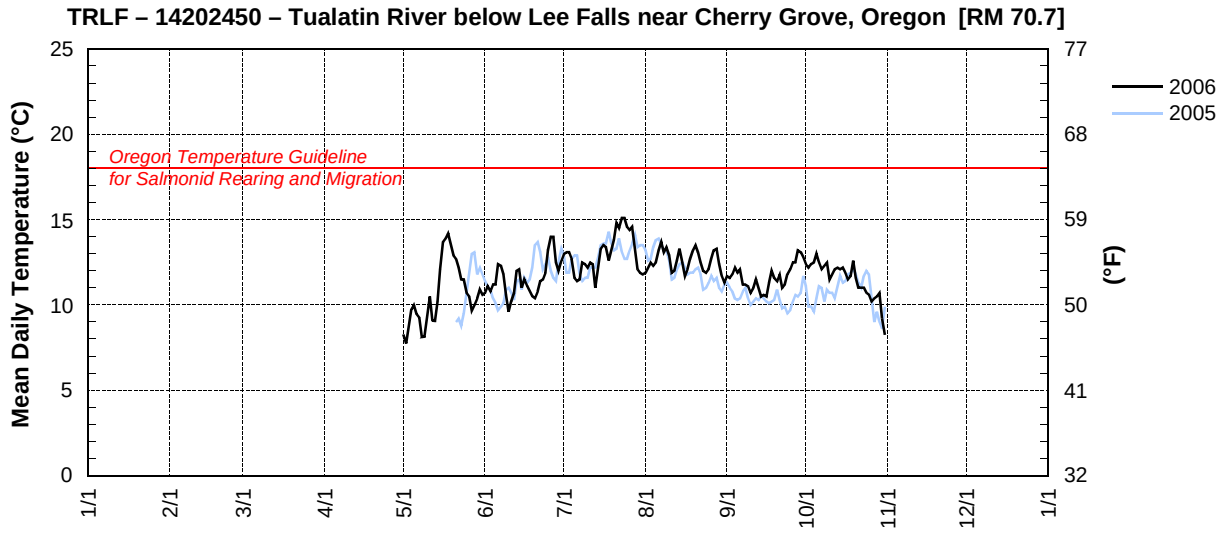
STREAM TEMPERATURE SITES — ALPHABETICAL LISTING BY SITE CODE

SITE CODE	SITE NAME	RIVER MILE	STATION ID	PAGE
4550	Gales Creek above Glenwood, Oregon	19.9	14204550	F-10
ASMP	Ash Creek at Metzger Park at Metzger, Oregon	1.25	14206933	F-48
B170	Beaverton Creek at 170th Ave, Beaverton, OR	4.9	—	F-32
BCCH	Beaverton Creek at Cedar Hills Blvd at Beaverton, Oregon	7.45	14206360	F-28
BCHH	Burris Creek at Hwy 219	0.38	—	F-41
BCSR	Bronson Creek at Saltzman Road near Orenco, Oregon	5.1	14206419	F-35
BVTS	Beaverton Creek at 216th near Orenco, Oregon	1.2	14206435	F-36
CCER	Cedar Creek at Edy Road near Sherwood, Oregon	0.62	14206748	F-45
CCSR	Chicken Creek at Scholls-Sherwood Road	2.3	14206750	F-46
CMMB	Cedar Mill Creek at Murray Boulevard near Beaverton, Oregon	1.64	14206395	F-31
DAIRY	Dairy Creek at Hwy 8 near Hillsboro, Oregon	2.06	14206200	F-22
DCBR	Dawson Creek at Brookwood Road near Hillsboro, Oregon	0.7	14206443	F-37
DLLO	Tualatin River at Dilley, Oregon	58.8	14203500	F-9
ECMR	Erickson Creek at Menlo Drive at Beaverton, Oregon	0.76	14206365	F-29
EFDD	East Fork Dairy Creek near Dairy Creek Rd near Mountaindale, OR	12.33	14205480	F-16
EFDR	East Fork Dairy Creek at Roy Road	1.24	—	F-17
ELSN	Tualatin River at Elsner Road near Sherwood, Oregon	16.2	14206600	F-44
FANO	Fanno Creek at Durham Road near Tigard, Oregon	1.2	14206950	F-50
FRMO	Tualatin River at Farmington, Oregon	33.3	14206500	F-40
GALES	Gales Creek at Old Hwy 47 near Forest Grove, Oregon	2.36	14204530	F-12
GASO	Tualatin River at Gaston, Oregon	62.3	14202510	F-5
GCCH	Gales Creek at Clapshaw Hill Road near Gales Creek, Oregon	12.36	14204540	F-11
HCTP	Hedges Creek at Tualatin Community Park at Tualatin, Oregon	0.3	14206958	F-51
JCDV	Johnson Creek at Davis Road near Beaverton, Oregon	1.3	14206372	F-30
LOCS	Tualatin River at Oswego Canal near Lake Oswego, Oregon	6.7	14206990	F-54
MCKH	McKay Creek at Hornecker Rd near Hillsboro, Oregon	2.2	14206180	F-21
MCKN	McKay Creek at Northrup Road near North Plains, Oregon	15.5	14205980	F-18
MCMR	McFee Creek at Midway Road	2.04	—	F-42
MCSC	McKay Creek at Scotch Church Road near North Plains, Oregon	6.3	14206070	F-19
NEAL	Tualatin River at RM 24.5 near Scholls, OR	24.5	14206694	F-43
ODAM	Tualatin River at Oswego Dam near West Linn, OR	3.4	14207200	F-55
RCQR	Rock Creek at Quatama near Orenco, Oregon	4.9	14206347	F-27
RCBR	Rock Creek at Brookwood Avenue, Hillsboro, OR	2.4	—	F-38
RCRR	Rock Creek at Rock Creek Road near Bowers Junction, Oregon	15.8	14206305	F-25
RCTV	Rock Creek at Hwy 8 near Hillsboro, Oregon	1.2	14206450	F-39
RCWU	Rock Creek at West Union Road near Bethany, Oregon	9.0	14206338	F-26
ROOD	Tualatin River at Rood Bridge Road near Hillsboro, Oregon	38.4	14206295	F-24
SC121	Summer Creek at 121st Avenue near Tigard, Oregon	1.0	14206938	F-49
SCBR	Saum Creek at Borland Road	0.6	—	F-53
SCHO	Sain Creek above Henry Hagg Lake near Gaston, Oregon	1.6	14202920	F-7
SCLO	Scoggins Creek above Henry Hagg Lake near Gaston, Oregon	8.0	14202850	F-6
SCOO	Scoggins Creek below Henry Hagg Lake near Gaston, Oregon	4.80	14202980	F-8
SCRL	Sylvan Creek at Raleighwood Lane near West Slope, Oregon	1.0	14206905	F-47
SPBR	Springbrook Creek at Iron Mountain Rd near Lake Oswego, Oregon	0.18	14211116	F-57
TRGC	Tualatin River at Golf Course Road near Cornelius, Oregon	51.5	14204800	F-13
TRJB	Tualatin River at Hwy 219 Bridge	44.4	14206241	F-23
TRLF	Tualatin River below Lee Falls near Cherry Grove, Oregon	70.7	14202450	F-4
TRT	Tualatin River at Tualatin, Oregon	8.9	14206956	F-52
WC143	Willow Creek at 143rd Avenue near Beaverton, Oregon	3.5	14206410	F-33
WCHP	Willow Creek at Heritage Parkway near Beaverton, Oregon	0.75	14206413	F-34
WCJS	Waible Creek at Jackson School Road near Hillsboro, Oregon	1.0	14206100	F-20
WFDE	West Fork Dairy Creek at Evers Road	1.96	14205160	F-15
WFDM	West Fork Dairy Creek at Manning, Oregon	12.9	—	F-14
WSLO	Tualatin River at West Linn	1.75	14207500	F-56

TRLF – 14202450 – TUALATIN RIVER BELOW LEE FALLS NEAR CHERRY GROVE, OR [RM 70.7]

Latitude: 45 30 21 Longitude: 123 13 06 Source Agency: District 18 Watermaster

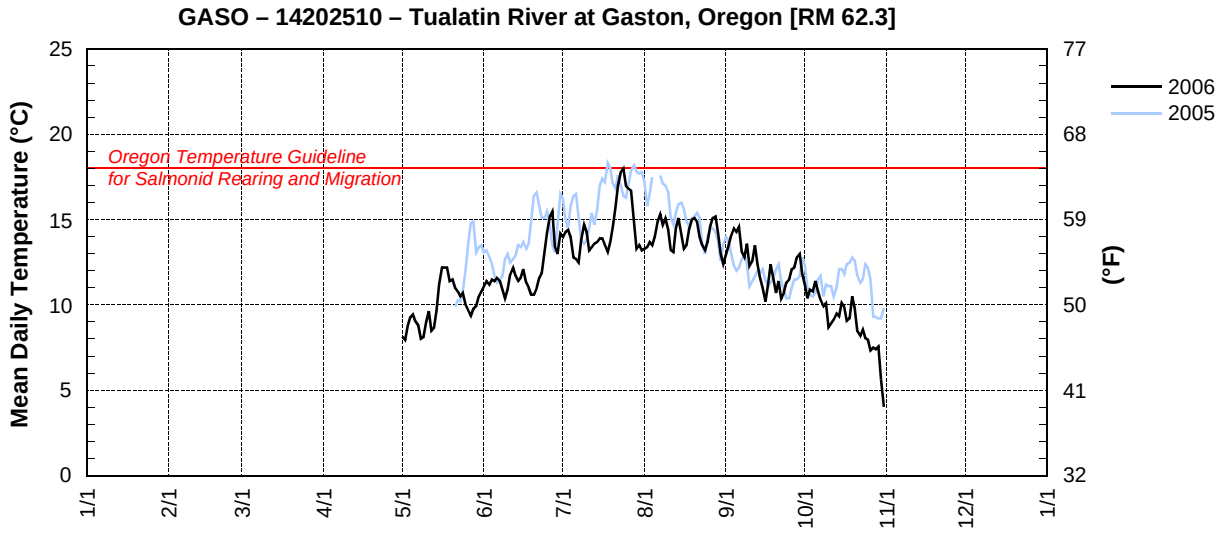
Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					8.28	10.7	13.0	11.9	11.7	12.4		
2					7.75	11.1	13.1	12.2	11.6	12.2		
3					8.77	10.8	13.1	12.5	11.8	12.4		
4					9.73	11.2	12.7	12.3	12.2	12.5		
5					10.0	11.2	11.6	12.5	11.9	13.0		
6					9.49	12.4	11.4	13.2	12.1	12.5		
7					9.27	12.3	11.5	13.7	11.2	12.1		
8					8.13	11.8	12.5	13.1	11.2	12.3		
9					8.14	10.6	12.4	13.4	11.1	12.5		
10					9.20	9.60	12.2	12.9	10.7	11.5		
11					10.5	10.2	12.5	11.9	11.0	11.8		
12					9.08	10.7	12.4	12.0	11.5	12.1		
13					9.06	12.0	11.0	12.6	11.0	12.2		
14					10.2	12.1	12.2	13.3	10.5	12.1		
15					12.1	11.0	13.3	12.5	10.6	12.2		
16					13.7	11.5	13.5	11.7	10.5	11.9		
17					13.9	11.1	13.4	12.1	11.3	11.5		
18					14.2	10.8	12.6	12.7	12.0	11.7		
19					13.6	10.5	13.2	13.2	11.6	12.6		
20					12.9	10.4	13.8	13.5	11.4	11.6		
21					12.7	10.8	14.8	13.1	11.8	11.0		
22					12.2	11.4	14.5	12.5	11.0	11.0		
23					11.5	11.5	15.1	12.0	11.2	11.0		
24					11.5	11.9	15.1	11.9	11.8	10.7		
25					10.7	13.2	14.6	12.1	12.1	10.6		
26					10.5	14.0	14.4	12.7	12.5	10.2		
27					9.68	14.0	14.6	13.2	12.5	10.4		
28					9.99	12.5	13.3	13.3	13.2	10.5		
29		—			10.4	12.0	12.1	12.4	13.1	10.7		
30		—			10.9	12.6	11.9	11.7	12.8	9.22		
31		—		—	10.6	—	11.8	11.3	—	8.25	—	
MEAN					10.6	11.5	13.0	12.6	11.6	11.5		
MAX					14.2	14.0	15.1	13.7	13.2	13.0		
MIN					7.75	9.60	11.0	11.3	10.5	8.25		



GASO – 14202510 – TUALATIN RIVER AT GASTON, OREGON [RM 62.3]

Latitude: 45 26 21 Longitude: 123 07 85 Source Agency: District 18 Watermaster

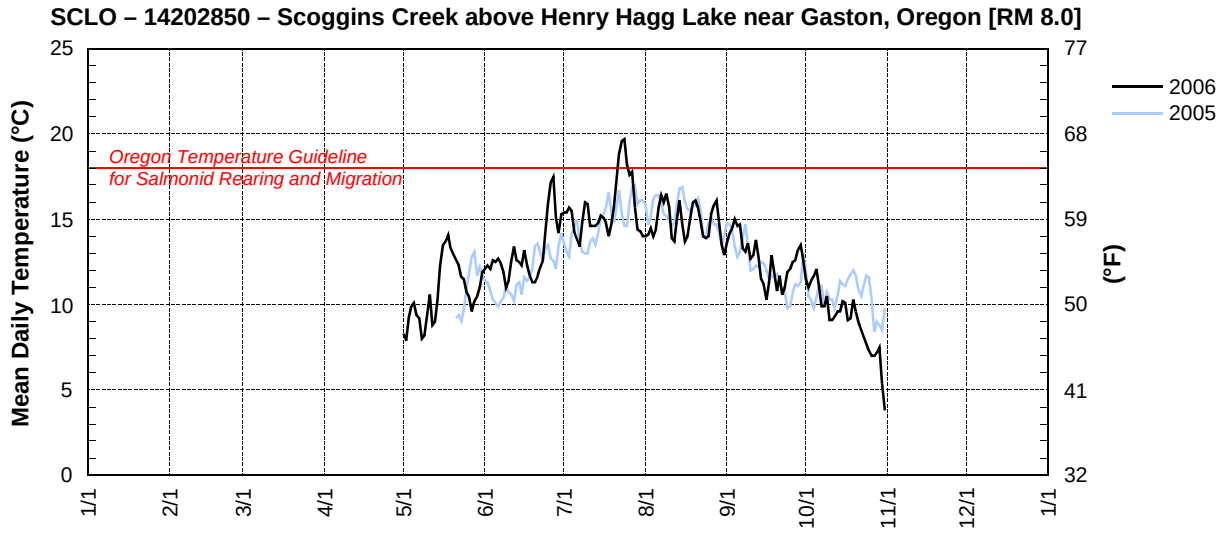
Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					8.15	11.1	14.0	13.3	12.9	11.2		
2					7.96	11.4	14.3	13.4	13.5	10.4		
3					8.77	11.2	14.4	13.7	14.1	10.9		
4					9.29	11.5	14.0	13.5	14.5	10.8		
5					9.46	11.4	12.8	14.0	14.3	11.4		
6					9.04	11.6	12.7	14.9	14.6	10.8		
7					8.80	11.4	12.5	15.3	13.1	10.3		
8					8.02	10.9	13.8	14.7	12.8	9.92		
9					8.13	10.4	14.7	15.1	13.6	10.1		
10					8.95	10.9	14.3	14.4	12.3	8.71		
11					9.64	11.8	13.2	13.2	12.6	8.92		
12					8.49	12.2	13.4	13.1	13.5	9.16		
13					8.67	11.7	13.6	14.5	12.4	9.50		
14					9.68	11.4	13.7	15.1	11.6	9.34		
15					11.2	11.6	13.9	14.1	11.0	10.1		
16					12.2	12.1	13.9	13.3	10.2	9.88		
17					12.2	11.3	13.5	13.5	11.2	9.08		
18					12.2	11.0	13.1	14.4	12.4	9.22		
19					11.4	10.6	13.7	15.0	11.6	10.5		
20					11.5	10.6	14.6	15.1	10.7	9.79		
21					11.0	11.0	15.7	14.9	11.4	8.46		
22					10.8	11.6	17.0	14.0	10.4	8.19		
23					10.5	11.9	17.8	13.5	10.7	8.58		
24					10.7	13.0	18.0	13.2	11.3	8.06		
25					10.0	14.2	17.0	13.7	11.5	7.98		
26					9.68	15.2	16.8	14.6	12.1	7.34		
27					9.35	15.5	16.7	15.1	12.2	7.51		
28					9.78	13.4	14.8	15.2	12.8	7.41		
29		—			9.94	13.0	13.3	14.2	13.0	7.56		
30		—			10.5	14.2	13.5	13.0	11.8	5.64		
31		—		—	10.8	—	13.2	12.4	—	4.03	—	
MEAN					9.90	12.0	14.4	14.1	12.3	9.06		
MAX					12.2	15.5	18.0	15.3	14.6	11.4		
MIN					7.96	10.4	12.5	12.4	10.2	4.03		



SCLO – 14202850 — SCOGGINS CREEK ABOVE HENRY HAGG LAKE NEAR GASTON, OREGON [RM 8.0]

Latitude: 45 30 06 Longitude: 123 15 06 Source Agency: District 18 Watermaster

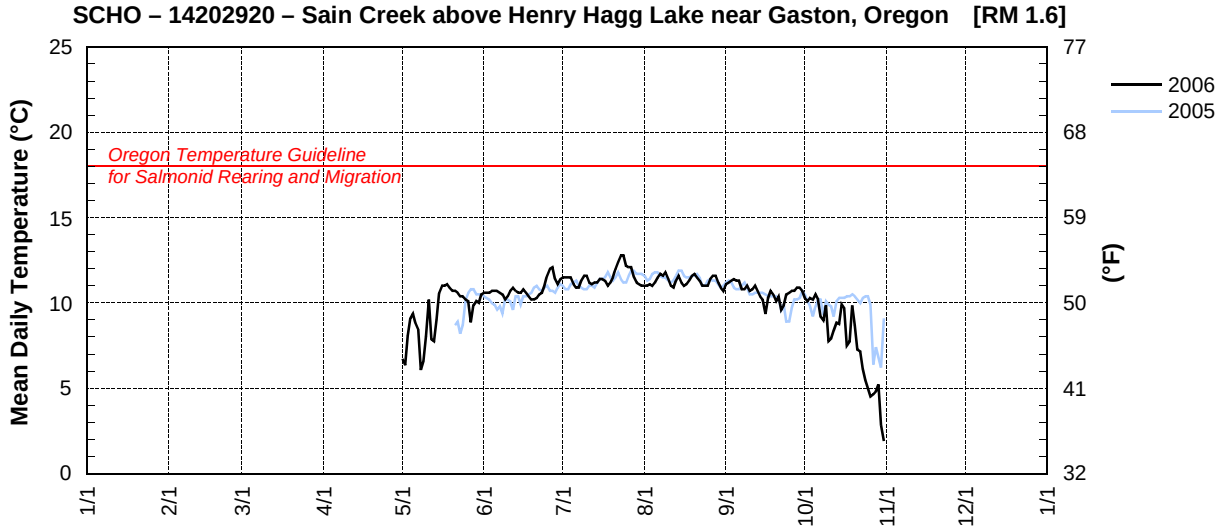
Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					8.3	12.1	15.4	14.0	13.6	11.5		
2					7.9	12.3	15.4	14.1	14.2	11.0		
3					9.2	12.1	15.7	14.5	14.5	11.4		
4					9.9	12.6	15.5	14.0	15.0	11.7		
5					10.1	12.5	14.2	14.4	14.6	12.1		
6					9.4	12.7	13.8	15.7	14.7	11.1		
7					9.2	12.4	13.4	16.4	13.3	9.9		
8					8.0	11.9	14.8	16.0	13.1	9.9		
9					8.2	11.0	16.0	16.5	13.6	10.5		
10					9.4	11.4	15.9	15.7	12.7	9.1		
11					10.6	12.5	14.6	13.9	12.9	9.1		
12					8.8	13.4	14.6	13.7	13.8	9.3		
13					9.0	12.6	14.6	15.0	12.8	9.6		
14					10.3	12.5	14.8	16.1	11.5	9.6		
15					12.3	12.3	15.2	14.7	11.2	10.2		
16					13.5	13.2	15.1	13.7	10.3	10.1		
17					13.7	12.3	14.8	14.0	11.3	9.1		
18					14.1	11.7	14.0	15.0	12.9	9.2		
19					13.3	11.3	14.7	16.0	11.9	10.3		
20					12.9	11.3	15.7	16.1	10.8	9.6		
21					12.6	11.7	17.3	15.7	11.7	9.0		
22					12.3	12.2	18.8	14.9	10.6	8.5		
23					11.6	12.6	19.6	14.0	11.0	8.1		
24					11.5	14.1	19.7	13.9	11.9	7.7		
25					10.7	15.9	18.2	14.0	12.1	7.3		
26					10.4	17.2	17.6	15.3	12.5	7.0		
27					9.6	17.5	17.8	15.8	12.6	7.0		
28					10.2	15.1	15.7	16.1	13.2	7.2		
29		—			10.5	14.2	14.4	14.8	13.5	7.5		
30		—			11.0	15.3	14.3	13.5	12.6	5.4		
31		—		—	11.9	—	14.0	12.9	—	3.8	—	
MEAN					10.7	13.0	15.7	14.9	12.7	9.1		
MAX					14.1	17.5	19.7	16.5	15.0	12.1		
MIN					7.9	11.0	13.4	12.9	10.3	3.8		



SCHO – 14202920 — SAIN CREEK ABOVE HENRY HAGG LAKE NEAR GASTON, OREGON [RM 1.6]

Latitude: 45 28 50 Longitude: 123 14 40 Source Agency: District 18 Watermaster

Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					6.73	10.6	11.5	11.0	11.1	10.3		
2					6.35	10.6	11.5	11.0	11.2	10.1		
3					8.09	10.6	11.5	11.1	11.3	10.3		
4					9.10	10.7	11.5	11.0	11.4	10.2		
5					9.37	10.7	11.1	11.2	11.3	10.5		
6					8.81	10.7	10.9	11.5	11.3	10.2		
7					8.43	10.6	10.9	11.7	10.8	9.20		
8					6.07	10.5	11.3	11.6	10.8	8.98		
9					6.58	10.2	11.6	11.8	11.0	9.87		
10					8.04	10.4	11.6	11.4	10.7	7.77		
11					10.2	10.7	11.2	11.0	10.8	7.91		
12					7.85	10.9	11.1	10.9	11.0	8.39		
13					7.75	10.7	11.2	11.3	10.7	8.85		
14					9.02	10.6	11.2	11.6	10.4	8.78		
15					10.6	10.6	11.4	11.2	10.2	9.91		
16					11.0	10.8	11.4	11.0	9.35	9.68		
17					11.0	10.6	11.3	11.1	10.3	7.53		
18					11.1	10.4	11.0	11.3	10.7	7.77		
19					10.9	10.2	11.2	11.6	10.5	9.86		
20					10.7	10.2	11.5	11.7	10.1	8.70		
21					10.7	10.3	12.0	11.5	10.4	7.28		
22					10.6	10.5	12.4	11.3	9.61	7.17		
23					10.4	10.6	12.8	11.0	9.87	6.14		
24					10.4	11.0	12.8	11.0	10.5	5.47		
25					10.2	11.6	12.2	11.0	10.6	5.00		
26					10.1	12.0	12.1	11.4	10.7	4.53		
27					8.88	12.1	12.1	11.6	10.7	4.66		
28					9.86	11.4	11.5	11.6	10.9	4.82		
29		—			10.1	11.1	11.2	11.2	10.9	5.23		
30		—			10.0	11.4	11.1	10.9	10.7	2.86		
31		—		—	10.5	—	11.0	10.7	—	1.91	—	
MEAN					9.34	10.8	11.5	11.3	10.7	7.74		
MAX					11.1	12.1	12.8	11.8	11.4	10.5		
MIN					6.07	10.2	10.9	10.7	9.35	1.91		



UNITED STATES DEPARTMENT OF THE INTERIOR – GEOLOGICAL SURVEY — OREGON WATER SCIENCE CENTER

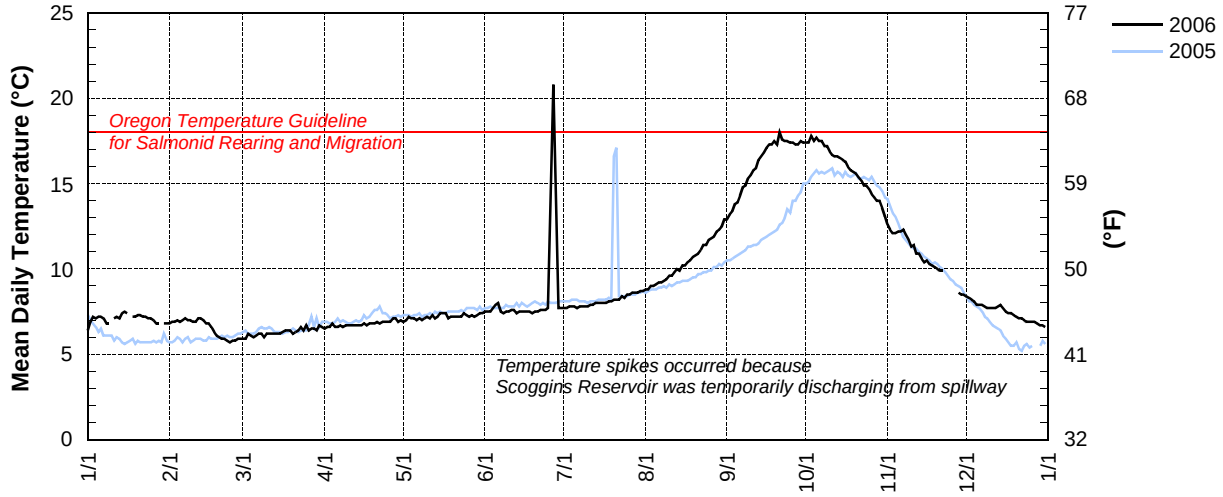
STATION NUMBER 14202980 SCOGGINS CK BLW HENRY HAGG LAKE, NR GASTON, OR

LATITUDE: 452810 LONGITUDE: 12311561

Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT†	NOV†	DEC†
1	6.4	6.8	5.9	6.5	6.9	7.5	7.7	8.8	12.9	17.4	12.7	8.4
2	6.9	6.9	5.9	6.6	7.0	7.6	7.7	8.8	13.2	17.4	12.3	8.3
3	7.2	6.9	6.2	6.6	7.2	7.5	7.8	9.0	13.4	17.8	12.1	8.2
4	7.1	7.0	6.1	6.8	7.1	7.7	7.8	9.0	13.8	17.5	12.1	8.1
5	7.2	6.9	6.0	6.6	7.1	7.9	7.8	9.1	13.9	17.7	12.2	7.9
6	7.2	7.0	6.1	6.6	7.0	8.0	7.7	9.2	14.3	17.5	12.2	7.9
7	7.1	7.1	6.2	6.7	7.1	7.5	7.8	9.2	14.8	17.5	12.3	7.9
8	6.8	7.0	6.2	6.6	7.0	7.5	7.8	9.3	14.9	17.2	12.0	7.8
9	6.8	7.0	6.0	6.7	7.1	7.5	7.8	9.4	15.3	17.2	11.7	7.7
10		6.9	6.2	6.7	7.2	7.5	7.8	9.6	15.5	16.9	11.3	7.7
11	7.1	6.9	6.2	6.7	7.1	7.6	7.9	9.6	15.8	16.7	11.4	7.7
12	7.2	7.1	6.2	6.7	7.3	7.6	7.9	9.8	15.9	16.6	10.9	7.7
13	7.1	7.1	6.2	6.7	7.1	7.5	8.0	10.0	16.4	16.6	10.9	7.8
14	7.4	7.0	6.2	6.7	7.2	7.5	8.0	9.9	16.5	16.5	10.6	7.9
15	7.5	6.8	6.2	6.7	7.4	7.5	8.0	10.2	16.8	16.4	10.4	7.7
16	7.4	6.8	6.3	6.8	7.4	7.5	8.0	10.2	17.1	16.3	10.5	7.5
17		6.6	6.4	6.7	7.4	7.5	8.0	10.4	17.3	16.0	10.3	7.4
18	7.2	6.3	6.4	6.8	7.1	7.5	8.1	10.5	17.3	15.8	10.2	7.4
19	7.2	6.2	6.4	6.8	7.2	7.4	8.1	10.7	17.5	15.7	10.1	7.3
20	7.3	6.0	6.3	6.8	7.2	7.5	8.2	10.8	17.3	15.6	10.0	7.2
21	7.3	5.9	6.3	6.9	7.2	7.5	8.2	10.9	18.0	15.4	9.9	7.2
22	7.2	5.9	6.4	6.8	7.2	7.6	8.2	11.1	17.6	15.2	9.9	7.1
23	7.2	5.8	6.6	6.9	7.2	7.6	8.4	11.4	17.5	14.9		7.0
24	7.2	5.7	6.4	6.9	7.4	7.6	8.3	11.4	17.5	14.9		6.9
25	7.1	5.8	6.7	6.9	7.3	7.7	8.5	11.6	17.4	14.7		6.9
26	7.0	5.8	6.4	6.9	7.2	15.8	8.5	11.8	17.4	14.4		6.9
27	6.8	5.9	6.5	7.1	7.3	20.8	8.6	11.9	17.3	14.2		6.9
28	6.8	6.0	6.5	7.1	7.2	13.8	8.6	12.2	17.3	14.0	8.6	6.8
29		—	6.4	6.9	7.3	7.7	8.6	12.2	17.5	14.0	8.5	6.7
30	6.8	—	6.7	7.0	7.4	7.7	8.7	12.5	17.4	13.6	8.5	6.7
31	6.8	—	6.6	—	7.5	—	8.7	12.9	—	13.1	—	6.6
MEAN	7.1	6.5	6.3	6.8	7.2	8.5	8.1	10.4	16.2	16.0	11.0	7.5
MAX	7.5	7.1	6.7	7.1	7.5	20.8	8.7	12.9	18.0	17.8	12.7	8.4
MIN	6.4	5.7	5.9	6.5	6.9	7.4	7.7	8.8	12.9	13.1	8.5	6.6

† Provisional data–subject to revision

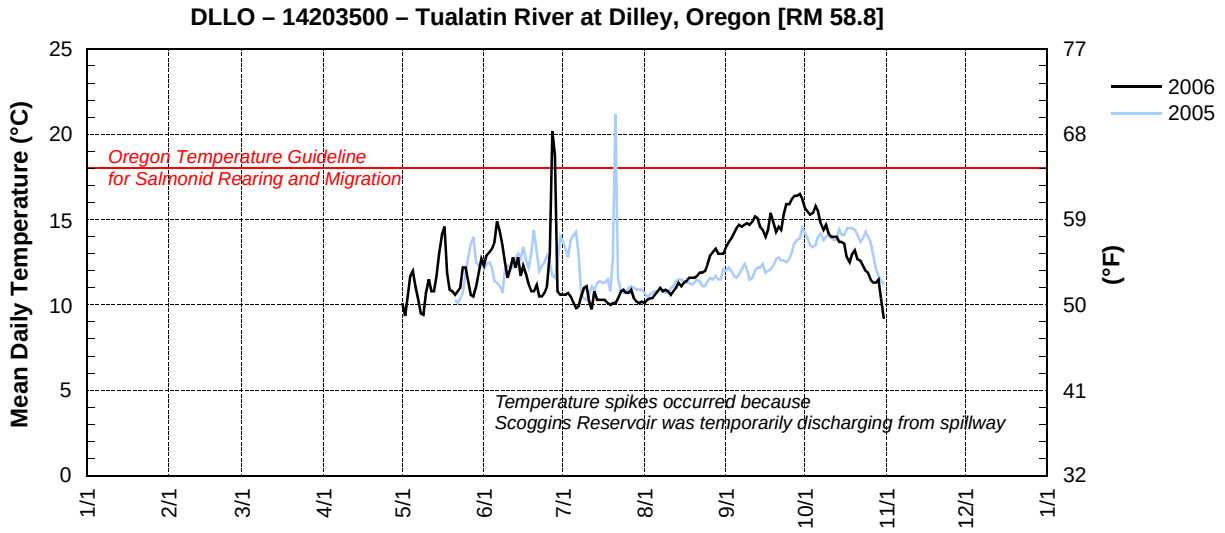
SCOO – 14202980 – Scoggins Creek below Henry Hagg Lake near Gaston, Oregon [RM 4.80]



DLLO – 14203500 – TUALATIN RIVER AT DILLEY, OREGON [RM 58.8]

Latitude: 45 28 30 Longitude: 123 07 23 Source Agency: District 18 Watermaster

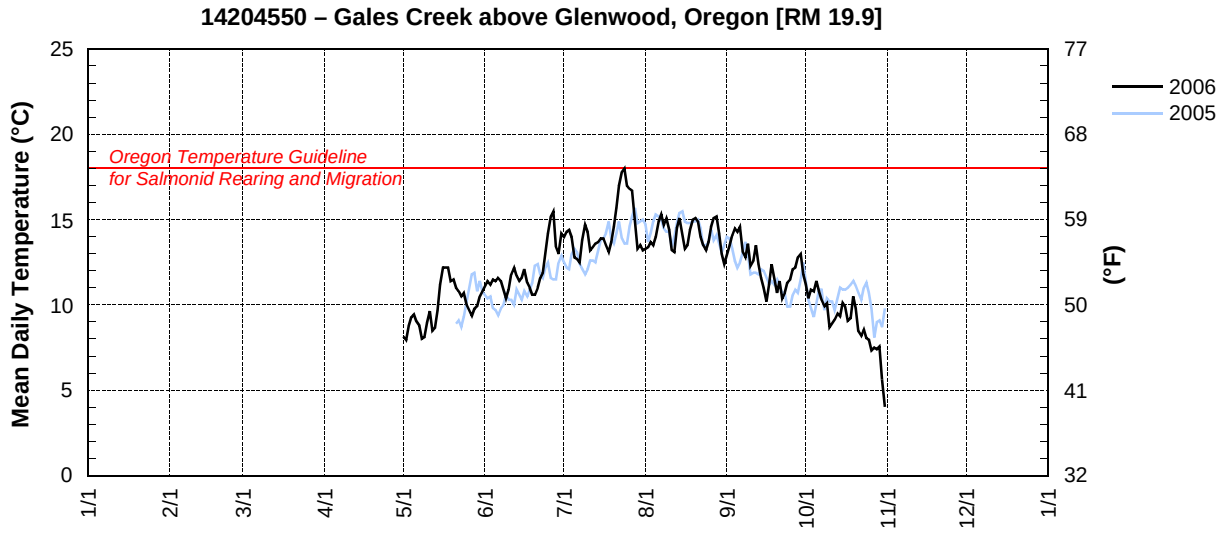
Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					10.1	12.3	10.6	10.1	13.4	15.7		
2					9.36	12.9	10.6	10.3	13.7	15.5		
3					10.5	13.1	10.7	10.4	13.9	15.3		
4					11.7	13.3	10.5	10.4	14.2	15.4		
5					12.0	13.7	10.1	10.6	14.5	15.8		
6					11.1	14.9	9.80	10.8	14.7	15.5		
7					10.3	14.3	9.93	11.0	14.6	14.8		
8					9.50	13.5	10.5	10.8	14.7	14.4		
9					9.43	12.5	11.0	10.9	14.8	14.7		
10					10.7	11.6	11.1	10.8	14.7	14.2		
11					11.5	12.1	10.2	10.6	14.9	14.0		
12					10.8	12.8	9.76	10.8	15.2	14.0		
13					10.8	12.2	10.8	11.0	15.1	14.0		
14					11.7	12.8	10.3	11.3	14.6	13.7		
15					13.0	11.7	10.3	11.1	14.4	13.7		
16					14.1	12.3	10.3	11.3	14.0	13.6		
17					14.6	11.8	10.3	11.4	14.4	12.8		
18					11.9	11.2	10.1	11.6	15.4	12.5		
19					10.9	10.8	10.0	11.6	14.9	13.0		
20					10.8	10.8	10.1	11.6	14.3	13.2		
21					10.6	11.2	10.1	11.7	14.6	12.7		
22					10.8	10.5	10.4	11.9	14.4	12.6		
23					11.0	10.5	10.8	11.9	15.3	12.3		
24					12.2	10.7	10.9	12.0	15.9	12.0		
25					12.2	11.1	10.7	12.4	15.9	11.9		
26					11.4	13.0	10.7	12.9	16.2	11.5		
27					10.6	20.2	10.9	13.1	16.4	11.3		
28					10.5	18.8	10.4	13.3	16.4	11.3		
29		—			11.1	10.8	10.2	13.0	16.5	11.5		
30		—			11.9	10.6	10.1	13.0	16.2	10.4		
31		—		—	12.7	—	10.2	13.0	—	9.19	—	
MEAN					11.3	12.1	10.4	11.5	14.9	13.3		
MAX					14.6	14.9	11.1	13.3	16.5	15.8		
MIN					9.36	10.5	9.76	10.1	13.4	9.19		



14204550 – GALES CREEK ABOVE GLENWOOD, OREGON [RM 19.9]

Latitude: 45 31 12 Longitude: 123 00 38 Source Agency: District 18 Watermaster

Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					8.15	11.1	14.0	13.3	12.9	11.2		
2					7.96	11.4	14.3	13.4	13.5	10.4		
3					8.77	11.2	14.4	13.7	14.1	10.9		
4					9.29	11.5	14.0	13.5	14.5	10.8		
5					9.46	11.4	12.8	14.0	14.3	11.4		
6					9.04	11.6	12.7	14.9	14.6	10.8		
7					8.80	11.4	12.5	15.3	13.1	10.3		
8					8.02	10.9	13.8	14.7	12.8	9.92		
9					8.13	10.4	14.7	15.1	13.6	10.1		
10					8.95	10.9	14.3	14.4	12.3	8.71		
11					9.64	11.8	13.2	13.2	12.6	8.92		
12					8.49	12.2	13.4	13.1	13.5	9.16		
13					8.67	11.7	13.6	14.5	12.4	9.50		
14					9.68	11.4	13.7	15.1	11.6	9.34		
15					11.2	11.6	13.9	14.1	11.0	10.1		
16					12.2	12.1	13.9	13.3	10.2	9.88		
17					12.2	11.3	13.5	13.5	11.2	9.08		
18					12.2	11.0	13.1	14.4	12.4	9.22		
19					11.4	10.6	13.7	15.0	11.6	10.5		
20					11.5	10.6	14.6	15.1	10.7	9.79		
21					11.0	11.0	15.7	14.9	11.4	8.46		
22					10.8	11.6	17.0	14.0	10.4	8.19		
23					10.5	11.9	17.8	13.5	10.7	8.58		
24					10.7	13.0	18.0	13.2	11.3	8.06		
25					10.0	14.2	17.0	13.7	11.5	7.98		
26					9.68	15.2	16.8	14.6	12.1	7.34		
27					9.35	15.5	16.7	15.1	12.2	7.51		
28					9.78	13.4	14.8	15.2	12.8	7.41		
29		—			9.94	13.0	13.3	14.2	13.0	7.56		
30		—			10.5	14.2	13.5	13.0	11.8	5.64		
31		—		—	10.8	—	13.2	12.4	—	4.03	—	
MEAN					9.90	12.0	14.4	14.1	12.3	9.06		
MAX					12.2	15.5	18.0	15.3	14.6	11.4		
MIN					7.96	10.4	12.5	12.4	10.2	4.03		

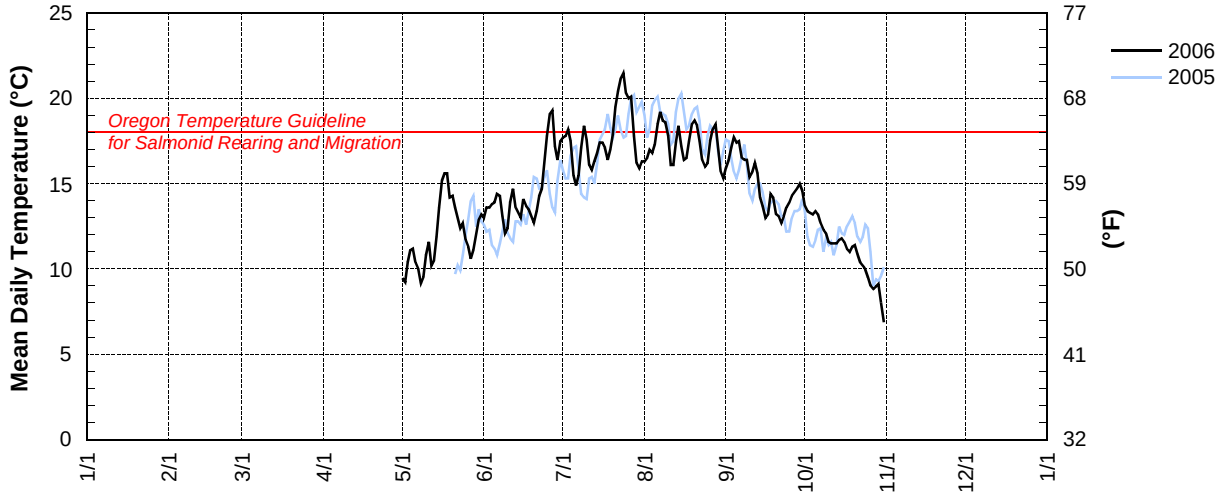


GCCH – 14204540 – GALES CREEK AT CLAPSHAW HILL ROAD NEAR GALES CREEK, OREGON [RM 12.36]

Latitude: 45 35 39 Longitude: 123 12 38 Source Agency: District 18 Watermaster

Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					9.48	13.0	17.7	16.3	15.9	13.7		
2					9.23	13.6	17.8	16.5	16.4	13.4		
3					10.4	13.6	18.2	17.0	17.1	13.3		
4					11.1	13.8	17.5	16.8	17.7	13.2		
5					11.2	13.9	15.5	17.3	17.4	13.4		
6					10.4	14.4	14.9	18.5	17.5	13.2		
7					10.0	14.3	15.5	19.2	16.5	12.7		
8					9.18	13.1	17.1	18.7	16.4	12.3		
9					9.55	12.1	18.4	18.6	16.4	12.1		
10					10.8	12.4	17.6	17.8	15.4	11.6		
11					11.6	13.9	16.1	16.1	15.7	11.5		
12					10.2	14.7	15.8	16.1	16.2	11.5		
13					10.5	13.6	16.3	17.4	15.6	11.5		
14					11.9	13.3	16.8	18.4	14.2	11.7		
15					13.6	13.0	17.4	17.2	13.7	11.8		
16					15.2	14.1	17.4	16.4	13.0	11.6		
17					15.6	13.7	17.1	16.5	13.2	11.2		
18					15.6	13.5	16.4	17.5	14.4	11.0		
19					14.2	13.1	17.0	18.5	14.2	11.3		
20					14.3	12.7	17.9	18.7	13.2	11.4		
21					13.6	13.4	19.5	18.4	13.1	10.9		
22					13.0	14.3	20.4	17.5	12.7	10.4		
23					12.4	14.7	21.2	16.4	13.1	10.2		
24					12.7	16.2	21.5	16.0	13.6	9.95		
25					11.7	17.8	20.3	16.2	13.9	9.53		
26					11.3	19.1	20.0	17.5	14.3	9.04		
27					10.6	19.3	20.1	18.2	14.5	8.83		
28					11.1	17.2	17.8	18.5	14.7	8.97		
29		—			12.1	16.4	16.2	17.0	15.0	9.12		
30		—			12.9	17.5	15.9	15.7	14.6	8.03		
31		—		—	13.2	—	16.3	15.3	—	6.88	—	
MEAN					11.9	14.5	17.7	17.3	15.0	11.1		
MAX					15.6	19.3	21.5	19.2	17.7	13.7		
MIN					9.18	12.1	14.9	15.3	12.7	6.88		

GCCH – 14204540 – Gales Creek at Clapshaw Hill Road near Gales Creek, Oregon [RM 12.36]



UNITED STATES DEPARTMENT OF THE INTERIOR – GEOLOGICAL SURVEY — OREGON WATER SCIENCE CENTER

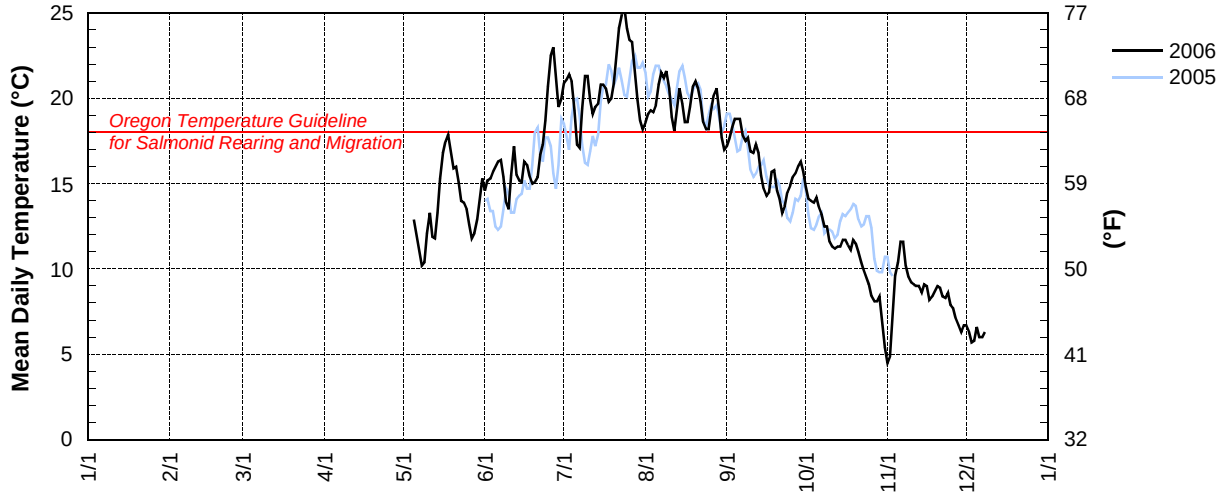
STATION NUMBER 453040123065201* GALES CREEK AT OLD HWY 47, FOREST GROVE, OR

LATITUDE: 453039.75 LONGITUDE: 1230652.0

Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT†	NOV†	DEC†
1						14.6	20.9	18.6	17.2	14.8	4.4	6.7
2						15.1	21.1	19.1	17.7	14.1	4.9	6.3
3						15.3	21.4	19.3	18.3	14.0	7.2	5.7
4						15.7	21.0	19.2	18.8	13.9	9.6	5.8
5						16.0	19.4	19.6	18.9	14.2	10.4	6.6
6					12.0	16.3	17.4	20.8	18.8	13.7	11.5	6.0
7					11.0	16.4	17.1	21.5	17.9	13.2	11.6	6.0
8					10.2	15.4	19.3	21.3	17.5	12.5	10.3	
9					10.3	14.0	21.3	21.6	17.8	12.5	9.5	
10					12.1	13.5	21.4	20.6	16.9	11.6	9.2	
11					13.3	15.5	20.0	18.9	16.8	11.3	9.1	
12					12.0	17.2	19.2	18.1	17.3	11.2	9.0	
13					11.8	15.5	19.5	19.3	16.8	11.3	9.0	
14					13.3	15.2	19.7	20.6	15.5	11.3	8.6	
15					15.2	15.1	20.8	19.7	14.7	11.7	9.0	
16					16.8	16.3	20.8	18.6	14.2	11.7	9.0	
17					17.5	16.1	20.6	18.6	14.4	11.4	8.2	
18					17.9	15.4	19.8	19.5	15.7	11.1	8.4	
19					17.0	15.0	20.1	20.7	15.8	11.7	8.7	
20					15.9	15.1	20.9	21.0	14.6	11.5	9.0	
21					16.1	15.4	22.5	20.6	14.1	11.1	8.9	
22					15.1	16.7	24.1	19.8	13.3	10.5	8.5	
23					14.0	17.3	24.9	18.7	13.7	9.9	8.3	
24					13.9	18.7	25.4	18.2	14.5	9.5	8.6	
25					13.5	20.6	24.1	18.1	14.9	9.1	7.9	
26					12.6	22.5	23.4	19.3	15.4	8.4	7.7	
27					11.8	23.0	23.3	20.2	15.6	8.1	7.2	
28					12.1	21.1	21.5	20.6	16.0	8.1	6.7	
29		—			12.9	19.5	20.0	19.3	16.3	8.4	6.3	
30		—			14.1	20.0	18.8	17.7	15.8	7.0	6.7	
31		—			15.4	—	18.2	17.0	—	5.5	—	
MEAN					13.8	16.8	20.9	19.6	16.2	11.1	8.4	6.2
MAX					17.9	23.0	25.4	21.6	18.9	14.8	11.6	6.7
MIN					10.2	13.5	17.1	17.0	13.3	5.5	4.4	5.7

† Provisional data–subject to revision

GALES – 453040123065201* – Gales Creek at Old Hwy 47 near Forest Grove, Oregon [RM 2.36]

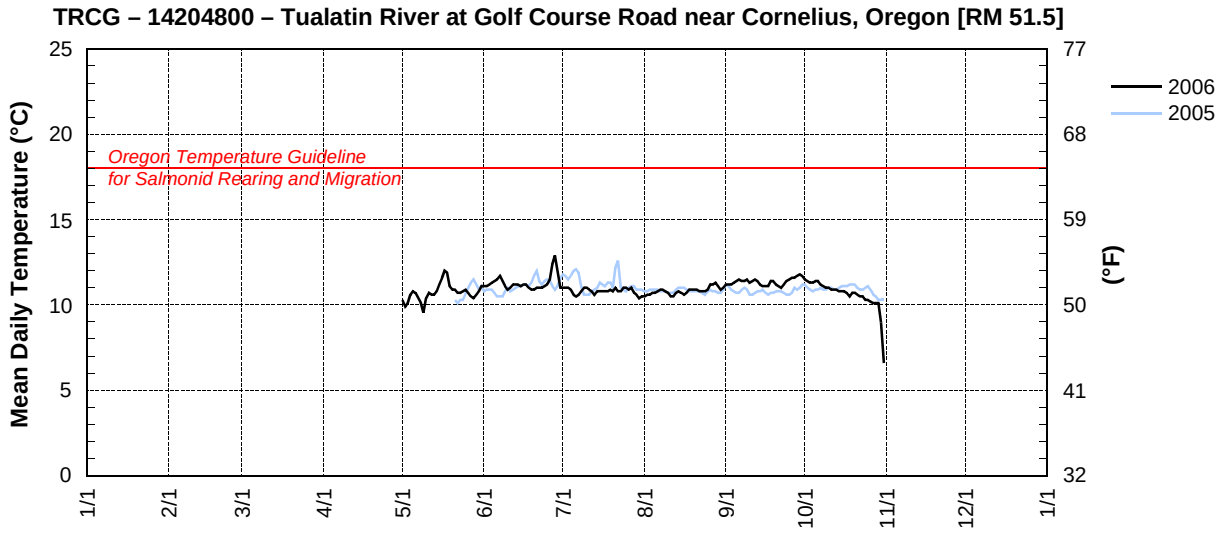


*USGS #453040123065201 is equivalent to OWRD #14204530.

