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February 13, 2019

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

RE: 2017 Infiltration and Inflow Report
WA0023639

Dear Ms. Cholski:

Enclosed you will find the 2017 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 360.993.8821 or by email at rkrause@crwwd.com.

Sincerely,

A handwritten signature in blue ink that reads "J.D. Krause".

J.D. Robin Krause, 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: 2018 I & I Report
Permit No.: WA002363-9
Date: February 13, 2019

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

DESCRIPTION:

2018 Infiltration and Inflow Report pursuant to NPDES Permit WA002363-9

MESSAGE:

Please call if you have any questions (360) 993.8821

BY:

J.D. Robin Krause, P.E.
District Engineer

C: File



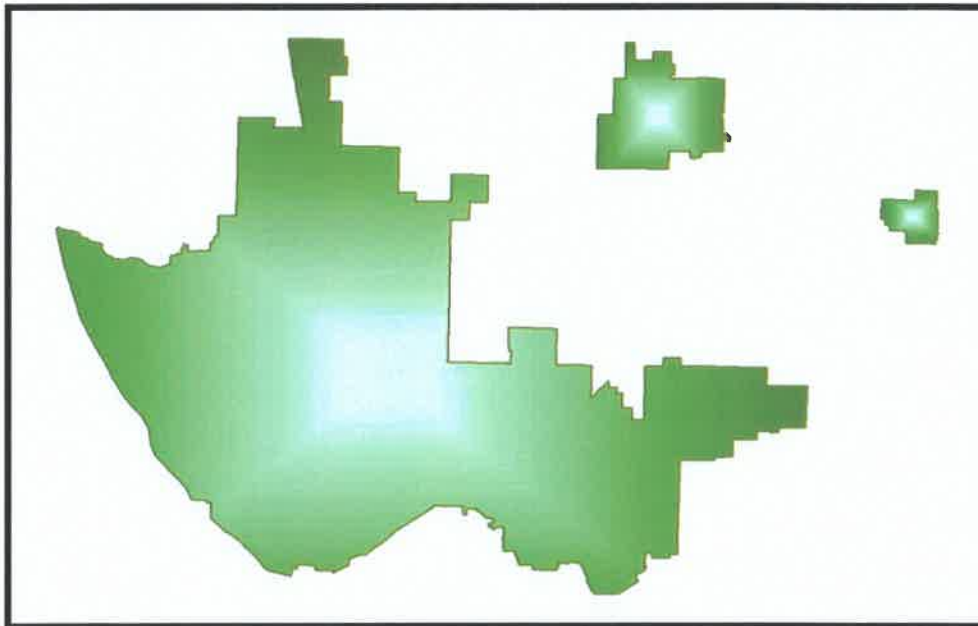
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Updated 2/13/2019

2018

**Clark Regional
Wastewater District**

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



February 5, 2019

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





TABLE OF CONTENTS

2018

Clark Regional Wastewater District INFILTRATION AND INFLOW REPORT

Overview	1
Monitoring Program and Rehabilitation Projects	3

Appendix

Appendix A - Annual Infiltration/Inflow (I/I) Report (DOE form)

Appendix B - Flow Analysis Data

Appendix C - Monthly Flow and Rainfall

Appendix D - ERU and Sewer Line Data



2018 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 0.15 MGD (958 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 74 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 97 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 2018, the District had approximately 35,385 ERU's with a population equivalent of roughly 85,986 in the Salmon Creek tributary area. The City of Ridgefield component adds another 663 ERUs with a population equivalent of about 1,612.

As shown in Appendix A, the District's 2018 I/I of 1.38 MGD represent a 26% increase 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 2018. That data shows that 2013 and 2003 represent the lowest I/I years on record. The District's I/I averaged 1.58 over the past 20 years. Reviewing years with similar rainfall patterns, the 2018 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

1997-2018 I/I AND RAINFALL

Year	Min of Average Monthly Flow	Max of Average Monthly Flow	I / I	Annual Rainfall
1997	3.90	5.73	1.84	48.18
1998	4.27	5.48	1.22	45.73
1999	4.20	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	1.10	41.02
2004	4.77	5.94	1.17	35.21
2005	4.79	5.90	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	7.00	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
Average	-	-	1.57	37.41

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. The next manhole grouting contract will be issued in 2020.



