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February 11, 2020

Carey Cholski
Permit Administrator
Washington State Dept. of Ecology
PO Box 47775
Olympia, WA 98504-7775

RE: 2019 Infiltration and Inflow Report
WA0023639

Dear Ms. Cholski:

Enclosed you will find the 2019 Infiltration and Inflow Report for the Salmon Creek Treatment Plant prepared by Clark Regional Wastewater District (District). This report is being submitted as required by the NPDES Permit No. WA0023639.

If you have any questions, please contact me at 360.993.8815 or by email at hhenderson@crwwd.com.

Sincerely,

A handwritten signature in blue ink, appearing to read "Heath Henderson", is written over a light blue horizontal line.

Heath Henderson, PE
District Engineer

Enclosure

C: David Knight, Pretreatment Coordinator, Washington State Dept. of Ecology
Travis Capson, Wastewater Operations Manager, Salmon Creek Treatment Plant





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Transmittal Cover

Project: 2019 I & I Report
Permit No.: WA002363-9
Date: February 12, 2020

To:	Attention:	No. Copies	Action Requested	Transmitted Via
Dept. of Ecology	Carey Cholski	1	Records	Email & Fed-ex
Dept. of Ecology	Dave Knight	1	Records	Email & Mail
Clark County SCTP	Travis Capson	1	Records	Hand Carried
City of Battle Ground	Mark Herceg	1	Records	Hand Carried
District	Heath Henderson	1	Records	Email
District	Rich Ludlow	1	Records	Email
District	Kristen Thomas	1	Records	Hand Carried
District	John Peterson	1	Records	Hand Carried

DESCRIPTION:

2019 Infiltration and Inflow Report pursuant to NPDES Permit WA002363-9

MESSAGE:

Please call if you have any questions (360) 993.8815

BY:

Heath H. Henderson, P.E.
District Engineer

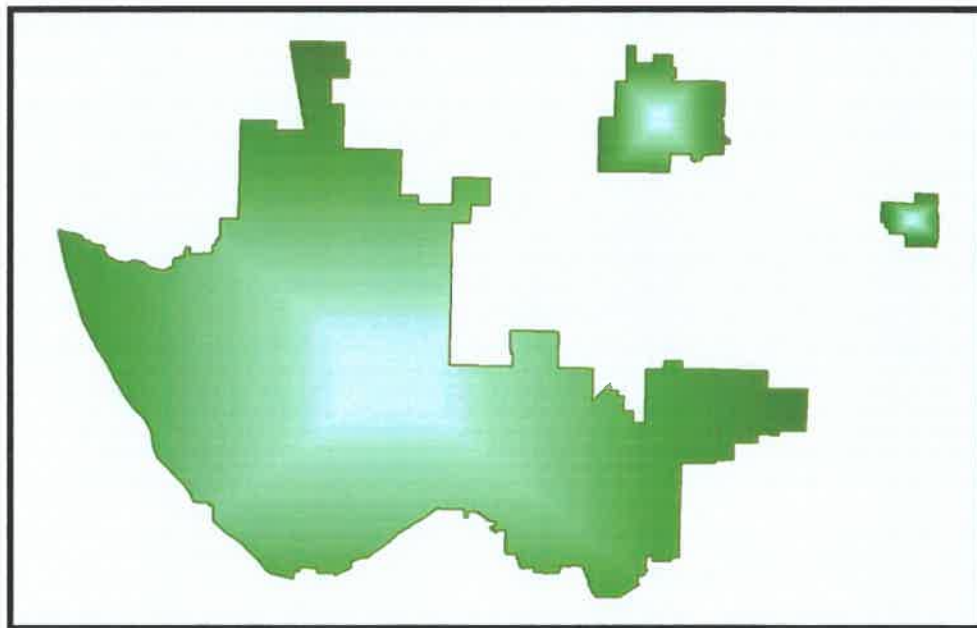
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2019

**Clark Regional
Wastewater District**

**Infiltration and Inflow Report
For
Salmon Creek Treatment Plant**



February 11, 2020

In Compliance with the NPDES Waste Discharge Permit
No. WA-002363-9 Special Condition S4.E





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2019 Infiltration and Inflow Report

Overview

The Clark Regional Wastewater District (District) was formed in 1958. The District has always maintained a comprehensive construction specification, inspection and maintenance program to minimize infiltration and inflow (I/I) into the system. As a result, the system flow characteristics perform well below the non-excessive criteria as established in the EPA Infiltration/Inflow Analysis and Project Certification (Ecology publication 97-03).

Beginning in 2016, the District began conveying a portion of the flow generated in the City of Ridgefield service area to the Salmon Creek Treatment Plant. Currently, all flow tributary to the Pioneer Canyon Pump Station is conveyed through the Discovery Corridor Wastewater Transmission System and ultimately to the Salmon Creek Treatment Plant. The average daily flow from the Pioneer Canyon Pump Station is about 0.19 MGD (1,447 Equivalent Residential Units (ERUs)). The Ridgefield Treatment Plant processes the remaining flow generated in Ridgefield. The additional flow to Salmon Creek is incorporated into this report.

ANALYSIS

The District's average dry weather and wet weather I/I rates are well below excessive. Average dry weather flows greater than 120 gallons per capita per day (gpcd) indicate excessive infiltration. Infiltration occurs during periods of high seasonal groundwater and dry weather with little or no rainfall. The District's infiltration remains well below excessive at 71 gpcd. Average wet weather flows greater than 275 gpcd indicate excessive inflow. Inflow occurs during periods of wet weather with significant rainfall resulting in ponding and surface runoff. The District's inflow remains well below excessive at 109 gpcd.

For the purpose of this report, population calculations have been based on population equivalents. This method calculates a population based on the total number of ERUs multiplied by the planning assumption of people per ERU. This assumption is 2.43 people per ERU for the Salmon Creek Treatment Plant (CH2M HILL, 2004 SCTP Phase 4). The calculation for population equivalent includes commercial and industrial ERUs in addition to residents of the area. At the beginning of 2019, the District had approximately 37,827 ERU's with a population equivalent of roughly 91,921 in the Salmon Creek tributary area, which includes the City of Ridgefield, with 947 ERUs, or a population equivalent of about 2,301.

As shown in Appendix A, the District's 2019 I/I of 1.07 MGD represent a 3% decrease compared to the 2003 base year. To better understand I/I trends in the system, the District reviews the average monthly flows and rainfall for the available records between January 1997 and December 2019. That data shows that 2013 and 2003 represent the lowest I/I years on record. 2013 I/I was the same as 2019, with over 5-inches less rainfall in 2013. The District's I/I averaged 1.55 over the past 20 years. Reviewing years with similar rainfall patterns, the 2019 I/I does not appear to be out of trend with historical performance. Also, the excessive inflow and infiltration calculations do not lead us to believe that the system is experiencing higher than normal I/I.

TABLE 1

1997-2019 I/I AND RAINFALL

Year	Min of Average Monthly Flow (MGD)	Max of Average Monthly Flow (MGD)	I / I	Annual Rainfall
1997	3.9	5.73	1.84	48.18
1998	4.27	5.48	1.22	45.73
1999	4.2	5.92	1.72	43.87
2000	4.41	5.23	0.82	32.89
2001	4.39	5.74	1.35	36.41
2002	4.34	5.53	1.19	34.01
2003	4.63	5.72	1.1	41.02
2004	4.77	5.94	1.17	35.21
2005	4.79	5.9	1.11	34.82
2006	4.92	7.04	2.12	42.96
2007	5.12	6.64	1.52	34.14
2008	5.13	6.48	1.35	28.79
2009	5.11	6.39	1.28	31.93
2010	5.24	6.39	1.75	42.07
2011	5.05	6.99	1.95	30.77
2012	5.19	7.19	2.00	41.65
2013	5.32	6.39	1.07	21.19
2014	5.34	6.84	1.82	32.17
2015	5.31	8.06	2.75	39.44
2016	5.54	7.27	1.73	48.14
2017	5.93	8.25	2.31	46.89
2018	5.86	7.24	1.38	30.65
2019	6.02	7.09	1.07	26.44
Average			1.55	36.93

Monitoring Program and Rehabilitation Projects

INTRODUCTION

The District places an emphasis on good design and inspection to minimize I/I into the system. However, as pipes age, a variety of methods for the monitoring and identification of I/I are necessary to use. This includes yearly review of pump station records, treatment plant flow reports, trunk line flow monitoring, smoke testing, visual inspection of manholes and closed-circuit television (CCTV) camera inspection. Through these efforts, the District is able to locate areas of concern for follow-up investigation and correction.

CROSS-CONNECTIONS

For issues on private property (i.e., stormwater cross connections, roof drains or broken laterals), the District contacts the homeowner and works with them to correct the situation. The District typically addresses issues that are within public right-of-way. All side sewer connections (between right-of-way and building envelope) are permitted and inspected by the District.