TRGC – 14204800 – TUALATIN RIVER AT GOLF COURSE ROAD NEAR CORNELIUS, OREGON [RM 51.5]

Latitude: 45 30 39 Longitude: 123 06 56 Source Agency: District 18 Watermaster

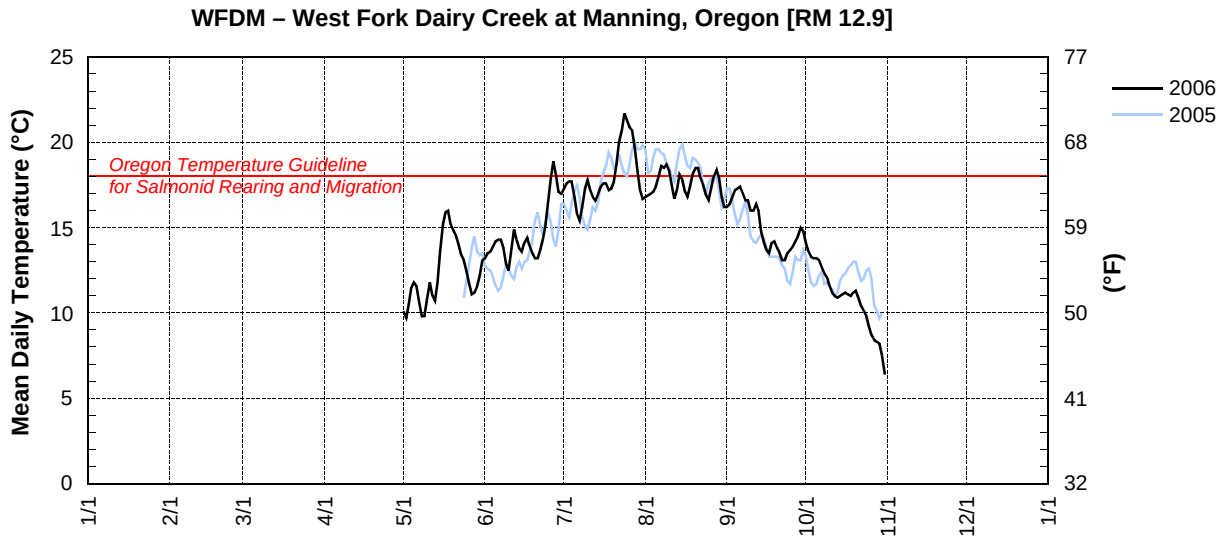
Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					10.3	11.1	11.0	10.5	11.2	11.5		
2					9.91	11.1	11.0	10.6	11.2	11.4		
3					10.1	11.2	11.0	10.6	11.2	11.3		
4					10.6	11.3	10.9	10.7	11.3	11.3		
5					10.8	11.4	10.6	10.7	11.4	11.4		
6					10.7	11.5	10.5	10.8	11.5	11.4		
7					10.4	11.7	10.6	10.9	11.4	11.2		
8					10.1	11.4	10.8	10.9	11.4	11.1		
9					9.55	11.1	11.0	10.8	11.5	11.0		
10					10.4	10.9	11.0	10.7	11.3	11.0		
11					10.7	11.0	10.9	10.5	11.4	10.9		
12					10.6	11.2	10.8	10.5	11.5	10.9		
13					10.6	11.2	10.6	10.7	11.4	10.9		
14					10.8	11.2	10.8	10.8	11.2	10.8		
15					11.2	11.1	10.8	10.7	11.1	10.8		
16					11.6	11.2	10.8	10.6	11.1	10.8		
17					12.0	11.2	10.8	10.7	11.1	10.7		
18					11.9	11.0	10.8	10.9	11.4	10.5		
19					11.1	10.9	10.9	10.9	11.4	10.7		
20					10.9	10.9	10.8	10.9	11.2	10.7		
21					10.9	11.0	11.0	10.9	11.1	10.6		
22					10.7	11.0	10.8	10.8	11.0	10.5		
23					10.7	11.0	10.8	10.8	11.2	10.5		
24					10.8	11.1	11.0	10.8	11.4	10.3		
25					10.9	11.2	11.0	10.9	11.5	10.3		
26					10.7	11.5	10.9	11.2	11.6	10.2		
27					10.5	12.4	11.0	11.2	11.6	10.1		
28					10.4	12.9	10.7	11.3	11.7	10.1		
29		—			10.6	12.0	10.6	11.1	11.8	10.1		
30		—			10.8	11.0	10.4	10.9	11.7	8.99		
31		—		—	11.1	—	10.5	11.0	—	6.61	—	
MEAN					10.7	11.3	10.8	10.8	11.4	10.6		
MAX					12.0	12.9	11.0	11.3	11.8	11.5		
MIN					9.55	10.9	10.4	10.5	11.0	6.61		



WFDM – WEST FORK DAIRY CREEK AT MANNING, OREGON [RM 12.9]

Latitude: 45 39 36 Longitude 123 09 18 Source Agency: District 18 Watermaster

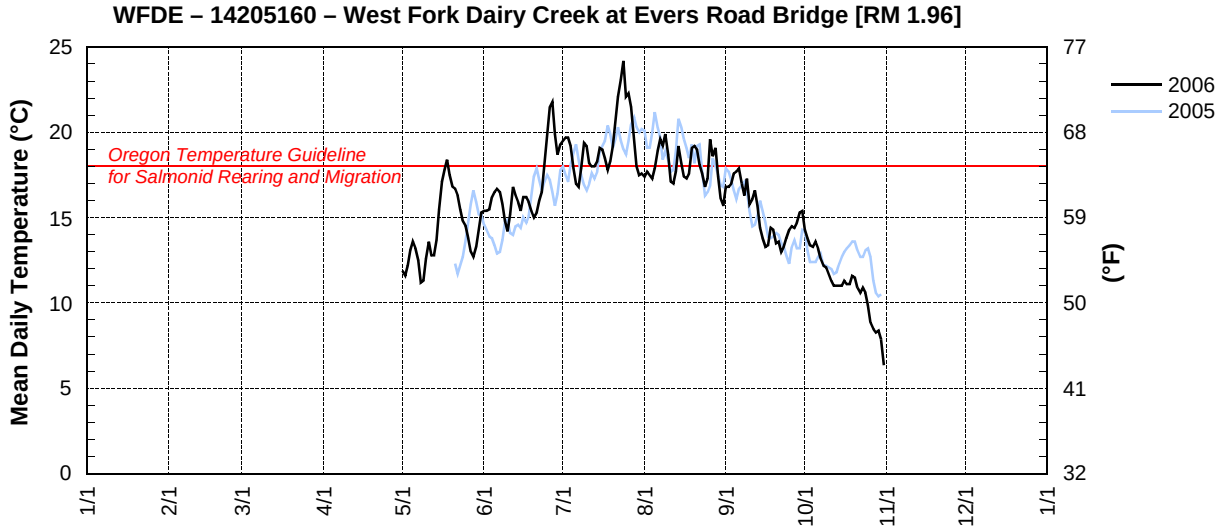
Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					10.1	13.2	17.3	16.8	16.2	14.1		
2					9.7	13.5	17.6	16.9	16.4	13.6		
3					10.5	13.6	17.7	17.0	16.8	13.3		
4					11.5	13.9	17.7	17.1	17.2	13.2		
5					11.8	14.2	16.8	17.4	17.3	13.2		
6					11.6	14.3	15.8	18.0	17.4	13.1		
7					10.6	14.3	15.4	18.6	17.0	12.7		
8					9.8	13.8	16.2	18.5	16.6	12.3		
9					9.8	12.9	17.3	18.7	16.6	12.1		
10					10.8	12.5	17.8	18.3	16.0	11.6		
11					11.8	13.7	17.2	17.5	16.0	11.2		
12					11.0	14.9	16.8	16.7	16.4	11.0		
13					10.7	14.3	16.6	17.2	16.0	10.9		
14					11.8	13.8	17.0	18.1	14.8	11.0		
15					13.6	13.6	17.4	17.8	14.2	11.1		
16					15.2	14.1	17.6	17.1	13.7	11.2		
17					15.9	14.4	17.6	16.8	13.5	11.1		
18					16.0	13.9	17.2	17.4	14.1	11.0		
19					15.2	13.5	17.3	18.2	14.2	11.2		
20					14.8	13.2	17.7	18.5	13.8	11.3		
21					14.5	13.2	18.7	18.5	13.5	10.9		
22					14.0	13.7	20.0	17.9	13.1	10.4		
23					13.4	14.3	20.7	17.5	13.1	10.1		
24					13.1	15.1	21.7	16.9	13.5	9.8		
25					12.4	16.5	21.3	16.6	13.7	9.2		
26					11.7	17.9	20.9	17.3	13.9	8.7		
27					11.1	18.9	20.7	18.0	14.2	8.4		
28					11.2	18.1	19.6	18.4	14.5	8.3		
29		—			11.6	17.1	18.3	17.9	15.0	8.2		
30		—			12.2	17.0	17.2	16.8	14.8	7.5		
31		—		—	13.1	—	16.7	16.2	—	6.4	—	
MEAN					12.3	14.6	18.0	17.6	15.1	10.9		
MAX					16.0	18.9	21.7	18.7	17.4	14.1		
MIN					9.7	12.5	15.4	16.2	13.1	6.4		



WFDE – 14205160 – WEST FORK DAIRY CREEK AT EVERS ROAD BRIDGE [RM 1.96]

Latitude: 45 34 34 Longitude: 123 05 34 Source Agency: District 18 Watermaster

Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					11.9	15.4	19.5	17.4	16.8	14.3		
2					11.6	15.4	19.7	17.7	16.8	13.8		
3					12.2	15.5	19.7	17.5	17.0	13.4		
4					13.1	16.2	19.2	17.3	17.6	13.3		
5					13.6	16.5	17.9	17.9	17.7	13.6		
6					13.2	16.7	17.0	18.9	17.9	13.2		
7					12.5	16.5	16.8	19.6	17.0	12.6		
8					11.2	15.8	17.9	19.2	16.3	12.2		
9					11.3	14.8	19.4	19.9	17.3	12.1		
10					12.6	14.2	19.2	18.7	15.8	11.7		
11					13.6	15.2	18.2	17.1	16.1	11.3		
12					12.8	16.8	18.0	17.0	16.6	11.0		
13					12.8	16.3	18.0	17.7	15.7	11.0		
14					13.7	15.9	18.3	19.2	14.4	11.0		
15					15.5	15.4	19.1	18.2	13.8	11.0		
16					17.1	16.2	19.0	17.4	13.3	11.3		
17					17.8	16.2	18.5	17.3	13.4	11.1		
18					18.4	15.9	17.8	17.6	14.4	11.1		
19					17.5	15.4	18.3	19.1	14.3	11.6		
20					16.8	15.0	19.2	19.2	13.5	11.5		
21					16.7	15.3	20.6	19.0	13.6	10.9		
22					16.3	16.0	22.1	18.1	13.0	10.6		
23					15.5	16.5	23.1	17.6	13.3	10.9		
24					14.8	18.1	24.2	16.8	13.8	10.6		
25					14.5	19.7	22.1	17.3	14.3	9.87		
26					13.8	21.5	22.3	19.6	14.5	8.86		
27					13.0	21.8	21.5	18.6	14.4	8.48		
28					12.7	19.9	19.8	19.1	14.7	8.28		
29		—			13.3	18.7	18.0	17.4	15.3	8.39		
30		—			14.3	19.3	17.5	16.1	15.4	7.87		
31		—		—	15.3	—	17.6	15.7	—	6.35	—	
MEAN					14.2	16.7	19.3	18.0	15.3	11.1		
MAX					18.4	21.8	24.2	19.9	17.9	14.3		
MIN					11.2	14.2	16.8	15.7	13.0	6.35		

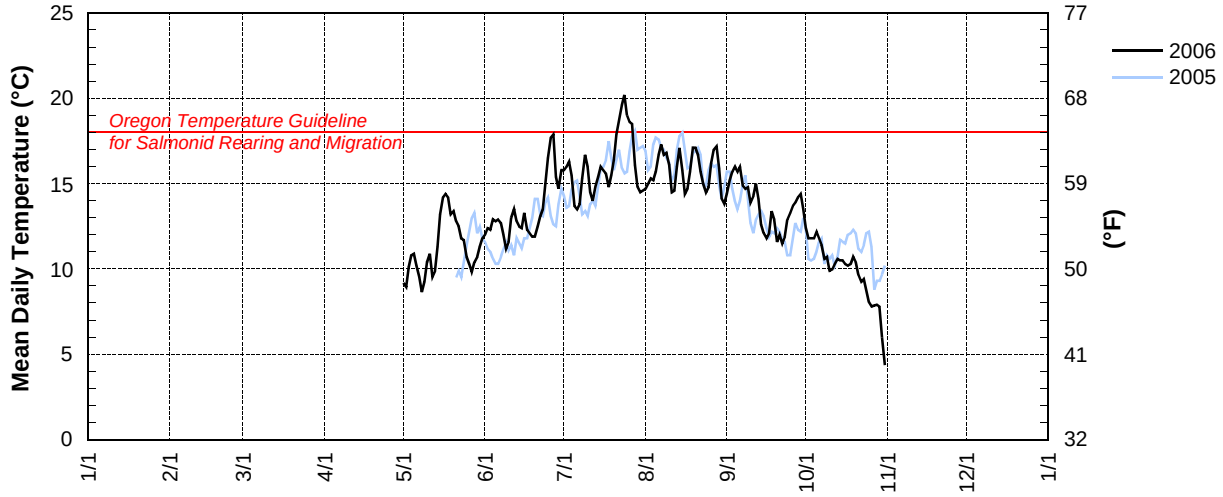


EFDD – 14205480 – EAST FORK DAIRY CREEK AT DAIRY CREEK RD NEAR MOUNTAINDALE, OR [RM 12.33]

Latitude: 45 40 32 Longitude: 123 03 54 Source Agency: District 18 Watermaster

Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					9.19	12.0	15.8	14.7	14.4	12.4		
2					8.95	12.4	16.0	15.0	15.2	11.8		
3					10.1	12.3	16.3	15.3	15.7	11.8		
4					10.8	12.9	15.5	15.2	16.0	11.8		
5					10.9	12.8	13.7	15.7	15.7	12.2		
6					10.2	12.9	13.5	16.7	16.0	11.8		
7					9.52	12.7	13.8	17.3	14.9	11.4		
8					8.64	12.0	15.3	16.7	14.7	10.6		
9					9.24	11.2	16.7	16.8	14.8	10.7		
10					10.4	11.6	16.0	16.1	13.9	9.90		
11					10.9	13.0	14.5	14.5	14.3	9.97		
12					9.55	13.5	14.0	14.6	15.0	10.3		
13					9.89	12.8	14.8	16.0	14.1	10.6		
14					11.3	12.5	15.4	17.1	12.6	10.5		
15					13.2	12.4	16.0	15.8	12.1	10.5		
16					14.2	13.3	15.8	14.4	11.8	10.3		
17					14.4	12.3	15.6	14.7	12.1	10.2		
18					14.2	12.1	14.8	15.7	13.4	10.3		
19					13.2	11.9	15.5	17.1	12.9	10.7		
20					13.4	11.9	16.4	17.1	11.6	10.4		
21					12.8	12.5	17.9	16.7	12.0	9.65		
22					12.5	13.1	18.7	15.7	11.5	9.25		
23					11.8	13.5	19.6	15.0	11.9	9.42		
24					11.7	14.9	20.2	14.5	12.9	8.72		
25					10.7	16.5	19.0	14.8	13.3	8.05		
26					10.3	17.7	18.6	16.2	13.7	7.80		
27					9.83	17.9	18.5	17.0	13.9	7.85		
28					10.4	15.4	16.1	17.2	14.2	7.90		
29		—			10.7	14.7	14.8	15.9	14.4	7.79		
30		—			11.3	15.8	14.5	14.1	13.5	6.00		
31		—		—	11.8	—	14.6	13.8	—	4.37	—	
MEAN					11.2	13.4	16.1	15.7	13.8	9.84		
MAX					14.4	17.9	20.2	17.3	16.0	12.4		
MIN					8.64	11.2	13.5	13.8	11.5	4.37		

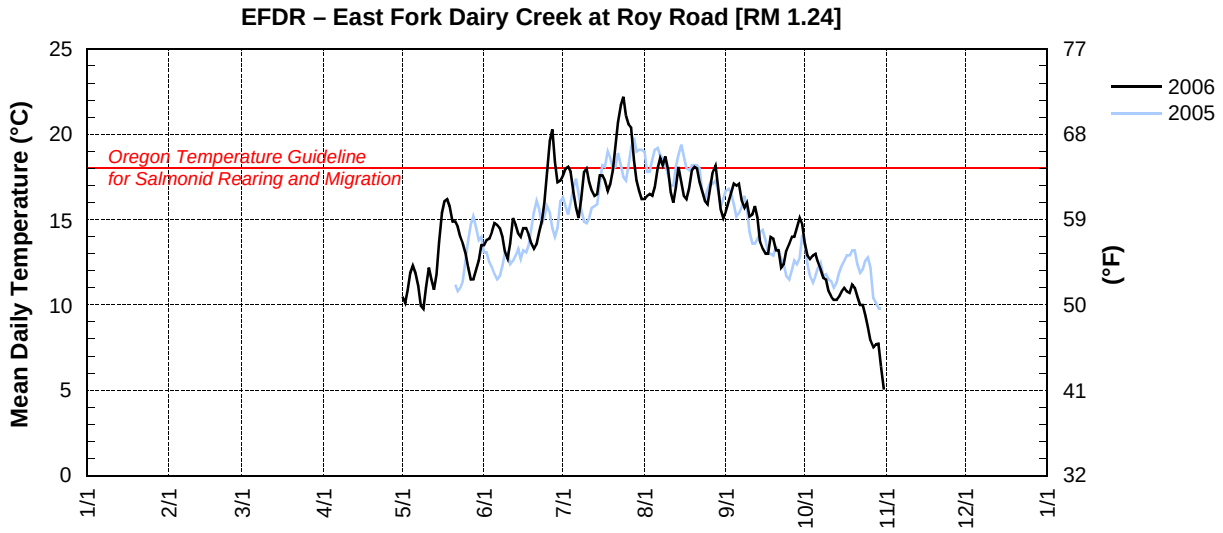
EFDD – 14205480 – East Fork Dairy Creek at Dairy Creek Road near Mountaindale, Oregon [RM 12.33]



EFDR – EAST FORK DAIRY CREEK AT ROY ROAD [RM 1.24]

Latitude: 45 34 43 Longitude: 123 04 14 Source Agency: District 18 Watermaster

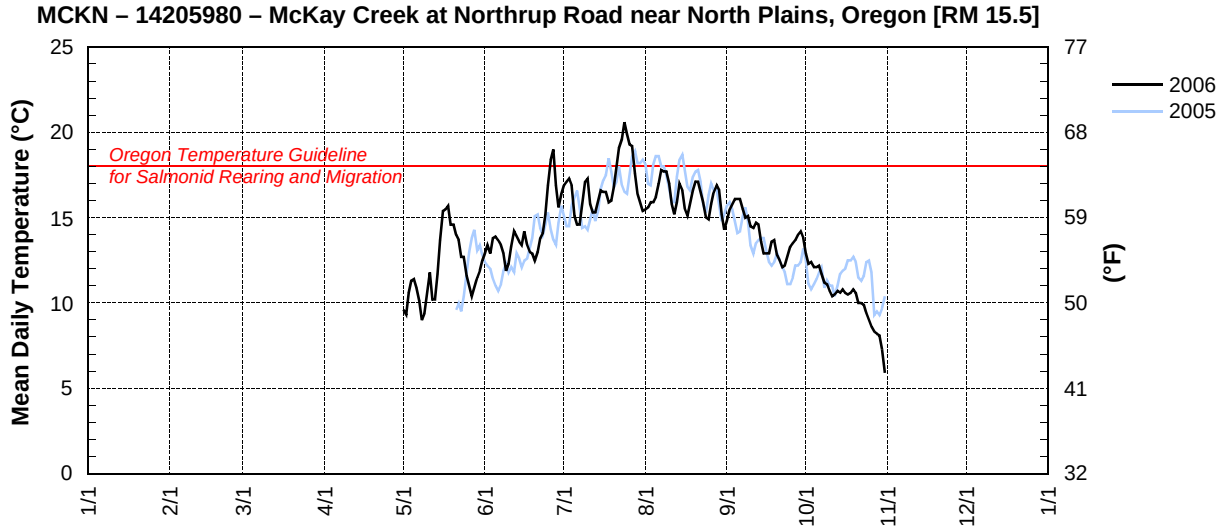
Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					10.5	13.5	17.6	16.2	15.5	13.6		
2					10.1	13.8	18.0	16.4	16.1	12.9		
3					10.9	13.9	18.1	16.5	16.6	12.7		
4					11.9	14.3	17.8	16.4	17.1	12.9		
5					12.3	14.8	16.6	16.9	17.0	13.0		
6					11.9	14.7	15.7	18.0	17.1	12.5		
7					11.1	14.5	15.1	18.6	16.1	12.1		
8					9.9	14.0	16.2	18.2	15.7	11.6		
9					9.8	13.1	17.8	18.7	16.0	11.5		
10					11.0	12.7	18.0	17.9	15.2	10.8		
11					12.2	13.6	17.2	16.6	15.3	10.5		
12					11.5	15.1	16.7	16.0	15.8	10.3		
13					10.9	14.7	16.4	16.9	15.1	10.3		
14					11.8	14.2	16.5	18.1	13.7	10.5		
15					13.7	14.0	17.6	17.2	13.3	10.8		
16					15.4	14.5	17.6	16.4	13.0	11.0		
17					16.1	14.5	17.3	16.2	13.0	10.8		
18					16.2	14.1	16.7	16.8	14.0	10.7		
19					15.8	13.6	17.1	17.9	13.9	11.2		
20					14.9	13.3	17.9	18.1	13.2	11.0		
21					14.9	13.6	19.2	18.0	13.2	10.5		
22					14.6	14.3	20.7	17.2	12.2	10.0		
23					14.0	14.9	21.7	16.7	12.4	10.0		
24					13.6	16.0	22.2	16.1	13.2	9.4		
25					13.0	17.7	21.1	15.9	13.6	8.7		
26					12.2	19.6	20.6	16.9	14.0	7.9		
27					11.5	20.3	20.4	17.8	14.0	7.5		
28					11.5	18.4	18.5	18.2	14.5	7.7		
29		—			12.1	17.2	17.3	17.0	15.1	7.7		
30		—			12.6	17.3	16.7	15.6	14.7	6.4		
31		—		—	13.5	—	16.2	15.1	—	5.1	—	
MEAN					12.6	15.0	18.0	17.0	14.7	10.4		
MAX					16.2	20.3	22.2	18.7	17.1	13.6		
MIN					9.8	12.7	15.1	15.1	12.2	5.1		



MCKN – 14205980 – MCKAY CREEK AT NORTHRUP ROAD NEAR NORTH PLAINS, OREGON [RM 15.5]

Latitude: 45 38 36 Longitude: 122 59 32 Source Agency: District 18 Watermaster

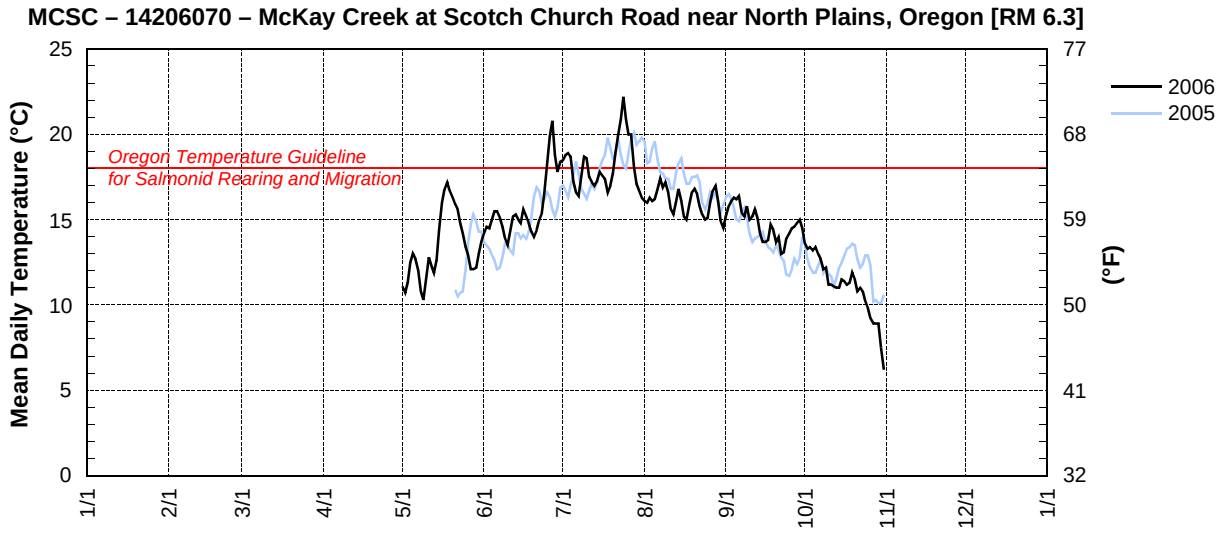
Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					9.6	12.9	16.9	15.5	14.8	12.9		
2					9.3	13.4	17.1	15.6	15.5	12.3		
3					10.6	12.9	17.3	15.9	15.8	12.4		
4					11.3	13.8	16.9	15.9	16.1	12.1		
5					11.4	13.9	15.1	16.2	16.1	12.1		
6					10.9	13.7	14.6	17.0	16.1	12.2		
7					10.1	13.4	14.6	17.8	15.5	11.7		
8					9.0	12.9	15.7	17.7	15.0	11.2		
9					9.4	11.9	17.1	17.7	15.1	11.1		
10					10.6	12.3	17.3	17.0	14.5	10.7		
11					11.8	13.3	15.8	15.8	14.4	10.4		
12					10.2	14.2	15.3	15.2	14.7	10.5		
13					10.2	13.9	15.3	15.9	14.6	10.7		
14					11.7	13.6	16.0	17.0	13.6	10.6		
15					13.7	13.4	16.6	16.6	12.9	10.8		
16					15.4	14.2	16.5	15.5	12.9	10.6		
17					15.5	13.4	16.5	15.1	12.9	10.5		
18					15.7	13.0	15.9	15.8	13.6	10.6		
19					14.6	12.9	16.0	16.6	13.7	10.8		
20					14.6	12.5	16.8	17.1	12.8	10.6		
21					14.0	13.0	18.0	17.1	12.5	10.0		
22					13.7	13.8	19.1	16.5	12.1	10.0		
23					12.7	14.1	19.6	15.9	12.2	9.9		
24					12.7	15.2	20.6	15.0	12.7	9.4		
25					11.6	16.9	19.9	14.9	13.3	9.0		
26					11.0	18.4	19.3	15.8	13.5	8.6		
27					10.4	19.0	19.2	16.5	13.7	8.3		
28					10.9	16.9	17.6	16.9	14.0	8.2		
29		—			11.5	15.6	16.4	16.6	14.2	8.1		
30		—			11.9	16.4	15.9	15.2	13.8	7.3		
31		—		—	12.5	—	15.4	14.3	—	5.9	—	
MEAN					11.9	14.2	16.9	16.2	14.1	10.3		
MAX					15.7	19.0	20.6	17.8	16.1	12.9		
MIN					9.0	11.9	14.6	14.3	12.1	5.9		



MCSC – 14206070 – MCKAY CREEK AT SCOTCH CHURCH ROAD NEAR NORTH PLAINS, OREGON [RM 6.3]

Latitude: 45 57 21 Longitude: 122 99 18 Source Agency: District 18 Watermaster

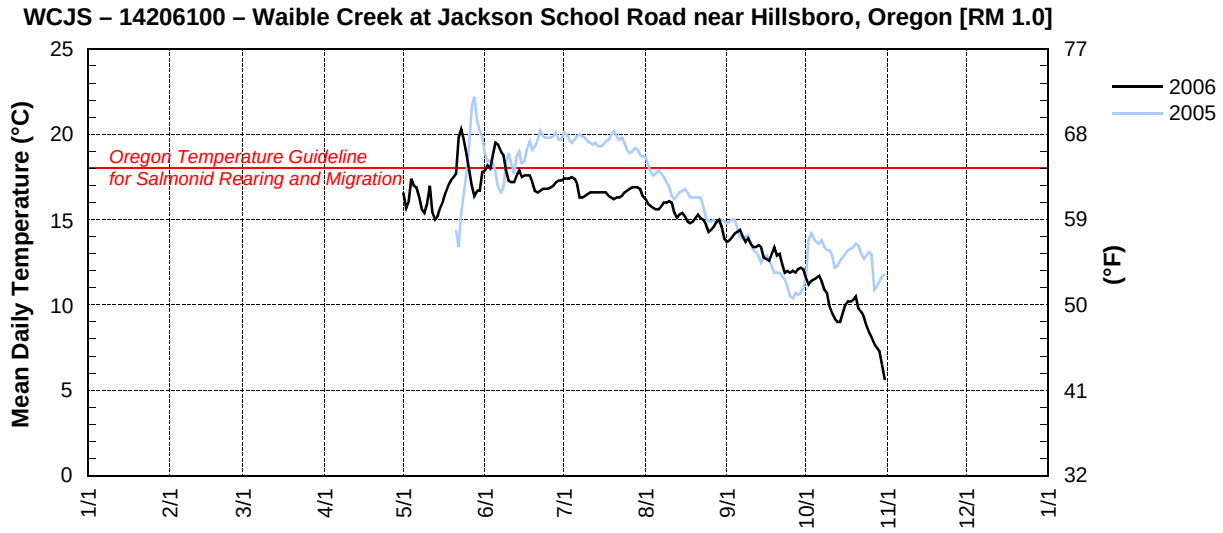
Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					11.1	14.2	18.5	16.1	15.2	13.6		
2					10.7	14.6	18.8	16.0	15.8	13.3		
3					11.3	14.5	18.9	16.3	16.1	13.4		
4					12.5	15.0	18.7	16.1	16.3	13.2		
5					13.0	15.5	17.2	16.2	16.2	13.4		
6					12.7	15.5	16.6	16.8	16.4	13.0		
7					12.0	15.1	16.4	17.4	15.4	12.7		
8					10.8	14.6	17.4	16.9	15.2	12.1		
9					10.3	13.9	18.7	17.2	15.8	12.2		
10					11.4	13.5	18.6	16.6	15.0	11.2		
11					12.8	14.3	17.5	15.6	15.2	11.2		
12					12.3	15.2	17.2	15.3	15.6	11.1		
13					11.9	15.3	17.0	16.0	15.1	11.0		
14					12.6	15.0	17.3	16.8	14.2	11.0		
15					14.4	14.8	17.8	16.1	13.7	11.5		
16					16.0	15.6	17.6	15.2	13.7	11.4		
17					16.8	15.2	17.4	15.0	13.8	11.2		
18					17.2	14.8	16.6	15.8	14.7	11.3		
19					16.7	14.3	17.0	16.6	14.4	11.9		
20					16.3	14.0	17.7	16.8	13.7	11.5		
21					15.9	14.4	18.9	16.5	14.0	10.8		
22					15.6	15.0	19.9	15.8	13.0	11.0		
23					14.8	15.4	20.9	15.3	13.1	10.8		
24					14.2	16.6	22.2	15.0	13.9	10.2		
25					13.4	18.1	20.9	15.1	14.2	9.8		
26					12.9	19.9	20.0	16.0	14.5	9.2		
27					12.1	20.8	20.0	16.7	14.6	8.9		
28					12.1	18.8	18.1	17.0	14.8	8.9		
29		—			12.2	17.8	17.1	16.1	15.0	8.9		
30		—			13.0	18.4	16.7	14.9	14.5	7.5		
31		—		—	13.7	—	16.3	14.5	—	6.2	—	
MEAN					13.3	15.7	18.2	16.1	14.8	11.1		
MAX					17.2	20.8	22.2	17.4	16.4	13.6		
MIN					10.3	13.5	16.3	14.5	13.0	6.2		



WCJS – 14206100 – WAIBLE CREEK AT JACKSON SCHOOL ROAD NEAR HILLSBORO, OREGON [RM 1.0]

Latitude: 45 33 55 Longitude: 122 58 12 Source Agency: District 18 Watermaster

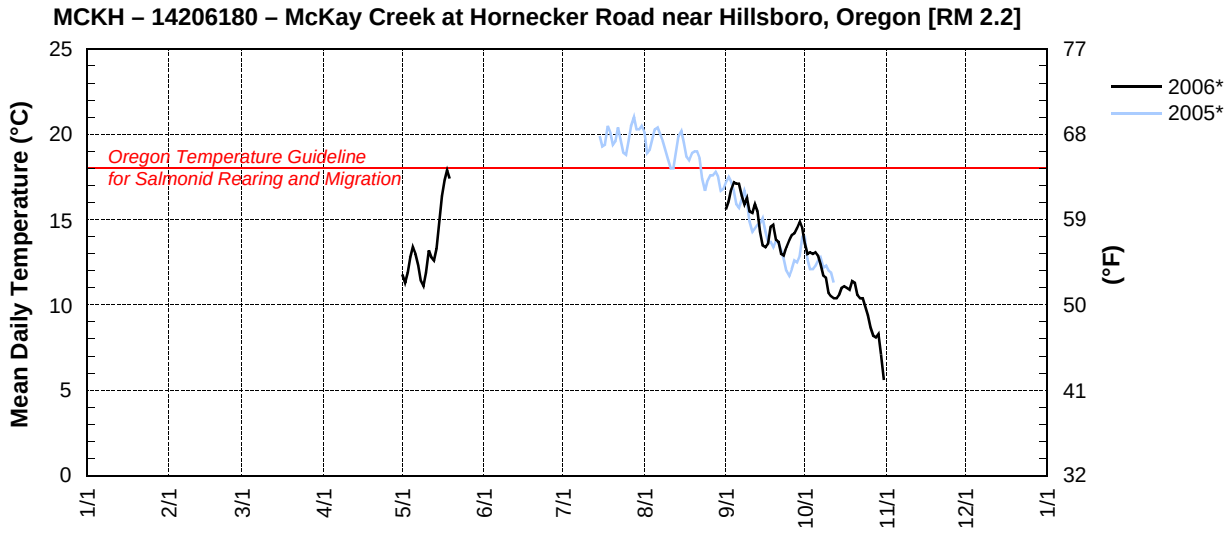
Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					16.6	17.9	17.4	16.2	13.7	11.6		
2					15.7	18.2	17.4	15.9	13.8	11.2		
3					16.1	18.0	17.4	15.8	14.0	11.4		
4					17.4	18.8	17.5	15.7	14.2	11.5		
5					17.0	19.5	17.4	15.6	14.3	11.6		
6					16.9	19.4	17.1	15.6	14.4	11.7		
7					16.3	19.0	16.3	15.8	14.0	11.4		
8					15.6	18.8	16.3	16.0	13.7	10.9		
9					15.4	17.9	16.4	16.0	13.9	10.7		
10					15.9	17.3	16.5	16.1	13.6	9.9		
11					17.0	17.2	16.6	16.0	13.4	9.5		
12					15.4	17.2	16.6	15.4	13.4	9.2		
13					15.0	17.6	16.6	15.1	13.5	9.0		
14					15.2	17.9	16.6	15.3	13.4	9.0		
15					15.7	17.5	16.6	15.4	12.8	9.5		
16					16.1	17.6	16.6	15.2	12.7	10.0		
17					16.6	17.6	16.6	14.9	12.6	10.2		
18					17.0	17.6	16.4	14.8	13.0	10.2		
19					17.3	17.2	16.3	14.9	13.4	10.3		
20					17.5	16.7	16.2	15.1	12.9	10.5		
21					17.7	16.6	16.3	15.3	13.0	9.8		
22					19.8	16.7	16.3	15.1	12.4	9.6		
23					20.3	16.8	16.4	15.0	11.9	9.3		
24					19.7	16.8	16.6	14.7	12.0	8.8		
25					18.8	16.8	16.7	14.3	11.9	8.4		
26					17.9	16.9	16.8	14.4	12.0	8.1		
27					17.0	17.0	16.9	14.6	11.9	7.7		
28					16.4	17.2	16.9	14.9	12.1	7.5		
29		—			16.7	17.3	16.9	15.0	12.2	7.3		
30		—			16.7	17.3	16.8	14.6	12.1	6.5		
31		—		—	17.8	—	16.4	13.9	—	5.6	—	
MEAN					16.9	17.6	16.7	15.2	13.1	9.6		
MAX					20.3	19.5	17.5	16.2	14.4	11.7		
MIN					15.0	16.6	16.2	13.9	11.9	5.6		



MCKH – 14206180 – MCKAY CREEK AT HORNECKER ROAD NEAR HILLSBORO, OREGON [RM 2.2]

Latitude: 45 32 33 Longitude: 123 00 14 Source Agency: Clean Water Services

Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					11.8				15.6	13.6		
2					11.3				16.1	13.0		
3					11.9				16.8	13.1		
4					12.8				17.2	13.0		
5					13.4				17.1	13.1		
6					13.0				17.1	12.9		
7					12.3				16.4	12.4		
8					11.4				15.9	11.7		
9					11.1				16.3	11.6		
10					11.9				15.5	10.7		
11					13.2				15.4	10.5		
12					12.8				15.9	10.4		
13					12.6				15.5	10.4		
14					13.3				14.3	10.6		
15					14.8				13.5	11.0		
16					16.4				13.4	11.1		
17					17.3				13.6	11.0		
18					17.9				14.6	10.9		
19					17.4				14.7	11.4		
20									13.8	11.3		
21									13.7	10.6		
22									13.0	10.4		
23									12.9	10.4		
24									13.4	9.9		
25									13.8	9.4		
26									14.1	8.7		
27									14.2	8.2		
28									14.5	8.1		
29		—							14.9	8.3		
30		—							14.5	7.1		
31		—		—		—			—	5.6	—	
MEAN					13.5				14.9	10.7		
MAX					17.9				17.2	13.6		
MIN					11.1				12.9	5.6		



*2006 data from District 18 Watermaster; 2005 data from Clean Water Services

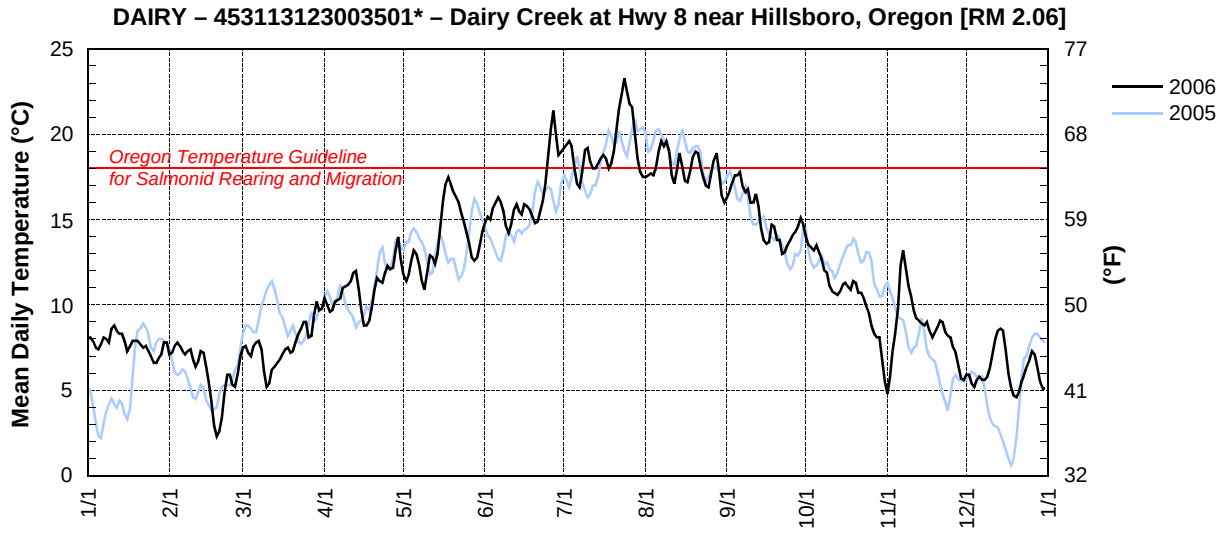
UNITED STATES DEPARTMENT OF THE INTERIOR – GEOLOGICAL SURVEY — OREGON WATER SCIENCE CENTER

STATION NUMBER 453113123003501* DAIRY CREEK AT HWY 8, HILLSBORO, OR

LATITUDE: 453113.40 LONGITUDE: 1230035.31

Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT†	NOV†	DEC†
1	8.0	7.1	7.5	10.4	11.8	14.8	19.2	17.5	16.3	14.0	4.8	5.9
2	8.1	7.2	7.6	10.0	11.4	15.2	19.4	17.6	16.7	13.5	5.7	5.9
3	7.9	7.6	7.2	9.6	11.8	15.0	19.6	17.7	17.2	13.4	7.3	5.4
4	7.5	7.8	7.0	9.7	12.6	15.7	19.3	17.6	17.6	13.2	8.3	5.2
5	7.4	7.7	7.6	10.2	13.2	16.0	18.0	18.0	17.6	13.5	9.8	5.6
6	7.7	7.3	7.8	10.3	13.0	16.3	17.1	18.9	17.8	13.1	12.2	5.8
7	8.1	7.1	7.9	10.4	12.3	16.0	16.9	19.6	16.9	12.7	13.2	5.6
8	8.0	7.3	7.4	11.0	11.4	15.5	17.8	19.3	16.6	12.0	12.3	5.6
9	7.8	7.4	6.1	11.1	10.9	14.7	19.1	19.7	16.8	11.9	11.1	5.8
10	8.6	6.8	5.2	11.2	11.7	14.2	19.2	19.0	16.0	11.1	10.5	6.3
11	8.8	6.4	5.4	11.4	13.0	14.7	18.4	17.6	16.0	10.9	9.7	7.2
12	8.5	6.7	6.2	11.9	12.8	15.6	18.0	17.1	16.5	10.7	9.2	8.0
13	8.3	7.3	6.4	12.0	12.4	15.9	18.0	17.8	15.9	10.6	9.1	8.5
14	8.3	7.2	6.6	10.9	13.0	15.5	18.3	18.9	14.6	10.8	8.9	8.6
15	7.9	6.5	6.8	9.7	14.4	15.3	18.6	18.1	13.8	11.2	8.8	8.5
16	7.4	5.5	7.1	8.8	16.1	15.9	18.8	17.3	13.6	11.3	9.0	7.3
17	7.6	4.4	7.4	8.8	17.1	15.9	18.6	17.1	13.6	11.1	8.6	6.0
18	7.9	2.9	7.5	9.1	17.5	15.6	18.0	17.8	14.7	10.9	8.1	5.2
19	7.9	2.3	7.2	9.8	17.1	15.2	18.3	18.7	14.6	11.4	8.4	4.7
20	7.9	2.6	7.3	10.9	16.6	14.8	19.0	19.0	13.8	11.3	8.7	4.7
21	7.7	3.4	7.8	11.6	16.3	14.9	20.2	19.0	13.8	10.7	9.1	4.9
22	7.5	4.8	8.3	11.4	16.0	15.5	21.5	18.2	13.1	10.7	9.0	5.5
23	7.6	5.9	8.6	11.3	15.4	16.1	22.4	17.5	13.1	10.4	8.4	5.8
24	7.3	5.9	9.0	11.9	14.9	17.1	23.3	17.0	13.5	9.9	8.2	6.3
25	7.0	5.3	9.0	12.3	14.3	18.7	22.5	16.9	13.8	9.5	8.1	6.8
26	6.6	5.2	8.1	12.1	13.6	20.3	21.8	17.7	14.1	8.8	7.5	7.3
27	6.6	6.0	8.2	12.2	12.8	21.4	21.6	18.5	14.3	8.3	7.2	7.2
28	6.9	7.0	9.4	13.2	12.6	20.1	19.9	18.9	14.6	8.1	6.4	6.5
29	7.1	—	10.2	14.0	12.8	18.9	18.6	17.8	15.1	8.1	5.7	5.5
30	7.8	—	9.7	12.8	13.5	19.0	17.9	16.4	14.7	6.8	5.6	5.1
31	7.8	—	9.8	—	14.3	—	17.5	16.0	—	5.6	—	5.1
MEAN	7.7	6.0	7.7	11.0	13.8	16.3	19.2	18.0	15.2	10.8	8.6	6.2
MAX	8.8	7.8	10.2	14.0	17.5	21.4	23.3	19.7	17.8	14.0	13.2	8.6
MIN	6.6	2.3	5.2	8.8	10.9	14.2	16.9	16.0	13.1	5.6	4.8	4.7

† Provisional data–subject to revision



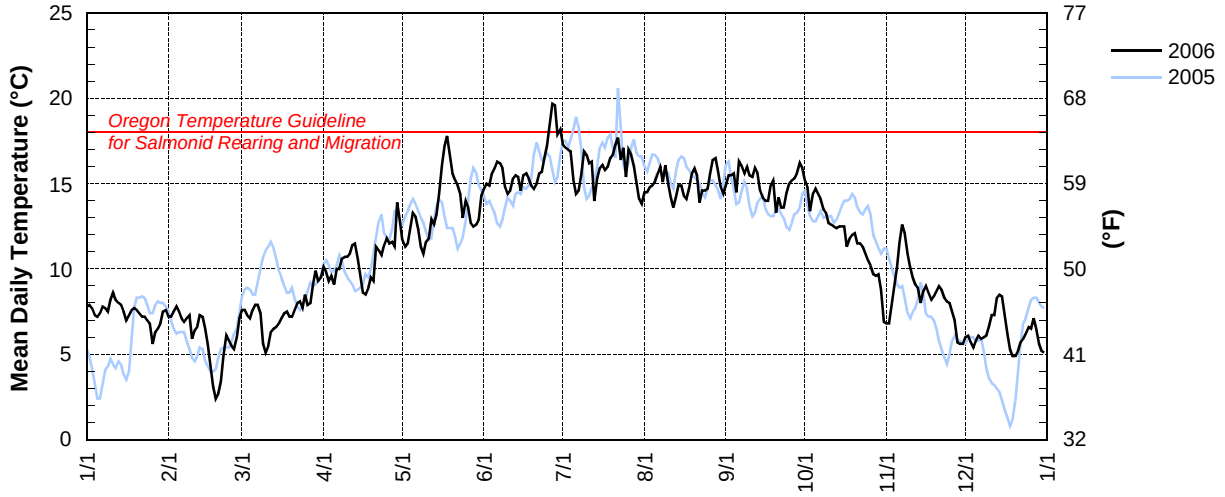
*USGS #453113123003501 is equivalent to OWRD #14206200.

TRJB – 14206241 – TUALATIN RIVER AT HWY 219 BRIDGE [RM 44.4]

Latitude: 45 30 01 Longitude: 122 59 24 Source Agency: Jackson Bottom Wetland Education Center

Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	7.8	7.2	7.6	10.1	11.7	14.7	17.3	14.5	14.9	15.2	6.8	6.0
2	7.9	7.2	7.6	9.8	11.3	15.0	17.1	14.5	15.5	14.8	6.8	6.1
3	7.7	7.5	7.3	9.3	11.5	14.9	17.0	14.8	15.5	13.4	7.8	5.7
4	7.3	7.8	7.1	9.6	12.4	15.6	16.9	14.9	15.6	14.4	8.9	5.4
5	7.2	7.5	7.6	9.1	13.3	15.9	15.2	15.1	14.5	14.7	10.1	5.8
6	7.4	7.1	7.9	10.0	13.1	16.3	14.4	15.6	16.3	14.4	11.6	6.1
7	7.8	6.9	7.9	10.0	12.3	16.2	14.6	16.0	16.0	14.1	12.6	5.9
8	7.7	7.1	7.4	10.6	11.3	15.9	15.5	15.1	15.6	13.5	12.1	6.0
9	7.5	7.3	5.6	10.7	10.9	14.8	16.9	16.1	16.0	13.3	10.9	6.1
10	8.2	5.9	5.1	10.7	11.6	14.4	16.7	15.0	15.5	12.7	10.1	6.6
11	8.6	6.4	5.5	10.9	11.8	14.6	16.2	14.2	15.4	12.6	9.5	7.3
12	8.2	6.6	6.3	11.4	12.9	15.3	16.3	13.6	15.9	12.5	9.1	7.3
13	8.0	7.3	6.5	11.5	12.6	15.5	14.0	14.2	15.6	12.4	8.9	8.3
14	7.9	7.2	6.6	10.6	13.2	15.4	15.3	14.9	14.6	12.5	8.0	8.5
15	7.5	6.5	6.8	9.6	14.4	14.6	15.9	14.9	14.2	12.5	8.7	8.4
16	7.0	5.6	7.1	8.6	16.1	15.5	16.1	14.3	14.0	12.5	9.0	7.3
17	7.3	4.5	7.4	8.5	17.2	15.6	15.8	14.1	14.0	11.3	8.6	6.2
18	7.6	3.1	7.5	8.9	17.8	15.3	16.0	14.7	14.9	11.8	8.2	5.3
19	7.7	2.4	7.2	9.5	16.8	14.9	16.5	15.6	15.2	12.0	8.4	4.9
20	7.6	2.7	7.2	9.3	15.6	14.7	16.7	15.9	13.3	12.1	8.7	4.9
21	7.4	3.4	7.6	11.3	15.2	15.0	17.3	15.5	14.2	11.5	9.0	5.2
22	7.2	4.9	8.0	11.1	14.9	15.6	17.7	13.9	13.6	11.5	8.8	5.7
23	7.2	6.1	8.1	10.8	14.4	15.7	16.4	14.6	13.6	11.3	8.3	5.9
24	7.0	5.8	7.7	11.4	13.0	16.5	17.1	14.6	14.4	10.9	8.1	6.2
25	6.8	5.5	8.5	11.8	14.0	17.2	15.4	14.7	15.0	10.5	8.0	6.6
26	5.6	5.3	7.9	11.5	13.6	18.5	17.0	15.6	15.2	10.2	7.5	6.5
27	6.3	6.0	8.0	11.6	12.7	19.7	16.7	16.4	15.3	9.7	7.0	7.1
28	6.5	7.1	9.1	11.3	12.5	19.6	16.0	16.5	15.6	9.6	5.7	6.5
29	6.8	—	9.9	13.9	12.6	17.9	15.0	15.7	16.2	9.7	5.6	5.6
30	7.5	—	9.3	12.9	12.9	18.2	14.1	14.8	15.9	8.8	5.6	5.2
31	7.6	—	9.5	—	14.3	—	13.8	14.4	—	6.9	—	5.1
MEAN	7.4	6.0	7.5	10.5	13.5	16.0	16.0	15.0	15.0	12.0	8.6	6.3
MAX	8.6	7.8	9.9	13.9	17.8	19.7	17.7	16.5	16.3	15.2	12.6	8.5
MIN	5.6	2.4	5.1	8.5	10.9	14.4	13.8	13.6	13.3	6.9	5.6	4.9

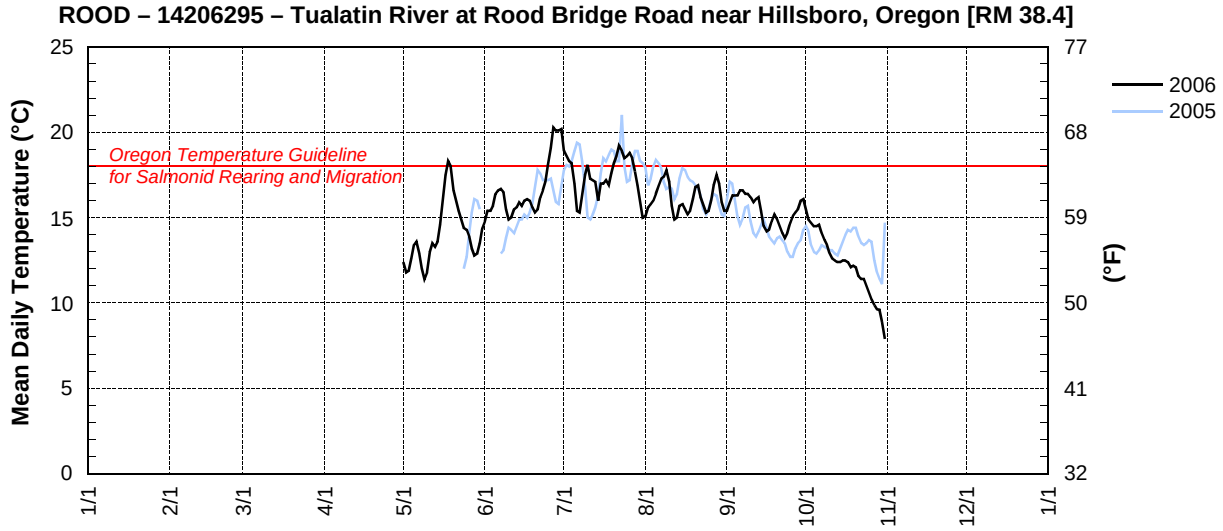
TRJB – 14206241 – Tualatin River at Hwy 219 Bridge [RM 44.4]



ROOD – 14206295 – TUALATIN RIVER AT ROOD BRIDGE ROAD NEAR HILLSBORO, OREGON [RM 38.4]

Latitude: 45 30 38 Longitude: 123 06 56 Source Agency: District 18 Watermaster

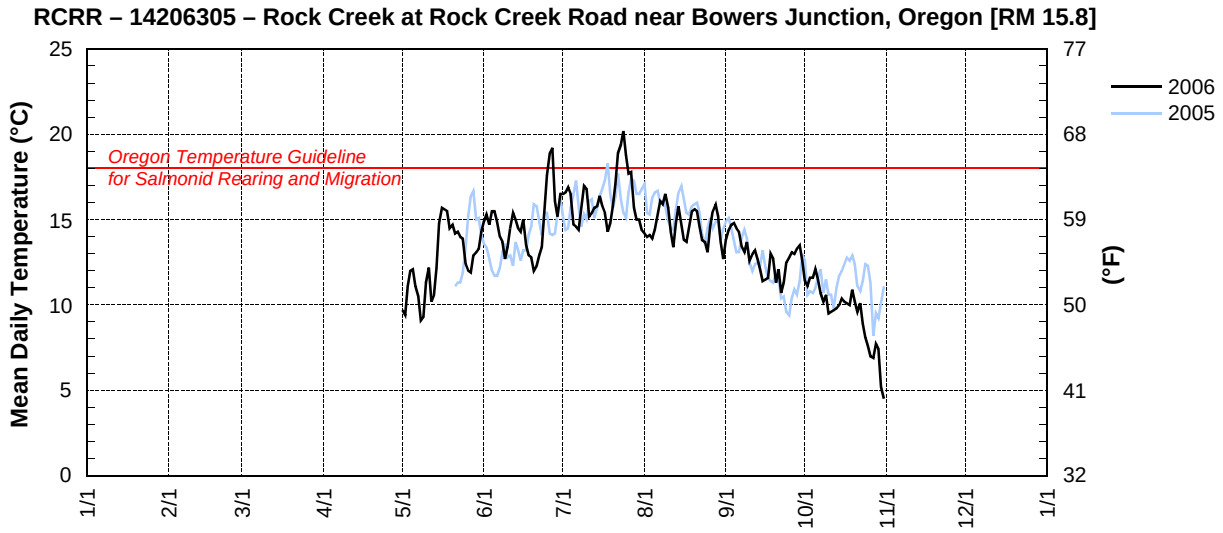
Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					12.4	14.8	18.9	15.1	15.4	15.5		
2					11.8	15.4	18.6	15.6	15.9	14.9		
3					11.9	15.4	18.3	15.8	16.3	14.7		
4					12.6	15.7	18.2	16.0	16.3	14.5		
5					13.4	16.4	17.0	16.4	16.3	14.5		
6					13.6	16.6	15.4	16.9	16.6	14.6		
7					12.9	16.7	15.3	17.3	16.6	14.1		
8					12.0	16.5	16.3	17.4	16.4	13.7		
9					11.4	15.5	17.5	17.8	16.4	13.4		
10					11.8	14.9	18.1	17.1	16.2	12.9		
11					13.0	15.0	17.3	15.7	15.9	12.6		
12					13.5	15.5	17.2	14.9	16.1	12.5		
13					13.3	15.6	17.1	15.0	16.2	12.4		
14					13.6	15.9	16.0	15.7	15.4	12.4		
15					14.6	15.7	17.0	15.8	14.5	12.5		
16					16.2	16.0	17.0	15.5	14.2	12.5		
17					17.5	16.1	17.2	15.2	14.3	12.4		
18					18.3	16.0	16.9	15.4	14.8	12.1		
19					18.0	15.6	17.6	16.1	15.2	12.2		
20					16.6	15.3	18.2	16.8	14.9	12.1		
21					16.0	15.5	18.6	16.9	14.5	11.6		
22					15.4	16.2	19.2	16.2	14.1	11.4		
23					14.9	16.6	18.9	15.8	13.8	11.4		
24					14.4	17.1	18.5	15.3	14.1	11.0		
25					14.3	18.1	18.6	15.4	14.7	10.6		
26					13.9	19.1	18.8	16.0	15.1	10.2		
27					13.2	20.3	18.5	16.9	15.3	9.87		
28					12.8	20.1	17.7	17.5	15.5	9.63		
29		—			12.9	20.1	16.9	17.0	16.0	9.60		
30		—			13.5	20.2	16.0	15.9	16.1	8.89		
31		—		—	14.4	—	15.0	15.4	—	7.89	—	
MEAN					14.0	16.6	17.5	16.1	15.4	12.2		
MAX					18.3	20.3	19.2	17.8	16.6	15.5		
MIN					11.4	14.8	15.0	14.9	13.8	7.89		