APPENDIX A

ANNUAL INFILTRATION/INFLOW (I/I) REPORT



Salmon Creek Wastewater Treatment Plant

ANNUAL INFILTRATION/INFLOW (I/I) REPORT

Reporting Year: **From:** 2016 **To:** 2018

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		
	2016	2017	2018	2016	2017	2018	2016	2017	2018	2016	2017	2018	
January	7.27	7.20	7.24	9.68	4.12	6.44	80807	83938	88037	1502	1308	6819	
February	6.89	8.19	6.83	5.13	8.22	3.40	80984	84164	88372	11950	3329	10859	
March	7.07	8.25	6.75	6.04	8.83	2.27	81277	84512	88763	9748	21256	9610	
April	6.11	7.40	6.80	1.56	4.57	3.26	81423	84876	89016	11092	0	2399	
May	5.93	6.86	6.29	1.13	1.86	0.15	81849	85128	89423	10966	1632	11304	
June	5.74	6.47	6.04	1.80	1.35	0.70	82251	85494	89934	13771	1737	3116	
July	5.58	5.97	5.86	0.44	0.00	0.04	82480	85805	90409	821	25269	2343	
August	5.54	5.93	5.89	0.22	0.00	0.07	82771	86213	90908	19210	4155	1488	
September	5.54	6.04	6.00	1.32	2.25	1.40	82966	86497	91153	3889	0	16389	
October	6.23	6.18	6.03	9.58	3.36	4.11	83218	86918	91492	1608	13187	13280	
November	6.67	6.90	6.12	6.75	8.90	2.83	83482	87341	91669	7905	965	1949	
December	6.99	6.79	6.67	4.49	3.43	5.98	83699	87597	91947	13127	5432	4783	
TOTAL	75.56	82.19	76.53	48.14	46.89	30.65				Total (feet)	105589	78270	84339
Low	5.54	5.93	5.86							Total (miles)	20.00	14.82	15.97
High	7.27	8.25	7.24										
Average	6.30	6.85	6.38										
I/I	1.73	2.31	1.38										

Base Year: 2003 Base Year I/I: 1.1 MGD

INFILTRATION/INFLOW SUMMARY

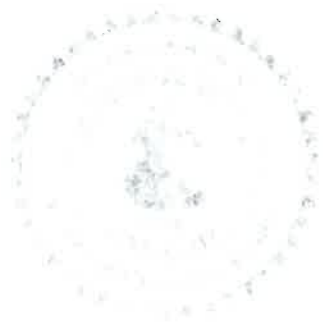
Year	I/I	% increase from base I/I	% of max mo. design flow
2016	1.73	58	15
2017	2.31	110	20
2018	1.38	26	12

Comments: See report.