NEW CONSTRUCTION

The District addresses I/I by inspecting all new systems during construction, including all mainlines, manholes and individual laterals. In addition, during plan review and field inspection, the District reviews the need for inflow dishes or watertight locking lids to control inflow. The District addresses infiltration by requiring manhole joints to be externally sealed in areas of high groundwater, vacuum testing of 50% of all new manholes and air testing of all new gravity mainlines.

FLOW MONITORING

The District owns several FloDar ultrasonic flow meters that are used to measure flows where I/I may be suspected. The District also monitors all pump stations as well as four (4) motor operated valves (MOV's). Daily and annual review of the pump run times and flow data help to identify the potential for I/I. In addition, the two satellite service areas (Meadow Glade and Hockinson) that are served by STEP systems have individual flow meters at their termination.

The District continues to deploy and collect flow data from FloDar ultrasonic flow meters during both wet and dry weather flows. That data was used to calibrate the District's wet and dry weather flow model as part of the General Sewer Plan update.

REHABILITATION

The District inspects all gravity mains and trunk sewers with CCTV cameras a minimum of every eight years to assess condition, I/I and other related issues. Results help inform the District's Six-Year Capital Program. The six-year program includes an "I/I program" as well as a "Spot Repair" program component. Both programs provide for completion of specific projects targeting the reduction of I/I in the system. The District completed manhole grouting at 15 locations in 2016 and 18 locations in 2018, which has stopped an estimated 50 gallons per minute of I/I, or 72,000 gallons per day. The District also completed the NE 78th Street Trunk project in 2018, replacing old concrete pipe with PVC in an area of high ground water. The District completed two (2) cured-in-place pipe contracts in 2017, to stop infiltration and rehabilitate existing concrete pipes.

In 2019, the District completed the following projects in areas known to have I/I issues:

- Installed four (4) Mechanical Repair Bands, two (2) of which targeted specific I/I areas.
- NE 32nd Avenue Mainline Repair – Replaced 30-feet of gravity sewer in an area known to be below the groundwater elevation.
- 509 Horns Corner Lateral Repair – Emergency project that repaired damaged lateral that was in groundwater.

The District is planning a manhole grouting effort in 2020.



APPENDIX A

ANNUAL INFILTRATION/INFLOW (I/I) REPORT



Salmon Creek Wastewater Treatment Plant

ANNUAL INFILTRATION/INFLOW (I/I) REPORT

Reporting Year: From: 2017 To: 2019

Max month design flow: 11.48 MGD (District allocation beginning in 2009)
 Peak daily design flow: 15.31 MGD
 Design Population Equivalent: 86,989

Month	Average Monthly Flow (MGD)			Total Monthly Rainfall (inches)			Population Served			Additional Sewer Lines Added (feet)			
	Year	Year	Year	Year	Year	Year	Year	Year	Year	Year	Year		
January	7.20	7.24	6.61	4.12	6.44	3.40	83938	88037	92488	1308	6819	2718	
February	8.19	6.83	7.09	8.22	3.40	6.26	84164	88372	92700	3329	10859	4647	
March	8.25	6.75	6.51	8.83	2.27	1.26	84512	88763	92936	21256	9610	14391	
April	7.40	6.80	6.86	4.57	3.26	2.42	84876	89016	93222	0	2399	7078	
May	6.86	6.29	6.31	1.86	0.15	1.20	85128	89423	93528	1632	11304	3397	
June	6.47	6.04	6.27	1.35	0.70	1.09	85494	89934	93760	1737	3116	15529	
July	5.97	5.86	6.08	0.00	0.04	0.44	85805	90409	93986	25269	2343	6087	
August	5.93	5.89	6.02	0.00	0.07	0.51	86213	90908	94293	4155	1488	2913	
September	6.04	6.00	6.41	2.25	1.40	1.51	86497	91153	94659	0	16389	839	
October	6.18	6.03	6.25	3.36	4.11	1.78	86918	91492	95028	13187	13280	7794	
November	6.90	6.12	6.12	8.90	2.83	1.31	87341	91669	95308	965	1949	4312	
December	6.79	6.67	6.65	3.43	5.98	5.26	87597	91947	95821	5432	4783	30118	
TOTAL	82.19	76.53	77.20	46.89	30.65	26.44				Total (feet)	78270	84339	99823
Low	5.93	5.86	6.02							Total (miles)	14.82	15.97	18.91
High	8.25	7.24	7.09										
Average	6.85	6.38	6.43										
I/I	2.31	1.38	1.07										

Base Year: 2003

Base Year I/I: 1.1 MGD

INFILTRATION/INFLOW SUMMARY

Year	I/I	% increase from base I/I	% of max mo. design flow
2017	2.31	110	20
2018	1.38	26	12
2019	1.07	-3	9

Comments: See report.



Heath H. Henderson

 Heath H. Henderson, PE
 District Engineer





APPENDIX B

FLOW ANALYSIS DATA



Salmon Creek Wastewater Management System - Clark Regional Wastewater District

ANNUAL INFILTRATION/INFLOW REPORT 1/1/2019 to 12/31/2019

FLOW AND PRECIPITATION DATA

MONTH	Average Monthly Flow (MGD)												Total Monthly Precipitation (Inches)											
	Year												Year											
	2014	2015	2016	2017	2018	2019	2014	2015	2016	2018	2018	2019	2014	2015	2016	2018	2018	2019						
January	5.77	6.19	7.27	7.20	7.24	6.61	2.54	2.35	9.68	4.12	6.44	3.40	2.54	2.35	9.68	4.12	6.44	3.40						
February	6.63	6.75	6.89	8.19	6.83	7.09	3.70	2.85	5.13	8.22	3.40	6.26	3.70	2.85	5.13	8.22	3.40	6.26						
March	6.84	6.35	7.07	8.25	6.75	6.51	5.78	3.19	6.04	8.83	2.27	1.26	5.78	3.19	6.04	8.83	2.27	1.26						
April	6.27	5.85	6.11	7.40	6.80	6.86	2.49	1.21	1.56	4.57	3.26	2.42	2.49	1.21	1.56	4.57	3.26	2.42						
May	5.91	5.56	5.93	6.86	6.29	6.31	2.28	0.40	1.13	1.86	0.15	1.20	2.28	0.40	1.13	1.86	0.15	1.20						
June	5.68	5.50	5.74	6.47	6.04	6.27	2.34	0.39	1.80	1.35	0.70	1.09	2.34	0.39	1.80	1.35	0.70	1.09						
July	5.45	5.31	5.58	5.97	5.86	6.08	0.57	0.25	0.44	0.00	0.04	0.44	0.57	0.25	0.44	0.00	0.04	0.44						
August	5.35	5.32	5.54	5.93	5.89	6.02	0.03	0.53	0.22	0.00	0.07	0.51	0.03	0.53	0.22	0.00	0.07	0.51						
September	5.34	5.32	5.54	6.04	6.00	6.41	1.03	1.11	1.32	2.25	1.40	1.51	1.03	1.11	1.32	2.25	1.40	1.51						
October	5.55	5.34	6.23	6.18	6.03	6.25	5.14	4.19	9.58	3.36	4.11	1.78	5.14	4.19	9.58	3.36	4.11	1.78						
November	5.90	5.87	6.67	6.90	6.12	6.12	2.39	5.03	6.75	8.90	2.83	1.31	2.39	5.03	6.75	8.90	2.83	1.31						
December	6.36	8.06	6.99	6.79	6.67	6.65	3.88	17.94	4.49	3.43	5.98	5.26	3.88	17.94	4.49	3.43	5.98	5.26						
Avg Flow / Total Rain	5.92	5.95	6.30	6.85	6.38	6.43	32.17	39.44	48.14	46.89	30.65	26.44	32.17	39.44	48.14	46.89	30.65	26.44						
Low Month	5.34	5.31	5.54	5.93	5.86	6.02	0.03	0.25	0.22	0.00	0.04	0.44	0.03	0.25	0.22	0.00	0.04	0.44						
High Month	6.84	8.06	7.27	8.25	7.24	7.09	5.78	17.94	9.68	8.90	6.44	6.26	5.78	17.94	9.68	8.90	6.44	6.26						

Comments: Measured data presented in this report reflects the Clark Regional Wastewater District's capacity usage only. Battle Ground usage is reported separately.

POPULATION AND SEWER LINE DATA

Population Served (Population Equivalent)		Sewer Lines Added (Feet)	
MONTH	Year	Year	Year
January	92488	2019	2718
February	92700	2019	4647
March	92936	2019	14391
April	93222	2019	7078
May	93528	2019	3397
June	93760	2019	15529
July	93986	2019	6087
August	94293	2019	2913
September	94659	2019	839
October	95028	2019	7794
November	95308	2019	4312
December	95821	2019	30118
Present Equivalent	95821	Total (feet)	99823
		Total (miles)	18.91

Salmon Creek Wastewater Management System - Clark Regional Wastewater District

ANNUAL INFILTRATION/INFLOW REPORT

1/1/2019 to 12/31/2019

DETERMINATION OF NON EXCESSIVE INFILTRATION DETERMINATION OF NON EXCESSIVE INFLOW

EPA Infiltration Criteria 120 gpcd

EPA Inflow Criteria 275 gpcd

District Infiltration 71 gpcd

District Inflow 109 gpcd

Period	Flow	Rain	Population Equivalent
Jan 24	6.79	0.00	92488
Jan 25	6.64	0.00	92488
Jan 26	6.63	0.00	92488
Jan 27	6.66	0.00	92488
Jan 28	6.44	0.00	92488
Jan 29	6.36	0.00	92488
Jan 30	6.20	0.00	92488
Average Flow (MGD)	6.53	0.00	Inches Rain

Comments: The seven day period of January 24 through January 30, 2019 is identified as a dry weather period within a period of seasonal high groundwater.