RCRR – 14206305 – ROCK CREEK AT ROCK CREEK ROAD NEAR BOWERS JUNCTION, OREGON [RM 15.8]

Latitude: 45 37 04 Longitude: 122 53 13 Source Agency: District 18 Watermaster

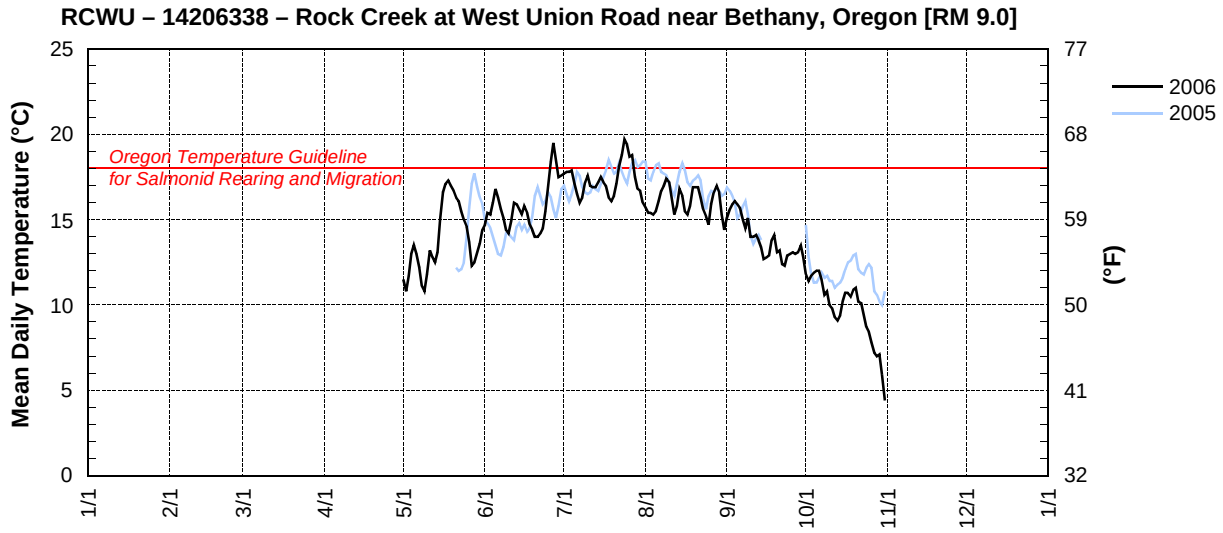
Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					9.7	14.9	16.5	14.2	13.8	11.4		
2					9.4	15.3	16.6	14.0	14.4	11.1		
3					11.1	14.7	16.9	14.1	14.7	11.6		
4					12.0	15.5	16.5	13.9	14.8	11.6		
5					12.1	15.5	14.7	14.4	14.5	12.1		
6					11.1	14.9	14.6	15.3	14.3	11.5		
7					10.5	14.0	14.4	16.1	13.4	10.7		
8					9.1	13.7	15.6	15.9	13.1	10.2		
9					9.3	12.7	17.0	16.5	13.7	10.6		
10					11.3	13.4	16.8	15.7	12.6	9.5		
11					12.2	14.5	15.2	14.3	13.0	9.6		
12					10.2	15.4	15.4	13.4	13.2	9.7		
13					10.6	15.0	15.7	14.8	12.7	9.8		
14					12.2	14.5	15.8	15.8	12.1	10.0		
15					14.8	14.3	16.4	14.7	11.4	10.4		
16					15.7	15.0	15.8	13.8	11.5	10.2		
17					15.6	13.5	15.4	13.7	11.6	10.1		
18					15.5	12.9	14.3	14.5	13.0	10.0		
19					14.5	12.8	14.8	15.5	12.7	10.9		
20					14.7	12.0	15.8	15.6	11.3	10.2		
21					14.2	12.3	17.1	15.5	12.1	9.6		
22					14.3	12.9	18.9	14.6	10.7	10.1		
23					14.0	13.4	19.4	13.8	11.3	8.9		
24					13.9	15.3	20.2	13.7	12.5	8.1		
25					12.4	17.6	18.8	13.1	12.8	7.6		
26					12.0	18.9	17.7	14.6	13.1	7.0		
27					11.9	19.2	17.8	15.5	13.0	6.9		
28					12.9	16.1	15.7	15.9	13.3	7.7		
29		—			13.1	15.2	15.0	15.2	13.5	7.4		
30		—			13.3	16.5	15.0	13.7	12.6	5.2		
31		—		—	14.3	—	14.4	12.7	—	4.5	—	
MEAN					12.5	14.7	16.3	14.7	12.9	9.5		
MAX					15.7	19.2	20.2	16.5	14.8	12.1		
MIN					9.1	12.0	14.3	12.7	10.7	4.5		



RCWU – 14206338 – ROCK CREEK AT WEST UNION ROAD NEAR BETHANY, OREGON [RM 9.0]

Latitude: 45 33 34 Longitude: 122 52 30 Source Agency: District 18 Watermaster

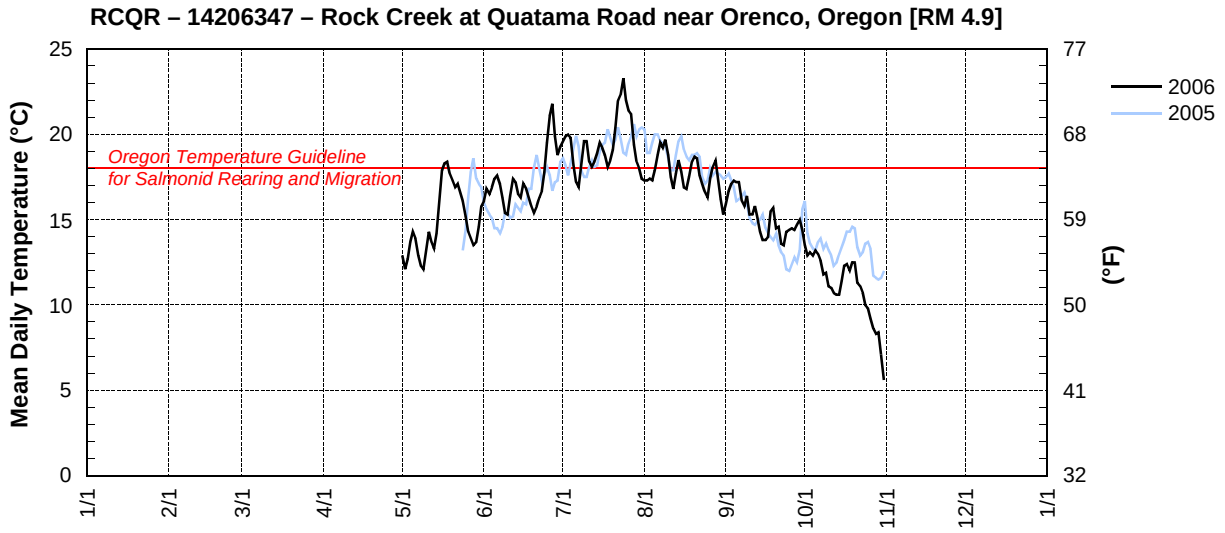
Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					11.5	14.7	17.7	15.7	15.1	11.8		
2					10.8	15.4	17.8	15.4	15.6	11.4		
3					11.7	15.3	17.8	15.4	15.9	11.7		
4					13.0	16.0	17.9	15.3	16.1	11.9		
5					13.5	16.8	17.1	15.5	15.9	12.0		
6					13.0	16.3	16.5	16.1	15.7	12.0		
7					12.2	15.6	16.0	16.7	15.0	11.5		
8					11.1	15.1	16.3	17.0	14.5	10.6		
9					10.8	14.4	17.2	17.4	15.1	10.8		
10					11.8	14.2	17.6	17.2	14.0	10.0		
11					13.2	14.9	17.0	16.3	14.0	9.8		
12					12.8	16.0	16.9	15.3	14.1	9.3		
13					12.5	15.9	16.9	15.8	13.8	9.1		
14					13.1	15.6	17.2	16.8	13.4	9.4		
15					15.0	15.3	17.5	16.4	12.7	10.2		
16					16.6	15.8	17.2	15.5	12.8	10.7		
17					17.1	15.4	17.0	15.3	12.9	10.7		
18					17.3	14.7	16.3	15.8	13.8	10.5		
19					17.0	14.4	16.1	16.9	14.1	10.9		
20					16.7	14.0	16.4	16.9	13.1	11.0		
21					16.3	14.0	17.1	16.9	13.2	10.2		
22					16.1	14.2	18.1	16.3	12.4	10.1		
23					15.5	14.5	18.8	15.6	12.3	9.4		
24					15.0	15.5	19.7	15.2	12.9	8.7		
25					14.6	16.9	19.4	14.7	13.0	8.4		
26					13.7	18.4	18.7	15.9	13.1	7.8		
27					12.3	19.5	18.8	16.6	13.0	7.2		
28					12.5	18.5	17.5	17.0	13.1	7.0		
29		—			13.1	17.5	16.8	16.6	13.5	7.1		
30		—			13.6	17.6	16.7	15.3	12.8	5.9		
31		—		—	14.4	—	16.0	14.4	—	4.4	—	
MEAN					13.8	15.7	17.4	16.0	13.9	9.7		
MAX					17.3	19.5	19.7	17.4	16.1	12.0		
MIN					10.8	14.0	16.0	14.4	12.3	4.4		



RCQR – 14206347 – ROCK CREEK AT QUATAMA ROAD NEAR ORENCO, OREGON [RM 4.9]

Latitude: 45 31 25 Longitude: 122 54 34 Source Agency: District 18 Watermaster

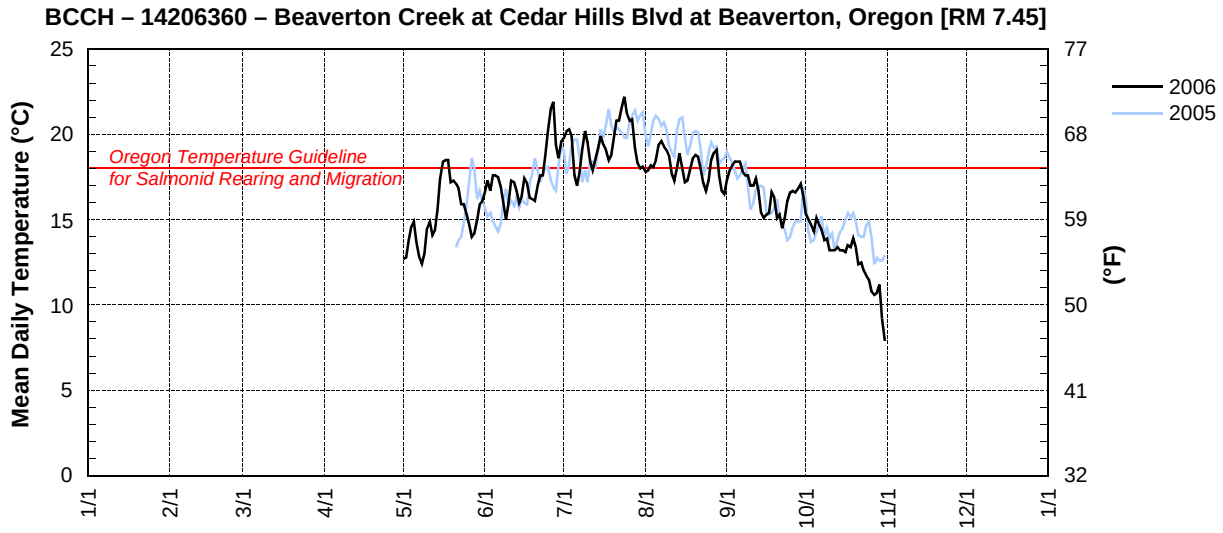
Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					12.9	16.1	19.6	17.3	15.9	13.5		
2					12.1	16.8	19.9	17.3	16.7	12.9		
3					12.7	16.5	20.0	17.4	17.1	13.1		
4					13.7	16.9	19.8	17.3	17.3	12.9		
5					14.3	17.4	18.2	17.9	17.2	13.2		
6					13.9	17.6	17.2	18.8	17.2	13.0		
7					12.9	17.1	16.9	19.5	16.1	12.6		
8					12.3	16.3	18.2	19.2	15.8	11.8		
9					12.1	15.4	19.6	19.7	16.4	11.9		
10					13.1	15.3	19.6	18.8	15.3	11.1		
11					14.3	16.4	18.4	17.5	15.3	11.0		
12					13.7	17.4	18.1	16.8	15.8	10.7		
13					13.3	17.2	18.4	17.7	15.1	10.6		
14					14.2	16.5	18.9	18.5	14.3	10.6		
15					16.1	16.3	19.5	17.8	13.8	11.4		
16					17.9	17.1	19.2	16.9	13.8	12.3		
17					18.3	16.8	18.8	16.8	14.0	12.4		
18					18.4	16.3	18.1	17.5	15.5	12.0		
19					17.7	15.8	18.5	18.4	15.7	12.5		
20					17.3	15.4	19.1	18.7	14.5	12.5		
21					16.9	15.8	20.4	18.6	14.6	11.3		
22					17.1	16.3	22.0	17.6	13.6	11.1		
23					16.6	16.7	22.4	17.1	13.5	10.7		
24					16.1	17.8	23.3	16.6	14.3	10.0		
25					15.2	19.5	22.0	16.3	14.4	9.8		
26					14.3	21.1	21.4	17.4	14.5	9.2		
27					13.9	21.8	21.2	18.1	14.4	8.6		
28					13.5	19.9	19.4	18.5	14.7	8.3		
29		—			13.7	18.8	18.4	17.4	15.0	8.4		
30		—			14.6	19.3	18.0	16.2	14.4	7.1		
31		—		—	15.8	—	17.4	15.3	—	5.6	—	
MEAN					14.8	17.3	19.4	17.7	15.2	11.0		
MAX					18.4	21.8	23.3	19.7	17.3	13.5		
MIN					12.1	15.3	16.9	15.3	13.5	5.6		



BCCH – 14206360 – BEAVERTON CREEK AT CEDAR HILLS BLVD AT BEAVERTON, OREGON [RM 7.45]

Latitude: 45 49 31 Longitude: 122 81 05 Source Agency: District 18 Watermaster

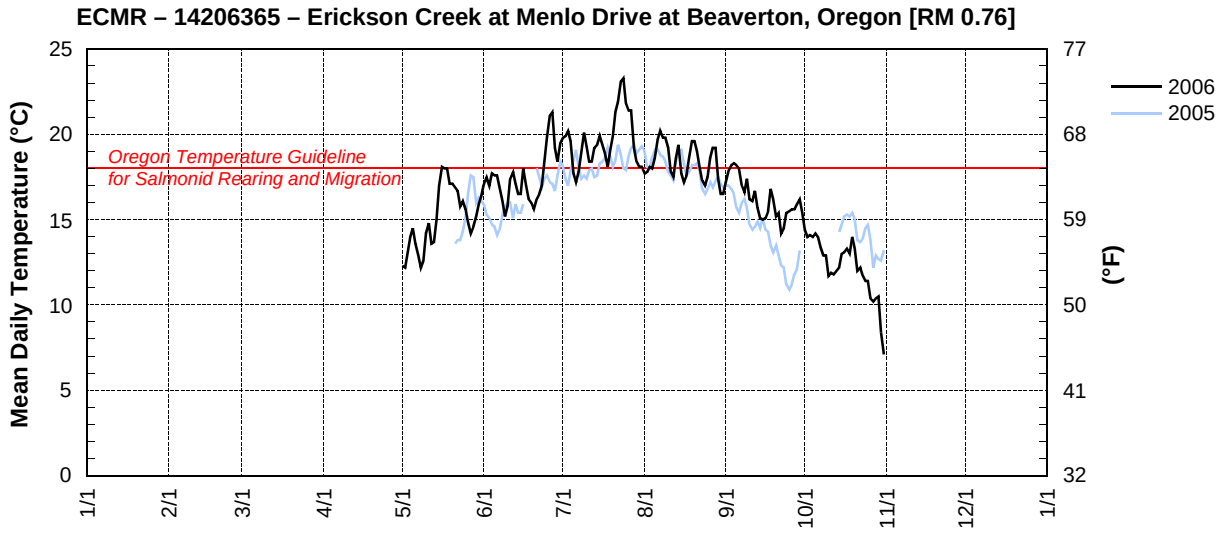
Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					12.7	16.6	19.8	17.8	17.3	15.3		
2					12.8	17.3	20.2	17.9	17.9	15.0		
3					13.8	16.7	20.3	18.2	18.2	14.7		
4					14.6	17.6	19.9	18.1	18.4	14.3		
5					14.9	17.6	17.6	18.5	18.4	15.1		
6					13.7	17.5	17.0	19.4	18.4	14.7		
7					12.8	16.9	17.8	19.6	17.8	14.4		
8					12.4	16.0	19.1	19.3	17.6	13.8		
9					13.0	15.0	20.2	19.1	17.6	13.9		
10					14.5	16.0	19.5	18.7	17.0	13.2		
11					14.9	17.3	18.4	17.7	17.0	13.2		
12					14.1	17.2	17.9	17.3	17.4	13.2		
13					14.4	16.7	18.5	18.0	16.7	13.4		
14					15.6	16.0	19.2	18.9	15.4	13.2		
15					17.4	16.4	19.9	18.0	15.1	13.2		
16					18.4	17.4	19.4	17.2	15.3	13.1		
17					18.5	17.1	19.1	17.3	15.4	13.5		
18					18.5	16.3	18.5	17.9	16.6	13.4		
19					17.2	16.2	18.8	18.6	16.3	13.9		
20					17.3	16.1	19.8	18.8	15.1	13.4		
21					17.1	17.0	20.8	18.7	15.3	12.4		
22					16.8	17.6	20.8	18.0	14.5	12.5		
23					15.9	17.6	21.6	17.2	15.1	12.0		
24					15.9	18.8	22.2	16.7	16.1	11.7		
25					15.3	20.2	21.2	17.3	16.6	11.5		
26					14.7	21.5	20.8	18.5	16.7	10.8		
27					14.0	21.9	20.9	18.9	16.6	10.6		
28					14.2	19.4	19.2	19.1	16.8	10.7		
29		—			15.0	18.6	18.3	17.6	17.1	11.2		
30		—			15.9	19.6	18.0	16.7	16.4	9.2		
31		—		—	16.1	—	18.1	16.5	—	7.9	—	
MEAN					15.2	17.5	19.4	18.1	16.7	12.9		
MAX					18.5	21.9	22.2	19.6	18.4	15.3		
MIN					12.4	15.0	17.0	16.5	14.5	7.9		



ECMR – 14206365 – ERICKSON CREEK AT MENLO DRIVE AT BEAVERTON, OREGON [RM 0.76]

Latitude: 45 29 14 Longitude: 122 58 54 Source Agency: District 18 Watermaster

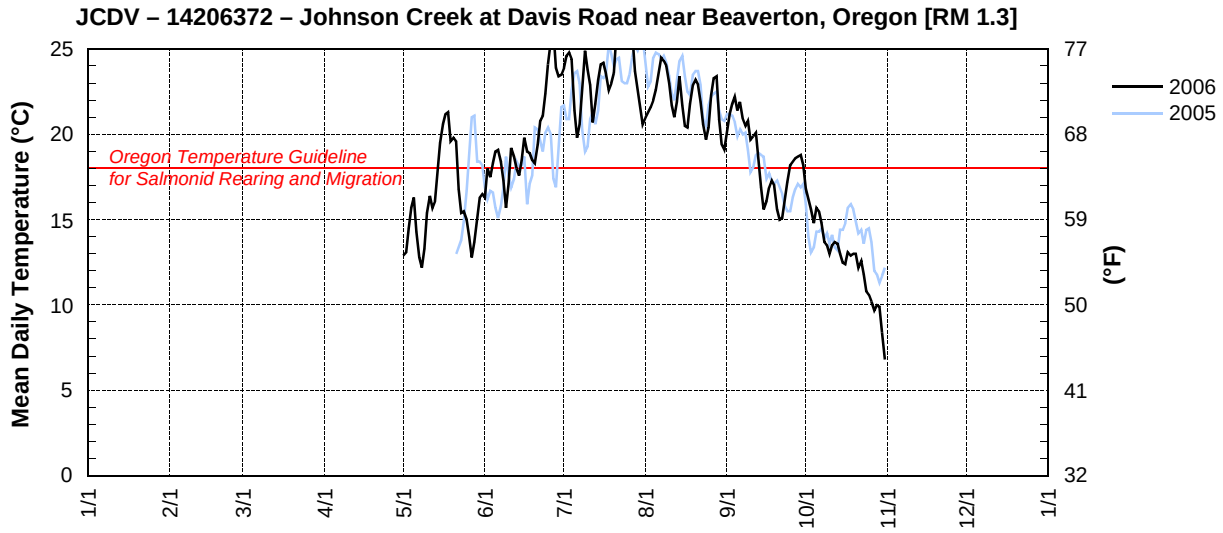
Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					12.3	17.1	19.8	17.7	17.2	14.4		
2					12.2	17.5	19.9	17.8	17.9	14.0		
3					13.1	17.0	20.2	18.1	18.2	14.1		
4					14.0	17.7	19.6	18.0	18.3	14.0		
5					14.5	17.6	17.7	18.6	18.2	14.2		
6					13.6	17.6	17.2	19.7	18.0	14.0		
7					12.9	16.8	17.8	20.2	17.0	13.4		
8					12.2	16.1	18.9	19.8	16.6	12.9		
9					12.6	15.2	20.1	19.8	17.4	12.9		
10					14.2	15.8	19.3	19.2	16.2	11.7		
11					14.8	17.4	18.4	17.8	16.1	11.9		
12					13.6	17.8	18.4	17.5	16.7	11.8		
13					13.7	17.1	19.2	18.6	15.7	12.0		
14					15.0	16.5	19.4	19.4	15.1	12.2		
15					17.0	16.5	19.9	17.7	15.0	13.0		
16					18.1	18.0	19.4	17.2	15.1	13.1		
17					18.0	17.0	18.9	17.6	15.5	13.3		
18					18.0	16.2	18.1	18.6	16.8	13.0		
19					17.1	16.0	19.1	19.6	16.2	14.0		
20					17.1	15.6	19.9	19.6	15.2	13.3		
21					16.9	16.2	21.3	19.0	15.4	12.0		
22					16.7	16.5	21.9	18.1	14.2	12.2		
23					15.8	17.0	23.1	17.3	14.5	11.7		
24					16.1	18.3	23.3	17.0	15.4	11.4		
25					15.6	19.8	21.8	17.5	15.5	11.4		
26					14.8	21.1	21.4	18.6	15.6	10.4		
27					14.2	21.3	21.4	19.2	15.6	10.2		
28					14.6	19.2	19.2	19.2	15.9	10.4		
29		—			15.2	18.4	18.4	17.4	16.2	10.5		
30		—			15.9	19.5	18.1	16.5	15.4	8.4		
31		—		—	16.4	—	18.1	16.5	—	7.1	—	
MEAN					15.0	17.5	19.7	18.3	16.2	12.2		
MAX					18.1	21.3	23.3	20.2	18.3	14.4		
MIN					12.2	15.2	17.2	16.5	14.2	7.1		



JCDV – 14206372 – JOHNSON CREEK AT DAVIS ROAD NEAR BEAVERTON, OREGON [RM 1.3]

Latitude: 45 28 30 Longitude: 122 49 52 Source Agency: District 18 Watermaster

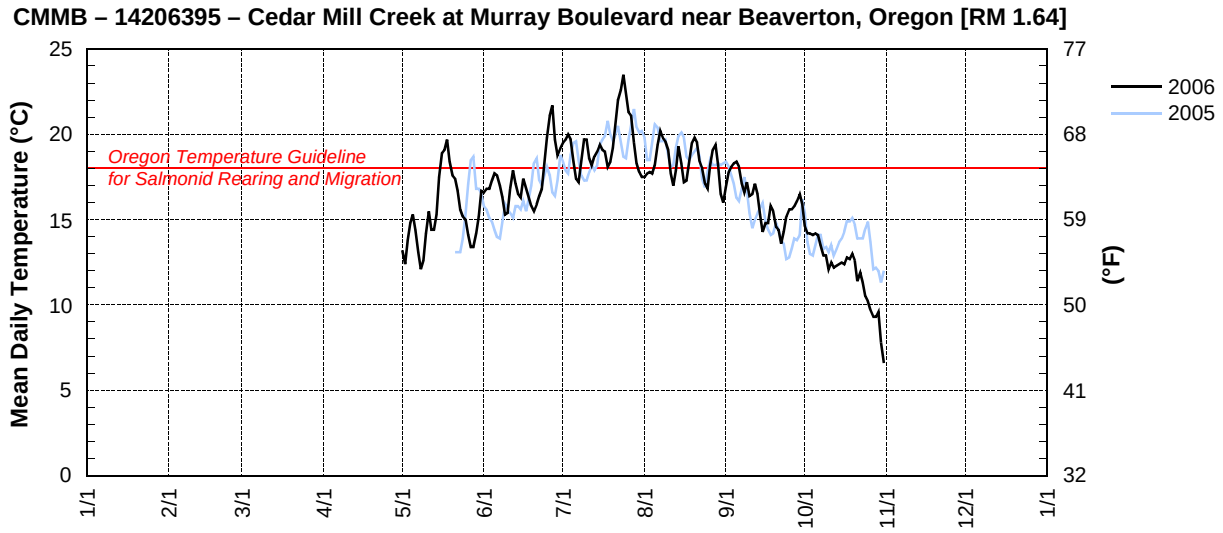
Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					12.9	16.3	23.9	21.0	20.1	16.8		
2					13.1	18.0	24.6	21.3	21.2	16.2		
3					14.5	17.5	24.8	21.6	21.8	15.6		
4					15.7	18.3	24.4	22.0	22.2	14.8		
5					16.3	19.0	21.4	22.6	21.4	15.7		
6					14.3	19.1	19.8	23.6	21.9	15.5		
7					12.8	18.4	20.6	24.5	20.9	14.8		
8					12.2	17.3	22.8	24.3	20.5	13.7		
9					13.3	15.7	24.9	24.0	20.8	13.5		
10					15.4	17.1	23.8	23.0	19.7	13.0		
11					16.4	19.2	22.9	21.7	19.9	13.5		
12					15.7	18.7	20.7	21.0	20.1	13.7		
13					16.1	18.0	21.8	21.9	18.6	13.6		
14					17.7	17.6	23.2	23.4	16.9	13.0		
15					19.5	18.5	24.1	21.7	15.6	12.5		
16					20.6	19.8	24.2	20.5	16.1	12.4		
17					21.2	19.0	23.6	20.4	16.9	13.1		
18					21.3	18.9	22.6	21.8	17.3	12.9		
19					19.6	18.5	23.0	22.9	17.0	13.0		
20					19.8	18.3	23.6	23.2	15.6	13.0		
21					19.6	19.4	25.8	22.9	15.0	12.2		
22					16.8	20.8	26.2	21.9	15.1	12.6		
23					15.4	21.1	26.7	20.6	16.1	11.8		
24					15.5	22.4	27.6	19.7	17.2	10.8		
25					15.0	24.1	26.3	20.4	18.2	10.6		
26					14.0	25.5	25.7	22.3	18.4	10.2		
27					12.8	26.3	25.8	23.3	18.6	9.7		
28					13.7	23.9	23.7	23.4	18.7	10.0		
29		—			15.1	23.4	22.6	20.9	18.8	9.9		
30		—			16.3	23.5	21.6	19.4	18.2	8.4		
31		—		—	16.5	—	20.6	19.1	—	6.8	—	
MEAN					16.1	19.8	23.7	21.9	18.6	12.7		
MAX					21.3	26.3	27.6	24.5	22.2	16.8		
MIN					12.2	15.7	19.8	19.1	15.0	6.8		



CMMB – 14206395 – CEDAR MILL CREEK AT MURRAY BOULEVARD NEAR BEAVERTON, OREGON [RM 1.64]

Latitude: 45 30 37 Longitude: 122 49 18 Source Agency: District 18 Watermaster

Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					13.2	16.6	19.5	17.5	16.9	14.6		
2					12.4	16.8	19.7	17.7	17.8	14.2		
3					13.8	16.8	20.0	17.8	18.1	14.2		
4					14.8	17.3	19.7	17.7	18.3	14.1		
5					15.3	17.7	18.4	18.2	18.4	14.2		
6					14.4	17.6	17.4	19.4	18.1	14.1		
7					13.1	17.0	17.2	20.2	17.1	13.5		
8					12.1	16.3	18.3	19.8	16.6	12.9		
9					12.6	15.3	19.7	19.6	17.2	12.9		
10					14.2	15.4	19.7	19.1	16.4	12.1		
11					15.5	16.8	18.6	17.7	16.5	12.5		
12					14.4	17.9	18.2	17.0	17.1	12.2		
13					14.4	17.1	18.7	17.9	16.5	12.3		
14					15.3	16.5	19.0	19.3	15.3	12.4		
15					17.5	16.3	19.4	18.3	14.3	12.5		
16					18.9	17.4	19.1	17.2	14.8	12.4		
17					19.1	16.8	19.0	17.3	14.8	12.8		
18					19.7	16.3	18.1	18.3	15.8	12.7		
19					18.4	15.8	18.4	19.5	15.5	13.0		
20					17.6	15.5	19.2	19.8	14.6	12.6		
21					17.4	15.9	20.7	19.5	14.4	11.4		
22					16.7	16.4	22.0	18.4	13.6	11.9		
23					15.6	16.8	22.6	18.0	14.3	11.3		
24					15.2	18.2	23.5	17.1	15.2	10.5		
25					15.0	19.8	22.4	16.8	15.6	10.2		
26					14.1	21.1	21.3	18.2	15.6	9.7		
27					13.4	21.7	21.1	19.1	15.8	9.3		
28					13.4	19.7	19.5	19.4	16.1	9.3		
29		—			14.2	18.8	18.3	18.2	16.5	9.6		
30		—			15.2	19.2	17.8	16.5	15.9	7.8		
31		—		—	16.7	—	17.5	16.0	—	6.6	—	
MEAN					15.3	17.4	19.5	18.3	16.1	11.9		
MAX					19.7	21.7	23.5	20.2	18.4	14.6		
MIN					12.1	15.3	17.2	16.0	13.6	6.6		



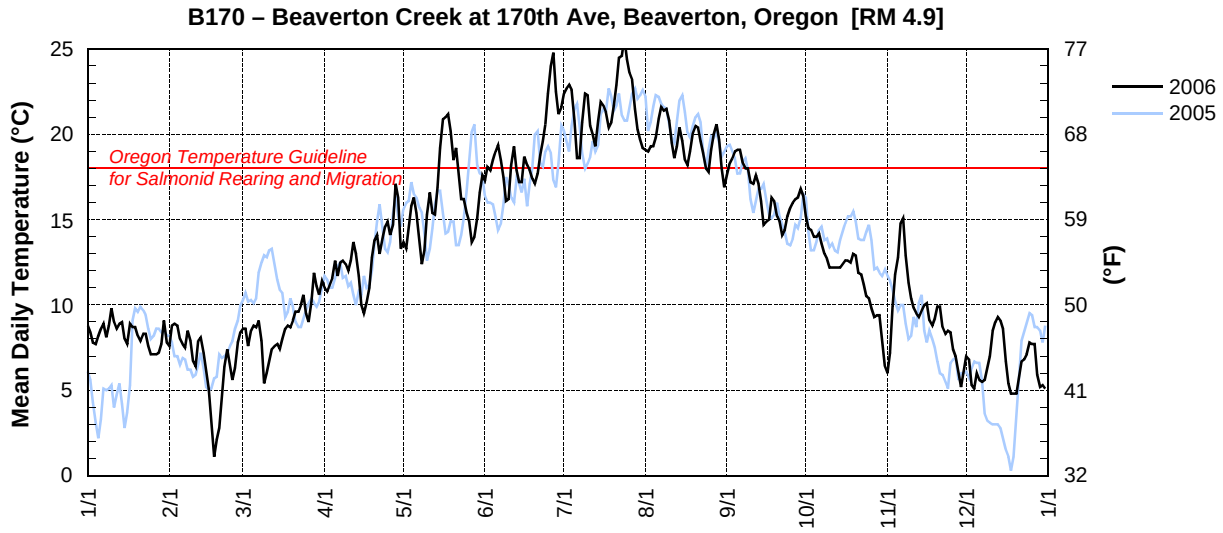
UNITED STATES DEPARTMENT OF THE INTERIOR – GEOLOGICAL SURVEY — OREGON WATER SCIENCE CENTER

STATION NUMBER 453004122510301 BEAVERTON CREEK AT 170TH AVE, BEAVERTON, OR.

LATITUDE: 453004 LONGITUDE: 1225103 DATUM: 160.00

Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT†	NOV†	DEC†
1	8.8	7.5	8.5	11.0	13.7	17.3	22.4	19.1	17.6	15.3	6.0	7.0
2	8.4	8.8	8.6	10.8	13.3	18.0	22.7	19.0	18.3	14.5	7.1	6.8
3	7.9	8.9	7.6	11.2	14.5	17.9	22.9	19.3	18.6	14.4	9.9	5.3
4	7.7	8.8	8.5	11.5	15.8	18.5	22.7	19.3	19.0	14.0	11.8	5.0
5	8.2	8.0	8.8	12.6	16.3	19.0	20.8	19.8	19.1	14.0	12.7	6.0
6	8.6	7.7	8.7	11.7	15.4	19.3	18.6	20.9	19.1	14.2	14.8	5.6
7	9.0	7.5	9.1	12.4	13.7	18.6	18.4	21.6	18.3	13.6	15.2	5.5
8	8.1	8.4	7.9	12.6	12.4	17.6	20.6	21.4	18.0	13.1	13.0	5.6
9	8.7	7.9	5.4	12.4	13.1	16.2	22.4	21.5	18.0	12.7	11.3	6.3
10	9.8	6.7	6.0	12.0	15.3	16.1	22.4	20.8	17.2	12.3	10.4	7.0
11	9.1	6.4	6.6	12.6	16.7	18.2	20.5	19.5	17.1	12.2	9.8	8.5
12	8.6	7.8	7.4	13.7	15.4	19.3	20.0	18.6	17.6	12.2	9.6	9.0
13	8.9	8.1	7.6	13.1	15.3	17.9	19.3	19.3	17.2	12.2	9.2	9.3
14	9.0	7.2	7.7	11.8	16.9	17.2	20.8	20.4	16.1	12.2	9.7	9.1
15	8.0	6.2	7.4	10.0	19.2	17.1	21.9	19.7	14.7	12.4	10.0	8.7
16	7.7	5.1	8.0	9.5	20.8	18.7	21.7	18.5	14.9	12.6	10.1	6.8
17	8.9	3.2	8.6	10.1	21.0	18.2	21.4	18.2	15.0	12.6	9.1	5.4
18	8.7	1.1	8.9	11.0	21.2	18.0	20.4	18.9	16.3	12.5	8.9	4.8
19	8.7	2.1	8.7	12.8	20.3	17.4	20.7	20.1	16.2	13.0	9.2	4.8
20	8.2	2.8	9.1	13.8	18.5	17.2	21.6	20.5	15.2	12.9	9.9	4.8
21	7.9	4.6	9.6	14.1	19.2	17.5	22.8	20.5	14.9	11.9	9.9	5.6
22	8.3	6.4	9.6	13.0	17.6	18.8	24.6	19.6	14.1	11.8	8.7	6.7
23	8.3	7.4	10.0	13.8	16.2	19.6	24.6	19.0	14.4	11.2	8.3	6.8
24	7.6	6.5	10.6	14.6	16.2	20.6	25.6	18.0	15.2	10.5	8.5	7.1
25	7.2	5.6	9.5	14.9	15.5	22.4	24.4	17.8	15.7	10.4	8.4	7.8
26	7.1	6.3	9.0	14.2	14.9	24.0	23.6	19.1	16.0	9.8	7.4	7.7
27	7.1	7.8	10.1	14.6	13.7	24.8	23.2	20.0	16.2	9.3	7.1	7.7
28	7.2	8.5	11.9	17.1	14.0	22.6	21.5	20.6	16.3	9.4	6.1	6.0
29	7.7	—	11.1	16.4	15.0	21.3	20.3	19.7	16.8	9.4	5.3	5.2
30	9.1	—	10.6	13.3	16.6	21.6	19.7	17.9	16.4	7.9	6.1	5.3
31	7.9	—	11.4	—	17.6	—	19.1	16.9	—	6.4	—	5.1
MEAN	8.3	6.6	8.8	12.8	16.3	19.0	21.7	19.5	16.6	12.0	9.5	6.5
MAX	9.8	8.9	11.9	17.1	21.2	24.8	25.6	21.6	19.1	15.3	15.2	9.3
MIN	7.1	1.1	5.4	9.5	12.4	16.1	18.4	16.9	14.1	6.4	5.3	4.8

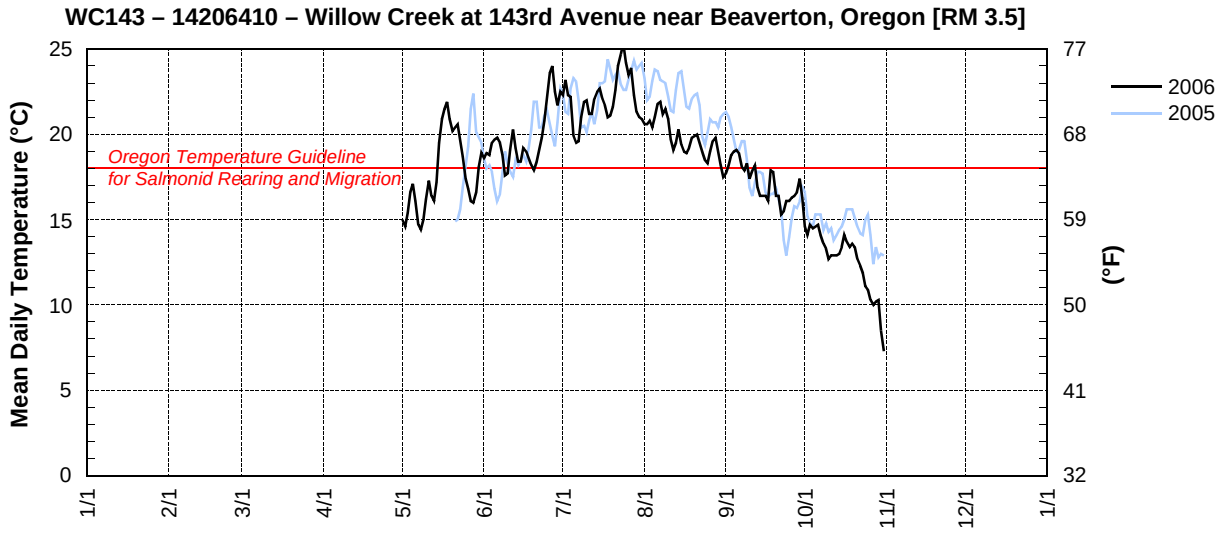
† Provisional data–subject to revision; e= estimated value



WC143 – 14206410 – WILLOW CREEK AT 143RD AVENUE NEAR BEAVERTON, OREGON [RM 3.5]

Latitude: 45 32 12 Longitude: 122 49 24 Source Agency: District 18 Watermaster

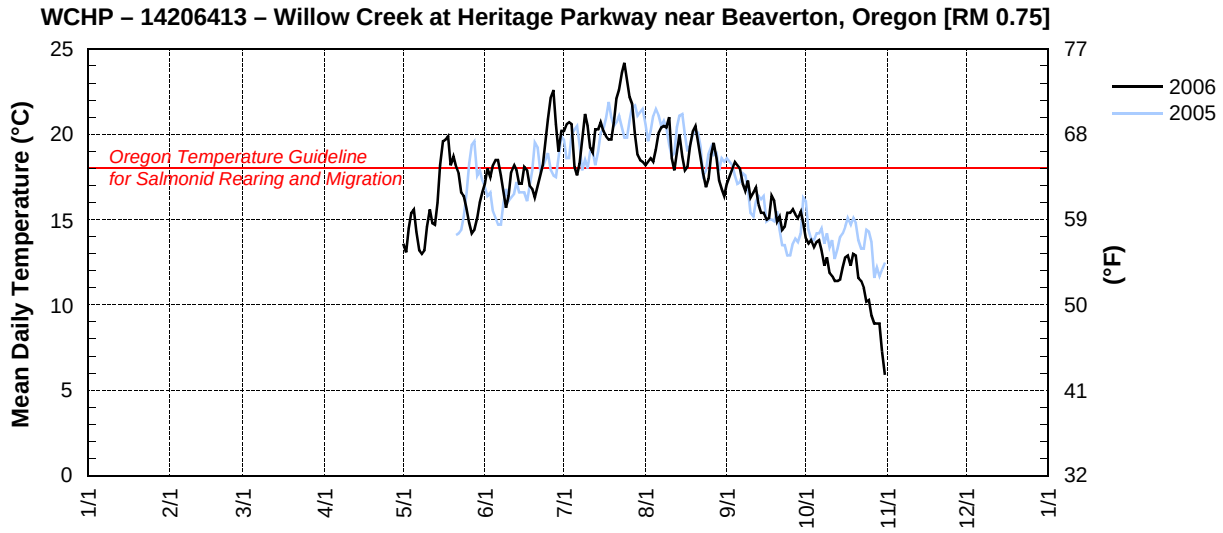
Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					15.0	18.6	22.3	20.6	17.7	14.6		
2					14.6	18.9	23.2	20.6	18.2	14.1		
3					15.4	18.8	22.3	20.8	18.8	14.7		
4					16.6	19.5	22.2	20.4	19.0	14.5		
5					17.1	19.7	19.9	21.0	19.1	14.6		
6					16.1	19.8	19.5	21.8	18.9	14.7		
7					14.7	19.5	19.6	21.9	18.1	14.1		
8					14.4	18.8	21.0	21.2	17.9	13.6		
9					15.0	17.6	21.9	21.5	18.3	13.3		
10					16.2	17.7	22.0	20.9	17.4	12.7		
11					17.3	19.1	21.2	19.7	17.9	12.9		
12					16.4	20.3	21.2	19.1	18.2	12.9		
13					16.1	19.2	22.1	19.5	16.9	12.9		
14					17.2	18.4	22.5	20.3	16.4	13.0		
15					19.5	18.4	22.7	19.4	16.4	13.4		
16					20.9	19.2	22.1	19.0	16.4	14.1		
17					21.5	19.0	21.7	18.9	16.1	13.7		
18					21.9	18.6	21.0	19.2	17.9	13.4		
19					20.9	18.2	21.1	19.8	17.8	13.6		
20					20.2	17.9	21.6	19.9	16.4	13.4		
21					20.4	18.4	22.6	20.0	16.4	12.7		
22					20.6	19.1	24.0	19.5	15.3	12.3		
23					19.7	19.8	24.7	19.0	15.5	11.9		
24					18.7	20.8	25.3	18.5	16.1	11.1		
25					17.4	22.2	24.2	18.3	16.1	10.9		
26					16.8	23.6	23.5	19.0	16.3	10.3		
27					16.1	24.0	23.9	19.6	16.4	10.0		
28					16.0	22.5	22.3	19.8	16.6	10.2		
29		—			16.6	21.7	21.3	19.0	17.4	10.3		
30		—			18.1	22.5	21.0	18.2	16.3	8.5		
31		—		—	18.9	—	20.9	17.5	—	7.3	—	
MEAN					17.6	19.7	22.1	19.8	17.2	12.6		
MAX					21.9	24.0	25.3	21.9	19.1	14.7		
MIN					14.4	17.6	19.5	17.5	15.3	7.3		



WCHP – 14206413 – WILLOW CREEK AT HERITAGE PARKWAY NEAR BEAVERTON, OREGON [RM 0.75]

Latitude: 45 31 12 Longitude: 122 51 35 Source Agency: District 18 Watermaster

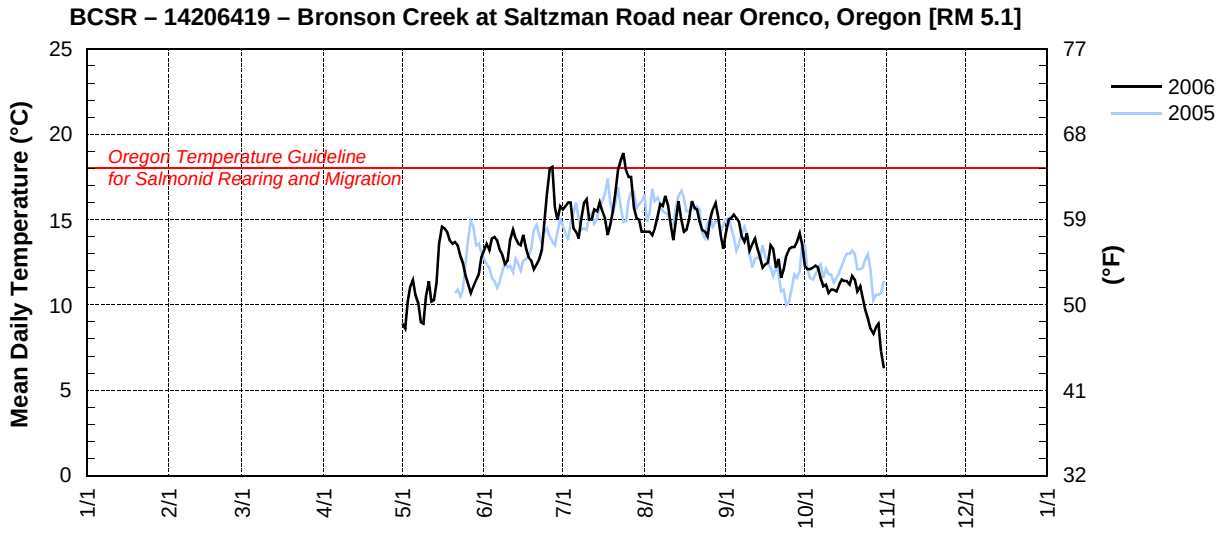
Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					13.6	17.1	20.2	18.2	17.1	13.9		
2					13.1	18.0	20.6	18.4	17.6	13.6		
3					14.5	17.5	20.7	18.6	18.0	13.8		
4					15.4	18.2	20.6	18.4	18.4	13.4		
5					15.6	18.5	18.1	19.1	18.2	13.7		
6					14.3	18.5	17.6	20.1	18.0	13.8		
7					13.2	17.6	18.3	20.4	17.1	13.2		
8					13.0	16.7	19.7	20.5	16.7	12.3		
9					13.2	15.7	21.2	20.4	17.3	12.8		
10					14.6	16.4	20.5	21.0	16.3	11.9		
11					15.6	17.8	19.2	18.6	16.6	11.7		
12					14.8	18.2	18.9	17.9	16.9	11.4		
13					14.7	17.9	20.3	19.0	15.9	11.4		
14					16.0	17.1	20.3	20.0	15.4	11.5		
15					18.2	17.1	20.7	18.7	15.4	12.2		
16					19.6	18.1	20.2	17.9	15.0	12.8		
17					19.7	17.9	19.9	18.1	15.1	12.9		
18					19.9	17.0	19.7	19.3	16.4	12.3		
19					18.2	16.8	19.7	20.2	16.1	13.0		
20					18.7	16.3	20.7	20.5	14.9	12.9		
21					18.1	17.0	22.1	19.6	15.2	11.6		
22					17.7	17.6	22.6	18.7	14.4	11.4		
23					16.6	18.2	23.6	17.7	14.6	11.0		
24					16.4	19.5	24.2	16.9	15.4	10.2		
25					15.6	20.9	23.2	17.4	15.4	10.3		
26					14.8	22.2	22.2	18.8	15.6	9.4		
27					14.2	22.6	21.8	19.5	15.3	8.9		
28					14.4	20.6	20.0	18.6	15.1	8.9		
29		—			15.1	19.0	18.8	17.3	15.5	8.9		
30		—			16.0	20.2	18.5	16.8	14.8	7.3		
31		—		—	16.6	—	18.4	16.4	—	5.9	—	
MEAN					15.9	18.2	20.4	18.8	16.1	11.6		
MAX					19.9	22.6	24.2	21.0	18.4	13.9		
MIN					13.0	15.7	17.6	16.4	14.4	5.9		



BCSR – 14206419 – BRONSON CREEK AT SALTZMAN ROAD NEAR ORENCO, OREGON [RM 5.1]

Latitude: 45 33 19 Longitude: 122 48 25 Source Agency: District 18 Watermaster

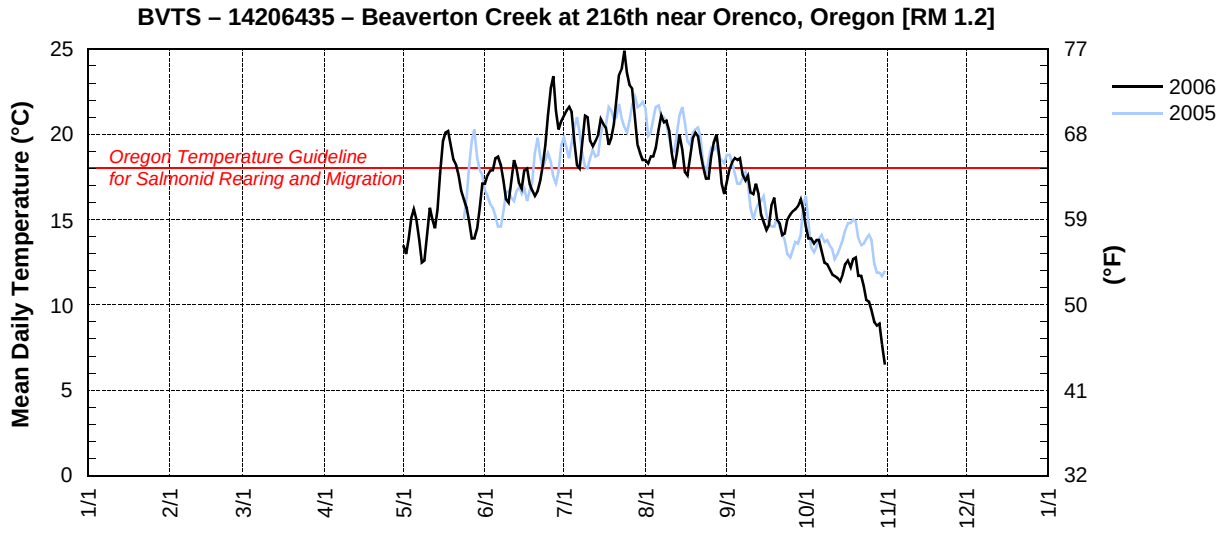
Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					8.9	13.2	15.6	14.3	14.2	12.3		
2					8.6	13.6	15.8	14.3	15.0	12.1		
3					10.2	13.2	16.0	14.3	15.1	12.1		
4					11.1	13.9	16.0	14.1	15.3	12.2		
5					11.5	14.0	14.5	14.5	15.1	12.3		
6					10.6	13.8	14.3	15.2	14.9	12.2		
7					10.1	13.2	13.9	15.9	14.0	11.6		
8					9.0	12.9	15.0	15.8	13.7	11.1		
9					8.9	12.4	16.0	16.4	14.2	11.2		
10					10.5	12.6	16.2	15.8	13.2	10.7		
11					11.4	13.8	15.0	14.7	13.6	10.9		
12					10.2	14.4	15.0	13.8	13.9	10.9		
13					10.3	13.9	15.6	14.9	13.3	10.8		
14					11.3	13.6	15.5	16.1	12.8	11.2		
15					13.6	13.5	16.0	15.0	12.2	11.5		
16					14.6	14.1	15.5	14.3	12.4	11.4		
17					14.5	13.3	15.1	14.4	12.5	11.4		
18					14.3	12.8	14.1	15.0	13.5	11.2		
19					13.8	12.6	14.7	16.1	13.3	11.7		
20					13.6	12.1	15.5	15.7	12.2	11.5		
21					13.7	12.4	16.6	15.6	12.7	10.8		
22					13.5	12.7	17.9	14.9	11.6	11.1		
23					12.9	13.2	18.5	14.4	12.1	10.4		
24					12.5	14.8	18.9	14.3	12.9	9.7		
25					11.7	16.5	17.9	14.0	13.3	9.2		
26					11.2	18.0	17.5	15.0	13.4	8.6		
27					10.7	18.1	17.5	15.6	13.4	8.3		
28					11.1	15.7	15.7	16.0	13.7	8.7		
29		—			11.5	15.0	15.1	15.2	14.2	8.9		
30		—			11.8	15.8	15.0	14.1	13.5	7.3		
31		—		—	12.8	—	14.3	13.3	—	6.3	—	
MEAN					11.6	14.0	15.8	14.9	13.5	10.6		
MAX					14.6	18.1	18.9	16.4	15.3	12.3		
MIN					8.6	12.1	13.9	13.3	11.6	6.3		