 J.D. Robin Krause, PE
 District Engineer







APPENDIX B

FLOW ANALYSIS DATA



Salmon Creek Wastewater Management System - Clark Regional Wastewater District

ANNUAL INFILTRATION/INFLOW REPORT 1/1/2018 to 12/31/2018

FLOW AND PRECIPITATION DATA

MONTH	Average Monthly Flow (MGD)												Total Monthly Precipitation (Inches)											
	Year												Year											
	2013	2014	2015	2016	2017	2018	2013	2014	2015	2016	2017	2018	2013	2014	2015	2016	2017	2018						
January	6.39	5.77	6.19	7.27	7.20	7.24	2.63	2.54	2.35	9.68	4.12	6.44	2.63	2.54	2.35	9.68	4.12	6.44						
February	5.99	6.63	6.75	6.89	8.19	6.83	1.36	3.70	2.85	5.13	8.22	3.40	1.36	3.70	2.85	5.13	8.22	3.40						
March	5.74	6.84	6.35	7.07	8.25	6.75	1.43	5.78	3.19	6.04	8.83	2.27	1.43	5.78	3.19	6.04	8.83	2.27						
April	5.78	6.27	5.85	6.11	7.40	6.80	2.19	2.49	1.21	1.56	4.57	3.26	2.19	2.49	1.21	1.56	4.57	3.26						
May	5.81	5.91	5.56	5.93	6.86	6.29	2.94	2.28	0.40	1.13	1.86	0.15	2.94	2.28	0.40	1.13	1.86	0.15						
June	5.68	5.68	5.50	5.74	6.47	6.04	1.41	2.34	0.39	1.80	1.35	0.70	1.41	2.34	0.39	1.80	1.35	0.70						
July	5.39	5.45	5.31	5.58	5.97	5.86	0.01	0.57	0.25	0.44	0.00	0.04	0.01	0.57	0.25	0.44	0.00	0.04						
August	5.32	5.35	5.32	5.54	5.93	5.89	0.39	0.03	0.53	0.22	0.00	0.07	0.39	0.03	0.53	0.22	0.00	0.07						
September	5.65	5.34	5.32	5.54	6.04	6.00	4.25	1.03	1.11	1.32	2.25	1.40	4.25	1.03	1.11	1.32	2.25	1.40						
October	5.43	5.55	5.34	6.23	6.18	6.03	0.93	5.14	4.19	9.58	3.36	4.11	0.93	5.14	4.19	9.58	3.36	4.11						
November	5.62	5.90	5.87	6.67	6.90	6.12	2.04	2.39	5.03	6.75	8.90	2.83	2.04	2.39	5.03	6.75	8.90	2.83						
December	5.77	6.36	8.06	6.99	6.79	6.67	1.61	3.88	17.94	4.49	3.43	5.98	1.61	3.88	17.94	4.49	3.43	5.98						
Avg Flow / Total Rain	5.71	5.92	5.95	6.30	6.85	6.38	21.19	32.17	39.44	48.14	46.89	30.65	21.19	32.17	39.44	48.14	46.89	30.65						
Low Month	5.32	5.34	5.31	5.54	5.93	5.86	0.01	0.03	0.25	0.22	0.00	0.04	0.01	0.03	0.25	0.22	0.00	0.04						
High Month	6.39	6.84	8.06	7.27	8.25	7.24	4.25	5.78	17.94	9.68	8.90	6.44	4.25	5.78	17.94	9.68	8.90	6.44						

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	88037	2018	6819
February	88372		10859
March	88763		9610
April	89016		2399
May	89423		11304
June	89934		3116
July	90409		2343
August	90908		1488
September	91153		16389
October	91492		13280
November	91669		1949
December	91947		4783
Present Equivalent	91947	Total (feet)	84339
		Total (miles)	15.97

Salmon Creek Wastewater Management System - Clark Regional Wastewater District

ANNUAL INFILTRATION/INFLOW REPORT

1/1/2018 to 12/31/2018

DETERMINATION OF NON EXCESSIVE INFILTRATION

EPA Infiltration Criteria 120 gpcd

District Infiltration 74 gpcd

Period	Flow	Rain	Population Equivalent
Feb 12	6.65	0.00	88372
Feb 13	6.52	0.00	88372
Feb 14	6.52	0.00	88372
Feb 15	6.37	0.00	88372
Feb 16	6.57	0.00	88372
Feb 17	6.90	0.00	88372
Feb 18	6.46	0.00	88372

Average Flow (MGD) 6.57 0.00 Inches Rain

Comments: The seven day period of February 12 through February 18, 2018 was identified as a dry weather period within a period of seasonal high groundwater.

DETERMINATION OF NON EXCESSIVE INFLOW

EPA Inflow Criteria 275 gpcd

District Inflow 97 gpcd

Period	Flow	Rain	Population Equivalent
Jan 21	7.15	1.33	88037
Jan 22	6.95	0.57	88037
Jan 23	7.11	0.00	88037
Jan 24	8.58	0.17	88037
Jan 25	8.49	0.38	88037
Jan 26	7.54	0.89	88037
Jan 27	8.44	0.30	88037

Highest Average Flow (MGD) 8.58 3.64 Inches Rain

Comments: The seven day period of January 21 through January 27, 2018 was identified as a period of significant rainfall with surface ponding and runoff. January 24 was the highest recorded daily flow during a storm event.