Period	Flow	Rain	Population Equivalent
Feb 09	6.56	0.24	92700
Feb 10	6.87	0.25	92700
Feb 11	6.50	1.15	92700
Feb 12	10.07	1.93	92700
Feb 13	9.32	0.08	92700
Feb 14	8.18	0.56	92700
Feb 15	7.82	0.21	92700
Highest Average Flow (MGD)	10.07	4.42	Inches Rain

Comments: The seven day period of February 9 through January 15, 2019 was identified as a period of significant rainfall with surface ponding and runoff. February 12 was the highest recorded daily flow during a storm event.

Salmon Creek Wastewater Management System - Clark Regional Wastewater District

ANNUAL INFILTRATION/INFLOW REPORT 1/1/2019 to 12/31/2019

INFILTRATION/INFLOW SUMMARY

Year	I/I	% Over Base I/I	Max I/I Design Flow
2014	1.50	36%	13%
2015	2.75	150%	24%
2016	1.73	58%	15%
2017	2.31	110%	20%
2018	1.38	26%	12%
2019	1.07	-3%	9%

Base Year: 2003

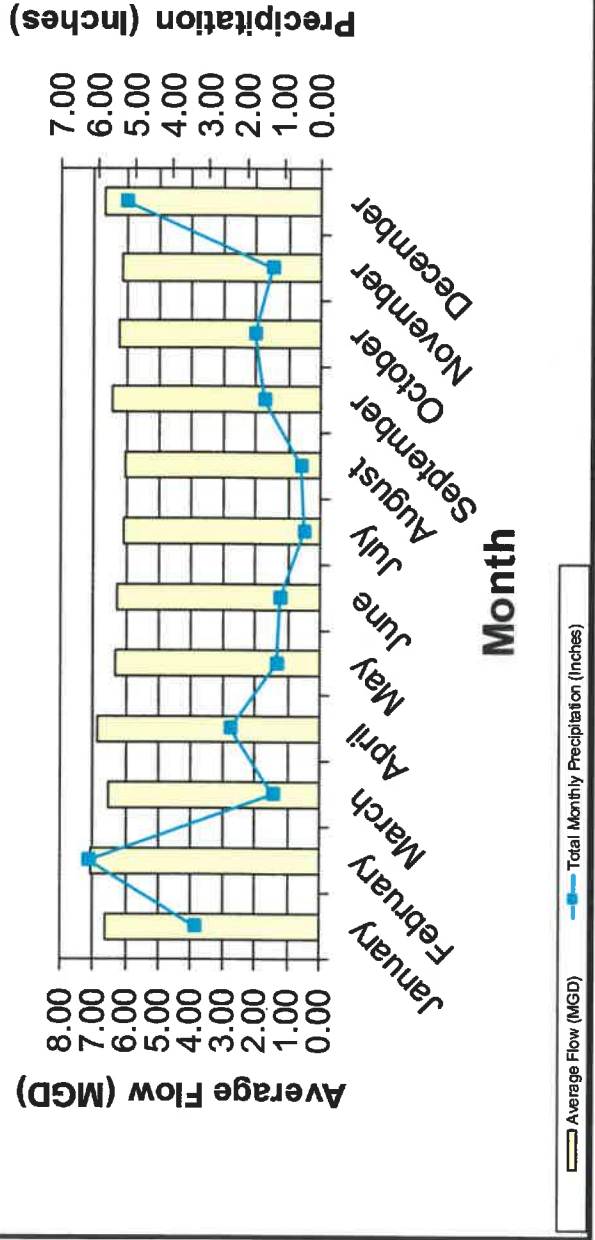
I/I: 1.1

PLANT DESIGN CAPACITY

Peak Design Flow:	15.31 MGD
Max Month Design Flow:	11.48 MGD
Design Population Equivalent:	86,989 People

Comments: See Overview for I/I discussion.

2019 Average Flow and Precipitation



Comments: Design capacity represents total plant capacity. Present population and infiltration/inflow data included in this report represent Clark Regional Wastewater's usage only. Battle Ground usage is reported separately.





APPENDIX C

MONTHLY FLOW AND RAINFALL



Salmon Creek Wastewater Treatment Plant Flow and Rainfall Report

Date	Meadow Glade GPD	Hockinson GPD	Total BG Inf MGD	BG Only Inf MGD	SC Inf MGD	BG Rainfall	SC Rainfall	District Total Inf MGD
1/1/2019	270000	18600	2.24	1.95	8.80	0.50	0.00	6.85
1/2/2019	227500	21200	2.08	1.83	8.50	0.00	0.00	6.67
1/3/2019	224000	22500	2.05	1.80	8.29	0.15	0.02	6.49
1/4/2019	231900	23500	2.11	1.86	8.20	0.20	0.00	6.34
1/5/2019	208100	25433	1.90	1.67	7.84	0.01	0.08	6.17
1/6/2019	270300	25433	2.33	2.04	8.01	0.16	0.28	5.97
1/7/2019	233100	25433	2.07	1.81	8.38	0.28	0.01	6.57
1/8/2019	236600	24500	2.12	1.86	8.52	0.21	0.38	6.66
1/9/2019	258700	30800	2.28	1.99	8.62	0.08	0.53	6.63
1/10/2019	245800	28800	2.22	1.95	8.84	0.38	0.06	6.89
1/11/2019	213000	26700	1.94	1.70	8.36	0.01	0.01	6.66
1/12/2019	232400	18500	2.06	1.81	8.42	0.00	0.00	6.61
1/13/2019	250700	19400	2.12	1.85	8.50	0.00	0.00	6.65
1/14/2019	222700	23500	1.80	1.56	8.05	0.00	0.00	6.49
1/15/2019	206000	27000	1.80	1.57	7.76	0.00	0.00	6.19
1/16/2019	219600	26300	1.83	1.59	7.77	0.00	0.30	6.18
1/17/2019	218900	25200	1.91	1.67	7.98	0.37	0.13	6.31
1/18/2019	240000	33500	2.22	1.95	8.49	0.10	1.02	6.54
1/19/2019	281800	23300	2.55	2.25	9.69	0.76	0.02	7.44
1/20/2019	283200	27400	2.53	2.22	9.48	0.04	0.19	7.26
1/21/2019	274200	20300	2.35	2.06	9.17	0.35	0.01	7.11
1/22/2019	286400	28900	2.56	2.24	9.10	0.00	0.30	6.86
1/23/2019	287500	34200	2.52	2.19	9.29	0.70	0.06	7.10
1/24/2019	256100	29900	2.30	2.01	8.80	0.08	0.00	6.79
1/25/2019	212300	25600	1.98	1.74	8.38	0.01	0.00	6.64
1/26/2019	232500	16400	2.06	1.81	8.44	0.01	0.00	6.63
1/27/2019	252900	17100	2.10	1.83	8.48	0.01	0.00	6.66
1/28/2019	233000	21000	1.94	1.68	8.12	0.02	0.00	6.44
1/29/2019	214200	23400	1.79	1.55	7.91	0.00	0.00	6.36
1/30/2019	218800	23700	1.79	1.55	7.75	0.00	0.00	6.20
1/31/2019	213500	23800	1.73	1.50	7.69	0.00	0.00	6.19
Total	7455700	761299	65.27	57.05	261.63	4.43	3.40	204.58
Min	206000	16400	1.73	1.50	7.69	0.00	0.00	5.97
Max	287500	34200	2.56	2.25	9.69	0.76	1.02	7.44
Average	240506	24558	2.11	1.84	8.44	0.14	0.11	6.60