BVTS – 14206435 – BEAVERTON CREEK AT 216TH NEAR ORENCO, OREGON [RM 1.2]

Latitude: 45 31 15 Longitude: 122 53 59 Source Agency: District 18 Watermaster

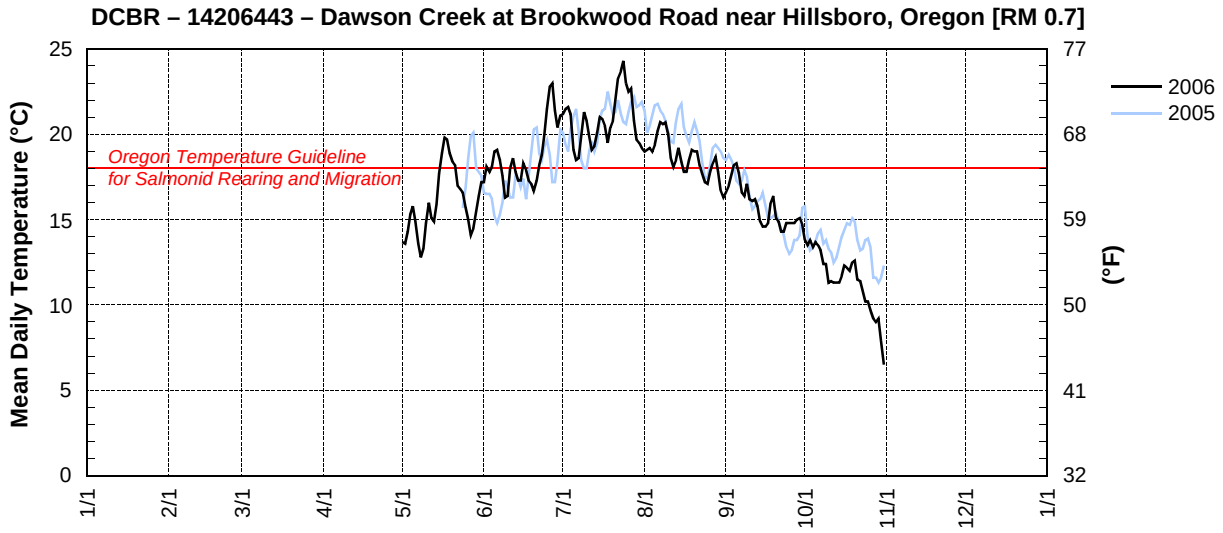
Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					13.5	17.1	21.1	18.5	17.2	14.6		
2					13.0	17.6	21.4	18.3	18.0	13.9		
3					13.9	17.9	21.6	18.7	18.4	13.9		
4					15.1	17.9	21.3	18.7	18.6	13.6		
5					15.6	18.6	19.5	19.2	18.5	13.8		
6					15.0	18.7	18.2	20.3	18.6	13.8		
7					13.8	18.2	18.0	21.1	17.6	13.2		
8					12.5	17.3	19.5	20.7	17.3	12.5		
9					12.6	16.2	21.1	20.8	17.6	12.4		
10					14.1	16.0	21.0	20.2	16.6	12.1		
11					15.7	17.1	19.6	18.9	16.5	11.8		
12					15.0	18.5	19.3	18.0	17.1	11.7		
13					14.5	18.0	19.6	18.9	16.5	11.6		
14					15.6	17.1	20.0	20.0	15.3	11.4		
15					17.7	16.8	20.9	19.1	14.9	11.8		
16					19.6	17.9	20.6	17.8	14.4	12.4		
17					20.1	18.0	20.4	17.6	14.7	12.6		
18					20.2	17.1	19.4	18.7	15.9	12.2		
19					19.4	16.7	19.8	19.8	16.3	12.7		
20					18.5	16.4	20.6	20.1	15.0	12.8		
21					18.2	16.7	22.0	19.9	14.8	11.7		
22					17.6	17.3	23.5	18.9	14.1	11.7		
23					16.7	18.2	23.9	18.1	14.2	11.1		
24					16.2	19.4	24.9	17.4	15.0	10.3		
25					15.7	21.1	23.6	17.4	15.3	10.2		
26					14.9	22.7	22.9	18.7	15.5	9.7		
27					13.9	23.4	22.7	19.5	15.6	9.0		
28					13.9	21.4	20.8	20.0	15.8	8.8		
29		—			14.5	20.3	19.4	18.8	16.2	8.9		
30		—			15.7	20.8	18.9	17.1	15.6	7.7		
31		—		—	17.1	—	18.5	16.5	—	6.5	—	
MEAN					15.8	18.3	20.8	19.0	16.2	11.6		
MAX					20.2	23.4	24.9	21.1	18.6	14.6		
MIN					12.5	16.0	18.0	16.5	14.1	6.5		



DCBR – 14206443 – DAWSON CREEK AT BROOKWOOD ROAD NEAR HILLSBORO, OREGON [RM 0.7]

Latitude: 45 31 27 Longitude:122 56 01 Source Agency: District 18 Watermaster

Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					13.7	17.2	21.2	19.0	16.6	13.8		
2					13.6	18.1	21.5	19.1	17.0	13.5		
3					14.3	17.8	21.6	19.2	17.6	13.8		
4					15.3	18.1	21.2	19.0	18.2	13.4		
5					15.8	19.0	19.1	19.4	18.3	13.7		
6					14.9	19.1	18.5	20.2	17.7	13.5		
7					13.6	18.5	18.6	20.7	16.6	13.2		
8					12.8	17.6	19.8	20.6	16.4	12.4		
9					13.3	16.3	21.3	20.7	17.1	12.4		
10					14.8	16.4	20.8	20.0	16.2	11.3		
11					16.0	18.0	19.9	18.6	16.1	11.4		
12					15.1	18.6	19.1	18.1	16.2	11.3		
13					14.9	17.8	19.3	18.5	15.8	11.3		
14					15.9	17.3	20.1	19.2	14.9	11.3		
15					17.7	17.3	21.0	18.4	14.6	11.7		
16					18.9	18.3	20.9	17.8	14.6	12.3		
17					19.8	17.9	20.5	17.8	14.8	12.2		
18					19.7	17.3	19.5	18.5	16.0	12.0		
19					18.9	17.1	20.4	19.1	16.4	12.5		
20					18.4	16.7	20.8	19.0	15.1	12.6		
21					18.2	17.3	22.0	19.0	14.9	11.5		
22					17.0	18.2	23.3	18.2	14.3	11.4		
23					16.8	18.8	23.7	17.7	14.3	10.8		
24					16.6	20.0	24.3	17.2	14.8	10.2		
25					15.7	21.5	23.0	17.1	14.8	10.2		
26					15.0	22.8	22.5	17.8	14.8	9.7		
27					14.1	23.0	22.7	18.3	14.8	9.2		
28					14.5	21.4	20.8	18.7	15.0	9.0		
29		—			15.5	20.4	19.7	17.8	15.1	9.2		
30		—			16.4	21.1	19.5	16.7	14.7	7.9		
31		—		—	17.2	—	19.2	16.3	—	6.5	—	
MEAN					15.9	18.6	20.8	18.6	15.8	11.5		
MAX					19.8	23.0	24.3	20.7	18.3	13.8		
MIN					12.8	16.3	18.5	16.3	14.3	6.5		



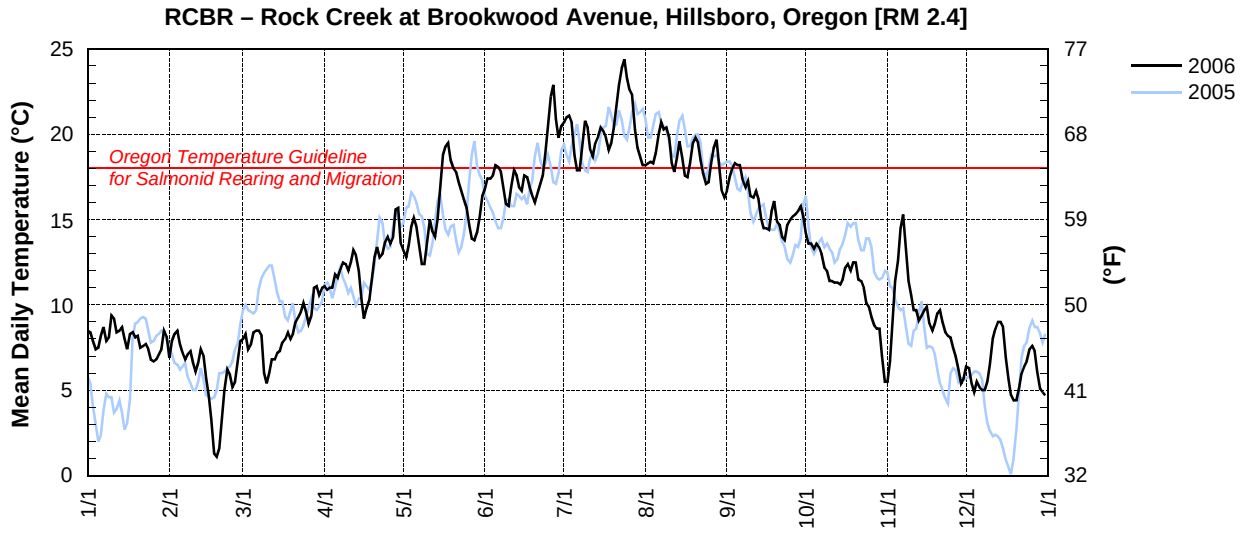
UNITED STATES DEPARTMENT OF THE INTERIOR – GEOLOGICAL SURVEY — OREGON WATER SCIENCE CENTER

STATION NUMBER 453030122560101 ROCK CREEK AT BROOKWOOD AVENUE, HILLSBORO, OR.

LATITUDE: 453029.5 LONGITUDE: 1225600.6

Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT†	NOV†	DEC†
1	8.5	6.9	8.0	11.1	13.2	16.8	20.7	18.2	16.6	14.3	5.4	6.4
2	8.4	7.9	8.3	10.9	12.8	17.4	20.9	18.3	17.5	13.6	6.7	6.3
3	7.9	8.4	7.4	11.0	13.4	17.4	21.1	18.4	18.0	13.6	9.0	5.4
4	7.4	8.5	7.7	11.0	14.6	17.6	20.8	18.3	18.3	13.3	11.3	4.9
5	7.5	7.8	8.4	11.8	15.1	18.1	18.9	18.9	18.2	13.6	12.5	5.5
6	8.2	7.2	8.5	11.6	14.6	18.2	17.9	20.0	18.2	13.4	14.5	5.2
7	8.7	6.8	8.5	12.1	13.5	17.8	17.9	20.7	17.3	13.0	15.3	5.0
8	7.9	7.1	8.2	12.5	12.4	17.0	19.2	20.3	17.0	12.2	13.4	5.0
9	8.1	7.3	6.1	12.4	12.4	15.9	20.8	20.4	17.3	12.0	11.4	5.5
10	9.3	6.6	5.4	12.0	13.6	15.8	20.4	19.8	16.5	11.4	10.6	6.5
11	9.2	6.2	6.0	12.5	15.0	16.8	19.1	18.3	16.3	11.4	9.8	7.9
12	8.4	6.6	6.8	13.1	14.3	17.9	18.7	17.8	16.7	11.3	9.7	8.6
13	8.5	7.4	6.8	12.9	14.0	17.6	19.5	18.6	16.2	11.3	9.1	9.0
14	8.7	7.0	7.2	12.0	15.0	16.9	19.9	19.6	15.1	11.2	9.4	9.0
15	8.1	5.8	7.3	10.4	16.9	16.7	20.4	18.6	14.5	11.5	9.7	8.8
16	7.4	4.7	7.8	9.2	18.8	17.6	20.2	17.6	14.5	12.2	9.9	7.0
17	8.2	3.3	8.0	9.8	19.3	17.6	19.8	17.5	14.4	12.4	8.9	5.7
18	8.4	1.3	8.4	10.3	19.5	16.9	19.1	18.3	15.5	12.1	8.6	4.8
19	8.2	1.1	8.0	11.6	18.6	16.4	19.5	19.5	16.1	12.5	8.9	4.4
20	8.2	1.6	8.3	12.8	18.0	16.0	20.3	19.8	14.9	12.5	9.5	4.4
21	7.6	3.2	9.0	13.4	17.8	16.4	21.7	19.5	14.7	11.5	9.7	5.1
22	7.6	5.0	9.3	12.8	17.2	17.1	22.9	18.6	14.0	11.4	9.0	6.0
23	7.7	6.2	9.6	13.0	16.7	17.6	23.9	17.7	13.8	11.0	8.4	6.4
24	7.4	5.9	10.1	13.7	16.2	18.9	24.4	17.1	14.7	10.1	8.2	6.7
25	6.8	5.2	9.6	14.0	15.7	20.6	23.3	17.2	15.0	9.9	8.1	7.3
26	6.7	5.5	8.9	13.7	14.7	22.2	22.6	18.3	15.2	9.4	7.5	7.6
27	6.8	6.8	9.4	14.0	13.9	22.9	22.4	19.2	15.3	8.8	7.0	7.4
28	7.1	7.9	10.9	15.6	13.8	20.9	20.4	19.7	15.5	8.6	6.2	6.1
29	7.4	—	11.1	15.7	14.3	19.8	19.2	18.3	15.8	8.7	5.4	5.1
30	8.5	—	10.6	13.6	15.1	20.5	18.7	16.8	15.2	7.0	5.7	5.0
31	8.1	—	11.0	—	16.4	—	18.2	16.3	—	5.6	—	4.7
MEAN	8.0	5.9	8.4	12.3	15.4	18.0	20.4	18.6	15.9	11.3	9.3	6.2
MAX	9.3	8.5	11.1	15.7	19.5	22.9	24.4	20.7	18.3	14.3	15.3	9.0
MIN	6.7	1.1	5.4	9.2	12.4	15.8	17.9	16.3	13.8	5.6	5.4	4.4

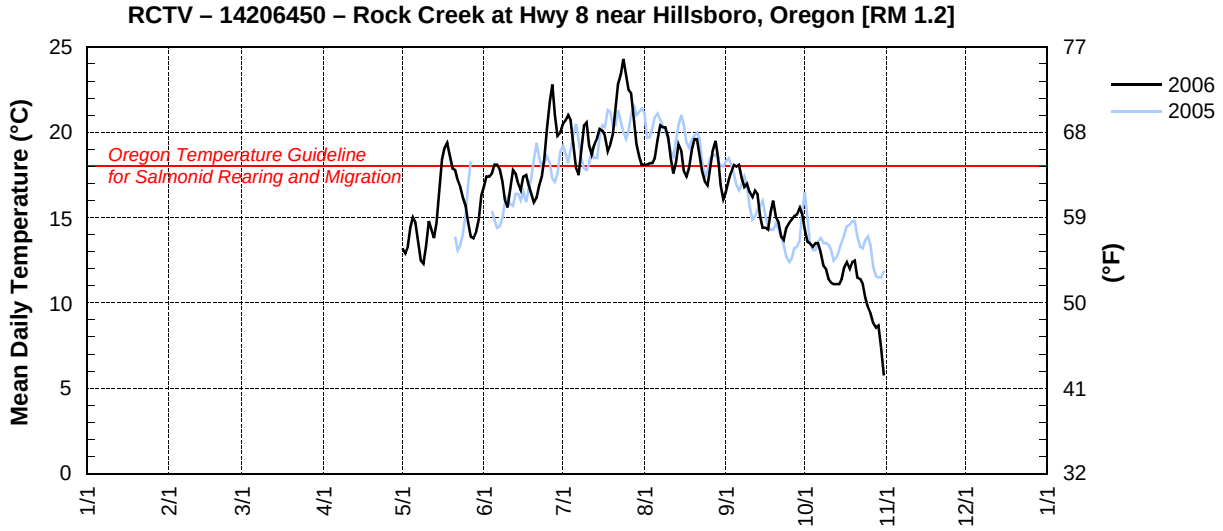
† Provisional data–subject to revision; e= estimated value



RCTV – 14206450 – ROCK CREEK AT HWY 8 NEAR HILLSBORO, OREGON [RM 1.2]

Latitude: 45 30 08 Longitude: 122 56 52 Source Agency: District 18 Watermaster

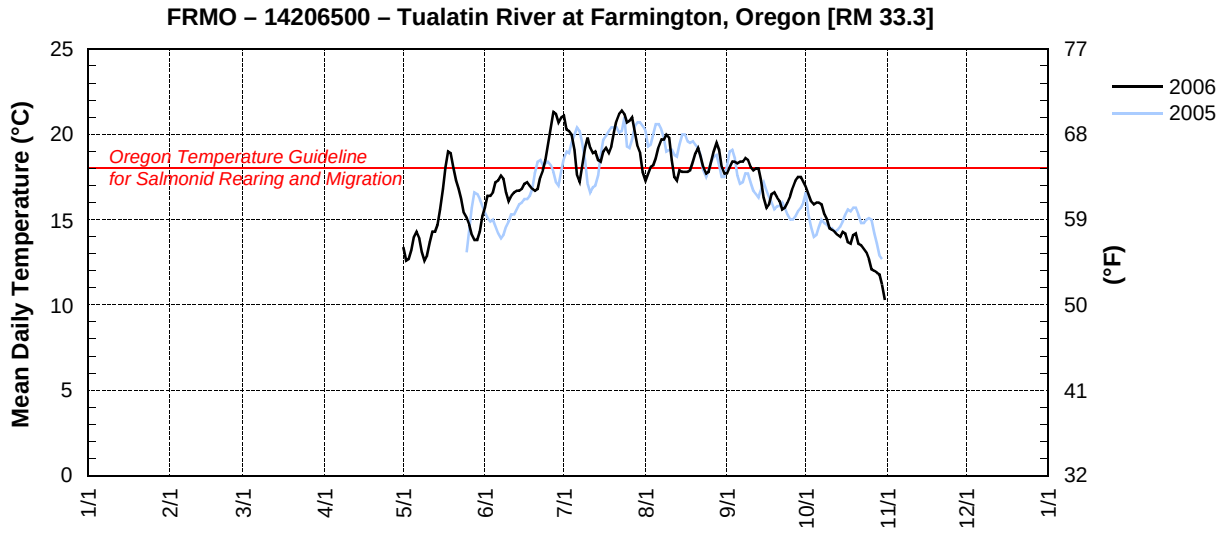
Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					13.2	16.8	20.5	18.1	16.5	14.3		
2					12.9	17.4	20.7	18.1	17.2	13.6		
3					13.3	17.4	21.0	18.2	17.7	13.5		
4					14.4	17.6	20.7	18.2	18.1	13.3		
5					15.0	18.1	19.2	18.5	18.0	13.5		
6					14.7	18.1	17.9	19.6	18.1	13.5		
7					13.6	17.8	17.5	20.4	17.3	13.0		
8					12.5	17.1	18.8	20.3	16.8	12.2		
9					12.3	16.0	20.4	20.3	17.0	12.0		
10					13.3	15.6	20.6	19.7	16.5	11.4		
11					14.8	16.6	19.2	18.5	16.2	11.2		
12					14.3	17.8	18.7	17.6	16.6	11.1		
13					13.8	17.6	19.3	18.2	16.4	11.1		
14					14.7	17.0	19.7	19.3	15.1	11.1		
15					16.5	16.6	20.2	18.9	14.4	11.4		
16					18.4	17.4	20.1	17.7	14.4	12.1		
17					19.1	17.5	19.8	17.4	14.3	12.4		
18					19.4	16.9	18.9	17.9	15.3	12.0		
19					18.7	16.4	19.3	19.0	16.0	12.4		
20					17.9	15.9	19.9	19.6	15.0	12.5		
21					17.8	16.2	21.3	19.6	14.7	11.5		
22					17.2	16.9	22.8	18.6	13.9	11.4		
23					16.8	17.4	23.4	17.7	13.7	11.1		
24					16.2	18.5	24.3	17.1	14.4	10.3		
25					15.7	20.2	23.4	16.9	14.7	9.76		
26					14.7	21.8	22.5	17.9	14.9	9.39		
27					13.9	22.8	22.3	18.9	15.1	8.80		
28					13.8	21.0	20.6	19.5	15.2	8.56		
29		—			14.2	19.8	19.3	18.5	15.6	8.69		
30		—			14.9	20.0	18.6	16.9	15.2	7.42		
31		—		—	16.3	—	18.1	16.1	—	5.75	—	
MEAN					15.3	17.9	20.3	18.5	15.8	11.3		
MAX					19.4	22.8	24.3	20.4	18.1	14.3		
MIN					12.3	15.6	17.5	16.1	13.7	5.75		



FRMO – 14206500 – TUALATIN RIVER AT FARMINGTON, OREGON [RM 33.3]

Latitude: 45 26 58 Longitude: 122 57 02 Source Agency: District 18 Watermaster

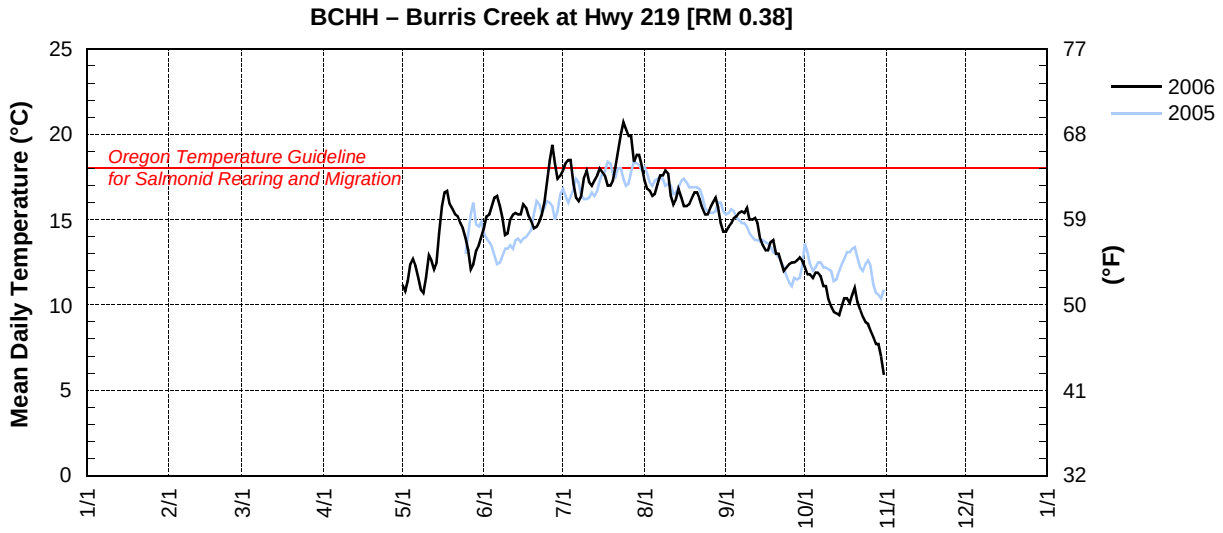
Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					13.4	15.7	21.1	17.3	17.7	16.9		
2					12.6	16.4	20.3	17.7	18.1	16.5		
3					12.7	16.4	20.2	18.1	18.4	16.1		
4					13.2	16.6	20.0	18.2	18.4	15.9		
5					14.0	17.2	19.1	18.6	18.3	16.0		
6					14.3	17.3	17.6	19.3	18.4	16.0		
7					13.9	17.6	17.2	19.7	18.4	15.9		
8					13.1	17.4	18.1	19.7	18.6	15.3		
9					12.6	16.6	19.2	20.0	18.5	15.0		
10					12.9	16.1	19.8	19.8	18.1	14.5		
11					13.7	16.4	19.2	18.5	17.9	14.4		
12					14.3	16.6	18.9	17.5	18.0	14.3		
13					14.3	16.7	19.0	17.3	18.0	14.1		
14					14.7	16.7	18.5	17.9	17.3	14.0		
15					15.6	16.8	18.4	17.8	16.3	14.3		
16					16.8	17.1	19.0	17.8	15.7	14.2		
17					18.1	17.2	19.2	17.8	15.9	13.7		
18					19.0	17.0	18.9	17.9	16.5	13.6		
19					18.9	16.8	19.3	18.4	16.6	14.1		
20					18.0	16.7	20.1	18.9	16.3	14.2		
21					17.3	16.8	20.8	19.2	16.1	13.6		
22					16.8	17.5	21.2	18.7	15.6	13.5		
23					16.2	17.9	21.4	18.1	15.7	13.3		
24					15.4	18.5	21.2	17.7	16.0	13.1		
25					15.1	19.4	20.7	17.8	16.4	12.7		
26					14.7	20.4	20.8	18.4	16.9	12.1		
27					14.1	21.3	21.0	19.0	17.3	12.0		
28					13.8	21.2	20.1	19.5	17.5	11.9		
29		—			13.8	20.7	19.3	19.1	17.5	11.8		
30		—			14.3	21.0	18.9	18.1	17.2	11.2		
31		—		—	15.2	—	17.8	17.7	—	10.3	—	
MEAN					14.9	17.7	19.6	18.4	17.3	14.0		
MAX					19.0	21.3	21.4	20.0	18.6	16.9		
MIN					12.6	15.7	17.2	17.3	15.6	10.3		



BCHH – BURRIS CREEK AT HWY 219 [RM 0.38]

Latitude: 45 25 34 Longitude: 122 57 40 Source Agency: District 18 Watermaster

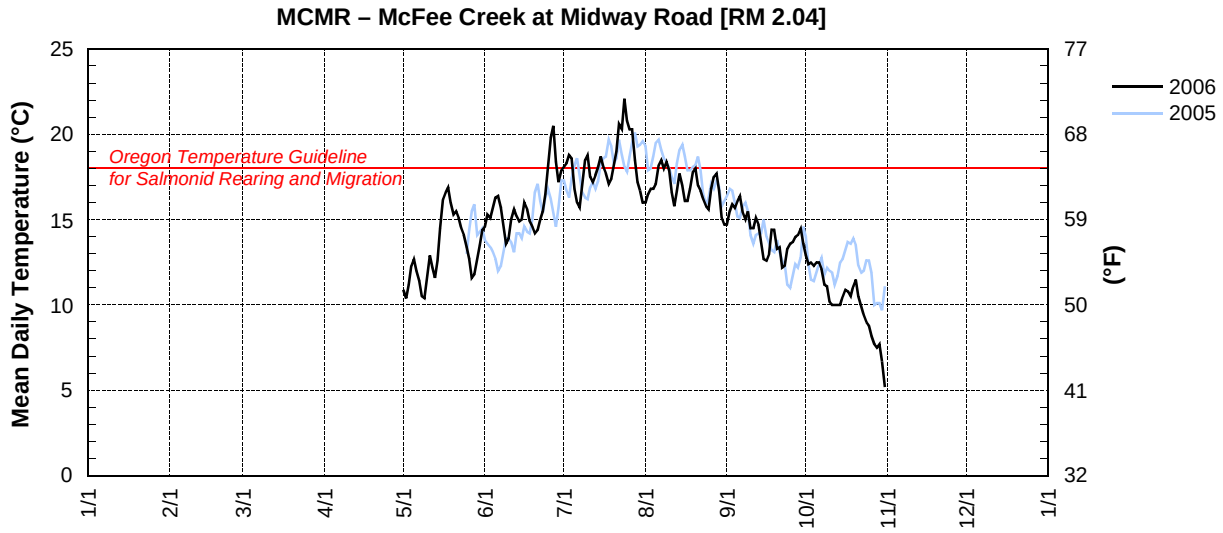
Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					11.2	14.5	17.9	17.3	14.3	12.2		
2					10.8	15.2	18.3	16.8	14.6	11.8		
3					11.4	15.3	18.5	16.7	14.8	11.8		
4					12.4	15.8	18.5	16.4	15.1	11.6		
5					12.7	16.3	17.1	16.5	15.2	11.9		
6					12.3	16.4	16.3	17.1	15.4	11.9		
7					11.6	15.8	16.1	17.6	15.5	11.7		
8					10.9	15.1	16.4	17.6	15.4	11.1		
9					10.7	14.1	17.5	17.9	15.7	11.1		
10					11.6	14.2	17.9	17.7	15.0	10.3		
11					12.9	15.0	17.2	16.4	15.0	9.9		
12					12.6	15.3	17.0	15.9	15.1	9.6		
13					12.1	15.4	17.3	16.2	14.8	9.5		
14					12.5	15.3	17.6	16.8	13.9	9.4		
15					14.2	15.3	18.0	16.3	13.5	9.9		
16					15.8	15.9	17.8	15.8	13.2	10.4		
17					16.6	15.7	17.6	15.8	13.2	10.4		
18					16.7	15.2	17.0	15.9	13.7	10.1		
19					15.9	14.9	17.0	16.3	13.8	10.6		
20					15.6	14.5	17.3	16.6	13.0	11.0		
21					15.3	14.6	18.1	16.6	13.0	10.2		
22					15.2	14.9	19.0	16.2	12.5	9.7		
23					14.8	15.3	20.0	15.7	12.0	9.3		
24					14.5	16.0	20.7	15.3	12.2	9.0		
25					13.9	17.2	20.3	15.3	12.4	8.9		
26					13.2	18.5	19.9	15.7	12.5	8.5		
27					12.1	19.4	19.9	16.0	12.5	8.1		
28					12.4	18.3	18.4	16.3	12.6	7.7		
29		—			13.2	17.4	18.8	15.7	12.8	7.7		
30		—			13.5	17.6	18.8	14.8	12.6	7.0		
31		—		—	14.0	—	18.2	14.3	—	5.9	—	
MEAN					13.3	15.8	18.1	16.3	13.8	9.9		
MAX					16.7	19.4	20.7	17.9	15.7	12.2		
MIN					10.7	14.1	16.1	14.3	12.0	5.9		



MCMR – MCFEE CREEK AT MIDWAY ROAD [RM 2.04]

Latitude: 45 24 19 Longitude: 122 57 37 Source Agency: District 18 Watermaster

Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					10.9	14.6	18.1	16.0	14.7	12.9		
2					10.4	15.3	18.3	16.5	15.5	12.4		
3					11.2	15.1	18.8	16.8	15.9	12.5		
4					12.3	15.7	18.6	16.8	15.7	12.3		
5					12.7	16.3	16.8	17.1	16.1	12.5		
6					12.0	16.4	16.0	18.2	16.4	12.5		
7					11.4	15.7	15.7	18.5	15.4	12.1		
8					10.5	14.7	17.0	18.0	15.0	11.2		
9					10.4	13.6	18.5	18.4	15.5	11.1		
10					11.6	13.9	18.8	17.9	14.5	10.2		
11					12.9	15.0	17.5	16.6	14.5	10.0		
12					12.2	15.6	17.2	15.8	15.1	10.0		
13					11.6	15.2	17.6	16.7	14.7	10.0		
14					12.6	14.9	18.1	17.7	13.7	10.0		
15					14.5	15.0	18.7	17.0	12.7	10.5		
16					16.2	16.0	18.1	16.1	12.6	10.9		
17					16.6	15.6	17.7	16.1	13.0	10.8		
18					16.9	14.9	17.1	16.8	14.4	10.5		
19					16.0	14.6	17.4	17.8	14.4	11.1		
20					15.3	14.2	18.2	18.0	13.3	11.5		
21					15.5	14.4	19.0	17.0	13.4	10.5		
22					15.1	15.0	20.6	16.7	12.2	9.9		
23					14.5	15.5	20.3	16.2	12.3	9.4		
24					14.1	16.5	22.1	15.8	13.3	9.0		
25					13.4	18.2	20.8	15.6	13.6	8.8		
26					12.7	19.8	20.3	16.8	13.7	8.2		
27					11.6	20.5	20.3	17.5	14.0	7.7		
28					11.8	18.4	18.5	17.7	14.1	7.5		
29		—			12.7	17.2	17.2	16.7	14.5	7.7		
30		—			13.5	17.9	16.7	15.1	13.6	6.7		
31		—		—	14.4	—	16.0	14.7	—	5.2	—	
MEAN					13.1	15.9	18.3	16.9	14.3	10.2		
MAX					16.9	20.5	22.1	18.5	16.4	12.9		
MIN					10.4	13.6	15.7	14.7	12.2	5.2		



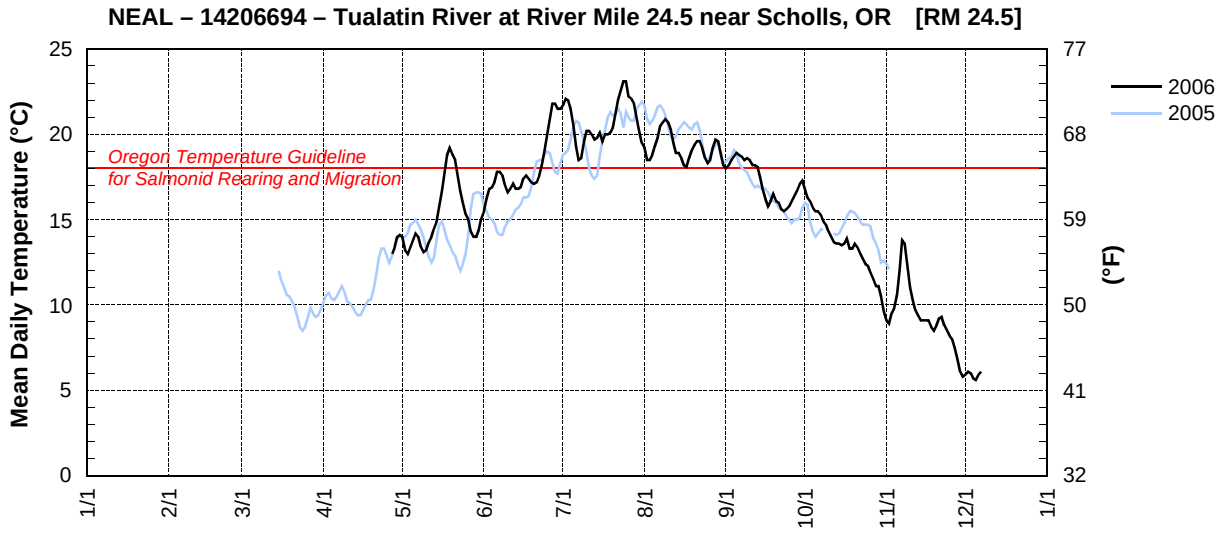
UNITED STATES DEPARTMENT OF THE INTERIOR – GEOLOGICAL SURVEY — OREGON WATER SCIENCE CENTER

STATION NUMBER 14206694 TUALATIN RIVER AT RIVER MILE 24.5, NR SCHOLLS, OR

LATITUDE: 452406 LONGITUDE: 1225338

Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT†	NOV†	DEC†
1					14.0	15.5	21.7	19.2	18.0	16.8	9.1	5.9
2					13.3	16.2	22.1	18.6	18.2	16.3	8.9	6.1
3					13.0	16.8	22.0	18.5	18.5	16.1	9.5	6.0
4					13.4	16.9	21.5	18.8	18.7	15.7	9.8	5.7
5					13.8	17.2	20.6	19.3	18.9	15.5	10.5	5.6
6					14.2	17.8	19.3	19.8	18.9	15.5	12.0	5.9
7					14.0	17.8	18.5	20.4	18.7	15.3	13.8	
8					13.4	17.6	18.6	20.7	18.5	14.9	13.6	
9					13.1	17.0	19.6	20.9	18.6	14.7	12.2	
10					13.2	16.6	20.2	20.7	18.5	14.3	11.0	
11					13.7	16.8	20.2	20.3	18.2	14.0	10.3	
12					14.0	17.1	20.0	19.5	18.2	13.7	9.7	
13					14.5	16.8	19.7	19.0	18.1	13.6	9.4	
14					14.9	16.8	19.8	18.9	17.5	13.6	9.1	
15					15.7	16.9	20.1	18.7	16.8	13.5	9.1	
16					16.7	17.4	19.6	18.2	16.2	13.6	9.1	
17					17.7	17.6	20.0	18.1	15.8	13.9	9.1	
18					18.8	17.4	20.0	18.6	16.1	13.3	8.8	
19					19.2	17.2	20.1	19.1	16.5	13.3	8.5	
20					18.8	17.1	20.4	19.4	16.1	13.6	8.8	
21					18.5	17.2	21.2	19.6	16.0	13.4	9.2	
22					17.6	17.6	22.0	19.6	15.7	13.0	9.3	
23					16.8	18.2	22.5	19.2	15.5	12.7	8.9	
24					16.0	19.0	23.1	18.7	15.6	12.4	8.5	
25					15.3	19.8	23.1	18.3	15.8	12.3	8.2	
26					15.0	20.9	22.2	18.5	16.1	11.9	8.0	
27					14.4	21.8	22.1	19.2	16.4	11.5	7.5	
28				13.4	14.0	21.8	21.8	19.7	16.7	11.1	6.8	
29		—		14.0	14.0	21.5	21.1	19.6	17.1	11.1	6.1	
30		—		14.1	14.4	21.5	20.2	18.9	17.3	10.6	5.8	
31		—		—	15.1	—	19.5	18.2	—	9.7	—	
MEAN					15.2	18.0	20.7	19.2	17.2	13.6	9.4	
MAX					19.2	21.8	23.1	20.9	18.9	16.8	13.8	
MIN					13.0	15.5	18.5	18.1	15.5	9.7	5.8	

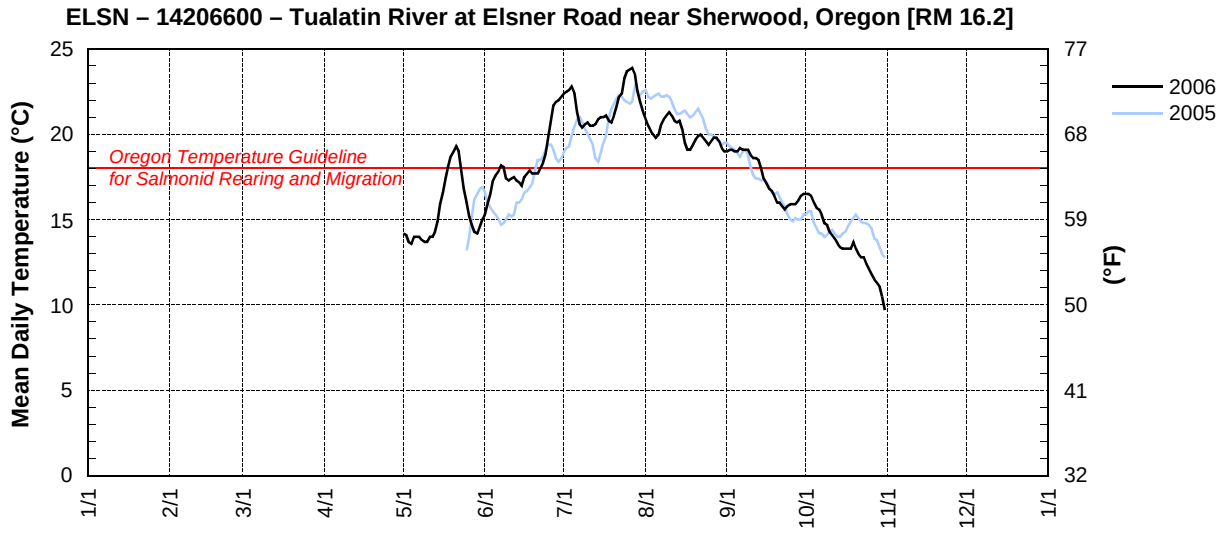
† Provisional data–subject to revision



ELSN – 14206600 – TUALATIN RIVER AT ELSNER ROAD NEAR SHERWOOD, OREGON [RM 16.2]

Latitude: 45 23 17 Longitude: 122 51 03 Source Agency: District 18 Watermaster

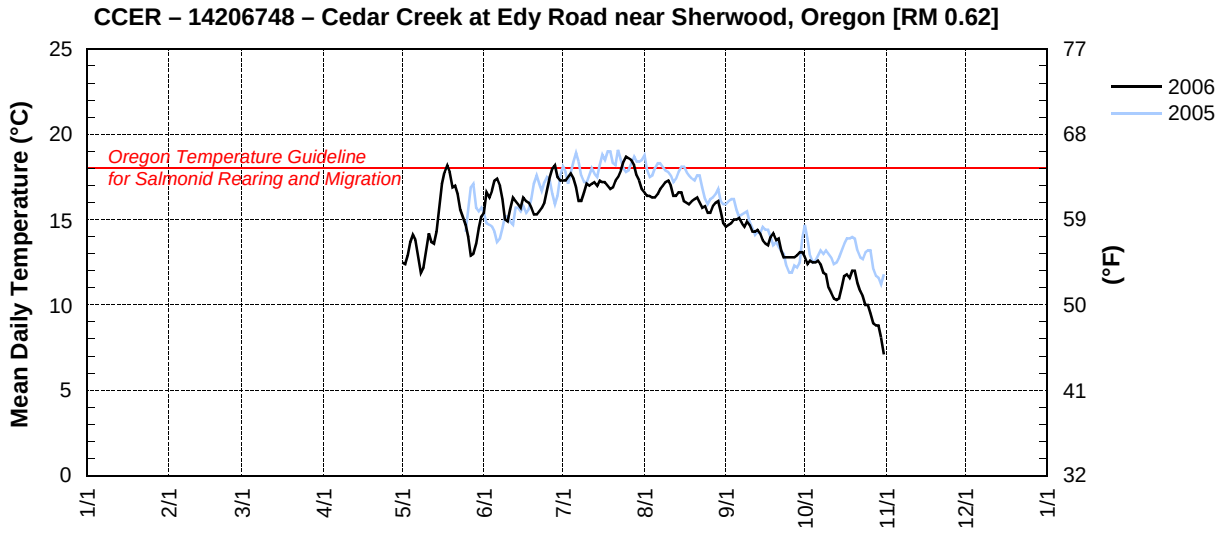
Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					14.2	15.3	22.4	20.9	19.0	16.5		
2					14.1	15.9	22.5	20.5	19.1	16.5		
3					13.7	16.5	22.6	20.2	19.1	16.4		
4					13.6	17.3	22.8	20.0	19.0	16.0		
5					14.0	17.6	22.4	19.8	19.0	15.7		
6					14.0	17.8	21.3	20.0	19.2	15.6		
7					14.0	18.2	20.6	20.6	19.1	15.3		
8					13.8	18.1	20.4	20.9	19.1	14.8		
9					13.7	17.4	20.6	21.1	19.1	14.7		
10					13.7	17.3	20.7	21.3	18.8	14.3		
11					14.0	17.4	20.5	21.1	18.6	14.1		
12					14.0	17.5	20.5	20.8	18.6	13.9		
13					14.3	17.3	20.6	20.7	18.5	13.6		
14					14.9	17.2	20.9	20.8	18.0	13.4		
15					15.9	17.0	21.0	20.3	17.4	13.3		
16					16.6	17.5	21.0	19.5	17.1	13.3		
17					17.4	17.7	21.1	19.1	16.8	13.3		
18					18.1	17.9	20.8	19.1	16.7	13.3		
19					18.7	17.7	20.7	19.4	16.4	13.7		
20					19.0	17.7	21.1	19.7	16.0	13.3		
21					19.3	17.7	21.6	19.9	16.0	13.0		
22					19.0	18.0	22.2	20.0	15.8	12.8		
23					17.9	18.3	22.4	19.8	15.6	12.8		
24					16.8	18.8	23.3	19.6	15.8	12.4		
25					16.0	19.7	23.7	19.4	15.9	12.1		
26					15.2	20.8	23.8	19.6	15.9	11.8		
27					14.7	21.7	23.9	19.8	15.9	11.5		
28					14.3	21.9	23.5	19.8	16.1	11.3		
29		—			14.2	22.0	22.5	19.6	16.4	11.1		
30		—			14.6	22.2	21.9	19.2	16.5	10.5		
31		—		—	15.0	—	21.4	19.0	—	9.70	—	
MEAN					15.4	18.2	21.8	20.0	17.5	13.5		
MAX					19.3	22.2	23.9	21.3	19.2	16.5		
MIN					13.6	15.3	20.4	19.0	15.6	9.70		



CCER – 14206748 – CEDAR CREEK AT EDY ROAD NEAR SHERWOOD, OREGON [RM 0.62]

Latitude: 45 22 05 Longitude: 122 51 22 Source Agency: District 18 Watermaster

Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					12.5	15.4	17.3	16.6	14.6	12.8		
2					12.4	16.6	17.3	16.4	14.7	12.4		
3					12.9	16.3	17.5	16.4	14.8	12.6		
4					13.7	16.7	17.7	16.3	15.0	12.5		
5					14.1	17.3	17.4	16.3	15.0	12.5		
6					13.8	17.4	16.9	16.5	15.1	12.6		
7					12.8	17.0	16.1	16.8	14.8	12.4		
8					11.9	16.2	16.1	17.0	14.6	11.9		
9					12.2	15.0	16.6	17.2	14.9	11.8		
10					13.1	14.9	17.1	17.3	14.7	11.0		
11					14.2	15.6	17.0	17.0	14.3	10.7		
12					13.7	16.3	17.1	16.4	14.3	10.4		
13					13.6	16.1	17.2	16.4	14.4	10.3		
14					14.3	15.9	17.0	16.6	14.2	10.4		
15					15.7	15.7	17.3	16.6	13.8	11.0		
16					17.1	16.3	17.2	16.1	13.6	11.7		
17					17.8	16.1	17.2	16.0	13.5	11.8		
18					18.2	16.0	17.0	15.9	14.0	11.6		
19					17.8	15.7	16.8	16.1	14.2	12.0		
20					16.9	15.3	16.9	16.2	13.8	12.0		
21					17.0	15.3	17.3	16.3	13.9	11.3		
22					16.5	15.5	17.5	16.0	13.2	10.8		
23					15.6	15.7	17.9	15.7	12.8	10.5		
24					15.2	16.0	18.4	15.8	12.8	10.0		
25					14.7	16.7	18.7	15.4	12.8	10.0		
26					14.0	17.5	18.6	15.4	12.8	9.5		
27					12.9	18.0	18.5	15.8	12.8	8.9		
28					13.0	18.2	18.2	16.0	12.9	8.8		
29		—			13.6	17.5	17.6	16.1	13.1	8.8		
30		—			14.5	17.3	17.3	15.5	13.1	8.1		
31		—		—	15.2	—	16.8	14.8	—	7.1	—	
MEAN					14.5	16.3	17.3	16.2	14.0	10.9		
MAX					18.2	18.2	18.7	17.3	15.1	12.8		
MIN					11.9	14.9	16.1	14.8	12.8	7.1		



UNITED STATES DEPARTMENT OF THE INTERIOR – GEOLOGICAL SURVEY — OREGON WATER SCIENCE CENTER

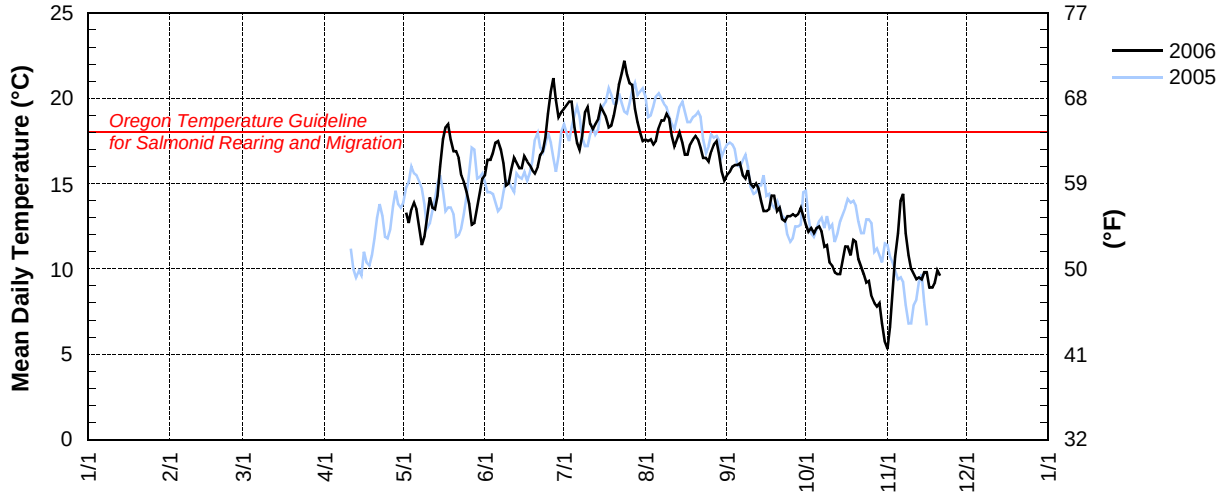
STATION NUMBER 452230122512201* CHICKEN CREEK AT SCHOLLS-SHERWOOD HWY, SHERWOOD OR

LATITUDE: 452230.09 LONGITUDE: 1225121.76

Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT†	NOV†	DEC†
1						15.4	19.4	17.5	15.5	12.7	5.3	
2						16.4	19.6	17.5	15.7	12.2	6.5	
3					12.7	16.4	19.8	17.6	16.0	12.4	8.7	
4					13.5	16.8	19.8	17.3	16.2	12.1	10.7	
5					13.9	17.4	18.3	17.5	16.1	12.4	12.1	
6					13.5	17.5	17.3	18.3	16.2	12.5	13.9	
7					12.5	17.1	17.0	18.7	15.5	12.2	14.4	
8					11.4	16.3	17.8	18.7	15.3	11.3	12.1	
9					11.9	15.0	19.1	19.2	15.8	11.4	10.8	
10					13.0	15.0	19.5	18.8	15.0	10.4	10.0	
11					14.2	15.8	18.5	17.8	14.8	10.1	9.7	
12					13.6	16.5	18.2	17.2	15.0	9.9	9.4	
13					13.5	16.2	18.5	17.5	14.7	9.7	9.5	
14					14.2	15.9	18.8	18.0	14.0	9.7	9.4	
15					15.9	15.9	19.5	17.4	13.4	10.5	9.8	
16					17.5	16.6	19.2	16.8	13.4	11.3	9.8	
17					18.3	16.3	18.9	16.7	13.5	11.3	8.9	
18					18.5	16.1	18.3	17.1	14.3	10.8	8.9	
19					17.7	15.8	18.4	17.6	14.3	11.7	9.2	
20					16.9	15.6	18.9	17.9	13.4	11.6	9.9	
21					16.9	16.0	19.8	17.6	13.6	10.6		
22					16.5	16.5	20.8	17.1	12.9	10.1		
23					15.5	16.9	21.5	16.5	12.8	9.7		
24					15.1	17.7	22.2	16.5	13.1	9.2		
25					14.5	19.1	21.4	16.3	13.2	9.3		
26					13.9	20.3	20.9	16.9	13.2	8.4		
27					12.6	21.2	20.9	17.3	13.1	8.0		
28					12.7	19.9	19.4	17.5	13.2	7.8		
29		—			13.7	19.0	18.6	16.8	13.5	8.0		
30		—			14.4	19.2	18.0	15.7	13.1	6.8		
31		—		—	15.3	—	17.5	15.1	—	5.7	—	
MEAN					14.6	17.0	19.2	17.4	14.3	10.3	10.0	
MAX					18.5	21.2	22.2	19.2	16.2	12.7	14.4	
MIN					11.4	15.0	17.0	15.1	12.8	5.7	5.3	

† Provisional data–subject to revision

CCSR – 452230122512201* – Chicken Creek at Scholls-Sherwood Road near Sherwood, Oregon [RM 2.3]

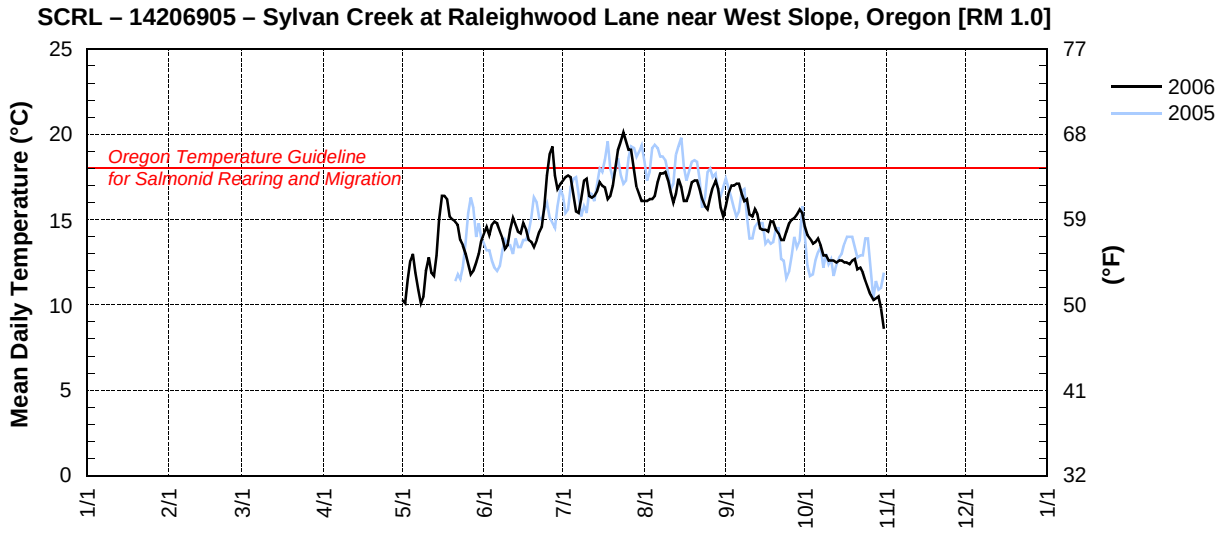


*USGS #452230122512201 is equivalent to OWRD #14206750.