Salmon Creek Wastewater Management System - Clark Regional Wastewater District

ANNUAL INFILTRATION/INFLOW REPORT 1/1/2018 to 12/31/2018

INFILTRATION/INFLOW SUMMARY

Year	I/I	% Over Base I/I	% of Max Design Flow
2013	1.07	-3%	9%
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%

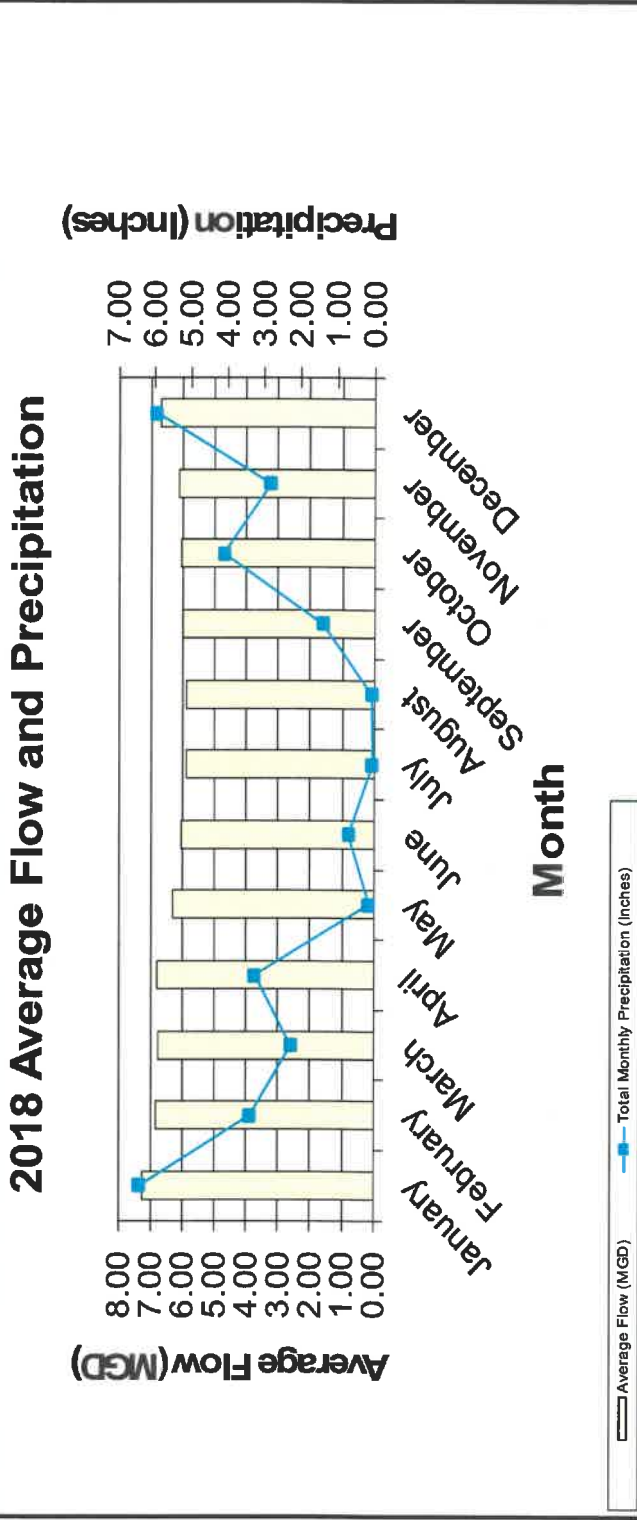
Base Year: 2003

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.