Salmon Creek Wastewater Treatment Plant Flow and Rainfall Report

Date	Meadow Glade GPD	Hockinson GPD	Total BG Inf MGD	BG Only Inf MGD	SC Inf MGD	BG Rainfall	SC Rainfall	District Total Inf MGD
2/1/2019	216500	25100	1.81	1.57	7.64	0.03	0.27	6.07
2/2/2019	217000	22300	1.80	1.56	8.05	0.16	0.00	6.49
2/3/2019	226800	16300	1.78	1.53	8.15	0.01	0.01	6.62
2/4/2019	221300	23700	1.74	1.50	7.81	0.13	0.00	6.31
2/5/2019	205700	13900	1.63	1.41	7.68	0.11	0.00	6.27
2/6/2019	218100	22500	1.66	1.42	7.51	0.00	0.00	6.09
2/7/2019	201900	22700	1.59	1.36	7.56	0.00	0.00	6.20
2/8/2019	211400	24000	1.68	1.45	7.40	0.00	0.20	5.95
2/9/2019	246300	22500	2.00	1.73	8.29	0.57	0.24	6.56
2/10/2019	226900	19400	1.84	1.59	8.46	0.00	0.25	6.87
2/11/2019	388200	52000	3.43	2.99	9.49	0.48	1.15	6.50
2/12/2019	382700	70800	4.32	3.86	13.93	1.97	1.93	10.07
2/13/2019	286500	40300	3.23	2.90	12.22	0.77	0.08	9.32
2/14/2019	271500	45300	3.04	2.72	10.90	0.07	0.56	8.18
2/15/2019	242100	31700	2.67	2.40	10.22	0.48	0.21	7.82
2/16/2019	270300	33900	3.05	2.75	10.73	0.43	0.20	7.98
2/17/2019	226900	28800	2.54	2.29	10.16	0.30	0.01	7.87
2/18/2019	241500	23700	2.59	2.33	9.68	0.00	0.02	7.35
2/19/2019	225500	34700	2.42	2.16	9.04	0.05	0.21	6.88
2/20/2019	240100	34500	2.56	2.29	9.34	0.45	0.06	7.05
2/21/2019	207500	29900	2.22	1.98	8.94	0.05	0.01	6.96
2/22/2019	193200	30700	2.09	1.86	8.65	0.00	0.22	6.79
2/23/2019	236200	25500	2.51	2.25	9.15	0.30	0.19	6.90
2/24/2019	288000	29200	2.94	2.62	10.23	0.45	0.35	7.61
2/25/2019	220100	29400	2.34	2.09	9.38	0.04	0.06	7.29
2/26/2019	215700	29200	2.21	1.96	8.84	0.02	0.00	6.88
2/27/2019	204900	27200	2.03	1.79	8.52	0.00	0.00	6.73
2/28/2019	203000	25000	2.00	1.77	8.41	0.00	0.03	6.64
Total	6735800	834200	65.71	58.14	256.38	6.87	6.26	198.24
Min	193200	13900	1.59	1.36	7.40	0.00	0.00	5.95
Max	388200	70800	4.32	3.86	13.93	1.97	1.93	10.07
Average	240564	29793	2.35	2.08	9.16	0.25	0.22	7.08

Salmon Creek Wastewater Treatment Plant Flow and Rainfall Report

Date	Meadow Glade GPD	Hockinson GPD	Total BG Inf MGD	BG Only Inf MGD	SC Inf MGD	BG Rainfall	SC Rainfall	District Total Inf MGD
3/1/2019	209900	27300	1.99	1.75	8.18	0.02	0.01	6.43
3/2/2019	208300	14900	1.79	1.56	8.39	0.01	0.00	6.83
3/3/2019	236600	17200	1.91	1.65	8.51	0.00	0.00	6.86
3/4/2019	225400	23200	1.81	1.56	8.11	0.00	0.00	6.55
3/5/2019	237600	27900	1.85	1.59	7.94	0.00	0.00	6.35
3/6/2019	201800	23000	1.65	1.43	7.90	0.00	0.13	6.47
3/7/2019	217800	25300	1.79	1.55	7.94	0.21	0.11	6.39
3/8/2019	223900	25600	1.86	1.62	7.91	0.22	0.04	6.29
3/9/2019	224100	19000	1.89	1.65	8.33	0.19	0.00	6.68
3/10/2019	221100	15900	1.81	1.57	8.46	0.00	0.00	6.89
3/11/2019	264300	31600	2.07	1.77	8.00	0.00	0.10	6.23
3/12/2019	255300	31100	2.14	1.86	8.96	0.66	0.37	7.10
3/13/2019	264500	29800	2.19	1.90	8.49	0.18	0.02	6.59
3/14/2019	244200	27800	2.05	1.77	8.31	0.02	0.00	6.54
3/15/2019	197500	23100	1.68	1.46	8.07	0.00	0.00	6.61
3/16/2019	250200	18200	2.05	1.78	8.27	0.00	0.00	6.49
3/17/2019	232200	17300	1.84	1.59	8.35	0.00	0.00	6.76
3/18/2019	253800	25900	1.93	1.65	8.05	0.00	0.00	6.40
3/19/2019	205700	22100	1.65	1.43	7.48	0.00	0.00	6.05
3/20/2019	222100	24900	1.65	1.40	7.74	0.00	0.00	6.34
3/21/2019	219800	26100	1.72	1.47	7.75	0.02	0.00	6.28
3/22/2019	209500	23900	1.63	1.40	7.72	0.00	0.06	6.32
3/23/2019	217400	13700	1.72	1.49	7.99	0.11	0.00	6.50
3/24/2019	218400	16400	1.70	1.46	8.16	0.03	0.00	6.70
3/25/2019	220400	23900	1.81	1.57	8.05	0.00	0.24	6.48
3/26/2019	204400	23300	1.69	1.46	7.94	0.34	0.00	6.48
3/27/2019	231700	23900	1.84	1.58	7.94	0.00	0.16	6.36
3/28/2019	207800	22800	1.71	1.48	7.94	0.29	0.02	6.46
3/29/2019	213400	18900	1.67	1.44	7.72	0.02	0.00	6.28
3/30/2019	206500	16400	1.68	1.45	7.81	0.00	0.00	6.36
3/31/2019	217300	14800	1.66	1.43	7.85	0.00	0.00	6.42
Total	6962900	695200	56.43	48.77	250.26	2.32	1.26	201.49
Min	197500	13700	1.63	1.40	7.48	0.00	0.00	6.05
Max	264500	31600	2.19	1.90	8.96	0.66	0.37	7.10
Average	224610	22426	1.82	1.57	8.07	0.07	0.04	6.50

Salmon Creek Wastewater Treatment Plant Flow and Rainfall Report

Date	Meadow Glade GPD	Hockinson GPD	Total BG Inf MGD	BG Only Inf MGD	SC Inf MGD	BG Rainfall	SC Rainfall	District Total Inf MGD
4/1/2019	236000	17500	1.78	1.52	7.56	0.00	0.00	6.04
4/2/2019	174200	14200	1.41	1.23	7.39	0.01	0.00	6.16
4/3/2019	208500	13600	1.52	1.30	7.29	0.02	0.00	5.99
4/4/2019	202100	13800	1.58	1.37	7.26	0.00	0.00	5.89
4/5/2019	204100	18200	1.72	1.50	7.88	0.23	0.00	6.38
4/6/2019	259100	24900	2.24	1.95	8.58	0.47	0.85	6.63
4/7/2019	309700	31000	2.67	2.33	10.40	0.85	0.44	8.07
4/8/2019	305800	37000	2.69	2.35	9.96	0.35	0.12	7.61
4/9/2019	296800	33400	2.56	2.23	9.57	0.35	0.02	7.34
4/10/2019	314100	39700	2.80	2.45	9.37	0.14	0.15	6.92
4/11/2019	357000	57200	3.31	2.90	10.42	0.81	0.13	7.52
4/12/2019	273500	35400	2.59	2.28	10.64	0.54	0.02	8.36
4/13/2019	337300	27800	2.83	2.47	10.15	0.01	0.25	7.68
4/14/2019	308000	23700	2.58	2.25	9.91	0.30	0.06	7.66
4/15/2019	295000	33000	2.47	2.14	9.42	0.10	0.10	7.28
4/16/2019	263800	32100	2.24	1.95	9.00	0.19	0.07	7.05
4/17/2019	273800	29400	2.16	1.86	8.65	0.05	0.01	6.79
4/18/2019	250100	29400	2.09	1.81	8.56	0.00	0.00	6.75
4/19/2019	219500	28300	1.90	1.65	8.52	0.00	0.19	6.87
4/20/2019	255000	17900	2.06	1.78	8.70	0.17	0.00	6.92
4/21/2019	287100	20100	2.08	1.77	8.67	0.00	0.00	6.90
4/22/2019	241300	25900	1.91	1.64	8.29	0.00	0.01	6.65
4/23/2019	222600	24900	1.80	1.56	8.08	0.03	0.00	6.52
4/24/2019	227900	23900	1.78	1.53	7.95	0.00	0.00	6.42
4/25/2019	215100	22800	1.70	1.47	7.92	0.00	0.00	6.45
4/26/2019	220200	23800	1.72	1.48	7.74	0.00	0.00	6.26
4/27/2019	215900	14400	1.69	1.46	7.94	0.02	0.00	6.48
4/28/2019	221500	17800	1.63	1.39	8.16	0.00	0.00	6.77
4/29/2019	228600	21700	1.66	1.41	7.87	0.00	0.00	6.46
4/30/2019	210400	25100	1.60	1.37	7.70	0.00	0.00	6.33
Total	7634000	777900	62.79	54.38	259.55	4.64	2.42	205.17
Min	174200	13600	1.41	1.23	7.26	0.00	0.00	5.89
Max	357000	57200	3.31	2.90	10.64	0.85	0.85	8.36
Average	254467	25930	2.09	1.81	8.65	0.15	0.08	6.84