SCRL – 14206905 – SYLVAN CREEK AT RALEIGHWOOD LANE NEAR WEST SLOPE, OREGON [RM 1.0]

Latitude: 45 29 35 Longitude: 122 44 48 Source Agency: District 18 Watermaster

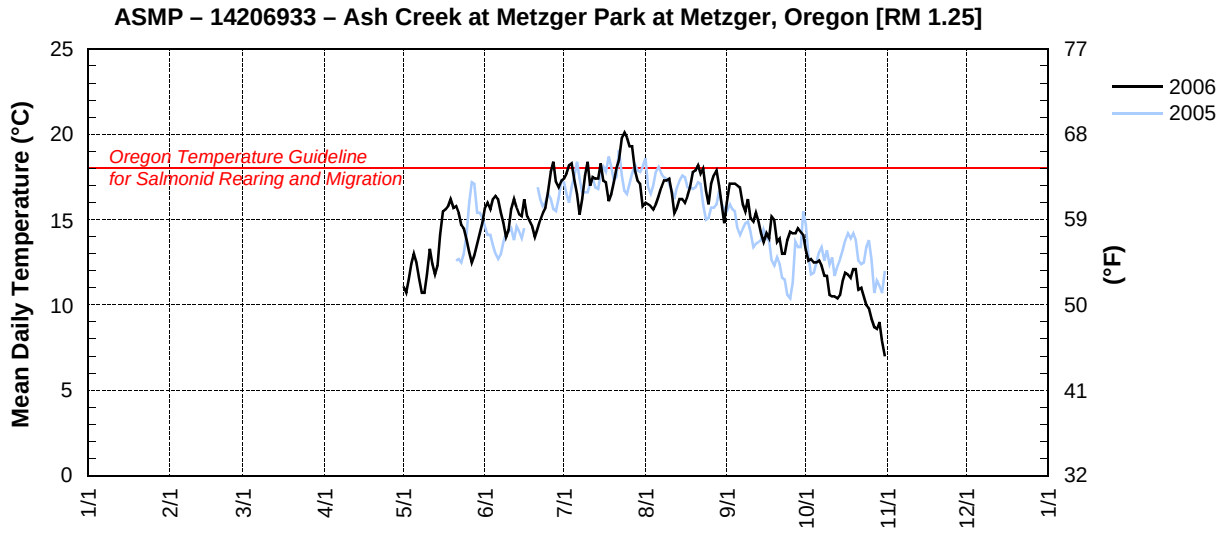
Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					10.3	14.2	17.3	16.1	15.8	14.6		
2					10.1	14.6	17.5	16.1	16.6	14.1		
3					11.5	14.1	17.6	16.2	17.0	13.9		
4					12.6	14.7	17.5	16.2	17.0	13.6		
5					13.0	14.9	16.4	16.4	17.1	13.7		
6					11.9	14.8	15.5	17.2	17.1	13.9		
7					10.9	14.3	15.4	17.7	16.5	13.5		
8					10.1	13.9	16.2	17.7	16.1	12.9		
9					10.5	13.3	17.3	17.8	16.2	12.9		
10					12.0	13.5	17.4	17.3	15.3	12.6		
11					12.8	14.4	16.4	16.6	15.2	12.6		
12					11.9	15.1	16.3	16.0	15.6	12.6		
13					11.7	14.7	16.4	16.5	15.3	12.5		
14					12.9	14.3	16.7	17.4	14.5	12.6		
15					15.0	14.2	17.2	16.9	14.4	12.6		
16					16.4	14.8	17.0	16.1	14.4	12.5		
17					16.4	14.4	16.9	16.1	14.3	12.5		
18					16.2	13.8	16.2	16.5	14.9	12.4		
19					15.2	13.7	16.4	17.2	14.9	12.6		
20					15.0	13.4	17.0	17.3	14.4	12.7		
21					14.9	13.8	18.0	17.3	14.2	12.1		
22					14.7	14.3	19.1	16.8	13.8	12.2		
23					13.8	14.6	19.6	16.2	13.8	11.9		
24					13.5	15.8	20.1	15.8	14.3	11.4		
25					13.0	17.6	19.6	15.6	14.8	11.0		
26					12.4	18.9	19.1	16.3	15.0	10.6		
27					11.8	19.3	19.1	16.9	15.1	10.3		
28					12.0	17.6	17.9	17.3	15.3	10.4		
29		—			12.5	16.8	16.9	16.8	15.6	10.5		
30		—			13.0	17.1	16.5	15.7	15.4	9.8		
31		—		—	13.8	—	16.1	15.2	—	8.6	—	
MEAN					13.0	15.0	17.3	16.6	15.3	12.3		
MAX					16.4	19.3	20.1	17.8	17.1	14.6		
MIN					10.1	13.3	15.4	15.2	13.8	8.6		



ASMP – 14206933 – ASH CREEK AT METZGER PARK AT METZGER, OREGON [RM 1.25]

Latitude: 45 27 00 Longitude: 122 45 45 Source Agency: District 18 Watermaster

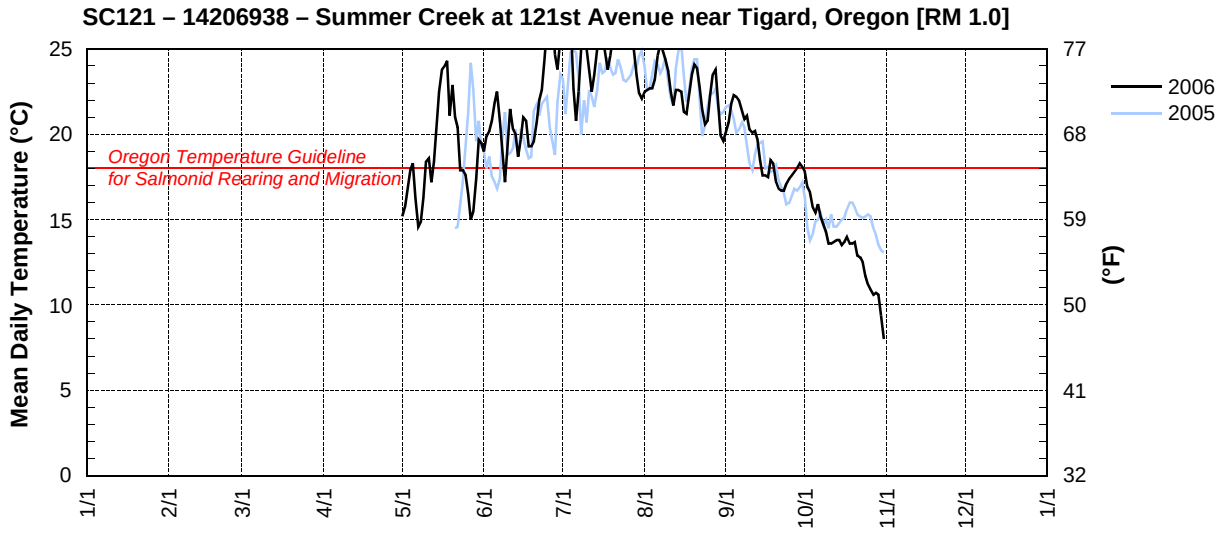
Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					11.1	15.7	17.4	16.0	16.0	13.2		
2					10.7	16.0	17.7	15.9	17.1	12.6		
3					11.5	15.6	18.2	15.8	17.1	12.7		
4					12.4	16.2	18.3	15.6	17.1	12.5		
5					13.0	16.4	17.3	15.9	17.0	12.5		
6					12.5	16.2	16.5	16.4	16.9	12.6		
7					11.5	15.4	15.3	16.9	15.9	12.3		
8					10.7	14.8	16.2	17.3	15.5	11.7		
9					10.7	14.0	17.6	17.3	16.2	11.7		
10					11.8	14.4	18.4	17.4	15.1	10.6		
11					13.3	15.6	17.0	16.6	14.9	10.5		
12					12.4	16.2	17.5	15.4	15.4	10.5		
13					11.8	15.7	17.4	15.7	14.9	10.4		
14					12.3	15.3	17.4	16.2	14.2	10.6		
15					14.1	15.2	18.3	16.2	13.7	11.4		
16					15.5	16.2	17.3	16.0	14.2	11.9		
17					15.6	15.2	17.2	16.4	13.9	11.8		
18					15.8	14.9	16.1	16.9	15.2	11.6		
19					16.2	14.6	16.5	17.8	15.0	12.1		
20					15.7	14.0	17.2	17.9	13.7	12.1		
21					15.8	14.5	18.0	18.2	13.9	10.9		
22					15.4	15.0	18.5	17.7	13.0	11.0		
23					14.7	15.4	19.8	18.0	13.0	10.5		
24					14.5	15.7	20.1	16.7	13.8	10.0		
25					13.8	16.6	19.8	15.9	14.3	9.8		
26					13.1	17.8	19.3	17.1	14.2	9.2		
27					12.5	18.4	19.3	17.6	14.2	8.7		
28					12.9	17.2	17.9	17.9	14.5	8.6		
29		—			13.6	16.9	17.3	17.0	14.3	9.0		
30		—			14.2	17.3	17.1	15.9	14.1	7.9		
31		—		—	14.8	—	15.8	14.8	—	7.0	—	
MEAN					13.4	15.7	17.7	16.7	14.9	10.9		
MAX					16.2	18.4	20.1	18.2	17.1	13.2		
MIN					10.7	14.0	15.3	14.8	13.0	7.0		



SC121 – 14206938 – SUMMER CREEK AT 121ST AVENUE NEAR TIGARD, OREGON [RM 1.0]

Latitude: 45 26 06 Longitude: 122 47 55 Source Agency: District 18 Watermaster

Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					15.2	19.0	26.3	22.5	20.1	17.8		
2					15.8	19.9	26.7	22.6	20.7	16.9		
3					16.8	20.2	27.0	22.7	21.8	16.6		
4					17.9	20.8	26.5	22.7	22.3	15.7		
5					18.3	21.8	22.7	23.2	22.2	15.4		
6					16.3	22.5	20.8	24.6	22.0	15.9		
7					14.6	20.8	22.5	25.2	21.4	15.2		
8					14.9	18.9	25.0	24.9	20.9	14.7		
9					16.3	17.2	26.4	24.4	21.1	14.3		
10					18.4	19.6	25.1	23.7	20.3	13.6		
11					18.6	21.5	23.8	22.5	20.1	13.6		
12					17.2	20.3	22.5	21.7	20.2	13.7		
13					18.4	20.0	23.5	22.6	19.7	13.8		
14					20.3	18.7	25.0	22.6	18.5	13.8		
15					22.5	19.7	25.8	22.5	17.6	13.5		
16					23.8	21.0	25.5	21.3	17.6	13.7		
17					24.0	20.8	24.9	21.2	17.5	14.0		
18					24.3	19.3	23.8	22.3	18.5	13.6		
19					21.1	19.3	24.6	23.5	18.3	13.6		
20					22.9	19.6	25.6	24.1	17.2	13.7		
21					21.0	20.7	26.7	23.9	16.8	12.9		
22					20.4	22.0	27.8	22.8	16.7	12.8		
23					17.9	22.6	28.7	21.5	16.7	12.5		
24					17.9	24.3	29.4	20.6	17.1	11.7		
25					17.6	26.2	27.7	20.8	17.4	11.2		
26					16.5	27.5	26.9	22.3	17.6	10.9		
27					15.0	27.7	27.0	23.5	17.8	10.6		
28					15.5	24.7	24.9	23.8	18.0	10.7		
29		—			17.4	23.8	23.5	21.8	18.3	10.6		
30		—			19.7	25.7	22.4	19.9	18.1	9.4		
31		—		—	19.5	—	22.1	19.6	—	8.0	—	
MEAN					18.6	21.5	25.2	22.6	19.1	13.4		
MAX					24.3	27.7	29.4	25.2	22.3	17.8		
MIN					14.6	17.2	20.8	19.6	16.7	8.0		



UNITED STATES DEPARTMENT OF THE INTERIOR – GEOLOGICAL SURVEY — OREGON WATER SCIENCE CENTER

STATION NUMBER 14206950 FANNO CREEK AT DURHAM, OR

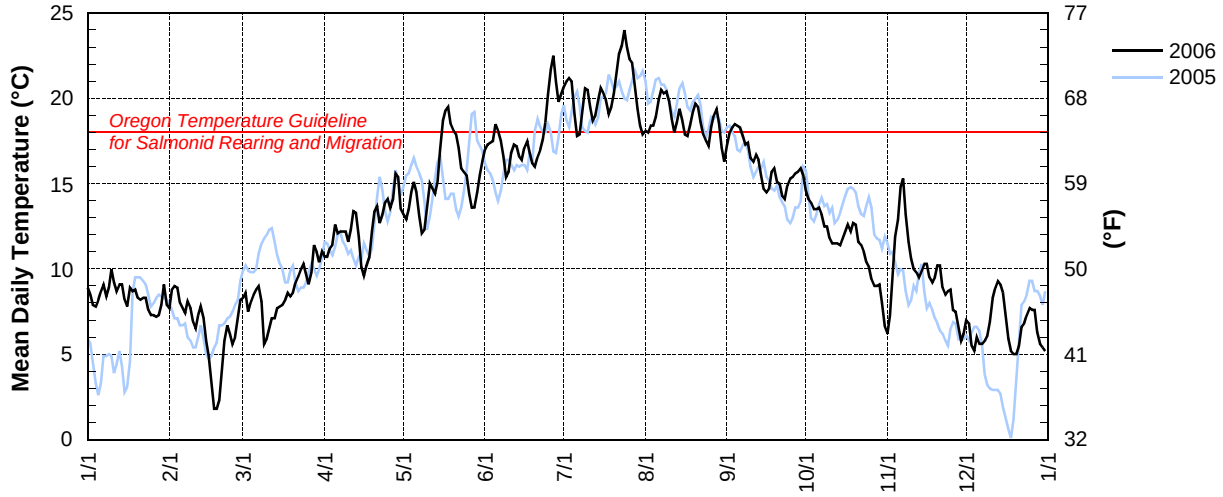
LATITUDE: 452413 LONGITUDE: 1224513

Water Temperature, degrees Celsius, Calendar Year January to December 2006 Daily Mean Values

Day	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT†	NOV†	DEC†
1	8.9	7.7	8.3	10.7	13.2	17.0	20.7	18.1	17.1	14.6	6.1	7.0
2	8.5	8.8	8.6	10.7	12.9	17.3	20.9	18.0	18.0	14.1	7.3	6.8
3	7.9	9.0	7.5	11.2	13.4	17.4	21.2	18.4	18.3	13.9	9.7	5.5
4	7.8	8.9	8.1	11.3	14.5	17.5	21.0	18.4	18.5	13.5	11.8	5.2
5	8.2	8.1	8.5	12.5	15.1	18.5	19.1	18.9	18.4	13.5	12.9	6.0
6	8.7	7.7	8.8	12.1	14.5	18.1	17.8	19.8	18.3	13.7	14.8	5.6
7	9.1	7.4	9.0	12.2	13.1	17.5	17.9	20.5	17.8	13.2	15.4	5.6
8	8.4	8.1	8.2	12.2	12.1	16.6	19.1	20.3	17.3	12.5	13.3	5.8
9	8.9	7.7	5.7	12.3	12.3	15.5	20.6	20.4	17.5	12.6	11.6	6.1
10	10.0	6.9	5.9	11.6	13.6	15.6	20.5	19.8	16.5	11.8	10.7	6.9
11	9.2	6.5	6.4	12.3	15.0	16.8	19.5	18.8	16.3	11.5	10.0	8.3
12	8.7	7.3	7.1	13.4	14.7	17.3	18.7	18.1	16.7	11.5	9.9	8.9
13	9.0	7.8	7.1	13.3	14.4	17.2	19.0	18.6	16.4	11.4	9.5	9.3
14	9.1	7.1	7.7	12.0	15.1	16.6	19.9	19.4	15.5	11.4	9.9	9.1
15	8.2	5.9	7.8	10.1	16.9	16.4	20.6	18.8	14.7	11.8	10.3	8.6
16	7.8	4.9	7.9	9.6	18.7	17.1	20.3	17.9	14.5	12.2	10.3	7.2
17	8.9	3.6	8.2	10.2	19.3	17.5	19.9	17.8	14.7	12.6	9.6	5.9
18	8.7	1.8	8.6	10.7	19.5	16.8	19.1	18.4	15.7	12.2	9.2	5.2
19	8.8	1.8	8.4	12.1	18.5	16.2	19.5	19.2	15.9	12.7	9.5	5.0
20	8.3	2.3	8.6	13.4	18.1	16.0	20.3	19.7	15.1	12.6	10.2	5.0
21	8.2	4.0	9.2	13.7	17.9	16.6	21.4	19.5	15.0	11.6	10.2	5.4
22	8.3	5.8	9.6	12.7	17.1	17.0	22.6	18.6	14.3	11.4	8.9	6.6
23	8.3	6.7	10.0	13.1	16.0	17.6	23.1	17.9	14.1	11.0	8.5	6.8
24	7.6	6.2	10.3	13.9	15.7	18.6	24.0	17.5	14.9	10.4	8.6	7.3
25	7.3	5.6	9.7	14.1	15.5	20.1	23.0	17.2	15.3	10.1	8.8	7.7
26	7.3	6.0	9.2	13.7	14.4	21.6	22.3	18.3	15.4	9.4	7.7	7.6
27	7.2	7.2	9.8	14.0	13.6	22.5	22.1	19.0	15.6	9.0	7.5	7.7
28	7.3	8.2	11.3	15.6	13.6	21.0	20.6	19.4	15.7	8.9	6.6	6.4
29	7.8	—	11.0	15.5	14.5	19.8	19.4	18.5	15.9	9.1	5.8	5.6
30	9.1	—	10.4	13.5	15.5	20.3	18.4	17.1	15.5	8.0	6.2	5.5
31	8.0	—	11.0	—	16.3	—	17.9	16.3	—	6.6	—	5.2
MEAN	8.4	6.4	8.6	12.5	15.3	17.8	20.3	18.7	16.2	11.6	9.7	6.6
MAX	10.0	9.0	11.3	15.6	19.5	22.5	24.0	20.5	18.5	14.6	15.4	9.3
MIN	7.2	1.8	5.7	9.6	12.1	15.5	17.8	16.3	14.1	6.6	5.8	5.0

† Provisional data–subject to revision

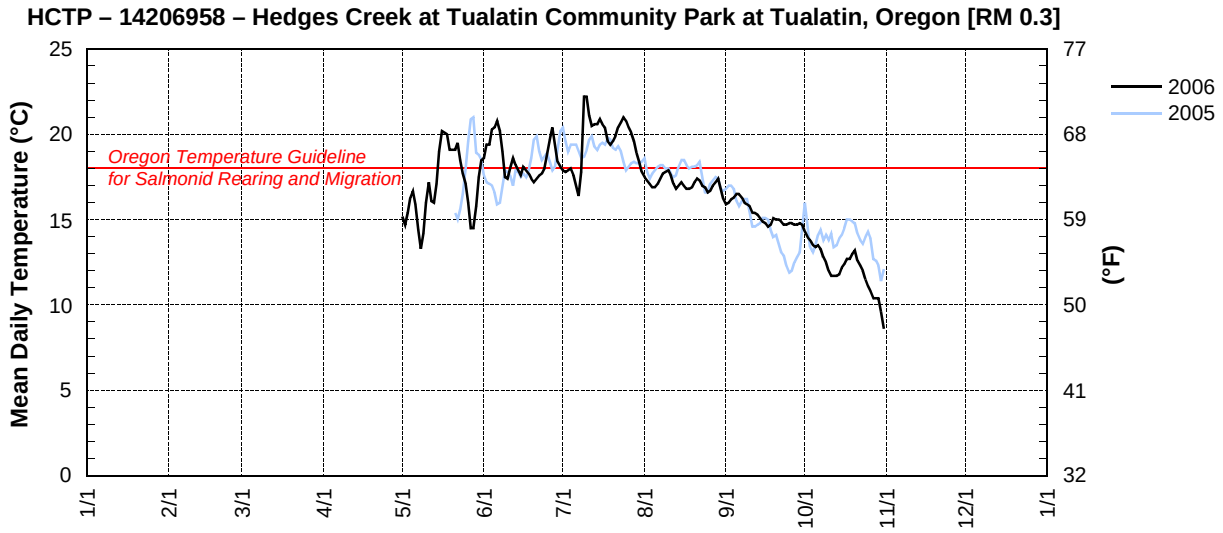
FANO – 14206950 – Fanno Creek at Durham Road near Tigard, Oregon [RM 1.2]



HCTP – 14206958 – HEDGES CREEK AT TUALATIN COMMUNITY PARK AT TUALATIN, OREGON [RM 0.3]

Latitude: 45 23 08 Longitude: 122 45 37 Source Agency: District 18 Watermaster

Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					15.2	18.6	17.9	17.5	15.9	14.3		
2					14.7	19.4	17.8	17.3	16.0	14.0		
3					15.4	19.4	17.9	17.1	16.2	13.8		
4					16.3	20.3	18.0	16.9	16.3	13.5		
5					16.7	20.4	17.6	16.9	16.5	13.4		
6					15.9	20.8	17.0	17.1	16.5	13.5		
7					14.4	20.2	16.4	17.4	16.3	13.3		
8					13.3	19.0	17.8	17.7	16.0	12.8		
9					14.2	17.5	22.2	17.8	15.9	12.5		
10					16.0	17.4	22.2	17.9	15.8	12.0		
11					17.2	18.0	21.1	17.6	15.4	11.7		
12					16.1	18.6	20.5	17.1	15.4	11.7		
13					16.0	18.2	20.6	16.8	15.3	11.7		
14					17.1	17.9	20.6	17.0	15.1	11.8		
15					19.0	17.6	20.9	17.2	14.9	12.2		
16					20.2	18.1	20.6	17.0	14.8	12.4		
17					20.1	17.9	20.4	16.8	14.6	12.7		
18					20.0	17.7	19.6	16.8	14.7	12.7		
19					19.1	17.4	19.4	16.9	15.1	13.0		
20					19.1	17.2	19.6	17.2	15.0	13.2		
21					19.1	17.4	19.9	17.4	15.0	12.6		
22					19.5	17.6	20.4	17.3	14.9	12.3		
23					18.5	17.7	20.7	17.0	14.7	12.0		
24					17.7	18.0	21.0	16.9	14.7	11.5		
25					17.1	18.8	20.8	16.6	14.8	11.1		
26					16.0	19.7	20.4	16.7	14.8	10.8		
27					14.5	20.4	20.1	17.0	14.7	10.4		
28					14.5	19.4	19.6	17.2	14.7	10.4		
29		—			15.8	18.4	18.9	17.4	14.8	10.4		
30		—			17.5	18.1	18.4	16.8	14.7	9.6		
31		—		—	18.5	—	17.8	16.2	—	8.6	—	
MEAN					16.9	18.6	19.6	17.1	15.3	12.1		
MAX					20.2	20.8	22.2	17.9	16.5	14.3		
MIN					13.3	17.2	16.4	16.2	14.6	8.6		

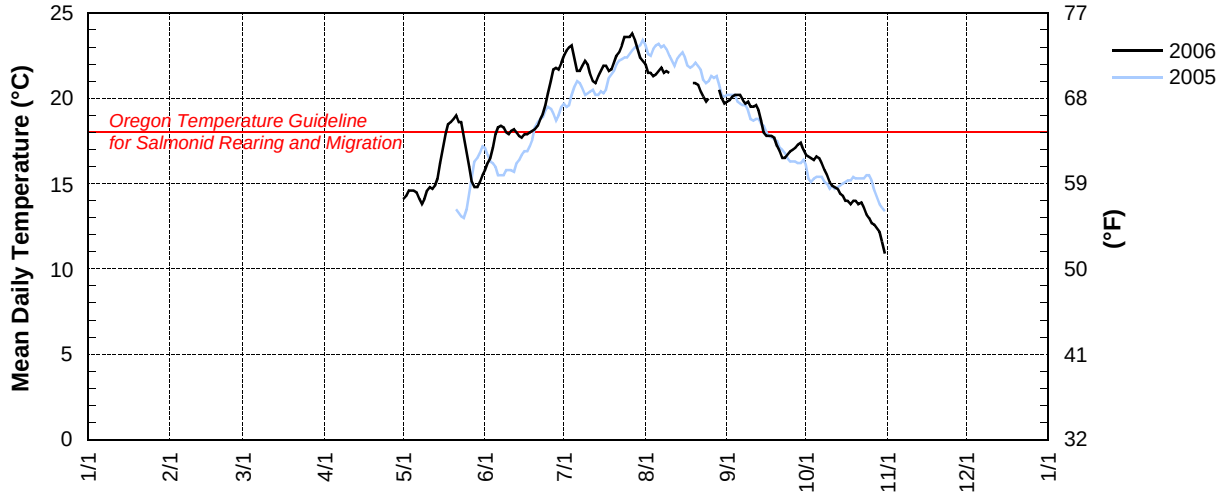


TRT – 14206956 (formerly 14206960) – TUALATIN RIVER AT TUALATIN, OREGON [RM 8.9]

Latitude: 45 23 14 Longitude: 122 45 46 Source Agency: District 18 Watermaster

Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					14.1	15.8	22.5	22.0	19.8	16.7		
2					14.3	16.2	22.8	21.5	19.9	16.6		
3					14.6	16.5	23.0	21.5	20.1	16.5		
4					14.6	17.1	23.1	21.3	20.2	16.4		
5					14.6	17.9	22.3	21.4	20.2	16.6		
6					14.5	18.3	21.6	21.6	20.2	16.5		
7					14.1	18.4	21.6	21.8	19.9	16.2		
8					13.8	18.3	21.9	21.5	19.7	15.8		
9					14.1	18.0	22.2	21.6	19.8	15.5		
10					14.6	17.9	22.0	21.5	19.5	15.1		
11					14.8	18.1	21.4		19.5	14.9		
12					14.7	18.2	21.0		19.6	14.8		
13					14.9	18.0	20.9		19.3	14.7		
14					15.3	17.8	21.3		18.7	14.4		
15					16.2	17.7	21.6		18.0	14.3		
16					17.1	17.9	21.9		17.8	14.0		
17					17.9	17.9	21.9		17.8	14.0		
18					18.5	18.0	21.6		17.8	13.8		
19					18.6	18.1	21.7	20.9	17.7	14.0		
20					18.8	18.2	22.1	20.9	17.2	14.0		
21					19.0	18.4	22.5	20.8	16.9	13.8		
22					18.6	18.8	22.7	20.4	16.5	13.9		
23					18.6	19.1	23.1	20.1	16.5	13.6		
24					17.8	19.6	23.6	19.8	16.7	13.2		
25					16.8	20.3	23.6	20.0	16.9	13.0		
26					16.0	21.0	23.6		17.0	12.7		
27					15.1	21.7	23.8		17.1	12.6		
28					14.8	21.8	23.4		17.3	12.4		
29		—			14.8	21.7	22.9	20.5	17.4	12.2		
30		—			15.1	22.1	22.4	20.0	17.0	11.6		
31		—		—	15.5	—	22.2	19.7	—	10.9	—	
MEAN					15.9	18.6	22.3	20.9	18.4	14.3		
MAX					19.0	22.1	23.8	22.0	20.2	16.7		
MIN					13.8	15.8	20.9	19.7	16.5	10.9		

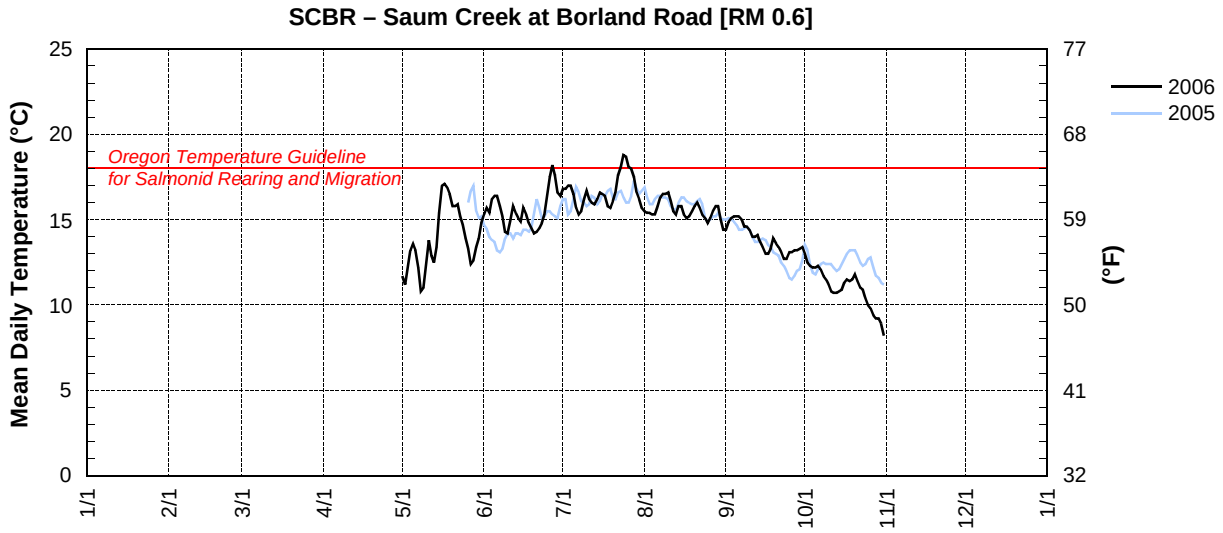
TRT – 14206956 (formerly 14206960)**– Tualatin River at Tualatin, Oregon [RM 8.9]**



SCBR – SAUM CREEK AT BORLAND ROAD [RM 0.6]

Latitude: 45 22 32 Longitude: 122 43 22 Source Agency: District 18 Watermaster

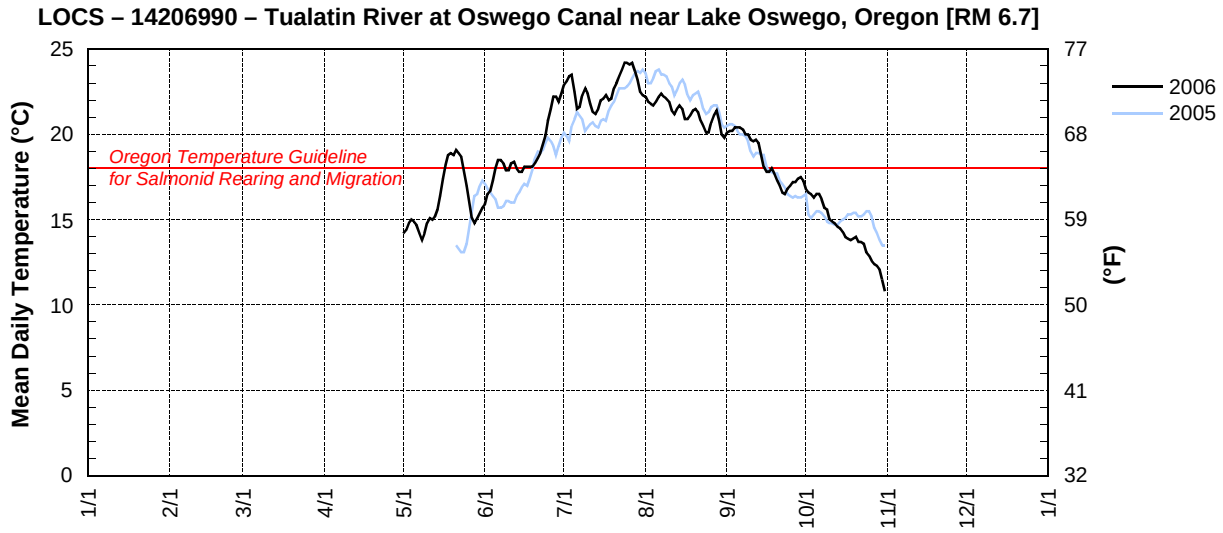
Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					11.7	15.3	16.8	15.5	14.4	13.0		
2					11.2	15.7	16.8	15.4	14.9	12.5		
3					12.2	15.4	17.0	15.4	15.1	12.3		
4					13.2	16.2	17.0	15.3	15.2	12.2		
5					13.6	16.4	16.5	15.3	15.2	12.2		
6					13.2	16.4	15.7	15.8	15.2	12.3		
7					12.2	15.8	15.3	16.3	15.0	12.1		
8					10.8	15.2	15.5	16.5	14.6	11.7		
9					11.0	14.3	16.2	16.5	14.6	11.5		
10					12.4	14.2	16.7	16.6	14.4	11.2		
11					13.8	14.9	16.2	16.1	14.0	10.8		
12					12.9	15.8	16.0	15.5	14.0	10.7		
13					12.5	15.4	15.9	15.3	14.1	10.7		
14					13.4	15.1	16.2	15.8	13.7	10.8		
15					15.4	14.9	16.6	15.8	13.4	10.9		
16					17.0	15.7	16.5	15.3	13.0	11.3		
17					17.1	15.3	16.4	15.1	13.0	11.5		
18					16.9	14.8	15.8	15.2	13.3	11.4		
19					16.5	14.5	15.7	15.5	13.9	11.5		
20					15.8	14.2	16.1	15.8	13.6	11.8		
21					15.8	14.3	16.6	16.0	13.4	11.4		
22					15.9	14.5	17.6	15.7	13.1	11.0		
23					15.2	14.8	18.1	15.3	12.7	10.9		
24					14.7	15.3	18.8	15.1	12.7	10.4		
25					13.9	16.4	18.7	14.8	13.1	10.0		
26					13.3	17.5	18.1	15.1	13.1	9.8		
27					12.4	18.2	18.0	15.5	13.2	9.4		
28					12.6	17.6	17.5	15.8	13.2	9.2		
29		—			13.4	16.6	16.6	15.8	13.3	9.2		
30		—			13.9	16.4	16.2	15.0	13.4	8.9		
31		—		—	14.8	—	15.7	14.4	—	8.2	—	
MEAN					13.8	15.6	16.7	15.6	13.9	11.0		
MAX					17.1	18.2	18.8	16.6	15.2	13.0		
MIN					10.8	14.2	15.3	14.4	12.7	8.2		



LOCS – 14206990 – TUALATIN RIVER AT OSWEGO CANAL NEAR LAKE OSWEGO, OREGON [RM 6.7]

Latitude: 45 22 57 Longitude: 122 43 17 Source Agency: District 18 Watermaster

Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					14.2	15.9	22.9	22.2	20.1	16.8		
2					14.4	16.5	23.1	21.9	20.2	16.6		
3					14.8	16.7	23.4	21.8	20.2	16.5		
4					15.0	17.3	23.5	21.7	20.4	16.3		
5					14.9	18.0	22.5	21.9	20.4	16.5		
6					14.7	18.5	21.5	22.2	20.4	16.5		
7					14.2	18.5	21.6	22.4	20.3	16.2		
8					13.8	18.3	22.3	22.2	20.0	15.7		
9					14.2	17.9	22.7	22.1	20.0	15.6		
10					14.8	17.9	22.4	21.9	19.7	15.0		
11					15.1	18.3	21.8	21.4	19.6	14.9		
12					15.0	18.4	21.3	21.2	19.7	14.8		
13					15.2	18.0	21.2	21.5	19.5	14.6		
14					15.6	17.8	21.5	21.7	18.8	14.5		
15					16.4	17.8	22.0	21.5	18.1	14.3		
16					17.4	18.1	22.1	20.9	17.8	14.0		
17					18.2	18.1	22.3	20.9	17.8	13.9		
18					18.8	18.1	22.0	21.1	18.0	13.8		
19					18.9	18.1	22.1	21.4	17.7	13.9		
20					18.8	18.3	22.7	21.5	17.3	14.0		
21					19.1	18.6	23.0	21.3	17.0	13.7		
22					18.9	18.9	23.4	20.8	16.6	13.7		
23					18.7	19.4	23.8	20.5	16.5	13.6		
24					17.9	19.9	24.2	20.1	16.8	13.1		
25					17.0	20.8	24.2	20.1	17.0	12.9		
26					16.1	21.5	24.1	20.7	17.2	12.6		
27					15.1	22.2	24.2	21.1	17.2	12.4		
28					14.8	22.2	23.7	21.4	17.4	12.3		
29		—			15.1	21.9	23.2	20.8	17.5	12.1		
30		—			15.4	22.4	22.5	20.0	17.3	11.5		
31		—		—	15.7	—	22.3	19.8	—	10.8	—	
MEAN					16.1	18.8	22.7	21.3	18.6	14.3		
MAX					19.1	22.4	24.2	22.4	20.4	16.8		
MIN					13.8	15.9	21.2	19.8	16.5	10.8		



UNITED STATES DEPARTMENT OF THE INTERIOR – GEOLOGICAL SURVEY — OREGON WATER SCIENCE CENTER

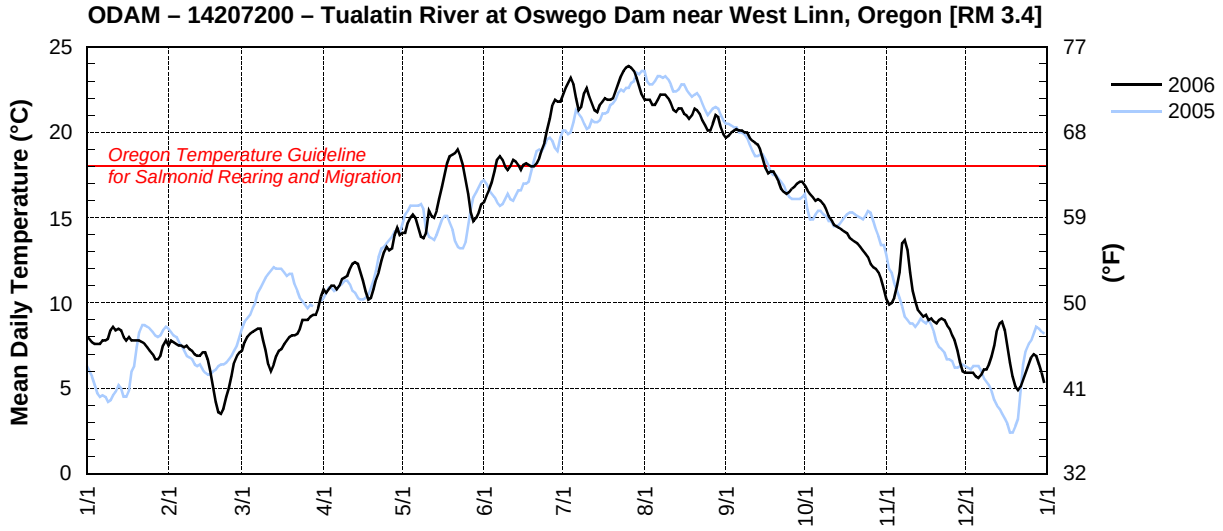
STATION NUMBER 14207200 TUALATIN RIVER AT OSWEGO DAM, NEAR WEST LINN, OR.

LATITUDE: 452124 LONGITUDE: 1224102

Water Temperature, degrees Celsius, Calendar Year January to December 2006 Daily Mean Values

Day	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT†	NOV†	DEC†
1	8.0	7.5	7.2	10.8	14.1	15.9	22.2	21.9	19.7	16.9	10.2	5.9
2	7.9	7.8	7.7	10.6	14.1	16.3	22.6	21.9	19.8	16.6	9.9	5.9
3	7.7	7.7	8.0	10.7	14.7	16.7	22.9	21.9	20.0	16.4	10.0	5.9
4	7.6	7.6	8.2	11.0	15.0	17.1	23.2	21.6	20.1	16.2	10.3	5.9
5	7.6	7.5	8.3	11.0	15.2	17.7	22.8	21.6	20.2	16.0	11.0	5.7
6	7.6	7.5	8.4	10.8	15.0	18.4	22.0	21.9	20.1	16.1	11.8	5.6
7	7.8	7.4	8.5	11.0	14.4	18.6	21.3	22.2	20.2	16.0	13.5	5.8
8	7.8	7.5	8.5	11.4	13.9	18.4	21.5	22.2	20.0	15.8	13.7	6.1
9	7.9	7.3	7.9	11.5	13.8	18.0	22.2	22.3	20.0	15.5	13.1	6.1
10	8.4	7.2	7.2	11.6	14.1	17.8	22.6	22.0	19.7	15.1	11.8	6.4
11	8.6	7.0	6.4	12.0	15.4	17.9	22.2	21.7	19.5	14.9	10.7	6.9
12	8.4	6.9	6.0	12.3	15.1	18.4	21.7	21.3	19.4	14.6	10.1	7.5
13	8.5	6.9	6.3	12.4	15.0	18.3	21.3	21.1	19.3	14.5	9.6	8.3
14	8.4	7.1	6.9	12.3	15.4	18.1	21.2	21.4	19.0	14.4	9.4	8.8
15	8.0	7.1	7.2	11.8	16.1	17.8	21.6	21.4	18.5	14.3	9.2	8.9
16	7.8	6.7	7.3	11.3	16.8	18.0	21.8	21.1	17.9	14.2	9.3	8.4
17	8.0	6.0	7.6	10.7	17.5	18.2	22.0	21.0	17.6	14.1	9.0	7.5
18	7.8	5.0	7.8	10.2	18.2	18.1	21.9	20.8	17.7	13.8	9.1	6.5
19	7.8	4.2	8.0	10.2	18.6	18.0	21.9	21.0	17.8	13.7	8.9	5.7
20	7.8	3.7	8.1	10.8	18.7	18.0	22.0	21.4	17.5	13.6	8.8	5.1
21	7.8	3.5	8.1	11.4	18.8	18.2	22.4	21.3	17.1	13.5	9.0	4.9
22	7.7	3.8	8.2	11.8	19.0	18.5	22.8	21.2	16.7	13.3	9.1	5.1
23	7.6	4.5	8.4	12.5	18.6	19.0	23.3	20.7	16.5	13.1	9.0	5.5
24	7.4	5.0	9.0	13.0	18.1	19.4	23.6	20.4	16.4	12.9	8.7	5.9
25	7.2	5.7	9.0	13.3	17.2	20.1	23.8	20.1	16.5	12.7	8.5	6.4
26	7.0	6.5	9.0	13.1	16.4	20.8	23.9	20.1	16.7	12.3	8.1	6.8
27	6.8	6.9	9.2	13.2	15.4	21.6	23.8	20.5	16.8	12.1	7.8	7.0
28	6.7	7.1	9.3	14.0	14.8	21.9	23.6	21.0	17.0	12.0	7.2	6.9
29	6.9	—	9.3	14.4	15.0	21.9	23.2	20.9	17.1	11.8	6.5	6.4
30	7.5	—	9.6	14.0	15.3	21.8	22.7	20.3	17.1	11.4	6.0	5.9
31	7.8	—	10.4	—	15.8	—	22.2	19.9	—	10.8	—	5.3
MEAN	7.7	6.4	8.1	11.8	16.0	18.6	22.5	21.2	18.4	14.1	9.6	6.4
MAX	8.6	7.8	10.4	14.4	19.0	21.9	23.9	22.3	20.2	16.9	13.7	8.9
MIN	6.7	3.5	6.0	10.2	13.8	15.9	21.2	19.9	16.4	10.8	6.0	4.9

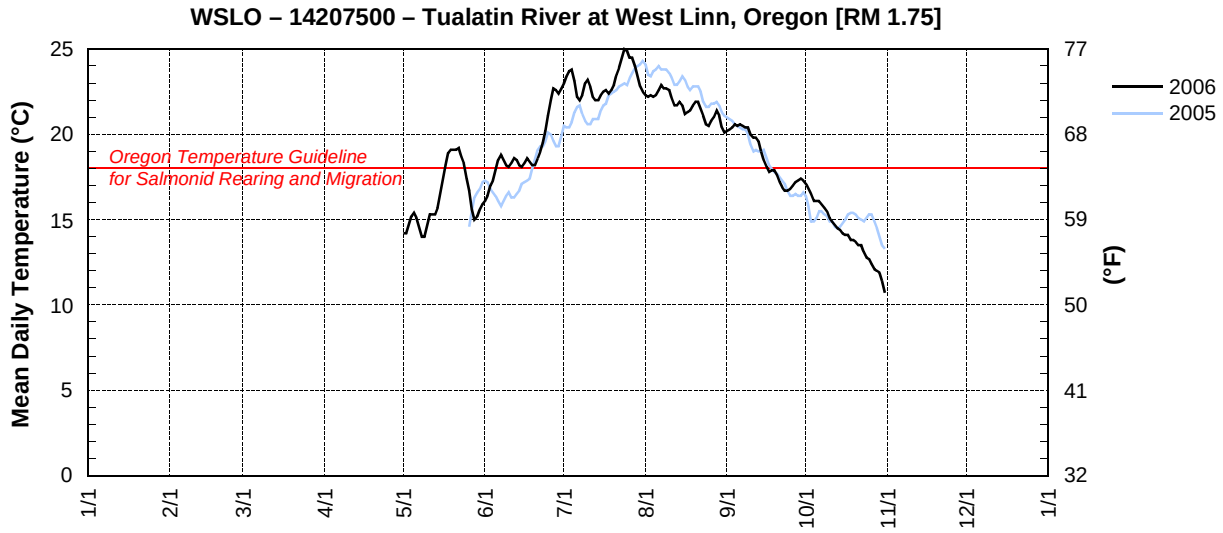
† Provisional data–subject to revision



WSLO – 14207500 – TUALATIN RIVER AT WEST LINN, OREGON [RM 1.75]

Latitude: 45 22 57 Longitude: 122 43 17 Source Agency: District 18 Watermaster

Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					14.2	16.1	23.0	22.3	20.2	17.1		
2					14.2	16.4	23.4	22.2	20.3	16.8		
3					14.7	17.0	23.7	22.3	20.4	16.5		
4					15.2	17.3	23.8	22.2	20.6	16.1		
5					15.4	17.9	23.1	22.3	20.5	16.1		
6					15.1	18.5	22.2	22.6	20.6	16.1		
7					14.5	18.8	22.0	22.9	20.5	15.9		
8					14.0	18.5	22.3	22.7	20.4	15.7		
9					14.0	18.2	23.0	22.7	20.4	15.5		
10					14.6	18.1	23.2	22.6	20.0	15.1		
11					15.3	18.3	22.8	22.1	19.8	14.9		
12					15.3	18.6	22.2	21.7	19.8	14.7		
13					15.3	18.5	22.0	21.7	19.6	14.5		
14					15.7	18.2	22.0	21.9	19.0	14.4		
15					16.5	18.1	22.3	21.7	18.5	14.2		
16					17.4	18.3	22.5	21.2	18.1	14.1		
17					18.2	18.6	22.6	21.3	17.8	14.1		
18					18.9	18.4	22.4	21.4	17.9	13.8		
19					19.1	18.2	22.6	21.7	17.9	13.8		
20					19.1	18.2	22.9	21.9	17.6	13.7		
21					19.1	18.6	23.5	21.9	17.2	13.5		
22					19.2	19.0	23.9	21.5	16.9	13.5		
23					18.7	19.5	24.5	21.1	16.7	13.1		
24					18.3	20.2	25.0	20.6	16.7	12.8		
25					17.4	21.1	24.9	20.5	16.8	12.7		
26					16.7	22.0	24.5	20.8	17.0	12.4		
27					15.6	22.7	24.5	21.0	17.2	12.1		
28					15.0	22.6	24.0	21.4	17.3	12.0		
29		—			15.2	22.4	23.4	21.1	17.4	11.9		
30		—			15.6	22.7	22.8	20.4	17.3	11.4		
31		—		—	15.9	—	22.5	20.1	—	10.7	—	
MEAN					16.2	19.0	23.1	21.7	18.7	14.2		
MAX					19.2	22.7	25.0	22.9	20.6	17.1		
MIN					14.0	16.1	22.0	20.1	16.7	10.7		

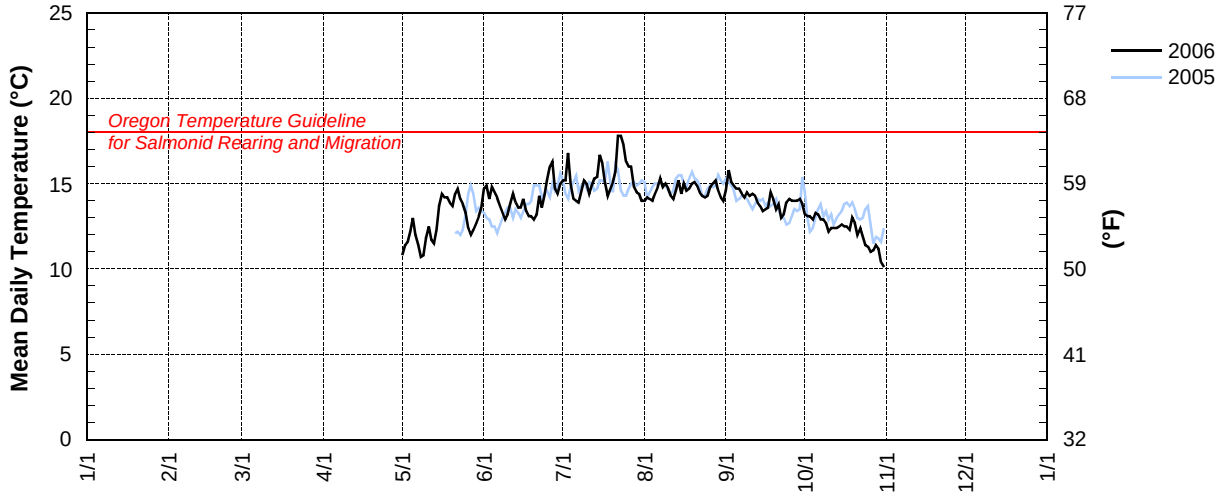


SPBR – 14211116 – SPRINGBROOK CREEK AT IRON MOUNTAIN RD NEAR LAKE OSWEGO, OREGON [RM 0.18]

Latitude: 45 24 46 Longitude: 122 42 13 Source Agency: District 18 Watermaster

Day	2006 Mean Daily Water Temperature in Degrees Celsius											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1					10.8	14.7	15.2	14.0	14.6	13.2		
2					11.4	14.9	15.2	14.2	15.8	13.1		
3					11.6	14.1	16.8	14.1	15.1	13.1		
4					12.2	14.8	15.0	14.0	14.9	12.9		
5					13.0	14.5	14.1	14.4	14.7	13.3		
6					12.0	14.2	14.0	14.8	14.7	13.2		
7					11.4	13.7	13.9	15.3	14.4	12.9		
8					10.7	13.3	14.5	14.8	14.2	12.9		
9					10.8	12.9	15.2	15.0	14.5	12.7		
10					11.8	13.2	15.0	14.7	14.3	12.2		
11					12.5	13.8	14.4	14.3	14.4	12.4		
12					11.7	14.4	14.9	14.1	14.3	12.4		
13					11.5	13.9	15.3	14.6	13.9	12.4		
14					12.3	13.6	15.4	15.2	13.7	12.5		
15					13.7	13.6	16.7	14.4	13.4	12.6		
16					14.4	14.1	16.2	15.0	13.5	12.5		
17					14.2	13.4	15.1	14.6	13.6	12.5		
18					14.2	13.1	14.3	14.7	14.5	12.3		
19					13.9	13.1	14.7	15.0	14.1	13.0		
20					13.7	12.9	15.1	15.1	13.5	12.7		
21					14.4	13.2	15.7	14.9	13.8	12.0		
22					14.7	14.3	17.8	14.5	13.0	12.4		
23					14.1	13.6	17.8	14.3	13.2	11.9		
24					13.8	14.3	17.3	14.2	13.9	11.4		
25					13.3	15.2	16.3	14.3	14.1	11.3		
26					12.4	16.0	16.0	14.8	14.0	11.0		
27					12.0	16.3	16.0	15.0	14.0	11.1		
28					12.3	14.7	14.8	15.2	14.0	11.4		
29		—			12.7	14.4	14.5	14.6	14.1	11.2		
30		—			13.1	15.0	14.4	14.2	13.8	10.4		
31		—		—	13.6	—	14.0	14.0	—	10.1	—	
MEAN					12.7	14.1	15.3	14.6	14.1	12.2		
MAX					14.7	16.3	17.8	15.3	15.8	13.3		
MIN					10.7	12.9	13.9	14.0	13.0	10.1		

SPBR – 14211116 – Springbrook Creek at Iron Mountain Rd near Lake Oswego, Oregon [RM 0.18]



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Appendix G

Hagg Lake Monitoring
2006 Data

The following data are provisional and have not been fully reviewed or edited.