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
1/1/2018	285200	20200	2.32	2.02	9.23	0.00	0.00	7.21
1/2/2018	265800	29800	2.17	1.87	8.74	0.00	0.00	6.87
1/3/2018	243000	26900	1.96	1.69	8.40	0.00	0.00	6.71
1/4/2018	250100	27100	1.93	1.65	8.19	0.00	0.11	6.54
1/5/2018	283000	32900	2.28	1.96	8.39	0.18	0.37	6.43
1/6/2018	238500	19900	1.97	1.71	8.90	0.44	0.00	7.19
1/7/2018	286200	23700	2.24	1.93	9.02	0.03	0.27	7.09
1/8/2018	288500	44600	2.43	2.09	8.82	0.27	0.13	6.73
1/9/2018	300400	44400	2.57	2.23	9.83	0.55	0.48	7.60
1/10/2018	282500	41600	2.45	2.12	9.19	0.16	0.11	7.07
1/11/2018	347200	53000	3.12	2.72	10.41	0.39	0.90	7.69
1/12/2018	261100	39100	2.48	2.18	8.14	0.68	0.00	5.96
1/13/2018	272600	28400	2.45	2.15	9.48	0.00	0.00	7.33
1/14/2018	274000	24400	2.29	1.99	9.05	0.00	0.00	7.06
1/15/2018	261500	22000	2.14	1.86	8.99	0.00	0.07	7.13
1/16/2018	248000	30400	2.01	1.73	8.53	0.13	0.07	6.80
1/17/2018	292500	35200	2.34	2.01	8.59	0.03	0.40	6.58
1/18/2018	291100	32600	2.45	2.13	9.45	0.65	0.43	7.32
1/19/2018	242700	35200	2.14	1.87	9.00	0.17	0.06	7.13
1/20/2018	254700	29700	2.20	1.91	8.94	0.07	0.01	7.03
1/21/2018	294000	33500	2.44	2.11	9.26	0.03	0.17	7.15
1/22/2018	267800	38100	2.22	1.91	8.86	0.35	0.07	6.95
1/23/2018	352500	58600	2.90	2.49	9.60	0.08	0.83	7.11
1/24/2018	341000	60800	3.30	2.90	11.48	1.21	0.48	8.58
1/25/2018	286700	47600	2.99	2.65	11.14	0.46	0.39	8.49
1/26/2018	322000	44100	3.07	2.71	10.25	0.48	0.22	7.54
1/27/2018	284500	40000	2.99	2.66	11.10	0.70	0.34	8.44
1/28/2018	246300	24700	2.50	2.23	10.37	0.06	0.01	8.14
1/29/2018	312000	39900	2.74	2.39	10.03	0.01	0.50	7.64
1/30/2018	262000	36800	2.65	2.35	10.18	0.63	0.02	7.83
1/31/2018	243700	32400	2.40	2.12	9.36	0.03	0.00	7.24
Total	8681100	1097600	76.12	66.34	290.92	7.79	6.44	224.58
Min	238500	19900	1.93	1.65	8.14	0.00	0.00	5.96
Max	352500	60800	3.30	2.90	11.48	1.21	0.90	8.58
Average	280035	35406	2.46	2.14	9.38	0.25	0.21	7.24

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
2/1/2018	262400	36200	2.47	2.17	9.15	0.00	0.20	6.98
2/2/2018	250700	25900	2.35	2.07	9.25	0.50	0.00	7.18
2/3/2018	251300	23900	2.23	1.96	9.26	0.07	0.04	7.30
2/4/2018	293700	25400	2.31	1.99	9.18	0.04	0.00	7.19
2/5/2018	260200	28700	2.10	1.81	8.75	0.04	0.00	6.94
2/6/2018	246300	27400	2.02	1.75	8.40	0.00	0.00	6.65
2/7/2018	243600	25800	1.95	1.68	8.20	0.00	0.00	6.52
2/8/2018	222600	25400	1.78	1.54	8.06	0.00	0.00	6.52
2/9/2018	227700	25400	1.81	1.55	7.92	0.00	0.00	6.37
2/10/2018	244300	17000	1.88	1.62	8.19	0.04	0.00	6.57
2/11/2018	217900	16500	1.70	1.46	8.36	0.00	0.00	6.90
2/12/2018	234500	26100	1.78	1.52	7.98	0.00	0.00	6.46
2/13/2018	216000	26100	1.72	1.48	7.75	0.00	0.38	6.27
2/14/2018	245400	27100	2.01	1.73	8.22	0.53	0.46	6.49
2/15/2018	234900	26200	1.93	1.67	8.20	0.09	0.09	6.54
2/16/2018	260700	23800	2.13	1.85	8.25	0.23	0.17	6.40
2/17/2018	233900	27000	2.09	1.83	8.73	0.34	0.08	6.90
2/18/2018	278800	31200	2.46	2.15	9.12	0.16	0.21	6.97
2/19/2018	304300	28300	2.62	2.29	9.58	0.52	0.13	7.29
2/20/2018	261300	30300	2.31	2.01	8.91	0.02	0.07	6.90
2/21/2018	276400	25300	2.37	2.07	9.09	0.26	0.17	7.02
2/22/2018	282100	21100	2.30	2.00	8.91	0.30	0.18	6.91
2/23/2018	236800	27100	1.99	1.73	8.50	0.02	0.05	6.77
2/24/2018	297600	25100	2.49	2.17	9.15	0.27	0.15	6.98
2/25/2018	341600	33000	2.81	2.43	9.75	0.05	0.37	7.32
2/26/2018	294700	31700	2.45	2.13	9.26	0.40	0.01	7.13
2/27/2018	254100	28500	2.12	1.83	8.74	0.01	0.04	6.91
2/28/2018	326200	43400	2.73	2.36	9.31	0.14	0.60	6.95
Total	7300000	758900	60.91	52.85	244.17	4.03	3.40	191.32
Min	216000	16500	1.70	1.46	7.75	0.00	0.00	6.27
Max	341600	43400	2.81	2.43	9.75	0.53	0.60	7.32
Average	260714	27104	2.18	1.89	8.72	0.14	0.12	6.83