Salmon Creek Wastewater Treatment Plant Flow and Rainfall Report

Date	Meadow Glade GPD	Hockinson GPD	Total BG Inf MGD	BG Only Inf MGD	SC Inf MGD	BG Rainfall	SC Rainfall	District Total Inf MGD
5/1/2019	215000	22800	1.56	1.32	7.63	0.00	0.00	6.31
5/2/2019	216800	26000	1.59	1.35	7.54	0.00	0.00	6.19
5/3/2019	189400	21200	1.44	1.23	7.51	0.00	0.00	6.28
5/4/2019	233400	14700	1.68	1.44	7.57	0.00	0.00	6.13
5/5/2019	206300	15700	1.52	1.29	7.88	0.00	0.00	6.59
5/6/2019	218000	26800	1.57	1.33	7.61	0.00	0.00	6.28
5/7/2019	200800	24000	1.54	1.32	7.44	0.00	0.00	6.12
5/8/2019	196500	21900	1.41	1.20	7.39	0.00	0.00	6.19
5/9/2019	200200	22700	1.48	1.26	7.45	0.00	0.00	6.19
5/10/2019	203000	21700	1.49	1.27	7.33	0.00	0.00	6.06
5/11/2019	203200	12700	1.50	1.29	7.48	0.00	0.00	6.19
5/12/2019	197100	14400	1.42	1.20	7.65	0.00	0.00	6.45
5/13/2019	201200	21700	1.47	1.25	7.53	0.00	0.00	6.28
5/14/2019	196100	26600	1.45	1.23	7.47	0.05	0.12	6.24
5/15/2019	191600	25800	1.41	1.19	7.46	0.10	0.08	6.27
5/16/2019	219100	25100	1.59	1.34	7.48	0.20	0.12	6.14
5/17/2019	176000	23300	1.41	1.21	7.48	0.21	0.00	6.27
5/18/2019	214600	18000	1.72	1.49	7.57	0.05	0.13	6.08
5/19/2019	217500	19300	1.68	1.44	8.64	0.57	0.47	7.20
5/20/2019	216600	27400	1.60	1.35	7.88	0.04	0.01	6.53
5/21/2019	204600	24000	1.58	1.35	7.67	0.07	0.02	6.32
5/22/2019	211000	23400	1.60	1.37	7.54	0.01	0.00	6.17
5/23/2019	197400	25100	1.59	1.37	7.64	0.23	0.00	6.27
5/24/2019	181400	22100	1.40	1.20	7.51	0.00	0.02	6.31
5/25/2019	206900	14900	1.67	1.44	7.68	0.10	0.20	6.24
5/26/2019	187800	17700	1.55	1.35	7.58	0.49	0.01	6.23
5/27/2019	251100	17200	1.81	1.54	8.06	0.05	0.02	6.52
5/28/2019	202500	24300	1.57	1.34	7.71	0.01	0.00	6.37
5/29/2019	224700	25000	1.61	1.36	7.51	0.00	0.00	6.15
5/30/2019	192800	23900	1.46	1.25	7.50	0.00	0.00	6.25
5/31/2019	221800	26900	1.64	1.39	7.37	0.00	0.00	5.98
Total	6394400	676300	48.00	40.93	235.76	2.18	1.20	194.83
Min	176000	12700	1.40	1.19	7.33	0.00	0.00	5.98
Max	251100	27400	1.81	1.54	8.64	0.57	0.47	7.20
Average	206271	21816	1.55	1.32	7.61	0.07	0.04	6.28

Salmon Creek Wastewater Treatment Plant Flow and Rainfall Report

Date	Meadow Glade GPD	Hockinson GPD	Total BG Inf MGD	BG Only Inf MGD	SC Inf MGD	BG Rainfall	SC Rainfall	District Total Inf MGD
6/1/2019	197600	19100	1.51	1.30	7.57	0.00	0.00	6.27
6/2/2019	195900	16600	1.39	1.18	7.79	0.00	0.00	6.26
6/3/2019	198100	25900	1.45	1.23	7.56	0.00	0.00	6.30
6/4/2019	192700	24100	1.43	1.21	7.44	0.00	0.00	6.22
6/5/2019	208600	23400	1.45	1.22	7.40	0.00	0.00	6.28
6/6/2019	194200	24600	1.43	1.21	7.44	0.00	0.18	6.50
6/7/2019	211800	27200	1.57	1.33	7.43	0.20	0.18	6.44
6/8/2019	228500	16400	1.69	1.45	7.64	0.42	0.00	6.30
6/9/2019	177000	14300	1.34	1.15	7.02	0.01	0.00	6.12
6/10/2019	205300	26000	1.55	1.32	7.67	0.00	0.00	6.21
6/11/2019	196800	24300	1.46	1.24	7.53	0.00	0.00	6.21
6/12/2019	189200	22800	1.46	1.25	7.51	0.00	0.00	6.26
6/13/2019	188500	27600	1.52	1.30	7.60	0.00	0.00	6.30
6/14/2019	197200	25300	1.48	1.26	7.48	0.00	0.00	6.22
6/15/2019	186200	21000	1.45	1.24	7.52	0.00	0.00	6.28
6/16/2019	207500	16200	1.42	1.20	7.70	0.00	0.00	6.50
6/17/2019	197100	24200	1.44	1.21	7.65	0.00	0.00	6.44
6/18/2019	194900	18800	1.39	1.18	7.47	0.00	0.00	6.30
6/19/2019	200000	19200	1.40	1.18	7.30	0.00	0.00	6.12
6/20/2019	190300	15900	1.36	1.16	7.37	0.06	0.02	6.21
6/21/2019	174800	15900	1.25	1.06	7.27	0.00	0.00	6.21
6/22/2019	190400	14500	1.34	1.14	7.30	0.00	0.00	6.16
6/23/2019	224200	16600	1.44	1.20	7.46	0.00	0.00	6.26
6/24/2019	201200	16800	1.40	1.18	7.39	0.00	0.00	6.21
6/25/2019	189000	15900	1.34	1.13	7.30	0.00	0.04	6.17
6/26/2019	188700	15700	1.46	1.26	7.34	0.00	0.53	6.08
6/27/2019	194400	19600	1.49	1.27	7.54	0.58	0.14	6.27
6/28/2019	175800	19800	1.42	1.23	7.42	0.23	0.00	6.19
6/29/2019	228000	21500	1.65	1.40	7.52	0.00	0.00	6.12
6/30/2019	179300	13300	1.30	1.11	7.57	0.00	0.00	6.46
Total	5903200	602500	43.29	36.78	224.20	1.50	1.09	187.86
Min	174800	13300	1.25	1.06	7.02	0.00	0.00	6.08
Max	228500	27600	1.69	1.45	7.79	0.58	0.53	6.50
Average	196773	20083	1.44	1.23	7.47	0.05	0.04	6.26

Salmon Creek Wastewater Treatment Plant Flow and Rainfall Report

Date	Meadow Glade GPD	Hockinson GPD	Total BG Inf MGD	BG Only Inf MGD	SC Inf MGD	BG Rainfall	SC Rainfall	District Total Inf MGD
7/1/2019	185800	13700	1.41	1.21	7.61	0.00	0.04	6.40
7/2/2019	189100	14200	1.40	1.20	7.33	0.01	0.00	6.13
7/3/2019	209100	16100	1.49	1.27	7.25	0.02	0.00	5.98
7/4/2019	159100	11400	1.18	1.01	7.27	0.00	0.00	6.26
7/5/2019	182600	13100	1.32	1.12	7.12	0.00	0.00	6.00
7/6/2019	192400	14100	1.42	1.21	7.20	0.00	0.00	5.99
7/7/2019	188700	16100	1.41	1.20	7.36	0.00	0.00	6.16
7/8/2019	207700	14000	1.42	1.20	7.34	0.00	0.00	6.14
7/9/2019	192800	15700	1.41	1.21	7.31	0.00	0.18	6.10
7/10/2019	192900	14200	1.40	1.19	7.33	0.21	0.21	6.14
7/11/2019	183000	13800	1.41	1.21	7.28	0.06	0.00	6.07
7/12/2019	208500	12600	1.52	1.30	7.24	0.00	0.00	5.94
7/13/2019	186800	13400	1.37	1.17	7.23	0.00	0.00	6.06
7/14/2019	177900	14800	1.30	1.11	7.33	0.00	0.00	6.22
7/15/2019	180300	13300	1.34	1.15	7.34	0.02	0.01	6.19
7/16/2019	181700	13100	1.35	1.15	7.17	0.02	0.00	6.02
7/17/2019	177100	11300	1.29	1.10	7.11	0.00	0.00	6.01
7/18/2019	200700	13600	1.46	1.25	7.14	0.05	0.00	5.89
7/19/2019	171500	13500	1.25	1.06	7.10	0.00	0.00	6.04
7/20/2019	180700	14000	1.33	1.13	7.14	0.00	0.00	6.01
7/21/2019	206700	12600	1.42	1.20	7.32	0.00	0.00	6.12
7/22/2019	201600	12900	1.41	1.19	7.27	0.00	0.00	6.08
7/23/2019	185100	13600	1.29	1.09	7.12	0.00	0.00	6.03
7/24/2019	195300	12900	1.33	1.12	6.98	0.00	0.00	5.86
7/25/2019	183300	13000	1.34	1.14	7.03	0.00	0.00	5.89
7/26/2019	181300	14400	1.29	1.10	7.05	0.00	0.00	5.95
7/27/2019	204500	13700	1.42	1.20	7.15	0.00	0.00	5.95
7/28/2019	183000	13000	1.30	1.10	7.30	0.03	0.00	6.20
7/29/2019	187400	12500	1.36	1.16	7.26	0.00	0.00	6.10
7/30/2019	190000	12000	1.32	1.11	7.02	0.00	0.00	5.91
7/31/2019	196300	14300	1.34	1.13	6.98	0.00	0.00	5.85
Total	5862900	420900	42.28	35.99	223.68	0.42	0.44	187.69
Min	159100	11300	1.18	1.01	6.98	0.00	0.00	5.85
Max	209100	16100	1.52	1.30	7.61	0.21	0.21	6.40
Average	189126	13577	1.36	1.16	7.22	0.01	0.01	6.05