HAGG LAKE MONITORING PROGRAM 2006 — DATA LIST

DATA TABLE	PAGE
Hagg Lake	
Physical and chemical data, including field data	G–3
Bacteriological data	G–6
Phytoplankton density and biovolume	G–7
Zooplankton density	G–10
Zooplankton length frequency	G–12
Petroleum hydrocarbons	G–6
Hagg Lake Tributaries	
Physical and chemical data, including field data	G–13
Bacteriological data	G–15
Benthic Invertebrate Index of Biological Integrity (BIBI)	G–16
Benthic community indicators of biological condition	G–16
Benthic invertebrate density	G–17
Weather Observations	G–19

HAGG LAKE MONITORING 2006 — PHYSICAL AND CHEMICAL DATA (SHEET 1 OF 3)

[Abbreviations: DO=dissolved oxygen; Cond.=conductivity; Turbid.=turbidity; Transpar=transparancy; DUP=duplicate samples; Total P=total phosphorus; SRP=soluble reactive phosphorus; TKN=total Kjeldahl nitrogen; PP=phytoplankton; Bacti=bacteria; Chlor a=chlorophyll *a*; *some DO measurements were compromised in 2006 and all may be questionable]

		FIELD DATA									RESULTS OF CHEMICAL ANALYSES					
Date	**Time**	**Air Temp** (ºC)	**Analyses**	**Depth** (m)	**Water Temp** (ºC)	**pH**	**DO*** (mg/L)	**Cond.** (µS/cm)	**Turbid.** (NTU)	**Transpar**	**Dup**	**Total P** (mg/L as P)	**SRP** (mg/L as P)	**Ammonia** (mg/L as N)	**TKN** (mg/L as N)	**Chlorophyll *a*** (µg/L)
05/01/06	10:40		PP	0.0	15.0	7.92		60.0	0.5							
05/01/06	10:40		Bacti	0.0	15.0	7.92		60.0	0.5							
05/01/06	10:35		Bacti	1.0	14.9	7.85		60.0	0.6							
05/01/06	10:35		Chlor-a	1.0	14.9	7.85		60.0	0.6							0.90
05/01/06	10:35		Nutrients	1.0	14.9	7.85		60.0	0.6			<0.010	0.003	0.01	0.08	
05/01/06	10:30		Nutrients	5.0	14.2	7.79		60.0	0.8			0.01	<0.003	0.01	0.09	
05/01/06	10:25		Nutrients	12.5	7.5	7.50		60.0	1.4		A	0.02	<0.003	0.02	0.18	
05/01/06	10:25		Nutrients	12.5	7.5	7.50		60.0	1.4		B	0.01	<0.003	0.02	0.11	
05/01/06	10:20	8.0	Nutrients	25.0	6.5	7.49		60.0	10.1	117 inch		0.01	<0.003	<0.01	0.10	
05/15/06	10:30		PP	0.0	17.6	7.50		61.0	0.3							
05/15/06	10:30		Bacti	0.0	17.6	7.50		61.0	0.3							
05/15/06	10:20		Bacti	1.0	17.0	7.92		61.0	0.8							
05/15/06	10:20		Chlor-a	1.0	17.0	7.92		61.0	0.8							2.2
05/15/06	10:20		Nutrients	1.0	17.0	7.92		61.0	0.8			<0.01	<0.003	<0.01		
05/15/06	10:10		Nutrients	4.0	16.1	7.81		61.0	0.3			0.014	<0.003	<0.01		
05/15/06	10:10		Nutrients	4.0	16.1	7.81		61.0	0.3			0.011	<0.003	<0.01		
05/15/06	9:55		Nutrients	20.0	6.9	6.94		59.0	1.7			0.012	<0.003	<0.01		
05/15/06	9:40	21.0	Nutrients	30.0	6.6	7.06		60.0	4.5	236 inch		0.013	<0.003	<0.01		
06/05/06	11:59		PP	0.0	19.3	8.77	13.58	62.0	0.4							
06/05/06	11:59		Bacti	0.0	19.3	8.77	13.58	62.0	0.4							
06/05/06	11:50		Bacti	1.0	19.2	8.56	13.66	62.0	0.2							
06/05/06	11:50		Chlor-a	1.0	19.2	8.56	13.66	62.0	0.2							2.2
06/05/06	11:50		Nutrients	1.0	19.2	8.56	13.66	62.0	0.2			0.015	<0.003	<0.01	0.14	
06/05/06	11:42		Nutrients	7.0	13.7	7.36	14.59	64.0	0.2			0.011	<0.003	<0.01	0.1	
06/05/06	11:35		Nutrients	17.0	7.5	7.18	11.19	60.0	1.4			<0.010	<0.003	<0.01	0.05	
06/05/06	11:28	17.0	Nutrients	29.0	6.9	7.16	10.45	61.0	3.3	170 inch	A	0.012	0.003	0.01	0.08	
06/05/06	11:28		Nutrients	29.0	6.9	7.16	10.45	61.0	3.3		B	0.015	0.005	<0.01	0.04	
07/10/06	10:40		PP	0.0	24.0	7.95	12.04	65.0	2.2							
07/10/06	10:40		Bacti	0.0	24.0	7.95	12.04	65.0	2.2							
07/10/06	10:35		Bacti	1.0	24.0	7.89	12.09	66.0	2.3							
07/10/06	10:35		Chlor-a	1.0	24.0	7.89	12.09	66.0	2.3							1.5
07/10/06	10:35		Nutrients	1.0	24.0	7.89	12.09	66.0	2.3			0.012	<0.003	<0.01	0.09	
07/10/06	10:30		Nutrients	6.5	17.9	7.77	16.41	66.0	0.8		A	0.013	<0.003	<0.01	0.11	
07/10/06	10:30		Nutrients	6.5	17.9	7.77	16.41	66.0	0.8		B	0.011	<0.003	<0.01	0.13	
07/10/06	10:25		Nutrients	14.0	9.2	7.14	12.30	61.0	1.0			0.013	<0.003	0.02	0.09	
07/10/06	10:20	14.0	Nutrients	29.0	7.0	7.08	5.58	66.0	7.2	70 inch		0.024	<0.003	0.02	0.1	

HAGG LAKE MONITORING 2006 — PHYSICAL AND CHEMICAL DATA (CONTINUED) (SHEET 2 OF 3)

[Abbreviations: DO=dissolved oxygen; Cond.=conductivity; Turbid.=turbidity; Transpar=transparancy; DUP=duplicate samples; Total P=total phosphorus; SRP=soluble reactive phosphorus; TKN=total Kjeldahl nitrogen; PP=phytoplankton; Bacti=bacteria; Chlor a=chlorophyll *a*; *some DO measurements were compromised in 2006 and all may be questionable]

		FIELD DATA									RESULTS OF CHEMICAL ANALYSES					
Date	Time	Air Temp (ºC)	Analyses	Depth (m)	Water Temp (ºC)	pH	DO* (mg/L)	Cond. (µS/cm)	Turbid. (NTU)	Transpar	Dup	Total P (mg/L as P)	SRP (mg/L as P)	Ammonia (mg/L as N)	TKN (mg/L as N)	Chlorophyll *a* (µg/L)
07/27/06	10:30		PP	0.0	26.2	8.06	10.80	66.0	2.4							
07/27/06	10:30		Bacti	0.0	26.2	8.06	10.80	66.0	2.4							
07/27/06	10:22		Bacti	1.0	26.0	7.99	10.89	66.0	2.4							
07/27/06	10:22		Chlor-a	1.0	26.0	7.99	10.89	66.0	2.4							1.3
07/27/06	10:22		Nutrients	1.0	26.0	7.99	10.89	66.0	2.4		A	0.012	<0.003	<0.01	0.14	
07/27/06	10:22		Nutrients	1.0	26.0	7.99	10.89	66.0	2.4		B	0.012	<0.003	<0.01	0.13	
07/27/06	10:14		Nutrients	5.0	23.4	7.66	12.18	66.0	1.5			0.012	<0.003	<0.01	0.15	
07/27/06	10:08		Nutrients	18.0	7.9	7.03	6.31	63.0	1.8			0.013	<0.003	<0.01	0.08	
07/27/06	10:00	21.0	Nutrients	27.0	7.3	7.12	4.08	66.0	6.4	58 inch		0.016	<0.003	0.01	0.13	
09/11/06	11:15		PP	0.0	21.2	7.78	10.81	69.0	0.7							
09/11/06	11:15		Bacti	0.0	21.2	7.78	10.81	69.0	0.7							
09/11/06	11:10		Bacti	1.0	21.1	7.67	10.93	69.0	0.7							
09/11/06	11:10		Chlor-a	1.0	21.1	7.67	10.93	69.0	0.7							1.6
09/11/06	11:10		Nutrients	1.0	21.1	7.67	10.93	69.0	0.7			<0.010	<0.003	<0.01	0.12	
09/11/06	11:01		Nutrients	7.0	20.6	7.25	9.61	69.0	0.8			<0.010	<0.003	<0.01	0.12	
09/11/06	10:54		Nutrients	17.0	8.8	6.92	0.85	70.0	3.4			0.011	<0.003	<0.01	0.11	
09/11/06	10:35	15.5	Nutrients	22.0	8.2	7.04	0.06	73.0	4.5	117 inch	A	0.014	0.004	0.01	0.12	
09/11/06	10:40		Nutrients	22.0	8.2	7.04	0.06	73.0	4.5		B	0.011	<0.003	0.01	0.12	
09/25/06	11:20		PP	0.0	19.5	7.65		70.0	0.3							
09/25/06	11:20		Bacti	0.0	19.5	7.65		70.0	0.3							
09/25/06	11:15		Bacti	1.0	18.9	7.56		70.0	0.6							
09/25/06	11:15		Chlor-a	1.0	18.9	7.56		70.0	0.6							2.6
09/25/06	11:15		Nutrients	1.0	18.9	7.56		70.0	0.6			<0.010	<0.003	<0.01	0.09	
09/25/06	11:10		Nutrients	6.0	18.6	7.34		69.0	1.2		A	0.010	<0.003	<0.01	0.13	
09/25/06	11:10		Nutrients	6.0	18.6	7.34		69.0	1.2		B	0.010	<0.003	<0.01	0.12	
09/25/06	11:02		Nutrients	17.0	8.7	6.98		73.0	3.5			0.020	<0.003	0.02	0.11	
09/25/06	10:54	18.5	Nutrients	22.0	8.2	6.95		108.0	1.6	111 inch		0.036	0.007	0.14	0.35	
10/02/06	12:20		PP	0.0	19.1	7.69		70.0	0.9							
10/02/06	12:20		Bacti	0.0	19.1	7.69		70.0	0.9							
10/02/06	12:15		Bacti	1.0	19.0	7.49		70.0	0.9							
10/02/06	12:15		Chlor-a	1.0	19.0	7.49		70.0	0.9							2.0
10/02/06	12:15		Nutrients	1.0	19.0	7.49		70.0	0.9			<0.010	<0.003	<0.01	0.10	
10/02/06	12:10		Nutrients	10.0	17.9	7.03		71.0	1.4			<0.010	<0.003	<0.01	0.10	
10/02/06	12:05		Nutrients	14.5	9.4	6.10		74.0	2.6		A	<0.010	<0.003	0.01	0.10	
10/02/06	12:05		Nutrients	14.5	9.4	6.10		74.0	2.6		B	<0.010	<0.003	<0.01	0.12	
10/02/06	12:00	10.0	Nutrients	19.0	8.3	4.63		93.0	1.6	109 inch		0.018	0.003	0.06	0.25	

HAGG LAKE MONITORING 2006 — PHYSICAL AND CHEMICAL DATA (CONTINUED) (SHEET 3 OF 3)

[Abbreviations: DO=dissolved oxygen; Cond.=conductivity; Turbid.=turbidity; Transpar=transparancy; DUP=duplicate samples; Total P=total phosphorus; SRP=soluble reactive phosphorus; TKN=total Kjeldahl nitrogen; PP=phytoplankton; Bacti=bacteria; Chlor a=chlorophyll *a*; *some DO measurements were compromised in 2006 and all may be questionable]

		FIELD DATA									RESULTS OF CHEMICAL ANALYSES					
Date	**Time**	**Air Temp** (ºC)	**Analyses**	**Depth** (m)	**Water Temp** (ºC)	**pH**	**DO*** (mg/L)	**Cond.** (µS/cm)	**Turbid.** (NTU)	**Transpar**	**Dup**	**Total P** (mg/L as P)	**SRP** (mg/L as P)	**Ammonia** (mg/L as N)	**TKN** (mg/L as N)	**Chlorophyll *a*** (µg/L)
10/16/06	12:20		PP	0.0	16.4			1.0	1.0							
10/16/06	12:20		Bacti	0.0	16.4			71.0	1.3							
10/16/06	12:15		Bacti	1.0	16.4				1.2							
10/16/06	12:15		Chlor-a	1.0	16.4				1.2							2.4
10/16/06	12:15		Nutrients	1.0	16.4			71.0	1.2		A	0.010	<0.003	<0.01	0.22	
10/16/06	12:15		Nutrients	1.0	16.4				1.2		B	<0.010	<0.003	<0.01	0.14	
10/16/06	12:10		Nutrients	9.0	16.1			71.0	1.6			<0.010	<0.003	<0.01	0.13	
10/16/06	12:05		Nutrients	12.0	9.6			75.0	4.2			0.015	<0.003	0.02	0.13	
10/16/06	12:00	10.0	Nutrients	18.5	8.3				1.4	83 inch		0.016	<0.003	0.04	0.16	

HAGG LAKE MONITORING 2006 — PETROLEUM HYDROCARBON ANALYSES

Date	Gasoline Range (µg/L)	Diesel Range (µg/L)
5/15/2006	<50	<50
7/27/2006	<50	< 50
9/15/2006	<50	< 50
10/16/2006	<50	< 50

HAGG LAKE MONITORING 2006 — BACTERIOLOGICAL DATA

Date	Time	Sample Depth (m)	*E. coli* /100 ml (MPN)	Total Coliform/100 ml (MPN)
05/01/06	10:40	0.0	<1	3
05/01/06	10:35	1.0	<1	5
05/15/06	10:30	0.0	<1	>2419
05/15/06	10:20	1.0	<1	>2419
06/05/06	11:59	0.0	1	23
06/05/06	11:50	1.0	1	19
07/10/06	10:40	0.0	<1	38
07/10/06	10:35	1.0	<1	37
07/27/06	10:30	0.0	<1	102
07/27/06	10:22	1.0	1	89
09/11/06	11:15	0.0	<1	1733
09/11/06	11:10	1.0	<1	2419
09/25/06	11:20	0.0	<1	44
09/25/06	11:15	1.0	<1	72
10/02/06	12:20	0.0	<1	64
10/02/06	12:15	1.0	<1	52
10/16/06	12:20	0.0	<1	57
10/16/06	12:15	1.0	<1	52

HAGG LAKE MONITORING 2006 — PHYTOPLANKTON DENSITY & BIOVOLUME (SHEET 1 OF 3)

Date	Species	Genus	Density		Biovolume	
			number/mL	percent	μm^3/mL	percent
		Trophic State Index = 24.9				
5/1/2006	*Asterionella formosa*	Baccillariophyta (Diatoms)	5	2.4	4,811	15.7
5/1/2006	*Cyclotella comta*	Baccillariophyta (Diatoms)	3	1.2	6,205	20.2
5/1/2006	*Nitzschia palea*	Baccillariophyta (Diatoms)	22	9.5	3,936	12.8
5/1/2006	*Nitzschia paleacea*	Baccillariophyta (Diatoms)	3	1.2	268	0.9
5/1/2006	*Nitzschia sp.*	Baccillariophyta (Diatoms)	3	1.2	328	1.1
5/1/2006	*Synedra rumpens*	Baccillariophyta (Diatoms)	3	1.2	383	1.2
5/1/2006	*Ankistrodesmus falcatus*	Chlorophyta (Green Algae)	63	27.4	2,672	8.7
5/1/2006	*Cryptomonas erosa*	Cryptophyta	19	8.3	9,949	32.4
5/1/2006	*Rhodomonas minuta*	Cryptophyta	109	47.6	2,187	7.1
5/1/2006	**Total**		**230**	**100**	**30,738**	**100**
		Trophic State Index = 28.8				
5/15/2006	*Asterionella formosa*	Baccillariophyta (Diatoms)	3	0.9	1,837	3.5
5/15/2006	*Cyclotella comta*	Baccillariophyta (Diatoms)	14	4.7	31,598	59.7
5/15/2006	*Fragilaria vaucheria*	Baccillariophyta (Diatoms)	3	0.9	802	1.5
5/15/2006	*Melosira italica*	Baccillariophyta (Diatoms)	3	0.9	5,245	9.9
5/15/2006	*Synedra rumpens*	Baccillariophyta (Diatoms)	6	1.9	780	1.5
5/15/2006	*Ankistrodesmus falcatus*	Chlorophyta (Green Algae)	3	0.9	70	0.1
5/15/2006	*Oocystis pusilla*	Chlorophyta (Green Algae)	6	1.9	1,203	2.3
5/15/2006	*Sphaerocystis schroeteri*	Chlorophyta (Green Algae)	3	0.9	780	1.5
5/15/2006	*Dinobryon sertularia*	Chrysophyta (Golden-brown algae)	3	0.9	331	0.6
5/15/2006	*Mallomonas sp.*	Chrysophyta (Golden-brown algae)	3	0.9	1,058	2.0
5/15/2006	*Cryptomonas erosa*	Cryptophyta	8	2.8	4,343	8.2
5/15/2006	*Rhodomonas minuta*	Cryptophyta	242	81.3	4,844	9.1
5/15/2006	*Unidentified flagellate*	—	3	0.9	56	0.1
5/15/2006	**Total**		**298**	**100**	**52,945**	**100**
		Trophic State Index = 39.9				
6/5/2006	*Achnanthes minutissima*	Baccillariophyta (Diatoms)	8	5.3	469	0.2
6/5/2006	*Asterionella formosa*	Baccillariophyta (Diatoms)	8	5.3	9,450	3.8
6/5/2006	*Cyclotella comta*	Baccillariophyta (Diatoms)	41	27.6	93,070	37.3
6/5/2006	*Fragilaria crotonensis*	Baccillariophyta (Diatoms)	2	1.3	16,400	6.6
6/5/2006	*Melosira italica*	Baccillariophyta (Diatoms)	6	3.9	9,380	3.8
6/5/2006	*Synedra rumpens*	Baccillariophyta (Diatoms)	2	1.3	273	0.1
6/5/2006	*Ankistrodesmus falcatus*	Chlorophyta (Green Algae)	4	2.6	195	0.1
6/5/2006	*Dinobryon sertularia*	Chrysophyta (Golden-brown algae)	8	5.3	1,115	0.4
6/5/2006	*Cryptomonas erosa*	Cryptophyta	31	21.1	16,244	6.5
6/5/2006	*Rhodomonas minuta*	Cryptophyta	2	1.3	39	0.0
6/5/2006	*Anabaena flos-aquae*	Cyanophyta (Blue-green algae)	6	3.9	5,857	2.3
6/5/2006	*Aphanizomenon flos-aquae*	Cyanophyta (Blue-green algae)	6	3.9	12,506	5.0
6/5/2006	*Chrysochromulina sp.*	Haptophyta	2	1.3	39	0.0
6/5/2006	*Peridinium cinctum*	Pyrrhophyta (Dinoflagellates)	20	13.2	82,000	32.8
6/5/2006	*Glenodinium sp.*	Pyrrophycophyta (Dinoflagellates)	4	2.6	2,733	1.1
6/5/2006	**Total**		**148**	**100**	**249,770**	**100**
		Trophic State Index = 47.1				
7/10/2006	*Achnanthes minutissima*	Baccillariophyta (Diatoms)	7	5.5	362	0.1
7/10/2006	*Achnanthes prava*	Baccillariophyta (Diatoms)	2	1.4	254	0.0
7/10/2006	*Asterionella formosa*	Baccillariophyta (Diatoms)	4	2.7	3,188	0.5
7/10/2006	*Cyclotella comta*	Baccillariophyta (Diatoms)	2	1.4	4,112	0.6
7/10/2006	*Cymbella minuta*	Baccillariophyta (Diatoms)	2	1.4	670	0.1
7/10/2006	*Fragilaria crotonensis*	Baccillariophyta (Diatoms)	82	61.6	650,418	95.5
7/10/2006	*Cryptomonas erosa*	Cryptophyta	13	9.6	6,593	1.0
7/10/2006	*Rhodomonas minuta*	Cryptophyta	18	13.7	362	0.1
7/10/2006	*Peridinium cinctum*	Pyrrhophyta (Dinoflagellates)	4	2.7	15,214	2.2
7/10/2006	**Total**		**132**	**100**	**681,173**	**100**

HAGG LAKE MONITORING 2006 — PHYTOPLANKTON DENSITY & BIOVOLUME (CONTINUED) (SHEET 2 OF 3)

Date	Species	Genus	Density		Biovolume	
			number/mL	percent	μm^3/mL	percent
		Trophic State Index = 17.4				
7/27/2006	*Achnanthes minutissima*	Baccillariophyta (Diatoms)	4	12.5	213	2.1
7/27/2006	*Asterionella formosa*	Baccillariophyta (Diatoms)	1	4.2	312	3.1
7/27/2006	*Nitzschia paleacea*	Baccillariophyta (Diatoms)	3	8.3	278	2.7
7/27/2006	*Nitzschia sp.*	Baccillariophyta (Diatoms)	1	4.2	170	1.7
7/27/2006	*Stephanodiscus binderanus*	Baccillariophyta (Diatoms)	1	4.2	468	4.6
7/27/2006	*Synedra radians*	Baccillariophyta (Diatoms)	4	12.5	1,532	15.1
7/27/2006	*Synedra rumpens*	Baccillariophyta (Diatoms)	6	16.7	794	7.8
7/27/2006	*Synedra ulna*	Baccillariophyta (Diatoms)	1	4.2	2,822	27.9
7/27/2006	*Scenedesmus denticulatus*	Chlorophyta (Green Algae)	1	4.2	255	2.5
7/27/2006	*Dinobryon sertularia*	Chrysophyta (Golden-brown algae)	3	8.3	338	3.3
7/27/2006	*Cryptomonas erosa*	Cryptophyta	3	8.3	1,475	14.6
7/27/2006	*Rhodomonas minuta*	Cryptophyta	3	8.3	57	0.6
7/27/2006	*Anabaena flos-aquae*	Cyanophyta (Blue-green algae)	1	4.2	1,418	14.0
7/27/2006	**Total**		**34**	**100**	**10,132**	**100**
		Trophic State Index = 30.9				
9/11/2006	*Achnanthes lanceolata*	Baccillariophyta (Diatoms)	1	2.3	245	0.3
9/11/2006	*Achnanthes minutissima*	Baccillariophyta (Diatoms)	1	2.3	68	0.1
9/11/2006	*Cyclotella comta*	Baccillariophyta (Diatoms)	1	2.3	3,084	4.3
9/11/2006	*Cyclotella stelligera*	Baccillariophyta (Diatoms)	10	16.3	523	0.7
9/11/2006	*Cymbella minuta*	Baccillariophyta (Diatoms)	1	2.3	503	0.7
9/11/2006	*Diploneis elliptica*	Baccillariophyta (Diatoms)	5	9.3	1,413	2.0
9/11/2006	*Fragilaria crotonensis*	Baccillariophyta (Diatoms)	3	4.7	25,104	35.1
9/11/2006	*Gomphonema subclavatum*	Baccillariophyta (Diatoms)	1	2.3	815	1.1
9/11/2006	*Melosira italica*	Baccillariophyta (Diatoms)	3	4.7	5,119	7.2
9/11/2006	*Navicula gregaria*	Baccillariophyta (Diatoms)	1	2.3	238	0.3
9/11/2006	*Nitzschia frustulum*	Baccillariophyta (Diatoms)	3	4.7	326	0.5
9/11/2006	*Nitzschia paleacea*	Baccillariophyta (Diatoms)	1	2.3	133	0.2
9/11/2006	*Synedra rumpens*	Baccillariophyta (Diatoms)	7	11.6	951	1.3
9/11/2006	*Ankistrodesmus falcatus*	Chlorophyta (Green Algae)	1	2.3	34	0.0
9/11/2006	*Kephyrion spirale*	Chrysophyta (Golden-brown algae)	1	2.3	86	0.1
9/11/2006	*Cryptomonas erosa*	Cryptophyta	1	2.3	706	1.0
9/11/2006	*Rhodomonas minuta*	Cryptophyta	4	7.0	82	0.1
9/11/2006	*Anabaena planctonica*	Cyanophyta (Blue-green algae)	3	4.7	13,655	19.1
9/11/2006	*Aphanizomenon flos-aquae*	Cyanophyta (Blue-green algae)	8	14.0	18,427	25.8
9/11/2006	**Total**		**58**	**100**	**71,509**	**100**
		Trophic State Index = 33.4				
9/25/2006	*Achnanthes minutissima*	Baccillariophyta (Diatoms)	2	2.0	97	0.1
9/25/2006	*Asterionella formosa*	Baccillariophyta (Diatoms)	29	30.0	14,723	14.4
9/25/2006	*Fragilaria crotonensis*	Baccillariophyta (Diatoms)	23	24.0	19,553	19.2
9/25/2006	*Melosira italica*	Baccillariophyta (Diatoms)	10	10.0	18,273	17.9
9/25/2006	*Nitzschia clausii*	Baccillariophyta (Diatoms)	2	2.0	621	0.6
9/25/2006	*Synedra radians*	Baccillariophyta (Diatoms)	4	4.0	1,397	1.4
9/25/2006	*Synedra rumpens*	Baccillariophyta (Diatoms)	12	12.0	1,629	1.6
9/25/2006	*Sphaerocystis schroeteri*	Chlorophyta (Green Algae)	2	2.0	407	0.4
9/25/2006	*Anabaena flos-aquae*	Cyanophyta (Blue-green algae)	2	2.0	1,940	1.9
9/25/2006	*Anabaena planctonica*	Cyanophyta (Blue-green algae)	4	4.0	19,499	19.1
9/25/2006	*Aphanizomenon flos-aquae*	Cyanophyta (Blue-green algae)	6	6.0	19,735	19.4
9/25/2006	*Trachelomonas hispida*	Euglanophyta (Euglenoids)	2	2.0	4,074	4.0
9/25/2006	**Total**		**97**	**100**	**101,947**	**100**

HAGG LAKE MONITORING 2006 — PHYTOPLANKTON DENSITY & BIOVOLUME (CONTINUED) (SHEET 3 OF 3)

Date	Species	Genus	Density		Biovolume	
			number/mL	percent	μm^3/mL	percent
		Trophic State Index = 36.2				
10/2/2006	*Asterionella formosa*	Baccillariophyta (Diatoms)	21	30.4	13,702	9.2
10/2/2006	*Cyclotella comta*	Baccillariophyta (Diatoms)	9	13.0	20,893	14.0
10/2/2006	*Fragilaria crotonensis*	Baccillariophyta (Diatoms)	14	19.6	68,423	45.8
10/2/2006	*Melosira italica*	Baccillariophyta (Diatoms)	6	8.7	9,826	6.6
10/2/2006	*Synedra rumpens*	Baccillariophyta (Diatoms)	2	2.2	215	0.1
10/2/2006	*Dinobryon sertularia*	Chrysophyta (Golden-brown algae)	5	6.5	548	0.4
10/2/2006	*Kephyrion sp.*	Chrysophyta (Golden-brown algae)	2	2.2	97	0.1
10/2/2006	*Rhodomonas minuta*	Cryptophyta	2	2.2	31	0.0
10/2/2006	*Anabaena planctonica*	Cyanophyta (Blue-green algae)	2	2.2	7,710	5.2
10/2/2006	*Aphanizomenon flos-aquae*	Cyanophyta (Blue-green algae)	3	4.3	5,780	3.9
10/2/2006	*Trachelomonas volvocina*	Euglanophyta (Euglenoids)	2	2.2	2,892	1.9
10/2/2006	*Peridinium cinctum*	Pyrrhophyta (Dinoflagellates)	5	6.5	19,329	12.9
10/2/2006	**Total**		**71**	**100**	**149,445**	**100**
		Trophic State Index = 39.8				
10/16/2006	*Asterionella formosa*	Baccillariophyta (Diatoms)	10	16.7	5,242	2.1
10/16/2006	*Cyclotella comta*	Baccillariophyta (Diatoms)	7	11.9	16,097	6.5
10/16/2006	*Diploneis elliptica*	Baccillariophyta (Diatoms)	1	2.4	369	0.1
10/16/2006	*Fragilaria crotonensis*	Baccillariophyta (Diatoms)	6	9.5	23,826	9.6
10/16/2006	*Melosira italica*	Baccillariophyta (Diatoms)	13	21.4	24,048	9.7
10/16/2006	*Stephanodiscus astraea minutula*	Baccillariophyta (Diatoms)	1	2.4	496	0.2
10/16/2006	*Synedra rumpens*	Baccillariophyta (Diatoms)	3	4.8	397	0.2
10/16/2006	*Anabaena planctonica*	Cyanophyta (Blue-green algae)	11	19.0	153,966	62.1
10/16/2006	*Trachelomonas hispida*	Euglanophyta (Euglenoids)	1	2.4	2,978	1.2
10/16/2006	*Trachelomonas volvocina*	Euglanophyta (Euglenoids)	1	2.4	2,673	1.1
10/16/2006	*Peridinium cinctum*	Pyrrhophyta (Dinoflagellates)	4	7.1	17,870	7.2
10/16/2006	**Total**		**60**	**100**	**247,963**	**100**

HAGG LAKE MONITORING 2006 — ZOOPLANKTON DENSITY (SHEET 1 OF 2)

Zooplankton			1-May-06	15-May-06	5-Jun-06	10-Jul-06	27-Jul-05
	Time Sampled		10:45	10:30	11:59	10:50	10:35
	Depth Sampled (meters)		27	30	2.5	30	27
	Volume (m^3)		0.87559	0.97228	0.81073	0.97288	0.87559
Genus	Species	Code	Density ±SE (number/m^3)	Density ±SE (number/m^3)	Density ±SE (number/m^3)	Density ±SE (number/m^3)	Density ±SE (number/m^3)
CLADOCERA	*Bosmina longirostris*	6103101	219.3 ± 89.5	43.9 ± 43.9	197.4 ± 62.4	345.4 ± 75.4	502.5 ± 67.8
	Ceriodaphnia dubia	6102408	—	—	—	16.4 ± 16.4	—
	Chydorus sphaericus	6107101	—	—	19.7 ± 19.7	—	—
	Daphnia galeata mendotae	6102111	80.4 ± 54.2	—	19.7 ± 19.7	32.9 ± 23.3	—
	*Daphnia pulicaria **	6102116	3618.1 ± 363.6	7049.4 ± 556	375 ± 86	509.8 ± 91.6	255.8 ± 48.3
	*Daphnia rosea **	6102114	321.6 ± 108.4	450 ± 140.5	59.2 ± 34.2	98.7 ± 40.3	27.4 ± 15.8
	Diaphanosoma brachyurum	6102111	—	—	—	—	—
	Eurycercus laellatus	6107181	—	—	—	—	—
	Holopedium gibberum	6104101	—	—	—	—	—
	*Leptodora kindti **	6108101	—	—	—	16.4 ± 16.4	54.8 ± 22.4
	Total cladocerans		4239.4 ± 393.6	7543.3 ± 575.2	671 ± 115.1	1019.7 ± 129.5	840.6 ± 87.6
COPEPODA	*Copepod nauplii*	6170090	1443.6 ± 162.4	2521.7 ± 235.2	3443.8 ± 184.3	2886.3 ± 154.1	1576.1 ± 84.9
	Cyclops bicuspidatus th.	6128101	2375.5 ± 294.6	1666.5 ± 270.3	1026.2 ± 142.3	361.8 ± 77.1	703.5 ± 80.2
	Cyclopoid copepodites	6128000	4824.2 ± 419.9	2675.2 ± 342.5	1815.6 ± 189.3	115.1 ± 43.5	639.6 ± 76.4
	Diaptomid copepodites	6183100	804 ± 171.4	394.7 ± 131.6	828.9 ± 127.9	509.8 ± 91.6	338.1 ± 55.6
	Diaptomus reighardi	6183184	475.1 ± 131.8	131.6 ± 76	394.7 ± 88.3	82.2 ± 36.8	73.1 ± 25.8
	*Epischura nevadensis **	6182031	—	—	—	—	—
	*Epischurid copepodites **	6182030	—	—	—	—	—
	Harpacticoid copepod	6190000	—	—	—	—	—
	Microcyclops varians	6128103	—	—	—	8.2 ± 5.8	36.5 ± 18.3
	Total copepods		9922.4 ± 562.7	7389.8 ± 491.6	7509.3 ± 318.8	3963.5 ± 193.9	3366.9 ± 144.8
ROTIFERA & PROTISTA	*Anuraeopsis sp.*	4501150		—	—	—	—
	Ascomorpha ovalis	4508023	—	—	—	—	48.7 ± 24.4
	Asplanchna priodonta	4512011	—	—	—	394.7 ± 80.6	237.6 ± 46.6
	Brachionus budapestinensis	4501047	—	—	—	—	—
	Brachionus calyciflorus	4501042	—	—	—	—	—
	Collotheca pelagica	4519011	—	—	59.2 ± 34.2	—	24.4 ± 17.2
	Conochilus unicornis	4518011	—	—	—	—	—
	Conochiloides natans	4518022	36.5 ± 36.5	—	78.9 ± 39.5	—	—
	Difflugia sp.	1000100	—	—	—	32.9 ± 32.9	—
	Euchlanis dilatata	4501031	—	—	—	—	12.2 ± 12.2
	Filinia terminalis	4515011	—	—	—	197.4 ± 80.6	73.1 ± 29.8
	Gastropus stylifer	4508011	877.1 ± 179	350.8 ± 124	572.3 ± 106.3	1151.2 ± 194.6	219.3 ± 51.7
	Keratella cochlearis	4501013	1133 ± 203.5	2455.9 ± 328.2	2762.9 ± 233.5	4210.2 ± 372.1	1583.7 ± 138.9
	Keratella c. v. tecta	4501013	—	—	—	—	—
	Keratella hiemalis	4501011	36.5 ± 36.5	43.9 ± 43.9	39.5 ± 27.9	164.5 ± 73.5	85.3 ± 32.2
	Keratella quadrata	4501012	—	—	—	—	—
	Kellicottia longispina	4501051	36.5 ± 36.5	175.4 ± 87.7	177.6 ± 59.2	361.8 ± 109.1	255.8 ± 55.8
	Lecane inermis	4502014	—	—	—	—	—
	Lecane sp.	4502010	—	—	—	—	—
	Monostyla lunaris	4502061	—	—	19.7 ± 19.7	32.9 ± 32.9	—
	peritrich colony	1000500	—	—	—	—	—
	Philodina sp.	4520020	—	—	—	—	—
	Ploesoma truncatum	4512031	—	—	—	—	97.5 ± 34.5
	Polyarthra vulgaris	4513011	730.9 ± 163.4	526.3 ± 151.9	1164.4 ± 151.6	2072.2 ± 261.1	475.1 ± 76.1
	Polyarthra major	4513015	2010.1 ± 271	1447.3 ± 251.9	6117.9 ± 347.5	10130.8 ± 577.3	1230.4 ± 122.4
	Polyarthra remata	4513016	—	—	—	—	—
	Pompholyx sulcata	4515031	—	—	—	—	134.0 ± 40.4
	Synchaeta oblonga	4513021	—	—	315.8 ± 78.9	526.3 ± 131.6	694.4 ± 92
	Trichocerca cylindrica	4507011	—	—	—	—	—
	Trichocerca multicrinis	4507017	—	—	—	—	—
	Trichocerca similis	4507022	—	—	—	—	—
	Total rotifers and protozoans		4860.7 ± 421.5	4999.6 ± 468.3	11308.3 ± 472.4	19274.8 ± 788.2	5171.4 ± 249.1
MISC	*aquatic oligochaete*	5000000	—	—	—	—	—
	Cypridopsis vidua	6135271	—	—	—	4.1 ± 4.1	—
	Chaoborus larvae	6510100	—	—	—	—	—
	Fish larvae	8717090	—	—	—	—	—
	Planarians	3801000	—	—	—	—	—
	*Water boatmen**	6531000	—	—	—	—	—
TOTAL ZOOPLANKT.	**Total Density**		**19022.6** ± 803.9	**19932.6** ± 880.9	**19488.6** ± 571.7	**24262** ± 738.6	**9378.8** ± 287.5
	Density of Edible Zooplankton*		**3939.7** ± 379.5	**7499.4** ± 573.5	**434.2** ± 92.6	**625** ± 101.4	**338.1** ± 55.6
	% Edible Zooplankton		**27.8**	**50.2**	**5.3**	**12.6**	**8**
	Biovolume Measured (mL)		**9**	**8**	**3**	**2**	**2.5**
	Biovolume Density (mL/m^3)		**10.28**	**8.22**	**3.7**	**2.06**	**2.86**

HAGG LAKE MONITORING 2006 — ZOOPLANKTON DENSITY (SHEET 2 OF 2)

Zooplankton			11-Sep-06	25-Sep-06	2-Oct-06	16-Oct-06
	Time Sampled		11:20	11:20	12:25	12:25
	Depth Sampled (meters)		22	22	19	20
	Volume (m^3)		0.71344	0.71344	0.61616	0.64859
Genus	Species	Code	Density ±SE (number/m^3)	Density ±SE (number/m^3)	Density ±SE (number/m^3)	Density ±SE (number/m^3)
CLADOCERA	*Bosmina longirostris*	6103101	201.8 ± 67.3	67.3 ± 38.8	103.9 ± 73.4	24.7 ± 24.7
	Ceriodaphnia dubia	6102408	—	—	—	—
	Chydorus sphaericus	6107101	67.3 ± 38.8	—	—	—
	Daphnia galeata mendotae	6102111	1379.2 ± 175.9	897.1 ± 141.8	2077.4 ± 328.5	962.1 ± 154.1
	*Daphnia pulicaria **	6102116	201.8 ± 67.3	44.9 ± 31.7	—	—
	*Daphnia rosea **	6102114	100.9 ± 47.6	89.7 ± 44.9	155.8 ± 90	—
	Diaphanosoma brachyurum	6102111	—	—	—	—
	Eurycercus laellatus	6107181	—	—	—	—
	Holopedium gibberum	6104101	—	—	—	—
	*Leptodora kindti **	6108101	67.3 ± 38.8	—	—	—
	Total cladocerans		2018.4 ± 212.8	1098.9 ± 157	2337.1 ± 348.4	986.8 ± 156
COPEPODA	*Copepod nauplii*	6170090	1782.9 ± 141.4	1715.6 ± 138.7	3817.2 ± 314.8	2775.3 ± 185
	Cyclops bicuspidatus th.	6128101	650.4 ± 120.8	403.7 ± 95.1	882.9 ± 214.1	320.7 ± 88.9
	Cyclopoid copepodites	6128000	1278.3 ± 169.3	807.4 ± 134.6	727.1 ± 194.3	222 ± 74
	Diaptomid copepodites	6183100	3834.9 ± 293.3	3812.5 ± 292.4	6336.1 ± 573.6	2911 ± 268
	Diaptomus reighardi	6183184	2758.5 ± 248.7	2444.5 ± 234.1	2648.7 ± 370.9	2121.5 ± 228.8
	*Epischura nevadensis **	6182031	—	—	—	—
	*Epischurid copepodites **	6182030	—	—	—	—
	Harpacticoid copepod	6190000	—	—	—	—
	Microcyclops varians	6128103	22.4 ± 22.4	—	51.9 ± 51.9	—
	Total copepods		10327.4 ± 444.4	9183.6 ± 416.6	14463.9 ± 770.9	8350.5 ± 393.2
ROTIFERA & PROTISTA	*Anuraeopsis sp.*	4501150	—	—	—	—
	Ascomorpha ovalis	4508023	—	269.1 ± 77.7	1298.4 ± 259.7	172.7 ± 65.3
	Asplanchna priodonta	4512011	—	—	—	—
	Brachionus budapestinensis	4501047	—	—	—	—
	Brachionus calyciflorus	4501042	—	—	—	—
	Collotheca pelagica	4519011	44.9 ± 44.9	44.9 ± 31.7	103.9 ± 73.4	—
	Conochilus unicornis	4518011	—	—	—	—
	Conochiloides natans	4518022	—	—	—	—
	Difflugia sp.	1000100	—	—	363.5 ± 137.4	148 ± 60.4
	Euchlanis dilatata	4501031	—	—	—	—
	Filinia terminalis	4515011	403.7 ± 134.6	605.5 ± 116.5	1402.2 ± 269.9	148 ± 60.4
	Gastropus stylifer	4508011	—	—	—	—
	Keratella cochlearis	4501013	13500.7 ± 778.2	1166.2 ± 161.7	2804.5 ± 381.6	5279.2 ± 360.9
	Keratella c. v. tecta	4501013	—	—	—	—
	Keratella hiemalis	4501011	44.9 ± 44.9	67.3 ± 38.8	207.7 ± 103.9	24.7 ± 24.7
	Keratella quadrata	4501012	—	—	51.9 ± 51.9	—
	Kellicottia longispina	4501051	2332.3 ± 323.4	67.3 ± 38.8	363.5 ± 137.4	296 ± 85.5
	Lecane inermis	4502014	—	—	—	—
	Lecane sp.	4502010	—	—	—	—
	Monostyla lunaris	4502061	—	—	—	—
	peritrich colony	1000500	—	—	—	—
	Philodina sp.	4520020	—	—	—	—
	Ploesoma truncatum	4512031	—	—	—	—
	Polyarthra vulgaris	4513011	403.7 ± 134.6	134.6 ± 54.9	259.7 ± 116.1	172.7 ± 65.3
	Polyarthra major	4513015	448.5 ± 141.8	67.3 ± 38.8	207.7 ± 103.9	—
	Polyarthra remata	4513016	—	—	—	—
	Pompholyx sulcata	4515031	—	—	—	—
	Synchaeta oblonga	4513021	89.7 ± 63.4	22.4 ± 22.4	—	—
	Trichocerca cylindrica	4507011	—	—	—	—
	Trichocerca multicrinis	4507017	—	157 ± 59.3	51.9 ± 51.9	—
	Trichocerca similis	4507022	—	—	—	—
	Total rotifers and protozoans		17268.3 ± 880.1	2601.5 ± 241.5	7115.1 ± 607.9	6241.3 ± 393.4
MISC	*aquatic oligochaete*	5000000	—	—	—	—
	Cypridopsis vidua	6135271	—	—	—	—
	Chaoborus larvae	6510100	—	—	—	—
	Fish larvae	8717090	—	—	—	—
	Planarians	3801000	—	—	—	—
	*Water boatmen**	6531000	—	1.4 ± 1.4	—	—
TOTAL ZOOPLANKT.	**Total Density**		**29614.1** ± 929.5	**12885.4** ± 504.6	**23916** ±1034.9	**15578.5** ± 571.1
	Density of Edible Zooplankton*		**370** ± 91.1	**136** ± 51.4	**155.8** ± 90	**0** ± 0
	% Edible Zooplankton		**3**	**1.3**	**0.9**	**0**
	Biovolume Measured (mL)		**2**	**1.5**	**1.5**	**1**
	Biovolume Density (mL/m^3)		**2.8**	**2.1**	**2.43**	**1.54**

DISTRIBUTION OF ZOOPLANKTON LENGTHS

Statistic [based on n=50]	Organism Length (millimeters)			
	Daphnia spp.	***Cyclops bicuspidatus thomasi***	***Diaptomus reighardi***	***Bosmina longirostris***
May 1, 2006				
Minimum	0.700	0.375	0.300	—
Maximum	2.000	1.275	1.450	—
Median	1.350	0.700	1.075	—
Mean	1.379	0.730	1.006	—
Standard deviation	0.330	0.238	0.324	—
June 5, 2006				
Minimum	0.700	0.500	0.350	—
Maximum	1.975	1.300	1.450	—
Median	1.338	0.888	1.075	—
Mean	1.334	0.885	0.982	—
Standard deviation	0.359	0.177	0.324	—
July 10, 2006				
Minimum	0.600	0.575	0.325	0.250
Maximum	2.275	1.300	1.125	0.550
Median	1.300	0.988	0.613	0.350
Mean	1.387	0.995	0.669	0.361
Standard deviation	0.493	0.183	0.197	0.076
September 11, 2006				
Minimum	0.600	0.325	0.375	—
Maximum	2.075	1.325	1.125	—
Median	1.075	0.675	0.725	—
Mean	1.094	0.702	0.762	—
Standard deviation	0.338	0.228	0.207	—
October 2, 2006				
Minimum	0.600	0.375	0.550	—
Maximum	1.775	1.200	1.125	—
Median	1.250	0.838	0.825	—
Mean	1.210	0.856	0.832	—
Standard deviation	0.355	0.216	0.139	—

HAGG LAKE TRIBUTARY MONITORING 2006 — PHYSICAL AND CHEMICAL DATA (SHEET 1 OF 2)

[Abbreviations: Storm=an X indicates a storm sample; Temp=water temperature; DO=dissolved oxygen; Cond.=conductivity; Turbid.=turbidity; DUP=duplicate samples; Total P=total phosphorus; SRP=soluble reactive phosphorus; TKN=total Kjeldahl nitrogen; TSS=total suspended solids; Nutr & SS=nutrients and suspended solids; Bacti=bacteria. ‡no samples were collected during storms in 2006; *DO measurements were unreliable in 2006]

Date	Time	Location	Analyses	Storm‡	FIELD DATA						RESULTS OF CHEMICAL ANALYSES						
					Stage (feet)	Temp. (ºC)	pH	DO* (mg/L)	Cond. (µS/cm)	Turbid.† (NTU)	Dup	Total P (mg/L as P)	SRP (mg/L as P)	NO_3/NO_2 (mg/L as N)	TKN (mg/L as N)	Ammonia (mg/L as N)	TSS (mg/L)
05/01/06	11:40	Sain Ck (RM 1.6)	Bacti		2.36	7.8	8.04		71.0	1.4							
05/01/06	11:40	Sain Ck (RM 1.6)	Nutri & SS		2.36	7.8	8.04		71.0	1.4		<0.010	<0.003	0.190			3.0
05/01/06	11:25	Scoggins (RM 8.0)	Bacti		2.62	7.6	8.10		68.0	0.9							
05/01/06	11:25	Scoggins (RM 8.0)	Nutri & SS		2.62	7.6	8.10		68.0	0.9		<0.010	0.004	0.120			3.0
05/01/06	11:10	Tanner (RM 1.6)	Bacti		0.22	8.3	7.86		139.0	2.0							
05/01/06	11:10	Tanner (RM 1.6)	Nutri & SS		0.22	8.3	7.86		139.0	2.0		0.049	0.036	0.220			5.0
05/01/06	12:03	Scoggins (RM 4.8)	Bacti		2.36	6.9	7.82		66.0	3.9							
05/01/06	12:03	Scoggins (RM 4.8)	Nutri & SS		2.36	6.9	7.82		66.0	3.9	A	0.032	0.009	0.260			4.0
05/01/06	12:03	Scoggins (RM 4.8)	Nutri & SS		2.36	6.9	7.82		66.0	3.9	B	0.033	0.110	0.270			4.0
06/12/06	10:45	Sain Ck (RM 1.6)	Bacti		2.16	13.0	8.02		82.0	1.9							
06/12/06	10:45	Sain Ck (RM 1.6)	Nutri & SS		2.16	13.0	8.02		82.0	1.9		0.013	0.006	0.190			3.0
06/12/06	10:25	Scoggins (RM 8.0)	Bacti		2.44	13.2	8.17		77.0	1.2							
06/12/06	10:25	Scoggins (RM 8.0)	Nutri & SS		2.44	13.2	8.17		77.0	1.2		0.014	0.005	0.150			3.0
06/12/06	10:10	Tanner (RM 1.6)	Bacti		0.16	12.4	8.00		161.0	2.7							
06/12/06	10:10	Tanner (RM 1.6)	Nutri & SS		0.16	12.4	8.00		161.0	2.7	A	0.057	0.042	0.210			5.0
06/12/06	10:10	Tanner (RM 1.6)	Nutri & SS		0.16	12.4	8.00		161.0	2.7	B	0.057	0.037	0.200			10.0
06/12/06	11:15	Scoggins (RM 4.8)	Bacti		2.16	8.5	7.90		69.0	2.6							
06/12/06	11:15	Scoggins (RM 4.8)	Nutri & SS		2.16	8.5	7.90		69.0	2.6		0.017	0.004	0.250			2.0
07/10/06	12:05	Sain Ck (RM 1.6)	Bacti		2.00	15.0	7.98		90.0	1.2							
07/10/06	12:05	Sain Ck (RM 1.6)	Nutri & SS		2.00	15.0	7.98		90.0	1.2		0.024	<0.003	0.190			18.0
07/10/06	11:50	Scoggins (RM 8.0)	Bacti		2.30	15.5	8.10		85.0	0.6							
07/10/06	11:50	Scoggins (RM 8.0)	Nutri & SS		2.30	15.5	8.10		85.0	0.6		0.018	0.003	0.150			<1.0
07/10/06	11:35	Tanner (RM 1.6)	Bacti		0.60	14.1	7.85		176.0	2.0							
07/10/06	11:35	Tanner (RM 1.6)	Nutri & SS		0.60	14.1	7.85		176.0	2.0	A	0.067	0.043	0.170			4.0
07/10/06	11:35	Tanner (RM 1.6)	Nutri & SS		0.60	14.1	7.85		176.0	2.0	B	0.072	0.043	0.160			4.0
07/10/06	12:25	Scoggins (RM 4.8)	Bacti		2.00	8.4	7.83		62.0	3.0							
07/10/06	12:25	Scoggins (RM 4.8)	Nutri & SS		2.00	8.4	7.83		62.0	3.0		0.016	<0.003	0.240			4.0
09/18/06	11:45	Sain Ck (RM 1.6)	Bacti		1.90	12.4	8.16		100.0	1.4							
09/18/06	11:45	Sain Ck (RM 1.6)	Nutri & SS		1.90	12.4	8.16		100.0	1.4		0.020	0.005	0.100			4.0
09/18/06	10:30	Scoggins (RM 8.0)	Bacti		2.24	12.5	8.12		94.0	0.7							
09/18/06	10:30	Scoggins (RM 8.0)	Nutri & SS		2.24	12.5	8.12		94.0	0.7		0.220	0.007	0.120			2.0
09/18/06	9:45	Tanner (RM 1.6)	Bacti		0.08	12.1	7.98		196.0	1.4							
09/18/06	9:45	Tanner (RM 1.6)	Nutri & SS		0.08	12.1	7.98		196.0	1.4	A	0.087	0.061	0.090			4.0
09/18/06	9:45	Tanner (RM 1.6)	Nutri & SS		0.08	12.1	7.98		196.0	1.4	B	0.084	0.060	0.080			2.0
09/18/06	12:15	Scoggins (RM 4.8)	Bacti			17.6	7.95		71.0	3.4							

HAGG LAKE TRIBUTARY MONITORING 2006 — PHYSICAL AND CHEMICAL DATA (CONTINUED) (SHEET 2 OF 2)

[Abbreviations: Storm=an X indicates a storm sample; Temp=water temperature; DO=dissolved oxygen; Cond.=conductivity; Turbid.=turbidity; DUP=duplicate samples; Total P=total phosphorus; SRP=soluble reactive phosphorus; TKN=total Kjeldahl nitrogen; TSS=total suspended solids; Nutr & SS=nutrients and suspended solids; Bacti=bacteria. ‡no samples were collected during storms in 2006; *DO measurements were unreliable in 2006]

Date	Time	Location	Analyses	Storm‡	FIELD DATA						RESULTS OF CHEMICAL ANALYSES						
					Stage (feet)	Temp. (ºC)	pH	DO* (mg/L)	Cond. (µS/cm)	Turbid.† (NTU)	Dup	Total P (mg/L as P)	SRP (mg/L as P)	NO_3/NO_2 (mg/L as N)	TKN (mg/L as N)	Ammonia (mg/L as N)	TSS (mg/L)
09/18/06	12:15	Scoggins (RM 4.8)	Nutri & SS			17.6	7.95		71.0	3.4		0.020	<0.003	<0.010			6.0
10/09/06	11:10	Sain Ck (RM 1.6)	Bacti		1.86	9.5	7.69		102.0	0.1							
10/09/06	11:10	Sain Ck (RM 1.6)	Nutri & SS		1.86	9.5	7.69		102.0	0.1		0.013	<0.003	0.060			<1.0
10/09/06	10:45	Scoggins (RM 8.0)	Bacti		2.20	9.7	7.84		97.0	0.1							
10/09/06	10:45	Scoggins (RM 8.0)	Nutri & SS		2.20	9.7	7.84		97.0	0.1		0.013	0.004	0.040			<1.0
10/09/06	10:15	Tanner (RM 1.6)	Bacti		0.05	9.9	7.80		196.0	0.5							
10/09/06	10:15	Tanner (RM 1.6)	Nutri & SS		0.05	9.9	7.80		196.0	0.5	A	0.063	0.048	0.060			4.0
10/09/06	10:15	Tanner (RM 1.6)	Nutri & SS		0.05	9.9	7.80		196.0	0.5	B	0.061	0.047	0.060			3.0
10/09/06	11:40	Scoggins (RM 4.8)	Bacti			17.0	7.80		71.0	2.4							
10/09/06	11:40	Scoggins (RM 4.8)	Nutri & SS			17.0	7.80		71.0	2.4		0.015	<0.003	<0.010			6.0

HAGG LAKE TRIBUTARY MONITORING 2006 — BACTERIOLOGICAL DATA

Date	Time	Location	*E. coli* /100 ml (MPN)	Total Coliform/100 ml (MPN)
05/01/06	11:40	Sain Ck (RM 1.6)	17	147
05/01/06	11:25	Scoggins Ck (RM 8.0)	2	261
05/01/06	11:10	Tanner Ck (RM 1.6)	10	387
05/01/06	12:03	Scoggins Ck (RM 4.8)	30	461
06/12/06	10:45	Sain Ck (RM 1.6)	23	1120
06/12/06	10:25	Scoggins Ck (RM 8.0)	16	1733
06/12/06	10:10	Tanner Ck (RM 1.6)	32	>2419
06/12/06	11:15	Scoggins Ck (RM 4.8)	64	1414
07/10/06	12:05	Sain Ck (RM 1.6)	50	1986
07/10/06	11:50	Scoggins Ck (RM 8.0)	114	1986
07/10/06	11:35	Tanner Ck (RM 1.6)	411	2149
07/10/06	12:25	Scoggins Ck (RM 4.8)	61	770
09/18/06	11:45	Sain Ck (RM 1.6)	517	>2419
09/18/06	10:30	Scoggins Ck (RM 8.0)	345	>2419
09/18/06	9:45	Tanner Ck (RM 1.6)	488	>2419
09/18/06	12:15	Scoggins Ck (RM 4.8)	141	>2419
10/09/06	11:10	Sain Ck (RM 1.6)	82	830
10/09/06	10:45	Scoggins Ck (RM 8.0)	8	488
10/09/06	10:15	Tanner Ck (RM 1.6)	7	722
10/09/06	11:40	Scoggins Ck (RM 4.8)	16	980

HAGG LAKE MONITORING 2006 — BENTHIC INVERTEBRATE INDEX OF BIOLOGICAL INTEGRITY

[Metric code: a '+' indicates metric value generally decreases with declining biological integrity; a '–' indicates metric value generally increases with declining biological integrity. Condition categories: L= low, M=medium, H=high. Sample collected 10/20/06.]