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
3/1/2018	305200	35700	2.59	2.25	9.69	0.68	0.06	7.44
3/2/2018	248800	31600	2.10	1.82	9.01	0.12	0.01	7.19
3/3/2018	273900	18700	2.22	1.92	8.93	0.00	0.00	7.01
3/4/2018	279200	21200	2.16	1.86	8.86	0.00	0.00	7.00
3/5/2018	249600	27800	2.01	1.73	8.39	0.03	0.01	6.66
3/6/2018	236200	27800	1.89	1.62	8.21	0.00	0.00	6.59
3/7/2018	234900	25500	1.83	1.57	8.09	0.00	0.00	6.52
3/8/2018	229600	29300	1.87	1.61	8.09	0.00	0.14	6.48
3/9/2018	217700	27800	1.80	1.56	8.04	0.24	0.00	6.48
3/10/2018	266300	21500	2.09	1.81	8.21	0.00	0.00	6.40
3/11/2018	188900	14700	1.51	1.30	7.99	0.00	0.00	6.69
3/12/2018	241200	26900	1.78	1.51	7.60	0.00	0.00	6.09
3/13/2018	249700	34100	1.90	1.62	7.83	0.00	0.01	6.21
3/14/2018	251000	30300	1.88	1.60	7.76	0.40	0.08	6.16
3/15/2018	254000	29300	1.89	1.61	7.61	0.07	0.32	6.00
3/16/2018	241000	31100	1.80	1.52	8.21	0.22	0.07	6.69
3/17/2018	248500	26900	1.90	1.62	8.34	0.04	0.25	6.72
3/18/2018	266200	28700	1.99	1.70	8.56	0.16	0.00	6.86
3/19/2018	234500	35100	1.78	1.51	8.14	0.02	0.00	6.63
3/20/2018	235000	32100	1.75	1.48	7.87	0.00	0.00	6.39
3/21/2018	248400	31700	1.92	1.64	7.89	0.00	0.34	6.25
3/22/2018	277900	41500	2.44	2.12	9.20	0.62	0.47	7.08
3/23/2018	276000	44200	2.47	2.15	9.53	0.72	0.08	7.38
3/24/2018	309400	32900	2.81	2.47	10.38	0.55	0.22	7.91
3/25/2018	295900	31800	2.60	2.28	9.82	0.11	0.05	7.54
3/26/2018	277000	33100	2.43	2.12	9.28	0.07	0.11	7.17
3/27/2018	261500	31300	2.25	1.95	8.93	0.17	0.05	6.98
3/28/2018	253000	26800	2.09	1.81	8.62	0.08	0.00	6.81
3/29/2018	238300	26000	2.03	1.77	8.57	0.00	0.00	6.80
3/30/2018	225000	27500	1.89	1.64	8.32	0.00	0.00	6.68
3/31/2018	300000	22800	2.40	2.08	8.43	0.00	0.00	6.35
Total	7913800	905700	64.05	55.23	264.40	4.30	2.27	209.17
Min	188900	14700	1.51	1.30	7.60	0.00	0.00	6.00
Max	309400	44200	2.81	2.47	10.38	0.72	0.47	7.91
Average	255284	29216	2.07	1.78	8.53	0.14	0.07	6.75