Salmon Creek Wastewater Treatment Plant Flow and Rainfall Report

Date	Meadow Glade GPD	Hockinson GPD	Total BG Inf MGD	BG Only Inf MGD	SC Inf MGD	BG Rainfall	SC Rainfall	District Total Inf MGD
8/1/2019	190200	14300	1.32	1.12	7.03	0.00	0.00	5.91
8/2/2019	177400	12200	1.26	1.07	7.18	0.03	0.08	6.11
8/3/2019	189700	11600	1.33	1.13	7.13	0.12	0.00	6.00
8/4/2019	190000	14100	1.35	1.14	7.28	0.00	0.00	6.14
8/5/2019	196800	13300	1.39	1.18	6.34	0.00	0.00	5.16
8/6/2019	180900	14000	1.30	1.11	7.11	0.00	0.00	6.00
8/7/2019	189300	12800	1.33	1.13	7.06	0.00	0.00	5.93
8/8/2019	175100	13100	1.30	1.11	7.04	0.00	0.00	5.93
8/9/2019	220500	14900	1.52	1.28	7.02	0.00	0.13	5.74
8/10/2019	176800	13400	1.29	1.10	7.28	0.21	0.11	6.18
8/11/2019	167900	15200	1.21	1.03	7.33	0.06	0.01	6.30
8/12/2019	190500	15200	1.39	1.18	7.23	0.00	0.00	6.05
8/13/2019	173400	14000	1.27	1.09	7.04	0.00	0.00	5.95
8/14/2019	190200	13200	1.34	1.14	6.98	0.00	0.00	5.84
8/15/2019	178000	14300	1.30	1.11	7.00	0.00	0.00	5.89
8/16/2019	196200	18200	1.38	1.17	7.01	0.00	0.00	5.85
8/17/2019	202900	15400	1.40	1.19	7.08	0.04	0.00	5.89
8/18/2019	163700	13400	1.18	1.00	7.26	0.00	0.00	6.26
8/19/2019	203100	14900	1.43	1.21	7.23	0.00	0.00	6.02
8/20/2019	194500	13900	1.34	1.13	7.09	0.00	0.00	5.96
8/21/2019	188500	18600	1.33	1.12	7.09	0.00	0.10	5.97
8/22/2019	177700	17200	1.34	1.14	7.11	0.25	0.00	5.97
8/23/2019	171800	13600	1.27	1.08	7.09	0.00	0.00	6.01
8/24/2019	190100	11400	1.33	1.13	7.14	0.00	0.00	6.01
8/25/2019	214600	14300	1.45	1.22	7.40	0.00	0.00	6.18
8/26/2019	191900	13900	1.36	1.16	7.42	0.00	0.00	6.27
8/27/2019	186000	20000	1.33	1.12	7.18	0.00	0.00	6.06
8/28/2019	201500	25400	1.45	1.22	7.12	0.00	0.01	5.90
8/29/2019	177200	21400	1.39	1.20	7.27	0.60	0.07	6.07
8/30/2019	190500	26500	1.37	1.15	7.13	0.06	0.00	5.98
8/31/2019	175200	14300	1.31	1.12	7.10	0.00	0.00	5.98
Total	5812100	478000	41.54	35.25	220.77	1.37	0.51	185.52
Min	163700	11400	1.18	1.00	6.34	0.00	0.00	5.16
Max	220500	26500	1.52	1.28	7.42	0.60	0.13	6.30
Average	187487	15419	1.34	1.14	7.12	0.04	0.02	5.98

Salmon Creek Wastewater Treatment Plant Flow and Rainfall Report

Date	Meadow Glade GPD	Hockinson GPD	Total BG Inf MGD	BG Only Inf MGD	SC Inf MGD	BG Rainfall	SC Rainfall	District Total Inf MGD
9/1/2019	171100	14100	1.26	1.07	6.88	0.00	0.00	5.81
9/2/2019	223900	18400	1.55	1.31	7.59	0.00	0.00	6.28
9/3/2019	171000	25000	1.28	1.08	7.30	0.00	0.00	6.22
9/4/2019	199600	24600	1.40	1.18	7.11	0.00	0.00	5.93
9/5/2019	196100	23600	1.40	1.18	7.13	0.00	0.00	5.95
9/6/2019	163300	22600	1.24	1.05	7.04	0.00	0.00	5.99
9/7/2019	173100	15700	1.33	1.14	7.39	0.00	0.04	6.25
9/8/2019	211900	18700	1.85	1.62	8.27	0.08	1.05	6.65
9/9/2019	198500	31600	1.88	1.65	9.00	1.43	0.06	7.35
9/10/2019	198700	31300	1.68	1.45	8.00	0.56	0.01	6.55
9/11/2019	204100	24700	1.57	1.35	7.47	0.05	0.01	6.12
9/12/2019	177900	25600	1.51	1.30	7.35	0.00	0.00	6.05
9/13/2019	171800	30500	1.53	1.32	7.41	0.33	0.00	6.09
9/14/2019	185300	15600	1.59	1.39	7.47	0.00	0.00	6.08
9/15/2019	217900	27600	2.29	2.05	9.11	0.49	0.06	7.06
9/16/2019	198100	29200	1.82	1.59	8.39	0.83	0.00	6.80
9/17/2019	189900	34600	1.99	1.76	8.15	0.03	0.24	6.39
9/18/2019	216700	34400	2.08	1.83	9.12	1.00	0.01	7.29
9/19/2019	191900	31500	1.84	1.62	8.13	0.17	0.00	6.51
9/20/2019	166000	24900	1.57	1.38	7.73	0.02	0.00	6.35
9/21/2019	181800	16000	1.66	1.46	7.81	0.00	0.00	6.35
9/22/2019	206600	19100	1.79	1.57	8.15	0.00	0.01	6.58
9/23/2019	190800	28600	1.64	1.42	7.74	0.16	0.00	6.32
9/24/2019	189300	25300	1.57	1.35	7.47	0.04	0.00	6.12
9/25/2019	201400	23900	1.55	1.33	7.33	0.03	0.00	6.00
9/26/2019	198100	27600	1.61	1.38	7.43	0.00	0.00	6.05
9/27/2019	156500	24200	1.33	1.15	7.31	0.02	0.01	6.16
9/28/2019	189100	15900	1.58	1.38	7.58	0.13	0.01	6.20
9/29/2019	194700	16800	1.59	1.38	8.04	0.17	0.00	6.66
9/30/2019	200200	28100	1.61	1.39	7.61	0.01	0.00	6.22
Total	5735300	729700	48.58	42.12	232.51	5.55	1.51	190.39
Min	156500	14100	1.24	1.05	6.88	0.00	0.00	5.81
Max	223900	34600	2.29	2.05	9.12	1.43	1.05	7.35
Average	191177	24323	1.62	1.40	7.75	0.19	0.05	6.35