	Metric	Sain Creek		Scoggins Ck		Tanner Ck	
		Value	Score	Value	Score	Value	Score
+	Total number of taxa	40	3	34	3	37	3
+	Number of *Ephemeroptera* taxa	7	3	8	3	6	3
+	Number of *Plecoptera* taxa	5	3	6	3	8	5
+	Number of *Tricoptera* taxa	4	1	1	1	4	1
+	Number of long-lived taxa	4	3	1	1	4	3
+	Number of intolerant taxa	1	1	0	1	1	1
–	Percent tolerant taxa	46.75	3	6.88	5	46.2	3
+	Percent predator	2.06	1	2.11	1	3.07	1
+	Number of clinger taxa	25	5	22	5	24	5
–	Percent Dominance (3 taxa)	73.75	3	66.14	3	66.31	3
BIBI TOTAL SCORE			26		26		28
BIOLOGICAL CONDITION CATEGORY			M		M		M

Categories based on comparison with unimpacted Puget Lowland and Willamette Valley streams. Scores indicate: 1-low, 3-moderate, 3-high. Maximum IBI score=50. BIBI scores: 0–24=L, 25–39=M, >40=H. Based on average/summation of 3 replicates, not on each individual replicate. Riffle habitat. D-Frame net; 5 point composite sample; total area= 1 square meter; 500 micron mesh; 500 organism subsample minimum. Based on single composite sample.

HAGG LAKE MONITORING 2006 — BENTHIC COMMUNITY INDICATORS OF BIOLOGICAL CONDITION

[Metric code: a '+' indicates metric value generally decreases with declining biological integrity; a '–' indicates metric value generally increases with declining biological integrity. Condition: L= low, M=medium, H=high. Sample collected 10/20/06.]

	Metric	Sain Creek		Scoggins Ck		Tanner Ck	
		Value	Condition	Value	Condition	Value	Condition
+	Total abundance (number/m^2)	5424	H	1512	H	2208	H
+	EPT taxa richness	16	L	15	L	18	L
+	Predator richness	6	L	3	L	10	M
+	Scraper richness	13	M	10	M	8	L
+	Shredder richness	5	M	6	M	4	L
+	Percent intolerant taxa	0.88	L	0	L	0.18	L
–	Hilsenhoff Biotic Index	5.12	L	5.09	L	5.51	L
–	Percent *Baetis tricaudatus*	44.1	L	0	H	43.66	L
–	Percent collector	82.75	L	62.41	L	77.9	L
–	Percent Parasite	1.33	H	0.79	H	0.54	H
–	Percent *Oligochaeta*	1.33	M	0.79	H	3.26	M
–	Number of tolerant taxa	7	M	4	M	3	M
–	Percent *Simuliidae*	24.78	L	44.97	L	8.88	M
–	Percent *Chironomidae*	12.83	M	17.72	M	10.51	M

Condition based on comparisons with a Pacific Northwest montane stream with high biological integrity. (A montane is the biome characterized by moist cool upland slopes below timberline and dominated by large coniferous trees.)

HAGG LAKE MONITORING 2006 — BENTHIC INVERTEBRATE DENSITY (SHEET 1 OF 2)

[Sample collected October 20, 2006]

	TAXON	SAIN CK (RM 1.6)		SCOGGINS CK (RM 8.0)		TANNER CK (RM 1.6)	
		Abundance (number/m^2)	Percent of Total	Abundance (number/m^2)	Percent of Total	Abundance (number/m^2)	Percent of Total
NON-INSECTS	*Acari*	40	0.74	12	0.79	4	0.18
	Juga	80	1.47	76	5.03	28	1.27
	Nematoda	32	0.59	—	—	8	0.36
	Oligochaeta	72	1.33	12	0.79	72	3.26
	Ostracoda	8	0.15	—	—	—	—
	TOTAL NON-INSECTS	240	4.42	100	6.61	112	5.07
EPHEMEROPTERA	*Ameletus*	—	—	4	0.26	—	—
	Baetis tricaudatus	2392	44.10	—	—	964	43.66
	Cinygmula	64	1.18	20	1.32	176	7.97
	Diphetor hageni	—	—	8	0.53	32	1.45
	Epeorus	24	0.44	20	1.32	—	—
	Epeorus grandis	48	0.88	—	—	—	—
	Ephemerella excrusians	—	—	12	0.79	4	0.18
	Ironodes	40	0.74	8	0.53	4	0.18
	Paraleptophlebia	16	0.29	56	3.70	304	13.77
	Rhithrogena	144	2.65	244	16.14	—	—
	TOTAL *EPHEMEROPTERA*	2728	50.29	372	24.60	1484	67.21
PLECOPTERA	*Calineuria californica*	48	0.88	—	—	4	0.18
	Capniidae	88	1.62	8	0.53	32	1.45
	Doroneuria	—	—	—	—	4	0.18
	Hesperoperla pacifica	—	—	—	—	8	0.36
	Perlodidae	—	—	—	—	4	0.18
	Pteronarcella	—	—	8	0.53	—	—
	Skwala	—	—	8	0.53	4	0.18
	Sweltsa	24	0.44	20	1.32	24	1.09
	Zapada cinctipes	24	0.44	4	0.26	28	1.27
	Zapada Oregonensis Group	16	0.29	4	0.26	—	—
	TOTAL *PLECOPTERA*	200	3.69	52	3.44	108	4.89
TRICHOPTERA	*Arctopsyche grandis*	8	0.15	—	—	—	—
	Glossosoma	8	0.15	—	—	4	0.18
	Hydropsyche	88	1.62	8	0.53	20	0.91
	Rhyacophila Betteni Group	8	0.15	—	—	8	0.36
	Rhyacophila blarina	—	—	—	—	4	0.18
	TOTAL *TRICHOPTERA*	112	2.06	8	0.53	36	1.63
COLEOPTERA	*Cleptelmis addenda*	8	0.15	—	—	—	—
	Heterlimnius	48	0.88	—	—	—	—
	Optioservus	24	0.44	16	1.06	28	1.27
	Zaitzevia	16	0.29	4	0.26	—	—
	TOTAL *COLEOPTERA*	96	1.77	20	1.32	28	1.27

HAGG LAKE MONITORING 2006 — BENTHIC INVERTEBRATE DENSITY (CONTINUED) (SHEET 2 OF 2)

[Sample collected October 20, 2006]

	TAXON	SAIN CK (RM 1.6)		SCOGGINS CK (RM 8.0)		TANNER CK (RM 1.6)	
		Abundance (number/m^2)	**Percent of Total**	**Abundance** (number/m^2)	**Percent of Total**	**Abundance** (number/m^2)	**Percent of Total**
DIPTERA	*Ceratopogoninae*	—	—	—	—	4	0.18
	Cryptolabis	—	—	8	0.53	—	—
	Dicranota	—	—	—	—	4	0.18
	Dixa	—	—	—	—	4	0.18
	Hexatoma	—	—	4	0.26	—	—
	Prosimulium	1344	24.78	—	—	—	—
	Simuliidae	—	—	680	44.97	196	8.88
	Wiedemannia	8	0.15	—	—	—	—
	TOTAL *DIPTERA*	1352	24.93	692	45.77	208	9.42
CHIRONOMIDAE	*Brillia*	16	0.29	12	0.79	8	0.36
	Chironomidae-pupae	72	1.33	56	3.70	32	1.45
	Cladotanytarsus	128	2.36	8	0.53	—	—
	Corynoneura	8	0.15	—	—	4	0.18
	Eukiefferiella	—	—	20	1.32	64	2.90
	Eukiefferiella Devonica Group	8	0.15	8	0.53	—	—
	Micropsectra	32	0.59	72	4.76	44	1.99
	Orthocladius Complex	8	0.15	—	—	—	—
	Parametriocnemus	264	4.87	44	2.91	20	0.91
	Polypedilum	8	0.15	8	0.53	4	0.18
	Rheotanytarsus	—	—	4	0.26	4	0.18
	Tanytarsus	—	—	—	—	16	0.72
	Thienemannimyia Complex	16	0.29	—	—	—	—
	Tvetenia Bavarica Group	120	2.21	32	2.12	36	1.63
	TOTAL *CHIRONOMIDAE*	696	12.83	268	17.72	232	10.51
TOTAL BENTHIC INVERTEBRATES		5424	100.00	1512	100.00	2208	100.00

HAGG LAKE MONITORING 2006 — WEATHER OBSERVATIONS

Date	Time	Location	Air Temp (ºC)	Barometer (mm Hg)	Wind (Beaufort Scale)	Wind Direction	% Cloud Cover	Comments
5/1/2006	9:05	Hagg Lake		770		W	85	Cool; light breeze
5/15/2006	9:00	Hagg Lake	21.5	758	0		10	Sunny, warm
6/5/2006	10:06	Hagg Lake	16.5	762	0		100	Overcast, warm
6/12/2006	9:30	Tanner Ck (RM 1.6)	17	757	0		100	Overcast, drizzle
7/10/2006	9:37	Hagg Lake	14	759	0		100	Cloudy
7/27/2006	9:04	Hagg Lake	21.5	762	0		0	Nice
9/11/2006	10:00	Hagg Lake	15.5	790	4	S	10	Nice
9/18/2006	9:30	Tanner	15.6	759	0		100	Cloudy, fog
9/25/2006	10:12	Hagg Lake	18.3	765	0		0	Clear, sunshine
10/2/2006		Hagg Lake	10	763				
10/9/2006	10:10	Tanner Ck (RM 1.6)	12.8	770	0		0	Clear, sunshine
10/16/2006	11:15	Hagg Lake	10	754	1		55	

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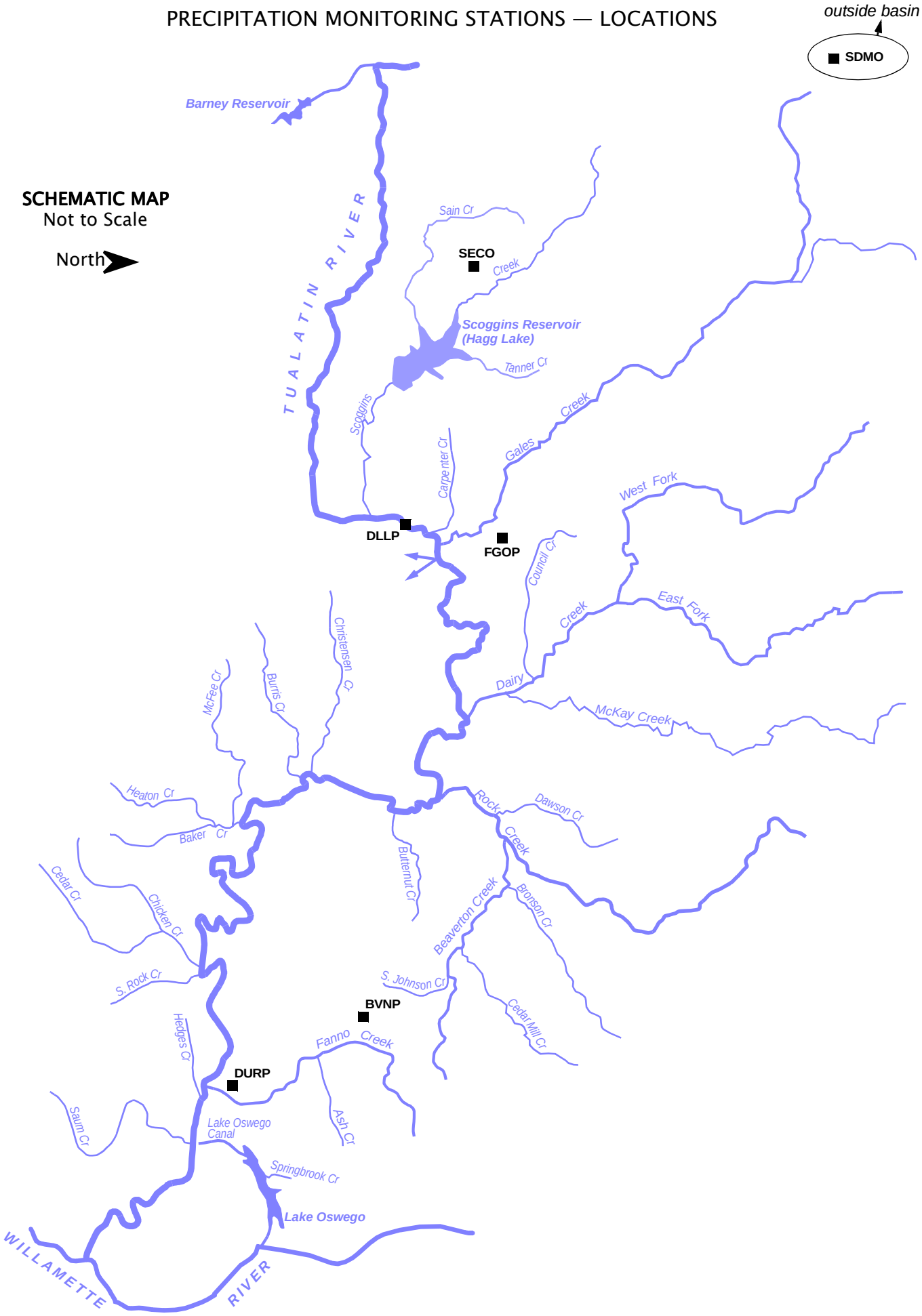
Appendix H

Precipitation Data

PRECIPITATION MONITORING STATIONS — LOCATIONS



PRECIPITATION SITES — ALPHABETICAL LISTING BY SITE CODE

SITE CODE	SITE NAME	Elevation (ft)	PAGE
BVNP	Beaverton 2 SSW Precipitation Station	270	H-12
DLLP	Dilley Precipitation Station	170	H-8
DURP	Durham Wastewater Treatment Plant Precipitation Station	140	H-14
FGOP	Forest Grove Precipitation Station (Verboort)	180	H-10
SDMO	Saddle Mountain Precipitation Station	3250	H-4
SECO	Sain Creek Precipitation Station	2000	H-6

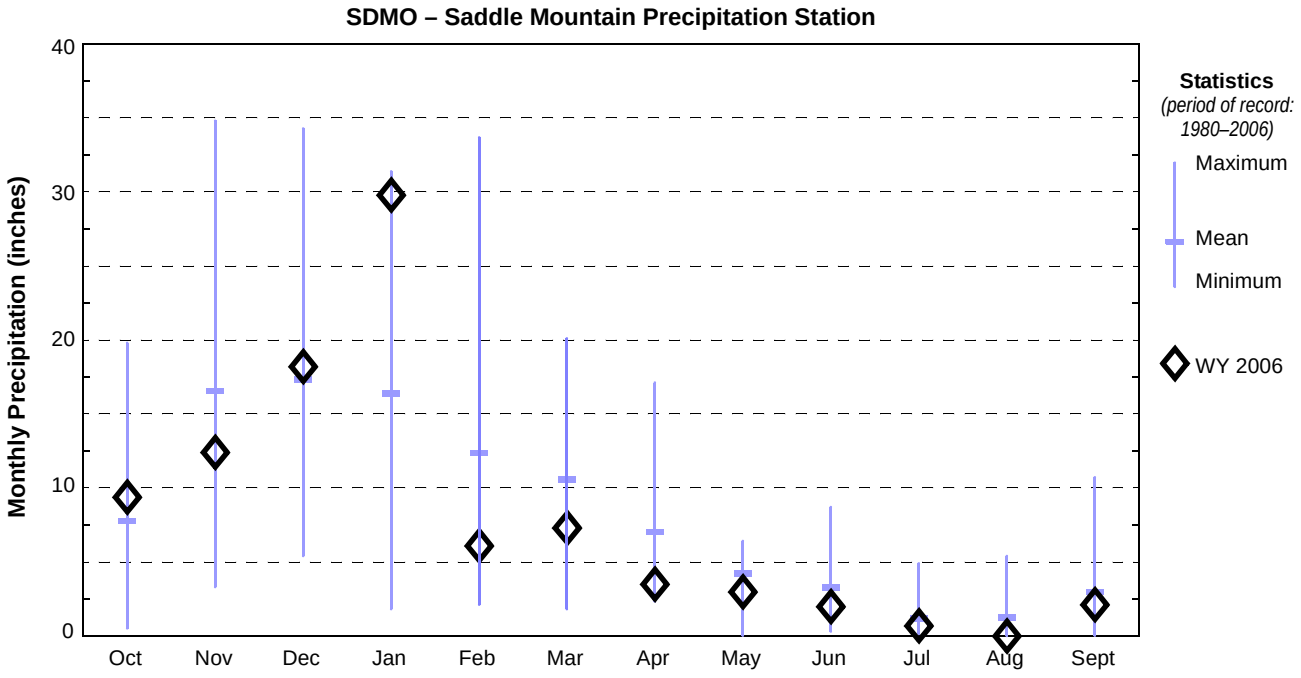
SDMO – SADDLE MOUNTAIN PRECIPITATION STATION

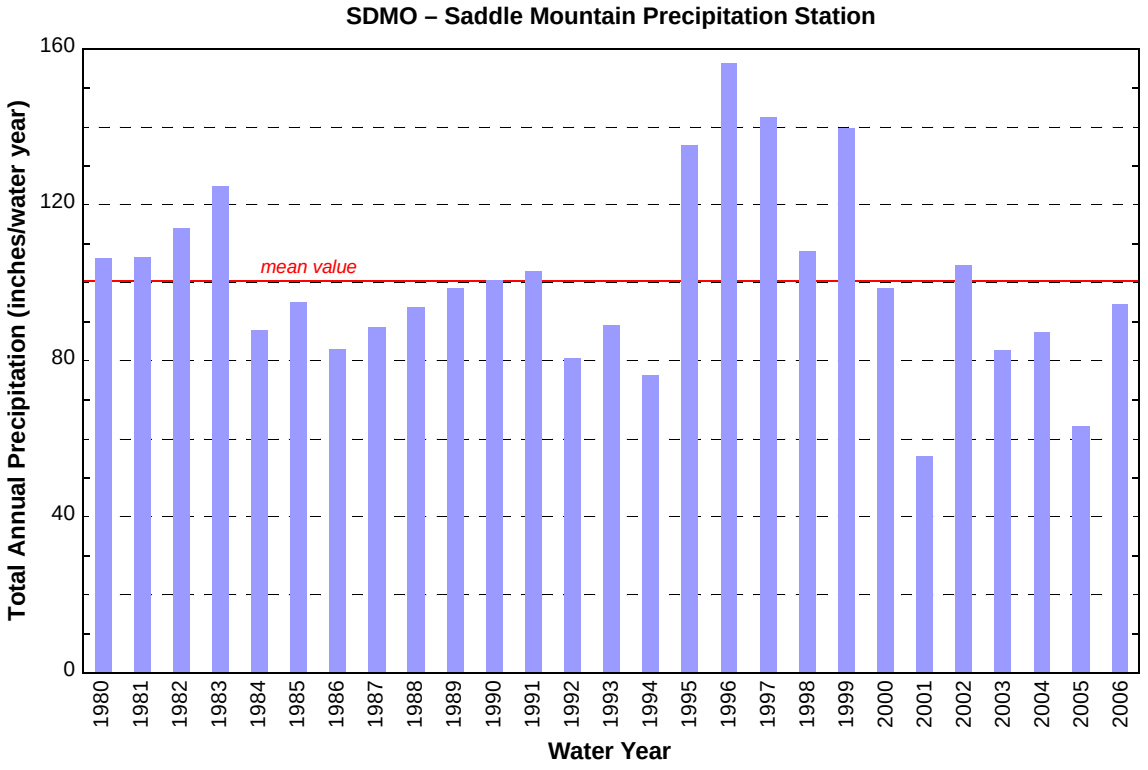
Elevation: 3250 ft
Latitude: 45 31 48 Longitude: 123 22 12

Source Agency: Natural Resources Conservation Service
http://www.wcc.nrcs.usda.gov/cgibin/tab.pl?state=OR

Water Year*	Total Monthly Precipitation (inches)											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1980	10.8	7.5	19.2	19.3	11.2	10.1	6.5	6.4	8.7	1.0	0.6	4.9
1981	4.2	19.3	26.8	5.2	18.6	7.5	7.9	4.1	7.2	0.4	0.7	4.4
1982	13.0	14.9	26.6	19.3	17.2	7.5	7.2	0.0	2.0	1.1	1.9	3.3
1983	13.4	16.7	21.5	17.3	15.2	11.5	7.1	4.3	4.7	4.9	3.4	4.7
1984	1.7	23.3	11.8	8.3	12.6	8.1	6.3	6.4	3.8	0.6	1.1	3.8
1985	11.4	28.6	12.9	1.8	10.2	11.8	4.8	1.5	4.3	0.2	1.4	5.9
1986	12.2	11.1	5.4	15.8	13.4	7.2	5.7	3.2	1.1	1.4	0.2	6.2
1987	5.3	20.2	11.1	17.1	7.7	16.0	2.3	4.9	1.1	1.7	0.2	0.9
1988	0.7	10.8	22.2	14.1	9.6	15.0	7.8	6.1	2.4	2.0	0.3	2.7
1989	2.5	28.5	11.4	14.9	10.2	17.4	5.3	2.8	1.7	1.9	2.0	0.0
1990	5.8	9.6	8.6	31.4	20.8	7.0	6.4	3.3	4.9	0.4	0.8	1.5
1991	11.4	18.7	10.0	12.7	12.7	12.1	15.3	4.4	2.7	1.0	1.2	0.6
1992	2.8	14.4	11.8	19.1	8.8	1.8	10.5	2.4	1.2	1.4	1.1	5.3
1993	6.8	13.8	16.2	10.8	3.3	12.4	13.7	6.4	3.2	1.6	0.9	0.0
1994	2.7	3.3	18.8	11.0	15.2	9.3	5.5	3.6	4.2	0.9	0.5	1.2
1995	14.7	20.9	31.0	19.7	13.5	14.8	6.8	1.5	4.3	3.0	1.3	3.7
1996	8.5	34.8	21.7	21.2	32.6	6.0	17.1	6.4	2.0	1.2	1.0	3.7
1997	11.6	16.9	34.3	17.2	7.3	20.1	8.3	5.9	5.3	2.1	2.6	10.7
1998	19.8	15.3	9.3	24.2	14.7	10.4	3.3	6.1	1.6	0.2	0.4	2.7
1999	7.7	25.9	28.7	20.3	33.7	12.9	2.8	5.0	0.9	0.2	1.3	0.0
2000	6.1	23.6	18.6	17.7	10.1	6.3	2.9	4.9	6.0	0.1	0.6	1.6
2001	4.3	5.6	9.2	5.5	4.8	6.2	6.1	5.2	3.3	1.4	3.1	0.7
2002	6.6	23.0	20.3	21.7	7.5	10.7	7.6	2.9	3.6	0.2	0.3	0.1
2003	0.5	5.8	17.2	21.5	5.4	19.5	7.5	2.3	0.3	0.3	0.4	1.9
2004	9.4	12.1	13.5	15.0	8.7	5.4	4.4	4.9	2.7	0.1	5.4	5.7
2005	7.4	5.0	10.9	9.3	2.1	11.0	6.5	5.8	2.2	1.0	0.4	1.4
2006	9.4	12.4	18.2	29.8	6.1	7.3	3.5	3.0	2.0	0.7	0.0	2.1
MIN	0.5	3.3	5.4	1.8	2.1	1.8	2.3	0.0	0.3	0.1	0.0	0.0
MAX	19.8	34.8	34.3	31.4	33.7	20.1	17.1	6.4	8.7	4.9	5.4	10.7
MEAN	7.80	16.37	17.30	16.34	12.34	10.57	7.00	4.21	3.24	1.15	1.23	2.95

*Water Year (WY) begins October 1st of the previous calendar year and ends September 30th of current year.


SDMO – Saddle Mountain Precipitation Station
Monthly Precipitation (inches)
40
30
20
10
0
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sept
Statistics
(period of record: 1980–2006)
Maximum
Mean
Minimum
WY 2006


SDMO – Saddle Mountain Precipitation Station
Total Annual Precipitation (inches/water year)
160
120
80
40
0
mean value
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
Water Year

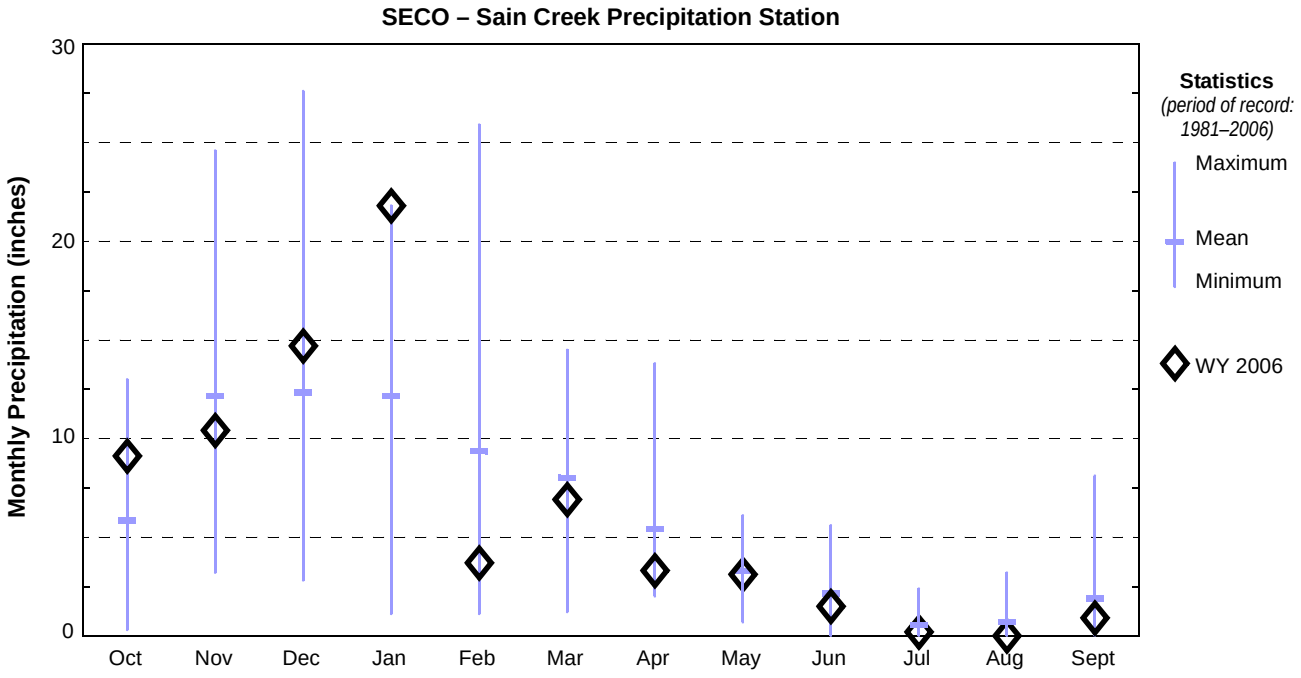
SECO – SAIN CREEK PRECIPITATION STATION

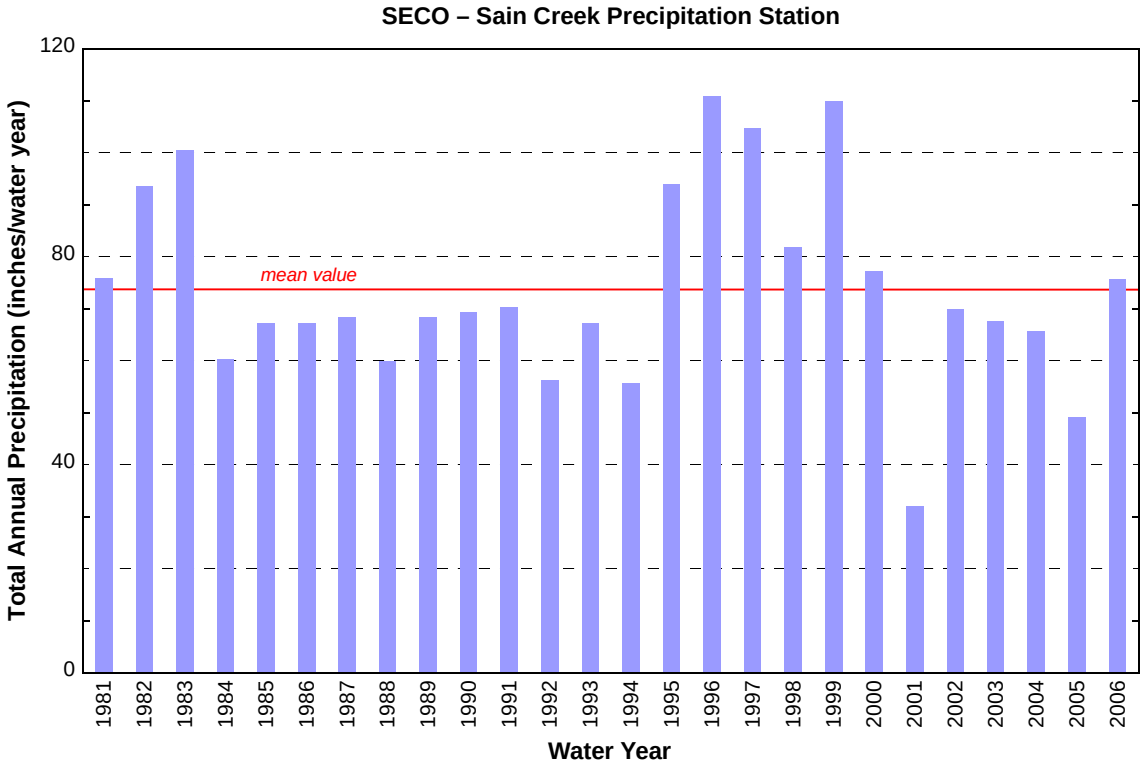
Elevation: 2000 ft
Latitude: 45 31 12 Longitude: 123 16 48

Source Agency: Natural Resources Conservation Service
http://www.wcc.nrcs.usda.gov/cgibin/tab.pl?state=OR

Water Year*	Total Monthly Precipitation (inches)											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1981	2.3	13.5	17.8	5.8	12.8	5.3	6.0	3.6	5.6	0.0	0.2	3.0
1982	10.3	11.8	20.8	13.2	14.9	7.9	6.4	0.7	2.0	1.1	1.9	2.4
1983	11.1	11.4	17.0	15.5	17.3	14.5	6.3	2.5	3.1	1.6	0.0	0.1
1984	1.4	16.7	3.5	3.5	12.1	9.1	2.5	5.3	3.3	0.0	0.0	2.8
1985	10.4	22.6	7.0	1.1	4.0	7.9	4.3	1.4	3.5	0.1	1.6	3.2
1986	9.3	4.9	2.8	13.2	15.1	2.9	5.2	6.1	0.2	1.0	0.2	6.3
1987	4.5	15.3	8.4	12.4	6.4	12.3	3.6	3.3	0.4	1.2	0.2	0.3
1988	0.7	6.8	15.8	12.2	2.8	9.1	4.4	4.0	2.0	0.7	0.0	1.4
1989	1.3	21.5	7.4	9.1	7.3	11.6	3.7	1.7	1.9	0.9	1.7	0.1
1990	4.5	6.2	5.8	21.8	14.5	6.4	3.2	2.6	2.5	0.3	0.7	0.8
1991	8.4	10.9	6.1	7.4	9.1	8.3	12.9	2.8	2.1	0.8	0.8	0.5
1992	2.5	9.7	8.4	12.2	6.7	1.2	9.2	1.1	1.1	0.6	0.4	3.1
1993	5.0	9.3	11.9	8.9	2.0	8.8	9.9	5.7	2.7	2.4	0.5	0.0
1994	1.7	4.5	12.7	8.5	10.7	5.9	4.2	3.1	2.4	0.1	0.2	1.6
1995	13.0	13.4	16.6	16.0	9.3	11.2	5.2	1.9	2.9	1.1	0.8	2.5
1996	6.6	24.6	15.7	15.3	21.9	3.4	13.8	4.8	1.4	0.4	0.4	2.6
1997	8.4	12.7	27.6	13.3	4.7	13.7	5.6	4.8	3.4	0.4	1.9	8.1
1998	13.0	12.0	6.4	19.8	12.0	8.5	2.5	5.1	0.8	0.0	0.2	1.5
1999	5.6	20.5	22.3	16.1	25.9	11.1	2.0	4.0	1.0	0.2	1.2	0.0
2000	4.6	18.3	15.4	13.5	8.5	5.3	2.6	3.8	4.0	0.0	0.2	0.9
2001	2.9	3.7	6.4	3.2	3.1	3.7	3.7	2.4	1.1	0.3	1.2	0.2
2002	3.8	16.7	13.3	14.9	5.1	6.6	5.1	2.0	2.0	0.1	0.0	0.3
2003	0.3	7.8	16.5	15.8	4.3	14.1	5.9	1.4	0.0	0.0	0.0	1.5
2004	5.8	7.3	12.0	12.2	7.6	3.9	4.7	2.3	2.0	0.2	3.2	4.4
2005	5.6	3.2	8.3	8.4	1.1	8.5	4.9	5.3	2.5	0.4	0.2	0.6
2006	9.1	10.4	14.7	21.8	3.7	6.9	3.3	3.1	1.5	0.2	0.0	0.9
MIN	0.3	3.2	2.8	1.1	1.1	1.2	2.0	0.7	0.0	0.0	0.0	0.0
MAX	13.0	24.6	27.6	21.8	25.9	14.5	13.8	6.1	5.6	2.4	3.2	8.1
MEAN	5.85	12.14	12.33	12.12	9.34	8.00	5.43	3.26	2.13	0.54	0.68	1.89

*Water Year (WY) begins October 1st of the previous calendar year and ends September 30th of current year.


SECO – Sain Creek Precipitation Station
Monthly Precipitation (inches)
30
20
10
0
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sept
Statistics
(period of record: 1981–2006)
Maximum
Mean
Minimum
WY 2006


SECO – Sain Creek Precipitation Station
Total Annual Precipitation (inches/water year)
120
80
40
0
mean value
1981
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
Water Year

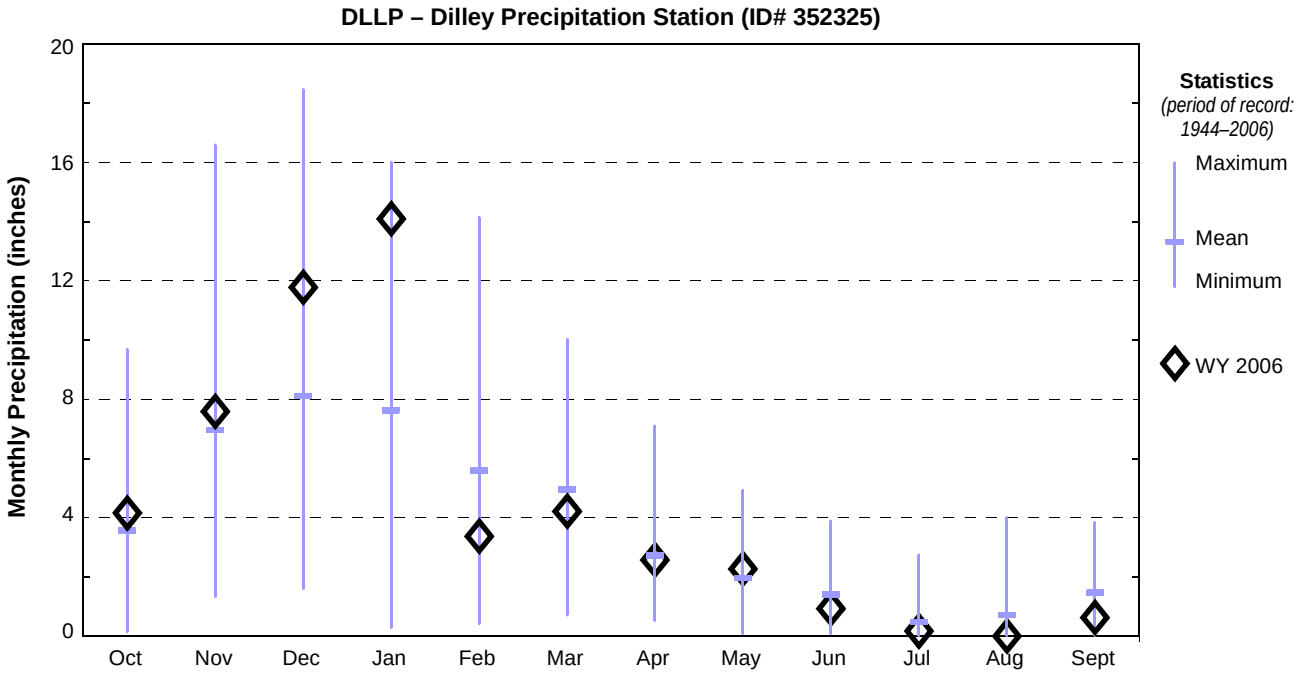
DLLP – DILLEY PRECIPITATION STATION (ID# 352325)

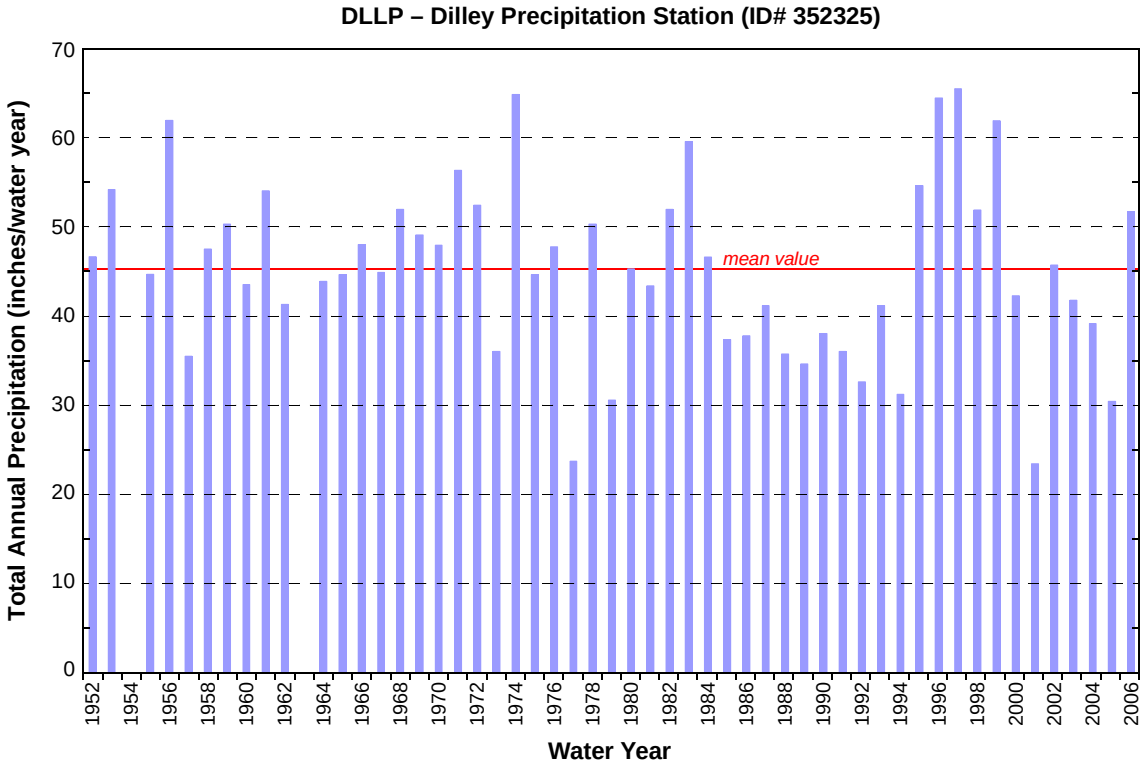
Elevation: 170 ft
Latitude: 45 29 Longitude: 123 07

Source Agency: Oregon Climate Service
http://www.ocs.oregonstate.edu

Water Year*	Total Monthly Precipitation (inches)											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1944			4.08	5.12	3.98	3.22	3.93	0.94	0.74	1.06	0.20	2.80
1945	1.56	5.5	2.74	4.13	6.99	7.18	2.09	3.71	0.22	0.20	0.13	3.17
1946	1.45	11.82	7.56	7.21	7.61	6.09	1.41	1.51	1.74			
1947		10.27	5.38	5.47	4.46	4.69	1.30	0.09	3.12	0.86	0.50	1.28
1948	9.68	4.08	4.99	7.28	7.52	4.55	3.97	4.92	0.90	0.59	1.35	2.72
1949	2.52	8.69	10.59	2.06	11.83	2.99	0.55	2.98	0.55	0.82	0.03	0.58
1950	2.48	7.55	5.93	10.43	6.58	6.77	1.46	0.48	2.19	0.54	0.84	1.13
1951	9.62	9.55	8.93	11.03	5.01	4.74	0.88	1.67	0.15	0.11	0.15	2.38
1952	6.96	7.89	9.70	7.08	5.65	4.20	1.35	0.77	2.62	0.00	0.03	0.38
1953	0.61	2.29	9.28	14.98	4.86	5.36	2.74	2.87	1.25	0.10	1.51	1.60
1954	3.55	7.37	7.48	13.80	7.32	2.95	3.26	1.33	2.06	0.56		1.97
1955	3.92	7.61	7.66	4.41	4.36	5.55	4.56	0.77	1.78	1.41	0.00	2.65
1956	6.97	10.49	12.90	13.36	4.43	7.27	0.64	1.42	1.29	0.03	1.32	1.84
1957	4.83	1.98	4.69	3.02	5.77	7.09	2.09	3.03	1.52	0.27	0.47	0.75
1958	3.55	3.77	10.90	9.29	8.50	2.62	4.24	1.05	2.96	0.02	0.00	0.59
1959	2.34	8.74	6.09	12.18	5.10	4.42	1.76	2.55	2.57	0.92	0.08	2.75
1960	2.71	4.44	4.86	6.56	6.94	7.27	4.65	4.37	0.43	0.00	0.74	0.53
1961	4.24	10.95	3.64	7.05	11.15	10.02	2.94	2.36	0.24	0.48	0.52	0.46
1962	5.98	4.95	7.67	1.61	4.14	5.78	4.79	2.43	0.44	0.00	1.43	2.08
1963		11.23	3.48	1.91	5.39	6.65	4.03	2.82	1.94	1.01	1.64	1.42
1964	3.68	7.10	5.24	16.01	1.47	5.23	1.34	0.85	1.53	0.66	0.54	0.23
1965	1.87	9.8	14.38	9.04	2.72	0.69	2.21	1.14	0.91	1.02	0.87	0.00
1966	1.92	8.73	9.87	9.62	2.67	8.47	0.66	1.28	1.84	1.10	0.46	1.39
1967	3.62	6.98	11.57	10.14	1.83	6.07	2.63	0.64	0.76	0.00	0.00	0.65
1968	6.35	3.28	7.17	7.94	9.00	5.53	1.41	3.01	2.10	0.11	4.01	2.08
1969	5.45	7.48	12.91	9.61	4.33	1.21	2.19	1.72	2.01	0.02	0.00	2.14
1970	4.64	3.26	11.18	14.21	5.81	3.12	2.64	1.26	0.57	0.01	0.00	1.26
1971	4.01	5.89	14.28	8.96	4.74	8.29	3.68	1.22	1.61	0.13	0.36	3.19
1972	3.21	8.35	10.45	8.19	4.90	7.32	4.41	1.39	0.56	0.28	0.25	3.12
1973	0.61	4.78	11.33	5.37	2.18	3.40	1.57	1.40	1.27	0.05	0.76	3.30
1974	3.36	16.59	12.01	11.25	6.75	8.51	2.96	1.46	0.65	1.25	0.00	0.07
1975	1.32	7.50	8.64	8.99	7.00	4.86	1.75	1.94	0.62	0.44	1.60	0.00
1976	6.42	5.16	8.59	6.85	7.20	5.54	2.31	1.30	0.39	0.82	2.41	0.79
1977	1.30	1.32	1.60	1.05	2.98	4.46	0.51	2.50	1.12	0.60	3.07	3.18
1978	2.94	7.21	11.39	7.37	5.92	2.27	3.70	2.67	0.99	0.99	1.65	3.23
1979	0.71	3.85	3.77	3.06	8.00	2.49	2.41	2.07	0.58	0.13	0.94	2.54
1980	6.67	3.93	7.50	8.14	6.25	4.02	3.70	1.21	2.24	0.22	0.06	1.36
1981	1.63	8.35	11.43	2.65	5.17	2.98	2.17	1.96	3.00	0.15	0.05	3.83
1982	5.90	5.89	12.15	5.82	7.75	3.89	4.83	0.44	1.31	0.36	1.24	2.40
1983	4.87	5.36	11.31	7.40	12.20	8.23	2.49	1.40	1.65	2.74	1.38	0.54
1984	1.32	13.07	6.87	2.70	5.95	4.29	3.95	3.36	3.88	0.00	0.00	1.21
1985	4.63	12.83	3.87	0.27	3.18	4.56	1.20	0.36	2.94	0.45	1.45	1.63
1986	3.97	3.95	2.77	8.38	7.35	3.81	1.59	1.99	0.37	0.85	0.00	2.74
1987	3.31	6.52	5.47	8.25	5.18	7.47	1.72	1.85	0.19	0.85	0.15	0.20
1988	0.20	3.66	10.41	8.14	1.16	3.67	2.6	2.23	2.27	0.07	0.17	1.16
1989	0.14	10.98	3.81	4.14	3.51	7.05	0.81	1.62	0.78	0.36	0.93	0.51
1990	2.47	4.02	3.47	10.42	7.14	2.08	1.71	2.98	1.82	0.27	0.93	0.72
1991	4.14	4.15	3.36	3.97	4.46	5.07	6.36	2.19	1.39	0.29	0.39	0.24
1992	1.91	6.26	4.91	6.62	3.97	1.19	4.79	0.07	0.8	0.31	0.51	1.28
1993	2.79	5.44	7.42	5.39	0.78	5	6.76	3.79	1.95	1.76	0.08	0.00
1994	1.26	1.49	9.12	5.67	6.45	3.14	1.41	0.89	0.95	0.00	0.24	0.58
1995	4.64	8.12	10.29	10.56	5.02	6.53	3.74	1.29	1.76	0.45	0.49	1.74
1996	3.41	9.78	10.09	9.69	12.68	2.46	7.09	4.84	1.12	0.6	0.26	2.43
1997	5.37	8.05	18.46	9.63	2.51	8.29	2.98	2.65	2.38	0.47	1.38	3.33
1998	6.58	8.36	3.54	12.10	7.66	5.20	1.76	4.82	1.05	0.09	0.00	0.73
1999	3.24	13.00	10.81	10.29	14.15	4.85	1.90	1.71	0.76	0.02	1.14	0.04
2000	2.55	10.10	7.10	7.81	5.46	3.25	1.52	2.15	1.21	0.00	0.22	0.89
2001	3.09	2.46	4.20	2.17	1.98	2.25	1.72	1.60	1.84	0.32	1.27	0.54
2002	2.91	10.26	10.66	9.00	3.61	4.04	1.93	1.14	1.32	0.19	0.07	0.57
2003	0.59	3.35	12.22	8.61	3.69	7.41	4.24	0.46	0.07	0.01	0.32	0.79
2004	2.87	4.10	9.01	7.70	5.21	2.32	2.24	1.25	1.21	0.00	1.66	1.56
2005	3.8	2.53	3.89	4.25	0.41	5.97	2.79	4.26	1.84	0.29	0.13	0.24
2006	4.16	7.58	11.79	14.09	3.38	4.21	2.58	2.26	0.92	0.17	0	0.63
MIN	0.1	1.3	1.6	0.3	0.4	0.7	0.5	0.1	0.1	0.0	0.0	0.0
MAX	9.7	16.6	18.5	16.0	14.2	10.0	7.1	4.9	3.9	2.7	4.0	3.8
MEAN	3.55	6.94	8.09	7.61	5.58	4.92	2.69	1.95	1.38	0.45	0.69	1.45

*Water Year (WY) begins October 1st of the previous calendar year and ends September 30th of current year.