Salmon Creek Wastewater Treatment Plant Flow and Rainfall Report

Date	Meadow Glade GPD	Hockinson GPD	Total BG Inf MGD	BG Only Inf MGD	SC Inf MGD	BG Rainfall	SC Rainfall	District Total Inf MGD
10/1/2019	183700	23100	1.46	1.25	7.33	0.00	0.00	6.08
10/2/2019	190100	23100	1.47	1.26	7.26	0.00	0.00	6.00
10/3/2019	182400	24700	1.45	1.25	7.43	0.05	0.00	6.18
10/4/2019	166400	29500	1.46	1.26	7.29	0.36	0.00	6.03
10/5/2019	190100	10400	1.52	1.32	7.56	0.00	0.00	6.24
10/6/2019	205200	17500	1.61	1.39	7.71	0.00	0.00	6.32
10/7/2019	212700	27600	1.60	1.36	7.40	0.00	0.01	6.04
10/8/2019	177900	25500	1.45	1.25	7.32	0.08	0.04	6.07
10/9/2019	184300	22700	1.47	1.26	7.22	0.12	0.00	5.96
10/10/2019	179300	25600	1.43	1.22	7.12	0.00	0.00	5.90
10/11/2019	179300	12400	1.42	1.22	7.28	0.00	0.00	6.06
10/12/2019	179300	12400	1.42	1.22	7.28	0.00	0.00	6.06
10/13/2019	183200	13200	1.41	1.22	7.49	0.00	0.00	6.27
10/14/2019	206900	25400	1.54	1.31	7.36	0.02	0.00	6.05
10/15/2019	174000	24700	1.34	1.14	7.13	0.00	0.00	5.99
10/16/2019	194100	24900	1.57	1.35	7.35	0.02	0.23	6.00
10/17/2019	191300	28600	1.70	1.48	7.54	0.54	0.31	6.06
10/18/2019	197100	38100	2.13	1.89	7.58	0.50	0.06	5.69
10/19/2019	201500	25200	2.18	1.95	9.17	0.98	0.59	7.22
10/20/2019	185600	18900	1.81	1.60	8.57	0.12	0.02	6.97
10/21/2019	197300	30700	1.96	1.73	8.01	0.09	0.17	6.28
10/22/2019	195000	30500	2.04	1.82	8.27	0.54	0.33	6.45
10/23/2019	195100	27300	1.84	1.61	7.87	0.02	0.00	6.26
10/24/2019	184000	27600	1.74	1.53	7.70	0.01	0.00	6.17
10/25/2019	170800	25200	1.54	1.35	7.52	0.00	0.02	6.17
10/26/2019	202600	18400	1.70	1.48	7.68	0.02	0.00	6.20
10/27/2019	220500	21300	1.80	1.56	7.91	0.00	0.00	6.35
10/28/2019	186500	24600	1.59	1.38	7.65	0.00	0.00	6.27
10/29/2019	199500	24400	1.53	1.30	7.45	0.00	0.00	6.15
10/30/2019	191400	23300	1.54	1.32	7.37	0.00	0.00	6.05
10/31/2019	186900	23000	1.48	1.27	7.17	0.00	0.00	5.90
Total	5894000	729800	50.18	43.55	234.99	3.47	1.78	191.44
Min	166400	10400	1.34	1.14	7.12	0.00	0.00	5.69
Max	220500	38100	2.18	1.95	9.17	0.98	0.59	7.22
Average	190129	23542	1.62	1.40	7.58	0.11	0.06	6.18

Salmon Creek Wastewater Treatment Plant Flow and Rainfall Report

Date	Meadow Glade GPD	Hockinson GPD	Total BG Inf MGD	BG Only Inf MGD	SC Inf MGD	BG Rainfall	SC Rainfall	District Total Inf MGD
11/1/2019	168100	25800	1.43	1.24	7.23	0.00	0.00	5.99
11/2/2019	201500	14900	1.54	1.33	7.51	0.00	0.00	6.18
11/3/2019	221900	16800	1.66	1.42	7.98	0.00	0.00	6.56
11/4/2019	183400	24200	1.41	1.21	7.39	0.00	0.00	6.18
11/5/2019	212800	22900	1.55	1.32	7.21	0.00	0.00	5.89
11/6/2019	196400	23600	1.47	1.25	7.22	0.01	0.00	5.97
11/7/2019	206100	31000	1.51	1.27	7.06	0.00	0.00	5.79
11/8/2019	187900	26800	1.42	1.21	6.95	0.00	0.00	5.74
11/9/2019	171900	13800	1.42	1.24	7.26	0.02	0.19	6.02
11/10/2019	214700	19400	1.68	1.45	7.49	0.37	0.02	6.04
11/11/2019	193900	15900	1.52	1.31	7.44	0.02	0.01	6.13
11/12/2019	209600	28700	1.63	1.39	7.24	0.01	0.17	5.85
11/13/2019	200800	22900	1.54	1.32	7.12	0.02	0.00	5.80
11/14/2019	195300	24900	1.55	1.33	7.16	0.00	0.09	5.83
11/15/2019	184600	29400	1.58	1.36	7.15	0.24	0.10	5.79
11/16/2019	204700	17000	1.63	1.41	7.35	0.02	0.01	5.94
11/17/2019	201300	21000	1.65	1.42	7.66	0.01	0.05	6.24
11/18/2019	203800	27500	1.76	1.53	7.40	0.16	0.10	5.87
11/19/2019	192800	31400	1.83	1.61	7.97	0.47	0.30	6.36
11/20/2019	203100	26600	1.66	1.43	7.51	0.02	0.00	6.08
11/21/2019	207200	26500	1.72	1.48	7.42	0.00	0.00	5.94
11/22/2019	173800	25600	1.52	1.32	7.32	0.00	0.01	6.00
11/23/2019	208300	16300	1.67	1.45	7.56	0.00	0.00	6.11
11/24/2019	229000	22800	1.80	1.55	7.79	0.07	0.15	6.24
11/25/2019	193000	29000	1.66	1.44	7.63	0.20	0.03	6.19
11/26/2019	218300	27100	1.78	1.54	7.49	0.04	0.08	5.95
11/27/2019	226800	17300	1.83	1.58	7.77	0.10	0.00	6.19
11/28/2019	227600	16000	1.61	1.37	7.82	0.00	0.00	6.45
11/29/2019	200100	16700	1.55	1.34	7.17	0.00	0.00	5.83
11/30/2019	217500	15800	1.69	1.45	7.45	0.00	0.00	6.00
Total	6056200	677600	48.28	41.55	222.72	1.78	1.31	181.17
Min	168100	13800	1.41	1.21	6.95	0.00	0.00	5.74
Max	229000	31400	1.83	1.61	7.98	0.47	0.30	6.56
Average	201873	22587	1.61	1.38	7.42	0.06	0.04	6.04

Salmon Creek Wastewater Treatment Plant Flow and Rainfall Report

Date	Meadow Glade GPD	Hockinson GPD	Total BG Inf MGD	BG Only Inf MGD	SC Inf MGD	BG Rainfall	SC Rainfall	District Total Inf MGD
12/1/2019	194200	15600	1.54	1.33	7.75	0.05	0.19	6.42
12/2/2019	204800	23700	1.63	1.40	7.47	0.07	0.00	6.07
12/3/2019	191100	26300	1.51	1.29	7.28	0.00	0.01	5.99
12/4/2019	196000	23200	1.58	1.36	7.23	0.05	0.00	5.87
12/5/2019	181200	23000	1.51	1.31	7.19	0.00	0.00	5.88
12/6/2019	146000	27800	1.49	1.32	7.11	0.00	0.28	5.79
12/7/2019	199700	22300	2.08	1.86	8.25	0.46	0.52	6.39
12/8/2019	181100	18500	1.83	1.63	8.22	0.39	0.02	6.59
12/9/2019	195000	28200	1.88	1.66	7.72	0.00	0.00	6.06
12/10/2019	190200	30800	2.01	1.79	7.94	0.00	0.54	6.15
12/11/2019	186200	34200	2.15	1.93	8.52	0.57	0.01	6.59
12/12/2019	203800	42200	2.62	2.37	9.13	0.30	0.78	6.76
12/13/2019	214100	37500	2.47	2.22	8.92	0.65	0.01	6.70
12/14/2019	201400	25100	2.24	2.01	8.54	0.02	0.03	6.53
12/15/2019	181900	22300	1.88	1.67	8.53	0.03	0.00	6.86
12/16/2019	191000	27100	1.95	1.73	8.03	0.00	0.00	6.30
12/17/2019	180000	24700	1.80	1.59	7.74	0.00	0.00	6.15
12/18/2019	201400	29000	1.96	1.73	7.65	0.00	0.22	5.92
12/19/2019	230500	38500	2.59	2.33	8.69	0.30	0.81	6.36
12/20/2019	225700	48000	2.94	2.66	9.87	0.86	0.74	7.21
12/21/2019	309500	44600	3.70	3.35	12.36	1.29	0.58	9.01
12/22/2019	311100	31500	3.26	2.92	10.98	0.59	0.19	8.06
12/23/2019	251000	26600	2.60	2.33	10.00	0.29	0.03	7.67
12/24/2019	264400	20900	2.42	2.14	9.50	0.00	0.00	7.36
12/25/2019	253100	20800	2.24	1.97	8.48	0.03	0.02	6.51
12/26/2019	236400	17600	2.11	1.86	8.50	0.00	0.01	6.64
12/27/2019	252900	22200	2.19	1.92	8.30	0.06	0.02	6.38
12/28/2019	241300	17900	2.05	1.79	8.27	0.07	0.00	6.48
12/29/2019	191500	16300	1.71	1.50	8.22	0.01	0.08	6.72
12/30/2019	219800	17100	1.90	1.66	8.07	0.00	0.01	6.41
12/31/2019	257100	25100	2.26	1.97	8.18	0.00	0.16	6.21
Total	6683400	828600	66.12	58.61	262.64	6.09	5.26	204.03
Min	146000	15600	1.49	1.29	7.11	0.00	0.00	5.79
Max	311100	48000	3.70	3.35	12.36	1.29	0.81	9.01
Average	215594	26729	2.13	1.89	8.47	0.20	0.17	6.58



APPENDIX D

ERU AND SEWER LINE DATA



**CLARK REGIONAL WASTEWATER DISTRICT
SALMON CREEK TREATMENT PLANT
SEWER CONNECTION REPORT**

Year: Jan 2019 - Dec 2019

Month	New Residential	Total Residential	Multi Family/ Guesthomes (* 8)	Total Res/ Multi-Family	New Commercial	Total Commercial	Grand Total ERU's	Line Construction			Total Line Construction	Total Miles	Year to Date ERU'S
								Developer	District	Construction			
Balance Forward		25371.0		6236.4		4206.5	36813.9				2175209	412.0	SCTP - All Res 1,061.0 Multi-Family 419.2 Comm 124.8 Total 1,605.0
Jan	58.0	25429.0	153.6 ♦	6390.0	11.2 ♦	4217.7	36036.7	2718	0	2177927	412.5	VTP	
Feb	52.0	25481.0	0.0	6390.0	27.2 ♦	4244.9	36115.9	4647	0	2182574	413.4	Res 4.0	
Mar	69.0	25550.0	1.6 ♦	6391.6	12.1 ♦	4257.0	36198.6	7072	2236	2191882	415.1	Multi-Family 1.6	
Apr	89.0	25639.0	0.0	6391.6	4.0 ♦	4261.0	36291.6	7078	0	2198960	416.5	Comm 13.8	
May	84.0	25723.0	0.0	6391.6	25.9 ♦	4286.9	36401.5	3397	0	2202357	417.1	Total 19.4	
Jun	65.0	25788.0	0.0	6391.6	4.4 ♦	4291.3	36470.9	7922	0	2210279	418.6	RTP	
Jul	71.0	25859.0	0.0	6391.6	0.0	4291.3	36541.9	106	0	2210385	418.6	Res 102.0	
Aug	87.0	25946.0	0.0	6391.6	0.0	4291.3	36628.9	2913	0	2213298	419.2	Multi-Family -	
Sep	80.0	26026.0	0.0	6391.6	0.3 ♦	4291.6	36709.2	839	0	2214137	419.3	Comm 1.7	
Oct	57.0	26083.0	24.0 ♦	6415.6	1.1 ♦	4292.7	36791.3	4451	0	2218588	420.2	Total 103.7	
Nov	63.0	26146.0	0.0	6415.6	0.4 ♦	4293.1	36854.7	1314	2998	2222900	421.0	Permits	
Dec	53.0	26199.0	0.0	6415.6	7.4 ♦	4300.5	36915.1	9140	5565	2237605	423.8	SCTP 1118	
Subtotals	828.0		179.2		94.0			51597	10799				RTP 103
Total ERU's		26199.0		6415.6		4300.5	36915.1			2237605	423.8		VTP 4 Total 1225

♦ See reverse for explanation

**CLARK REGIONAL WASTEWATER DISTRICT
MEADOWGLADE AREA
SALMON CREEK TREATMENT PLANT
SEWER CONNECTION REPORT**

Year: Jan 2019 - Dec 2019

Month	New Residential	Total Residential	Multi Family/ Guesthomes (* .8)	Total Res/ Multi-Family	New Commercial	Total Commercial	Grand Total ERU's	Line Construction Developer	District	Total Line Construction	Total Miles
Balance Forward		746.0		2.4		108.6	857.0			28598	5.4
Jan	0.0	746.0	0.0	2.4	0.0	108.6	857.0	0	0	28598	5.4
Feb	0.0	746.0	0.0	2.4	0.0	108.6	857.0	0	0	28598	5.4
Mar	1.0	747.0	0.0	2.4	0.0	108.6	858.0	0	0	28598	5.4
Apr	0.0	747.0	0.0	2.4	0.0	108.6	858.0	0	0	28598	5.4
May	0.0	747.0	0.0	2.4	0.0	108.6	858.0	0	0	28598	5.4
Jun	0.0	747.0	0.0	2.4	0.0	108.6	858.0	0	0	28598	5.4
Jul	1.0	748.0	0.0	2.4	0.0	108.6	859.0	0	0	28598	5.4
Aug	0.0	748.0	0.0	2.4	0.0	108.6	859.0	0	0	28598	5.4
Sep	0.0	748.0	0.0	2.4	0.0	108.6	859.0	0	0	28598	5.4
Oct	0.0	748.0	0.0	2.4	0.0	108.6	859.0	0	0	28598	5.4
Nov	0.0	748.0	0.0	2.4	0.0	108.6	859.0	0	0	28598	5.4
Dec	0.0	748.0	0.0	2.4	0.0	108.6	859.0	0	0	28598	5.4
Subtotals	2.0		0.0		0.0			0	0		
Total ERU's		748.0		2.4		108.6	859.0			28598	5.4

**CLARK REGIONAL WASTEWATER DISTRICT
HOCKINSON AREA
SALMON CREEK TREATMENT PLANT
SEWER CONNECTION REPORT**

Year: Jan 2019 - Dec 2019

Month	New Residential	Total Residential	Multi Family/ Guesthomes (*8)	Total Res/ Multi-Family	New Commercial	Total Commercial	Grand Total ERU's	Line Construction Developer	Line Construction District	Total Line Construction	Total Miles
Balance Forward		72.0		0.0		137.3	209.3			7061	1.3
Jan	0.0	72.0	0.0	0.0	0.0	137.3	209.3	0	0	7061	1.3
Feb	0.0	72.0	0.0	0.0	0.0	137.3	209.3	0	0	7061	1.3
Mar	0.0	72.0	0.0	0.0	0.0	137.3	209.3	0	0	7061	1.3
Apr	2.0	74.0	0.0	0.0	0.0	137.3	211.3	0	0	7061	1.3
May	0.0	74.0	0.0	0.0	0.0	137.3	211.3	0	0	7061	1.3
Jun	0.0	74.0	0.0	0.0	0.0	137.3	211.3	0	0	7061	1.3
Jul	0.0	74.0	0.0	0.0	0.0	137.3	211.3	0	0	7061	1.3
Aug	0.0	74.0	0.0	0.0	0.0	137.3	211.3	0	0	7061	1.3
Sep	0.0	74.0	0.0	0.0	0.0	137.3	211.3	0	0	7061	1.3
Oct	0.0	74.0	0.0	0.0	0.0	137.3	211.3	0	0	7061	1.3
Nov	0.0	74.0	0.0	0.0	0.0	137.3	211.3	0	0	7061	1.3
Dec	0.0	74.0	0.0	0.0	0.0	137.3	211.3	0	0	7061	1.3
Subtotals	2.0		0.0		0.0			0	0		
Total ERU's		74.0		0.0		137.3	211.3			7061	1.3

**CLARK REGIONAL WASTEWATER DISTRICT
RIDGEFIELD AREA
SALMON CREEK TREATMENT PLANT
SEWER CONNECTION REPORT**

Year: Jan 2019 - Dec 2019

Month	New Residential	Total Residential	Multi Family/ Guesthomes (*.8)	Total Res/ Multi-Family	New Commercial	Total Commercial	Grand Total ERU's	Line Construction Developer	District	Total Line Construction	Total Miles
Balance Forward		748.0		0.0		203.2	1002.2			143189.0	27.1
Jan	11.0	759.0	0.0	0.0	0.0	199.2	958.2	0.0	0.0	138106.0	26.2
Feb	8.0	767.0	0.0	0.0	0.0	199.2	966.2	0.0	0.0	138106.0	26.2
Mar	13.0	780.0	0.0	0.0	0.0	199.2	979.2	5083.0	0.0	143189.0	27.1
Apr	19.0	799.0	0.0	0.0	4.0 ♦	203.2	1002.2	0.0	0.0	143189.0	27.1
May	16.0	815.0	0.0	0.0	0.0	203.2	1018.2	0.0	0.0	143189.0	27.1
Jun	26.0	841.0	0.0	0.0	0.0	203.2	1044.2	7607.0	0.0	150796.0	28.6
Jul	19.0	860.0	0.0	0.0	2.0 ♦	205.2	1065.2	5981.0	0.0	156777.0	29.7
Aug	23.0	883.0	16.0 ♦	16.0	1.0 ♦	206.2	1105.2	0.0	0.0	156777.0	29.7
Sep	17.0	900.0	52.8 ♦	68.8	0.0	206.2	1175.0	0.0	0.0	156777.0	29.7
Oct	31.0	931.0	38.4 ♦	107.2	0.0	206.2	1244.4	3343.0	0.0	160120.0	30.3
Nov	21.0	952.0	19.2 ♦	126.4	11.8 ♦	218.0	1296.4	0.0	0.0	160120.0	30.3
Dec	25.0	977.0	113.6 ♦	240.0	12.0 ♦	230.0	1447.0	15413.0	0.0	175533.0	33.2
Subtotals	229.0		240.0		30.8			37427.0	0.0		
Total ERU's		977.0		240.0		230.0	1447.0			175533	33.2

♦ See next page for explanation