DLLP – Dilley Precipitation Station (ID# 352325)
Monthly Precipitation (inches)
0
4
8
12
16
20
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sept
Statistics
(period of record: 1944–2006)
Maximum
Mean
Minimum
WY 2006


DLLP – Dilley Precipitation Station (ID# 352325)
Total Annual Precipitation (inches/water year)
0
10
20
30
40
50
60
70
mean value
1952
1954
1956
1958
1960
1962
1964
1966
1968
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
Water Year

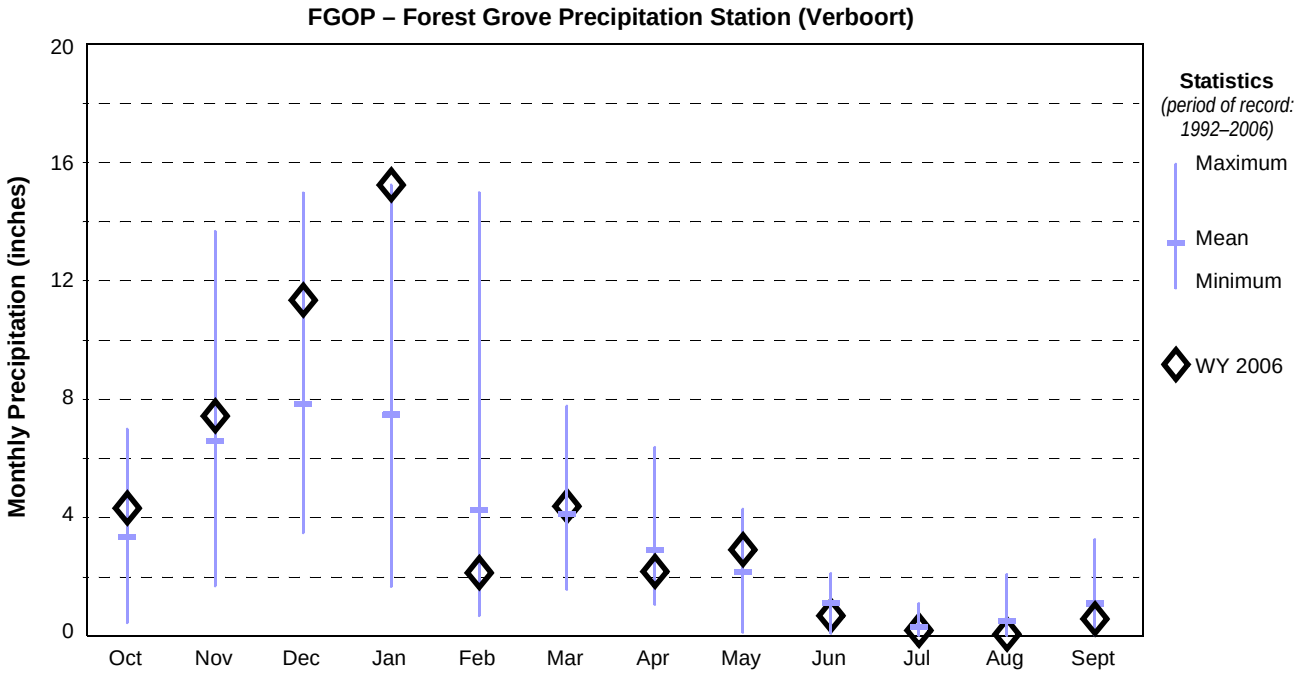
FGOP – FOREST GROVE PRECIPITATION STATION (VERBOORT)

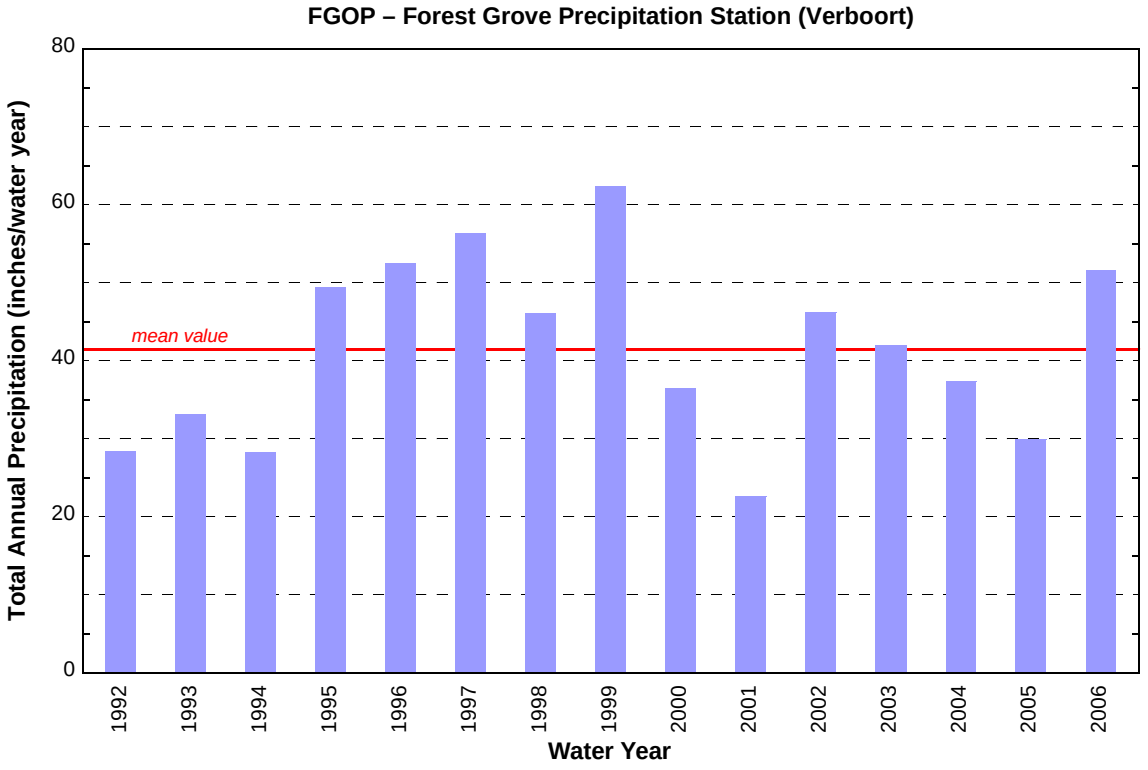
Elevation: 180 ft
Latitude: 45 33 11 Longitude: 123 05 01

Source Agency: US Bureau of Reclamation – Agrimet
http://www.usbr.gov/pn/agrimet/wxdata.html

Water Year*	Total Monthly Precipitation (inches)											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1992	1.5	5.1	3.7	5.9	3.6	1.6	4.4	0.1	0.9	0.3	0.3	1.1
1993	2.4	4.2	6.0	3.2	2.2	4.2	4.9	4.2	0.6	1.1	0.1	0.0
1994	1.1	1.7	7.6	5.0	5.8	2.3	1.5	1.3	1.0	0.0	0.2	0.8
1995	6.3	7.5	7.6	9.7	4.1	5.8	3.1	1.6	1.2	0.5	0.5	1.6
1996	3.1	11.7	8.6	9.1	3.6	2.3	6.4	4.1	0.9	0.5	0.3	2.0
1997	4.5	8.0	15.0	7.6	1.8	7.8	3.3	1.8	1.8	0.2	1.3	3.3
1998	7.0	7.1	3.5	9.1	7.2	4.6	1.4	4.3	1.1	0.1	0.0	0.8
1999	3.4	13.7	9.8	9.7	15.0	5.4	1.7	1.7	1.0	0.4	0.7	0.0
2000	2.8	7.8	5.9	7.7	4.0	2.4	1.1	2.1	1.6	0.1	0.1	0.9
2001	3.1	2.6	4.3	1.7	1.7	2.1	1.7	1.1	2.1	0.4	1.2	0.6
2002	2.8	11.2	9.7	9.3	3.5	4.6	1.6	1.2	1.2	0.2	0.0	0.9
2003	0.4	3.0	12.2	10.1	3.2	6.2	5.1	0.6	0.1	0.0	0.4	0.7
2004	3.5	4.6	7.9	6.1	5.2	1.9	2.6	1.1	0.8	0.0	2.1	1.5
2005	3.8	2.8	4.4	2.5	0.7	6.0	2.6	4.1	1.6	0.2	0.1	1.3
2006	4.3	7.4	11.4	15.2	2.2	4.4	2.2	2.9	0.7	0.2	0.1	0.6
MIN	0.4	1.7	3.5	1.7	0.7	1.6	1.1	0.1	0.1	0.0	0.0	0.0
MAX	7.0	13.7	15.0	15.2	15.0	7.8	6.4	4.3	2.1	1.1	2.1	3.3
MEAN	3.33	6.56	7.83	7.45	4.24	4.10	2.89	2.14	1.10	0.27	0.49	1.07

*Water Year (WY) begins October 1st of the previous calendar year and ends September 30th of current year.


FGOP – Forest Grove Precipitation Station (Verboort)
Monthly Precipitation (inches)
20
16
12
8
4
0
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sept
Statistics
(period of record: 1992–2006)
Maximum
Mean
Minimum
WY 2006


FGOP – Forest Grove Precipitation Station (Verboort)
Total Annual Precipitation (inches/water year)
80
60
40
20
0
mean value
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
Water Year

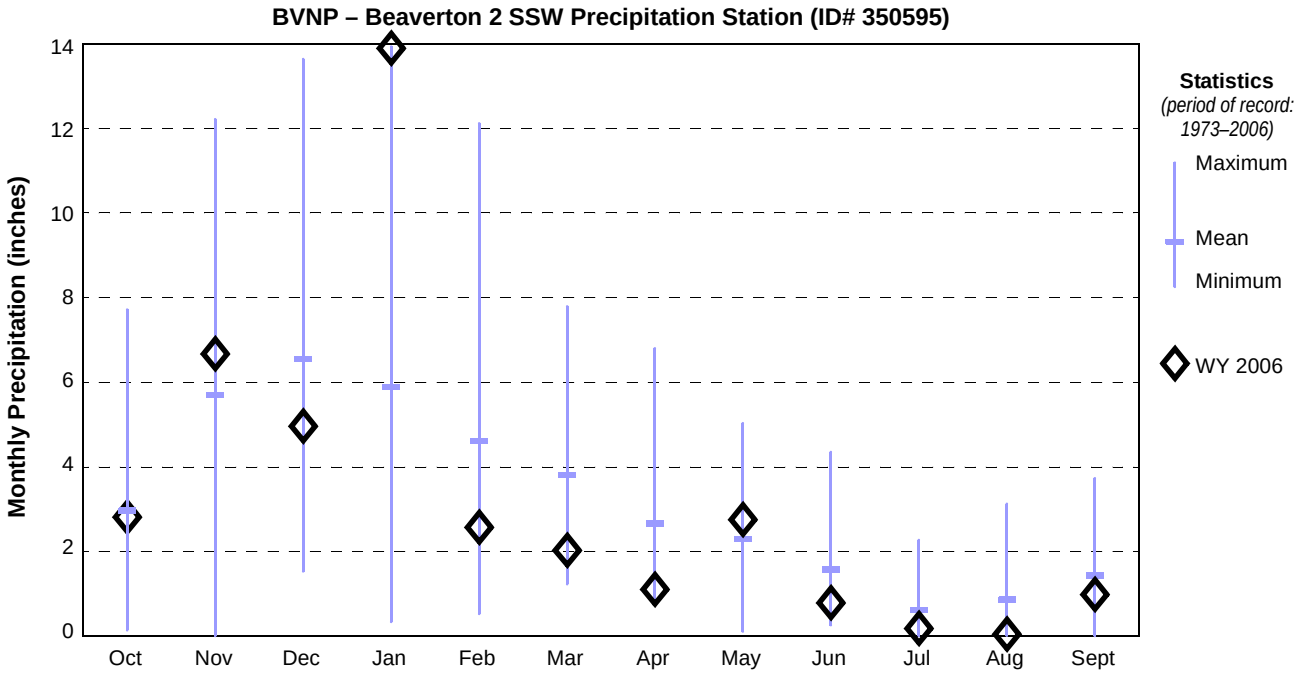
BVNP – BEAVERTON 2 SSW PRECIPITATION STATION (ID# 350595)

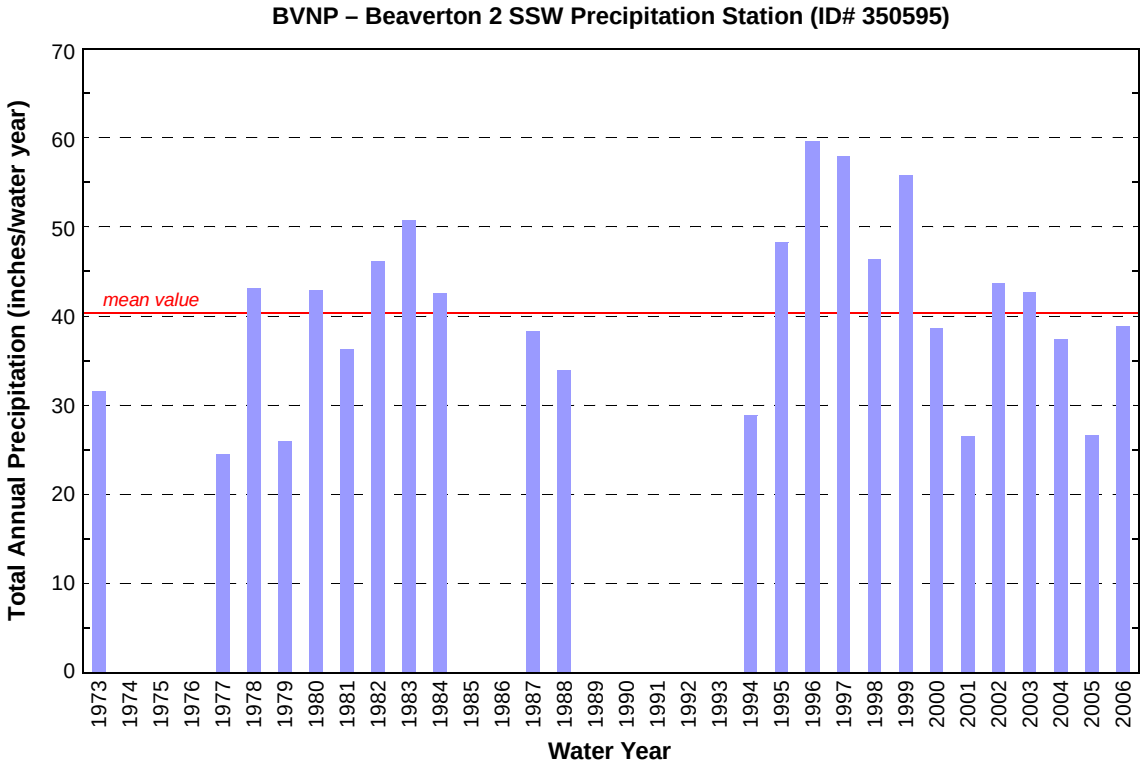
Elevation: 270 ft
Latitude: 45 27 Longitude: 122 49

Source Agency: Oregon Climate Service
http://www.ocs.oregonstate.edu

Water Year*	Total Monthly Precipitation (inches)											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1973	0.82	4.49	9.18	4.27	1.85	2.99	0.9	0.97	1.53	0.04	0.94	3.59
1974	2.95		9.97	9.15	4.68	5.32	2.62	2.14	0.89	1.69	0.06	0.12
1975	1.62	7.11	6.32		5.07	4.39	1.76	1.91	0.91	0.82	2.06	0.00
1976	4.67	4.01		5.32	5.05	3.13	2.5	1.92	0.58	1.18	2.78	0.91
1977	1.29	1.33	1.53	1.26	2.22	3.21	0.86	4.11	1.35	0.58	3.07	3.69
1978	2.66	4.95	8.5	5.51	4.25	1.54	4.15	3.51	0.68	1.08	2.51	3.73
1979	0.52	3.28	3.06	1.28	6.72	2.07	2.76	1.86	0.59	0.25	1.17	2.35
1980	5.34	3.74	6.34	9.05	4.29	3.87	3.34	1.96	2.71	0.17	0.28	1.72
1981	1.32	6.75	8.89	2.00	3.9	2.63	2.2	2.12	3.54	0.17	0.05	2.71
1982	4.50	5.04	9.35	6.06	6.22	2.64	4.48	0.76	1.13	0.97	1.08	3.31
1983	3.90	4.28	9.26	5.23	9.88	7.21	1.91	1.8	2.33	2.27	2.13	0.52
1984	1.68	11.57	5.88	2.10	3.95	3.75	3.47	3.91	4.35	0.00	0.16	1.68
1985	3.48	10.68	3.09	0.33	2.57	4.00	0.93			0.31	1.12	1.95
1986	2.74		2.31	5.66	5.95	2.72	1.24	2.12	0.42	1.28	0.04	3.33
1987	2.34	6.56	4.44	6.84	5.18	6.35	1.79	2.31	0.56	1.54	0.01	0.34
1988	0.47	2.16	9.61	6.73	1.20	3.38	3.47	2.91	2.58	0.15	0.15	1.08
1989	0.13	7.88	2.92				1.28	1.92	0.85	0.99	0.94	1.00
1990	1.47	3.45	3.08	9.96	5.15	3.42	3.26	1.87	2.37	0.48		0.58
1991	4.27	4.27	2.69	3.19	4.69	4.17		2.83	2.38	0.13	0.51	0.19
1992	2.10	6.43	4.26		4.99	1.23		0.1	1.36	0.40	0.30	1.12
1993	2.44	5.45			0.52	5.17		3.50	1.54	1.26	0.24	0.00
1994	0.85	2.17	7.08	4.59	5.71	2.76	2.16	0.97	1.41	0.06	0.09	1.03
1995	6.26	7.05	7.33	7.48	4.00	4.92	3.77	1.43	2.54	1.06	1.01	1.40
1996	3.68	9.84	7.84	7.26	12.12	3.16	6.22	5.03	0.84	0.60	0.23	2.80
1997	5.63	8.96	13.64	10.04	1.78	7.79	3.02	1.83	2.64	0.97	0.16	1.47
1998	7.72	5.48	4.80	8.44	5.73	4.30	1.54	4.91	1.86	0.66	0.04	0.86
1999	3.51	12.22	9.09	8.71	10.62	4.99	2.16	2.07	0.98	0.34	0.89	0.15
2000	2.24	7.57	4.61	7.31	6.17	3.32	1.96	2.45	1.10	0.07	0.26	1.53
2001	4.51	3.01	4.56	1.91	1.82	3.20	2.30	1.25	1.78	0.60	0.81	0.68
2002	3.52	7.68	9.20	8.06	4.35	4.11	2.69	1.73	1.46	0.07	0.12	0.68
2003	0.53	2.49	12.50	7.51	3.55	5.92	6.80	0.89	0.26	0.00	1.14	1.02
2004	3.84	5.70	9.48	3.81	4.56	2.24	2.12	1.29	1.16	0.00	3.12	0.00
2005	4.37	0	3.6	2.61	0.61	3.52	3.41	4.2	1.89	0.15	0.37	1.89
2006	2.81	6.67	4.96	13.94	2.57	2.03	1.1	2.75	0.78	0.18	0.05	0.99
MIN	0.1	0.0	1.5	0.3	0.5	1.2	0.9	0.1	0.3	0.0	0.0	0.0
MAX	7.7	12.2	13.6	13.9	12.1	7.8	6.8	5.0	4.4	2.3	3.1	3.7
MEAN	2.95	5.70	6.54	5.87	4.60	3.80	2.65	2.28	1.56	0.60	0.85	1.42

*Water Year (WY) begins October 1st of the previous calendar year and ends September 30th of current year.


BVNP – Beaverton 2 SSW Precipitation Station (ID# 350595)
Monthly Precipitation (inches)
0
2
4
6
8
10
12
14
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sept
Statistics
(period of record: 1973–2006)
Maximum
Mean
Minimum
WY 2006

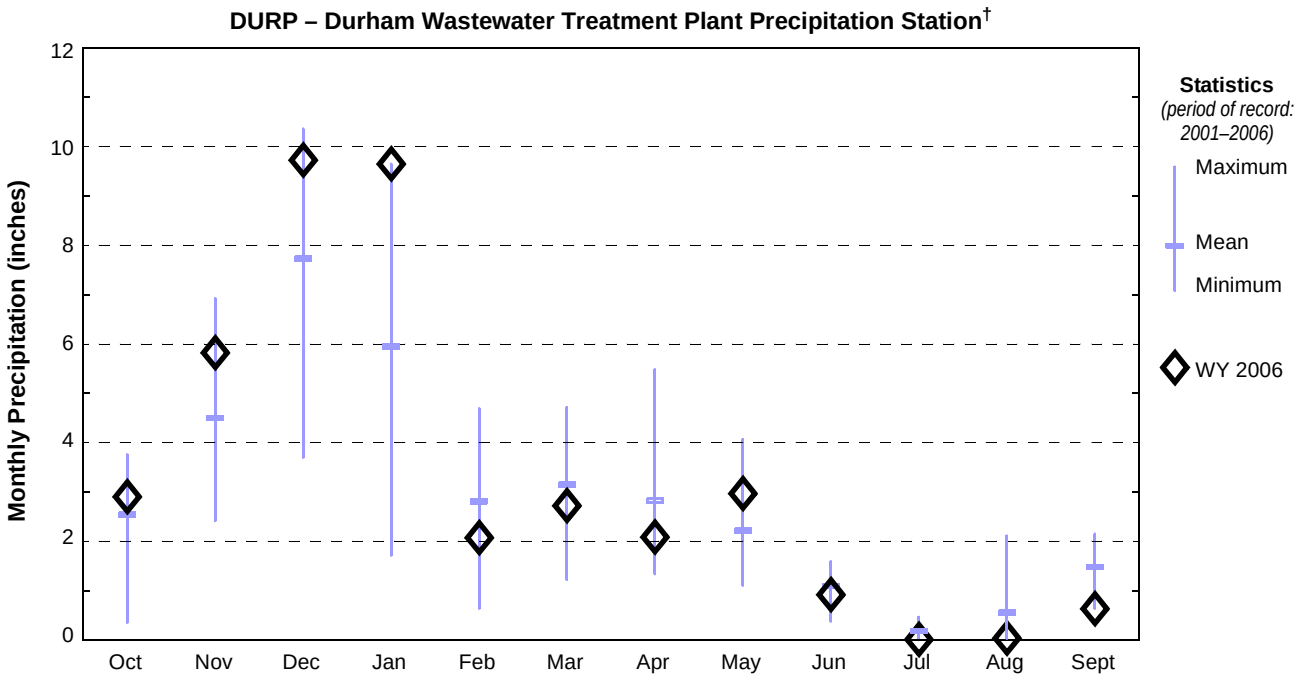

BVNP – Beaverton 2 SSW Precipitation Station (ID# 350595)
Total Annual Precipitation (inches/water year)
0
10
20
30
40
50
60
70
mean value
1973
1974
1975
1976
1977
1978
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
Water Year

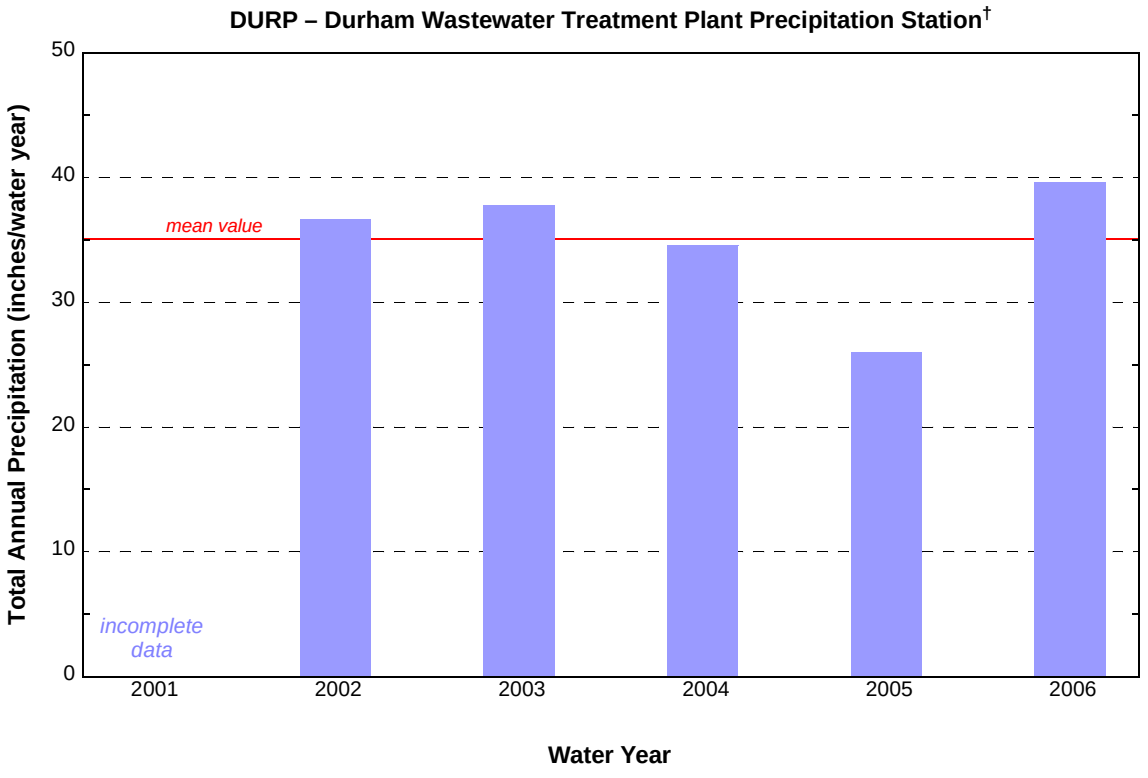
DURP – DURHAM WASTEWATER TREATMENT PLANT PRECIPITATION STATION

Elevation: 140 ft
Latitude: 45 23 59 Longitude: 122 45 45 Source Agency: US Geological Survey

Water Year*	Total Monthly Precipitation (inches)†											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
2001									1.5	0.8	0.7	0.7
2002	3.8	6.9	5.9	5.4	3.4	3.5	2.1	1.6	1.3	0.5	0.2	2.2
2003	0.4	2.6	10.4	8.1	3.2	4.7	5.5	1.3	0.4	0.0	0.4	0.9
2004	2.5	4.7	8.9	4.8	4.7	1.2	1.3	1.1	1.3	0.0	2.1	1.8
2005	3.1	2.4	3.7	1.7	0.6	3.5	3.1	4.1	1.6	0.4	0.0	1.8
2006	2.9	5.8	9.7	9.7	2.1	2.7	2.1	3.0	0.9	0.0	0.0	0.6
MIN	0.4	2.4	3.7	1.7	0.6	1.2	1.3	1.1	0.4	0.0	0.0	0.6
MAX	3.8	6.9	10.4	9.7	4.7	4.7	5.5	4.1	1.6	0.5	2.1	2.2
MEAN	2.52	4.49	7.72	5.95	2.80	3.14	2.81	2.21	1.09	0.17	0.55	1.46

*Water Year (WY) begins October 1st of the previous calendar year and ends September 30th of current year.
†The USGS adjusted all historical values for precipitation at the Durham Wastewater Treatment Plant in 2006 to correct for systematic undercatch of rainfall.





†The USGS adjusted all historical values for precipitation at the Durham Wastewater Treatment Plant in 2006 to correct for systematic undercatch of rainfall.

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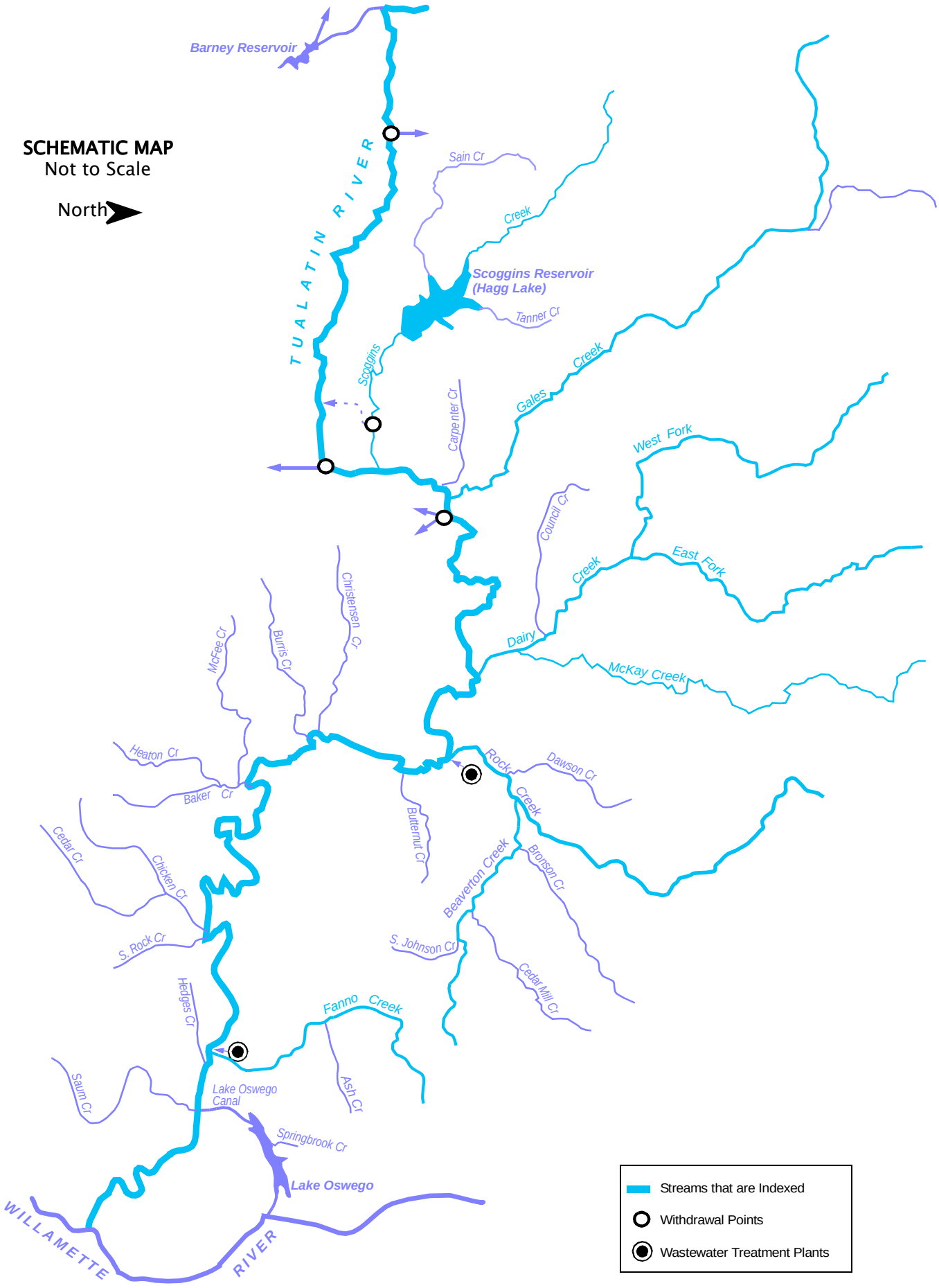
Appendix I

River Mile Indices

STREAMS INDEXED



STREAMS INDEXED

STREAM NAME	HYDROLOGIC UNIT CODE	PAGE
Tualatin River	211400300	I-4
Fanno Creek	2114003000180	I-7
Rock Creek	2114003000420	I-8
Beaverton Creek	2114003000420060	I-9
Dairy Creek	2114003000480	I-10
McKay Creek	2114003000480020	I-11
East Fork Dairy Creek	2114003000480080	I-12
West Fork Dairy Creek	2114003000480090	I-13
Gales Creek	2114003000560	I-14
Scoggins Creek	2114003000640	I-15

TUALATIN RIVER — RIVER MILE INDEX

HUC: 211400300

[Elevation measured relative to 0.00 gage datum; Abbreviations: RB= right bank, LB= left bank, HUC= Hydrologic Unit Code]

River Mile	Bank	Description	Drainage Area (square miles)	Elevation (feet)
0.00		Mouth of Tualatin River at Willamette River (LB of Willamette River @ River Mile 28.5)	712	
0.20		Weiss Bridge – Petes Mtn Rd.		
1.60	RB	Fields Creek (HUC: 02114003000010)		
1.69		State Hwy 212 Bridge (Fields Bridge)		
1.75	LB	West Linn Stream Gage Station – USGS #14207500	706	85.61
2.40	LB	Tate Creek (HUC: 02114003000020)		
3.45		Lake Oswego Corp. Diversion Dam		
4.25		Interstate 205 Bridge		
4.56	LB	Wilson Creek (HUC: 02114003000080)		
5.34	LB	Boat Launch		
5.36	LB	Shipley Creek (HUC: 02114003000100)		
5.38		Shipley Bridge– Stafford Rd. NWS Wire Weight Gage		
5.62	LB	Pecan Creek (HUC: 02114003000120)		
6.02	RB	Athey Creek (HUC: 02114003000123)		
6.70	RB	Saum Creek (HUC: 02114003000130)		
6.70	LB	Oswego Canal Diversion River Elevation Recording Gage #14206990, Headgate, and Canal Recording Gage #14207000		
7.36	LB	Boat Launch – Dogwood Drive		
7.67	RB	Browns Ferry Park Canoe Launch		
7.83		Clackamas County – Washington County Boundary (Underground Cable Crossing Sign)		
8.18		Interstate 5 Bridge		
8.60		Boones Ferry Road Bridge		
8.64	RB	Hedges Creek (HUC: 02114003000150)		
8.90	RB	Tualatin Park Boat Launch		
8.91	RB	Southern Pacific RR Bridge Tualatin River at Tualatin Elevation Recording Station #14206956 (formerly #14206960)		
9.32	LB	Fanno Creek (HUC: 02114003000180) *[Index on page I-13]*	26.8	
9.33	LB	Durham Wastewater Treatment Plant Outfall		
9.34		Oregon Electric RR Bridge		
9.80	LB	Cook Park Boat Launch		
11.50	LB	US Hwy. 99W Bridge (Pacific Highway) Canoe Launch(access from southeast of bridge)		
12.68		Overhead BPA Transmission Line; Vancouver–Eugene		
12.80	LB	Rivermeade Boat Launch (Private)		
15.20	RB	Rock Creek–South (HUC: 02114003000250)	13.7	
15.50	RB	Chicken Creek (HUC: 02114003000270)		
16.09	RB	Chicken Creek Drainage Ditch		
16.22	RB	Shamberg Bridge (Elsner Road) Rated Staff Gage for Stream Flow		

TUALATIN RIVER — RIVER MILE INDEX

HUC: 211400300

[Elevation measured relative to 0.00 gage datum; Abbreviations: RB= right bank, LB= left bank, HUC= Hydrologic Unit Code]

River Mile	Bank	Description	Drainage Area (square miles)	Elevation (feet)
21.12		Overhead BPA Transmission Line; Big Eddy–Keeler		
26.90		State Hwy. 210 bridge (Scholls)		
28.20	RB	McFee Creek (HUC: 02114003000310)		
30.76	LB	Unnamed Stream (HUC: 02114003000320) (Jacktown)		
31.62	RB	Burris Creek (HUC: 02114003000330)		
31.92	RB	Christensen Creek (HUC: 02114003000350)		
33.30		Harris Bridge (State Highway 208)	568	100.42
	LB	Farmington Recording Stream Gage #14206500		
35.68	LB	Butternut Creek (HUC: 02114003000380)		
37.38	LB	Gordon Creek (HUC: 02114003000400)		
38.08	LB	Rock Creek Wastewater Treatment Plant Outfall		
38.09	LB	Rock Creek (HUC: 02114003000420	74.6	
		Beaverton Creek (HUC:02114003000420060)	36	
38.44	LB	Rood Bridge Small Watercraft Launch		
		Rood Bridge Road Bridge		
	LB	Recording Stream Gage #14206295		105.16
40.44	RB	Davis Creek (HUC: 02114003000430)		
41.64		Minter Bridge Road Bridge		
43.88	LB	Jackson Slough		
		Jackson Bottom Wetlands		
	LB	Hillsboro Wastewater Treatment Plant Effluent Outfall		
44.40		State Highway 219 Bridge		
	RB	Recording Stream Gage #14206241		
44.73	LB	Dairy Creek (HUC: 02114003000480) *[Index on page I-9]*	226	
		McKay Creek (LB) (HUC: 02114003000480020) *[Index on page I-10]*	63.4	
		East Fork Dairy Creek (HUC: 02114003000480080) *[Index on page I-11]*		
		West Fork Dairy Creek (HUC: 02114003000480090) *[Index on page I-12]*		
51.54		Golf Course Road Bridge		
	RB	Golf Course Recording Stream Gage #14204800		
53.74		LaFollett Road (Bridge removed)		
55.24	LB	Forest Grove Wastewater Treatment Plant Outfall		
		Fern Hill Wetlands		
55.32		Fernhill Road Bridge		
56.10		Springhill Pump Plant Intake		
56.80	LB	Gales Creek (HUC: 02114003000560) *[Index on page I-8]*	78.6	
57.38	LB	Carpenter Creek (HUC: 02114003000580)		
57.84	LB	Dilley Creek (HUC: 02114003000600)		
58.04	LB	Johnson Creek (HUC: 02114003000602)		
58.82		Springhill Road Bridge	125	147.57
	LB	Tualatin River at Dilley Stream Gage; USGS #14203500		
59.02	LB	O'Neil Creek (HUC: 02114003000620)		
60.00	LB	Scoggins Creek (HUC: 02114003000640) *[Index on page I-7]*		
60.80	RB	Wapato Creek (HUC: –02114003000670)		
		Wapato Creek Improvement District Return Flow		
62.00	RB	Wapato Improvement District Headgate)		
62.24		Southern Pacific RR Bridge		

TUALATIN RIVER — RIVER MILE INDEX

HUC: 211400300

[Elevation measured relative to 0.00 gage datum; Abbreviations: RB= right bank, LB= left bank, HUC= Hydrologic Unit Code]

River Mile	Bank	Description	Drainage Area (square miles)	Elevation (feet)
62.25		State Highway 47 Bridge (Gaston) New Tualatin River at Gaston Recording Stream Gage #14202510		
62.30		Bates Road Bridge		
62.80	LB	Black Jack Creek (HUC: 02114003000700)		
62.90		Overhead BPA Transmission Line; Forest Grove–McMinnville		
63.13		TVID Patten Valley Pump Station Outfall #1		
63.87	RB	Discontinued Tualatin River at Gaston Recording Stream Gage	48.5	
64.26		TVID Patten Valley Pump Station Outfall #2		
65.34	RB	Williams Canyon (HUC: 02114003000730)		
65.90		Mt. Richmond Road Bridge		
67.30	LB	Hering Creek (HUC: 02114003000760)		
67.83		South Road Bridge (Cherry Grove)		
68.44	RB	Roaring Creek (HUC: 02114003000790)		
69.42		Little Lee Falls		
70.70	LB	Raines Bridge– Tualatin River below Lee Falls Rated Staff Gage for Stream Flow		
71.07		Lee Falls		
73.28		Haines Falls		
73.30	LB	City of Hillsboro Haines Falls Intake		
74.00	LB	Lee Creek (LB–02114003000860)		
74.05	RB	Patten Creek (HUC: 02114003000870)		
75.70	LB	Sunday Creek (HUC: 02114003000900)		
76.60	LB	Maple Creek (HUC: –02114003000940)		
76.95		Ki–A–Cut Falls		
78.00	RB	Barney Reservoir Aqueduct Outfall		
79.3+		Headwaters of Tualatin River		

FANNO CREEK — STREAM MILE INDEX

HUC: 2114003000180

[Abbreviations: RB= right bank, LB= left bank, HUC= Hydrologic Unit Code, ISWR= Instream Water Right]

River Mile	Bank	Description
0.00		Confluence with the Tualatin River (HUC: 02114003000) at River Mile 9.32
0.86		Oregon Electric RR Bridge
1.19		Durham Road Bridge USGS Gage #14206950
2.00	LB	Ball Creek (HUC: 02114003000180020)
2.12		Bonita Street Bridge – Rated Staff Gage
3.28		SW Hall Blvd Bridge
3.95		SW Ash Avenue Bridge
4.28		SW Main St Bridge
4.30		State Hwy 99W Bridge
4.49		SW Grant Ave Bridge
5.07		SW Tiederman Ave. Bridge
5.08	RB	Summer Creek (HUC: 02114003000180070) Rated Staff Gage at Fowler School
5.32		SW Tigard Ave Bridge
5.53		SW North Dakota St Bridge
5.54	LB	Ash Creek (HUC: 02114003000180080) Rated Staff Gage at Greenburg Road
6.38		Scholls Ferry Road Bridge
7.30		Tuckerwood – Rated Staff Gage
7.66		SW Hall Blvd Bridge
8.40		SW Denny Rd Bridge
8.60		Oregon Electric RR Bridge
8.70		State Hwy 217 Bridge
9.42		Scholls Ferry Road Bridge Rated Staff Gage
9.66		SW 92nd Ave Bridge
9.90		SW Bohmann Parkway Bridge
10.16		SW 86th Ave Bridge
10.78		SW Nicol Road Bridge
11.76		Olson Road Bridge
11.96	RB	Sylvan Creek (HUC: 02114003000180190)
11.98		SW Beaverton–Hillsdale Hwy (State Hwy 10)
12.10		Washington County – Multnomah County Line
12.58		SW 56th Ave Bridge USGS Gage #14206900
12.81		SW Shattuck Road Bridge
13.22		SW 45th Ave Bridge
13.23	RB	Ivey Creek (HUC: 02114003000180250)
13.32		SW 43rd Ave Bridge
13.38		SW 42nd Ave Bridge
13.48		SW 39th Ave Bridge
13.98		SW Beaverton–Hillsdale Hwy (State Hwy 10)
14.10		SW 30th Ave Bridge

ROCK CREEK — STREAM MILE INDEX

HUC: 2114003000420
[Abbreviations: RB= right bank, LB= left bank, HUC= Hydrologic Unit Code]

River Mile	Bank	Description
0.8		River Road Bridge
1.2		Southern Pacific RR Bridge
1.2+		State Highway 8 Bridge – Rated Staff Gage for Stream Flow
2.4		SW Brookwood Avenue Bridge
3.1	RB	Dawson Creek
4.4	LB	Beaverton Creek
4.5		Baseline Road Bridge
4.9		NW Quatama Road Bridge – Rated Staff Gage for Stream Flow
5.5		Oregon Electric RR Bridge
5.7		NW 216th Avenue Bridge
6.7		NW Cornell Road Bridge
7.8		US Highway 26 Bridge
9.0		West Union Road Bridge – Rated Staff Gage for Stream Flow
9.3	RB	Holcomb Creek
10.0		NW 185th Avenue Bridge
10.9	LB	Abbey Creek
11.0		Germantown Road Bridge
11.9		Cornelius Pass Road Bridge
13.0		Old Cornelius Pass Road Bridge
14.1		Burlington Northern RR Bridge
15.1		Rated Staff Gage for Stream Flow
16.4		Rock Creek Road Bridge
16.5		Van Raden Reservoir
19.1		Headwaters

BEAVERTON CREEK — STREAM MILE INDEX

HUC: 2114003000420060
[Abbreviations: RB= right bank, LB= left bank, HUC= Hydrologic Unit Code]

River Mile	Bank	Description
0.00		Confluence with Rock Creek (LB, HUC: 02114003000480080260) @ River Mile 4.3
0.40		Southwest Baseline Road
1.16		Southwest 216th Avenue Road Bridge– Rated Staff Gage for Stream Flow
2.20	RB	Bronson Creek (HUC: 02114003000420060010)
3.32	RB	Willow Creek (HUC: 02114003000420060050)
4.90		Southwest 170th Avenue Road Bridge– Rated Staff Gage for Stream Flow
5.47	LB	Unnamed Stream (HUC: 02114003000420060096)
6.06	LB	Johnson Creek (HUC: 02114003000420060100)
6.30	LB	Unnamed Stream (HUC: 02114003000420060120)
6.66		Oregon Electric Railroad
7.45		Cedar Hills Boulevard
7.90	RB	Reasoners Creek (HUC: 02114003000420060130)
8.75+		Headwaters

DAIRY CREEK — STREAM MILE INDEX

HUC: 02114003000480
[Abbreviations: RB= right bank, LB= left bank, HUC= Hydrologic Unit Code]

River Mile	Bank	Description
0.00		Confluence with Tualatin River (HUC: 0211400300) @ River Mile 44.73
1.65		Southern Pacific RR Bridge
2.06		State Highway 8 Bridge Dairy Creek at TV Hwy Recording Stream Gage #14206200
2.20		Oregon Electric RR Bridge
2.26	LB	McKay Creek (HUC: 02114003000480020)
3.53	RB	Council Creek (HUC: 02114003000480040)
6.02		Susbauer Road Bridge (County Road 196)
7.39		BPA Power Line Crossing
8.51		Cornelius–Schefflin Road Bridge (County Road 2161) Rated Staff Gage for Stream Flow
10.55		Confluence of East Fork Dairy Ck (HUC: 02114003000480080) & West Fork Dairy Ck (02114003000480090)

MC KAY CREEK — STREAM MILE INDEX

HUC: 2114003000480020
[Abbreviations: RB= right bank, LB= left bank, HUC= Hydrologic Unit Code]

River Mile	Bank	Description
0.00		Confluence with Dairy Creek (HUC: 02114003000480) @ River Mile 2.26
1.31		Padgett Road Bridge (County Road 2245)
2.25		Hornecker Road Bridge (County Road 2393) Rated Staff Gage for Stream Flow
2.30		Southern Pacific RR Crossing
4.32		Glencoe Road Bridge (County Road A–146½) Rated Staff Gage for Stream Flow
4.46		BPA Transmission Line Crossing
5.34	LB	Waible Creek (HUC: 02114003000480020040)
6.30		NW Old Scotch Church Road Bridge (County Road A–66)
8.00		US Hwy 26 Bridge – Sunset Highway
9.36		NW West Union Road Bridge (County Road 2496) City of North Plains to West
9.38		Southern Pacific RR Crossing
10.94	LB	Jackson Creek (HUC: 02114003000480020100)
12.80		NW Shadybrook Road Bridge (County Road A–110)
15.56		NW Collins Road Bridge (County Road 1889) Rated Staff Gage for Stream Flow
16.56	RB	Brunswick Canyon (HUC: 02114003000480020179)
16.66	LB	East Fork McKay Creek (HUC: 02114003000480020180)
24.0+		Headwaters

EAST FORK DAIRY CREEK — STREAM MILE INDEX

HUC: 2114003000480080
[Abbreviations: RB= right bank, LB= left bank, HUC= Hydrologic Unit Code, ISWR= Instream Water Right]

River Mile	Bank	Description
0.00		Confluence with West Fork Dairy Creek (HUC: 02114003000480090) @ River Mile 10.56 of Dairy Creek (HUC: 02114003000480)
1.24		Roy Road Bridge (County Road A–159) Rated Staff Gage for Stream Flow
2.34		Port of Tillamook Bay RR Bridge
3.04	RB	Bledsoe Creek (HUC: 02114003000480080030)
3.20		Harrington Road Bridge (County Road 1989)
4.80		SP&S RR Bridge
5.56		US Highway 26 Bridges
6.91		Mountaindale Road Bridge (County Road 12)
6.97	LB	Baker Creek (HUC: 02114003000480080080)
8.44		Dairy Creek Road Bridge (County Road 2067) Rated Staff Gage for Stream Flow
8.55		East Fork Dairy Creek at Mountaindale, OR – Former USGS Gage #14205500 (10/40–9/51) Drainage Area = 43.0 square miles
9.62		NW Uebel Road Bridge (County Road 304)
12.50		Murphy Lane Bridge (Private) Rated Staff Gage for Stream Flow
12.82	RB	Big Canyon (HUC: 02114003000480080150)
13.00		***ISWR:*** C–59525 5/25/66
13.95	RB	Murtaugh Creek (HUC: 02114003000480080170)
14.04	LB	Meadow Brook Creek (HUC: 02114003000480080180)
14.17		Meacham Road Bridge (County Road 742)
15.55	LB	Plentywater Creek (HUC: 02114003000480080200) ***ISWR:*** C–59527 5/25/66
16.52	RB	Denny Creek (HUC: 02114003000480080210) ***ISWR:*** C–59526 5/25/66
16.56		Bacona Road Bridge (County Road 422) Snooseville Corner
17.21		Greener Road Bridge (County Road 1990)
17.34	LB	Rock Creek (HUC: 02114003000480080260)
17.50		Little Bend Park
17.60		Fern Flat Road Crossing (County Road 241)
18.15	LB	Panther Creek (HUC: 02114003000480080280)
18.31		Fern Flat Road Crossing (County Road 241)
18.84	RB	Roundy Creek (HUC: 02114003000480080290)
19.10	RB	Campbell Creek (HUC: 02114003000480080310)
21.30		Washington County – Columbia County Boundary
21.48		BPA Power Line Crossing
22.0+		Headwaters

WEST FORK DAIRY CREEK — STREAM MILE INDEX

HUC: 2114003000480090

[Abbreviations: RB= right bank, LB= left bank, HUC= Hydrologic Unit Code]

River Mile	Bank	Description
0.00		Confluence with East Fork Dairy Creek (HUC: 02114003000480080) @ River Mile 10.56 of Dairy Creek (HUC: 02114003000480)
1.96		Evers Road Bridge (County Road A–187) Rated Staff Gage for Stream Flow
2.09	RB	Lousignant Canal (HUC: 02114003000480090010)
2.82		State Highway 47 Bridge
5.28		Greenville Road Bridge (County Road A–159)
6.20		State Highway 6 Bridge
6.22	RB	Cedar Canyon Creek (HUC: 02114003000480090110)
7.53		Cedar Canyon Road Bridge (County Road 1938) City of Banks to SE
7.70		State Hwy 47 Bridge – Rated Staff Gage for Stream Flow West Fork Dairy Creek at Banks, OR –Former USGS Gage #14205000 (10/40 – 9/43) Drainage Area = 47.5 square miles
7.72		Port of Tillamook Bay RR Bridge
9.30		US Highway 26 Bridge
10.60		NW Green Mountain Road Bridge (County Road 127)
11.02	LB	Garrigus Creek (HUC: 02114003000480090180)
12.19		NW Turk Road Bridge (County Road 233)
12.36	RB	Kuder Creek (HUC: 02114003000480090190)
12.90		NW Pihl Road Bridge (County Road 1045) Community of Manning
13.33		Port of Tillamook Bay RR Bridge
13.48		Port of Tillamook Bay RR Bridge
13.58	LB	Witcher Creek (HUC: 02114003000480090200)
14.37		Port of Tillamook Bay RR Bridge
14.50		US Highway 26 Bridge
15.00		NW Fisher Road Bridge (County Road 394)
15.11	LB	Mendenhall Creek (HUC: 02114003000480090220)
15.58	RB	Burgholzer Creek (HUC: 02114003000480090230)
15.60		US Highway 26 Bridge
16.00		Community of Buxton – ½ mile east
17.02	LB	Williams Creek (HUC: 02114003000480090240)
17.98	RB	Cummings Creek (HUC: 02114003000480090250)
18.10		State Highway 47 Bridge
18.85		Port of Tillamook Bay RR Bridge
22+		Headwaters

GALES CREEK — STREAM MILE INDEX

HUC: 2114003000560
[Abbreviations: RB= right bank, LB= left bank, HUC= Hydrologic Unit Code, ISWR= Instream Water Right]

River Mile	RB	Description
0.00		Confluence with Tualatin River (HUC: 0211400300) @ River Mile 56.80 ***ISWR*:** C–59523 5/25/66
1.63		Southern Pacific RR Bridge
1.75		Forest Grove Bypass Bridge – State Highway 47 to State Highway 8
2.36		State Highway 47 Bridge Gales Creek Recording Stream Gage #14204530
3.66		Ritchey Road Bridge (County Road 461)
6.53	RB	Prickett Creek (HUC: 02114003000560090)
6.98		Stringtown Road Bridge (County Road A–176)
7.70	RB	Roderick Creek (HUC: 02114003000560110)
8.56		Roderick Road Bridge (County Road 395) Gales Creek near Forest Grove Oregon – Former USGS Gage #14204500 (10/40–9/56 & 10/70–9/81)
8.94	RB	Godfrey Creek (HUC: 02114003000560130)
9.22	LB	Kelly Creek (HUC: 02114003000560120)
10.68	RB	Clear Creek (HUC: 02114003000560150)
11.44	RB	Iler Creek (HUC: 02114003000560170)
11.46		NW Gales Creek Road (County Road 1312) Community of Gales Creek
11.47	RB	Fir Creek (HUC: 02114003000560190)
12.00		***ISWR:*** C–59509 5/25/66 above this point
12.36		Clapshaw Hill Road Bridge (County Road 2037) Rated Staff Gage for Stream Flow
12.40	LB	Little Beaver Creek (HUC: 02114003000560200)
		ISWR: C–59512 5/25/66
12.92		Parson Road Bridge
14.44	RB	White Creek (HUC: 02114003000560210)
14.68		NW Wilson River Highway Bridge (State Highway 6)
15.74	RB	Lyda Creek (HUC: 02114003000560230)
16.26	RB	Bateman Creek (HUC: 02114003000560250)
17.50		Gales Creek near Gales Creek, OR – Former USGS Gage #1420400 (10/35–9/45 & 10/639/70)
18.00	LB	Beaver Creek (HUC: 02114003000560280) Community of Glenwood ***ISWR:*** C–59524 5/25/66
18.45		NW Timber Road Bridge (County Road 374)
18.65		Wilson River Highway Bridge (State Highway 6)
19.70		Wilson River Highway Bridge (State Highway 6)
19.88	LB	Coffee Creek (HUC: 02114003000560300)
20.07	LB	Finger Creek (HUC: 02114003000560305)
20.70	RB	South Fork Gales Creek (HUC: 02114003000560310) ***ISWR:*** C–59514 5/25/66
21.60	LB	North Fork Gales Creek (HUC: 02114003000560320) ***ISWR:*** C–59513 5/25/66
22.76	RB	Low Divide Creek (HUC: 02114003000560330)
		Gales Creek Forest Park
23.20		Gales Creek near Glenwood, OR – USGS Gage #14203750 (7/94 – present)

SCOGGINS CREEK — STREAM MILE INDEX

HUC: 2114003000640
[Abbreviations: RB= right bank, LB= left bank, HUC= Hydrologic Unit Code]

River Mile	Bank	Description
0.00		Confluence with Tualatin River (HUC: 0211400300) @ River Mile 60.00
0.94		RR Bridge
1.00		State Highway 47 Bridge
1.70		Old State Highway 47 Bridge
1.71		Scoggins Creek near Gaston, OR – Former USGS Gage #14203000 (10/1940 – 9/1974) Drainage Area = 43.3 square miles
4.80		Scoggins Creek below Henry Hagg Lake, near Gaston, OR – USGS Gage #14202980 (1/1975 –present) Drainage Area = 38.8 square miles
5.10		Scoggins Dam
7.00	RB	Sain Creek (HUC: 02114003000640170)
7.62	LB	Tanner Creek (HUC: 02114003000640200)
8.40	LB	Wall Creek (HUC: 02114003000640220)
9.00		Lake Loop Road Bridge
9.30		Scoggins Creek above Henry Hagg, near Gaston, OR – Gage #14202850 (10/1972 – present) Drainage Area = 15.9 square miles
10.52	LB	Parson Creek (HUC: 02114003000640240)
15.50	LB	Fisher Creek (HUC: 02114003000640300)