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
4/1/2018	185600	15600	1.53	1.33	8.32	0.02	0.00	6.99
4/2/2018	240000	17500	1.87	1.61	8.10	0.28	0.09	6.49
4/3/2018	248800	18400	2.02	1.75	7.78	0.03	0.00	6.03
4/4/2018	197800	16800	1.74	1.53	7.63	0.05	0.00	6.10
4/5/2018	256600	23300	2.07	1.79	8.10	0.04	0.44	6.31
4/6/2018	205200	18100	1.67	1.45	8.25	0.50	0.04	6.80
4/7/2018	318100	41800	2.68	2.32	9.12	0.27	0.79	6.80
4/8/2018	353800	39900	3.09	2.70	10.74	0.90	0.28	8.04
4/9/2018	281300	33800	2.39	2.07	9.37	0.07	0.00	7.30
4/10/2018	267200	34100	2.29	1.99	8.97	0.06	0.00	6.98
4/11/2018	280300	40400	2.36	2.04	8.85	0.13	0.00	6.81
4/12/2018	287800	41300	2.43	2.11	9.38	0.52	0.20	7.27
4/13/2018	243700	35800	2.19	1.92	8.87	0.27	0.07	6.96
4/14/2018	284200	29400	2.48	2.16	8.91	0.11	0.12	6.75
4/15/2018	342300	39500	2.98	2.60	10.25	0.51	0.83	7.65
4/16/2018	317600	38700	2.67	2.32	10.08	0.39	0.13	7.76
4/17/2018	267700	33600	2.26	1.96	9.25	0.10	0.00	7.29
4/18/2018	256300	30800	2.13	1.84	8.83	0.06	0.00	6.99
4/19/2018	250100	31100	2.08	1.80	8.57	0.00	0.00	6.77
4/20/2018	208200	26200	1.77	1.53	8.32	0.00	0.00	6.79
4/21/2018	224000	17200	1.88	1.64	8.32	0.00	0.00	6.68
4/22/2018	250600	19200	2.00	1.73	8.48	0.00	0.00	6.75
4/23/2018	232200	28600	1.81	1.55	8.25	0.00	0.00	6.70
4/24/2018	223400	26400	1.75	1.50	7.97	0.00	0.00	6.47
4/25/2018	227500	28500	1.75	1.49	7.83	0.00	0.00	6.34
4/26/2018	201100	24400	1.66	1.43	7.79	0.00	0.00	6.36
4/27/2018	175600	25000	1.46	1.26	7.64	0.00	0.09	6.38
4/28/2018	212700	16500	1.64	1.41	7.84	0.07	0.05	6.43
4/29/2018	234100	17300	1.74	1.49	8.10	0.02	0.08	6.61
4/30/2018	212900	26000	1.60	1.36	7.75	0.05	0.05	6.39
Total	7486700	835200	62.00	53.68	257.66	4.45	3.26	203.98
Min	175600	15600	1.46	1.26	7.63	0.00	0.00	6.03
Max	353800	41800	3.09	2.70	10.74	0.90	0.83	8.04
Average	249557	27840	2.07	1.79	8.59	0.15	0.11	6.80

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
5/1/2018	210900	29000	1.58	1.34	7.62	0.00	0.00	6.28
5/2/2018	210000	23300	1.56	1.33	7.57	0.00	0.00	6.24
5/3/2018	199000	26500	1.53	1.30	7.61	0.00	0.00	6.31
5/4/2018	191000	24000	1.35	1.13	7.43	0.00	0.00	6.30
5/5/2018	223400	13500	1.62	1.38	7.58	0.00	0.00	6.20
5/6/2018	202000	14600	1.47	1.26	7.87	0.00	0.00	6.61
5/7/2018	214500	24700	1.54	1.30	7.64	0.00	0.00	6.34
5/8/2018	198700	24800	1.49	1.27	7.55	0.00	0.02	6.28
5/9/2018	213600	29000	1.51	1.27	7.51	0.19	0.04	6.24
5/10/2018	201200	23100	1.47	1.25	7.45	0.05	0.09	6.20
5/11/2018	174600	19700	1.33	1.13	7.36	0.02	0.00	6.23
5/12/2018	205700	13300	1.52	1.30	7.52	0.00	0.00	6.22
5/13/2018	223800	13800	1.58	1.34	7.66	0.00	0.00	6.32
5/14/2018	207100	23700	1.47	1.23	7.78	0.00	0.00	6.55
5/15/2018	188300	23200	1.38	1.17	7.60	0.00	0.00	6.43
5/16/2018	201600	29400	1.45	1.22	7.53	0.00	0.00	6.31
5/17/2018	181700	21800	1.38	1.18	7.52	0.00	0.00	6.34
5/18/2018	184700	21800	1.31	1.10	7.47	0.00	0.00	6.37
5/19/2018	192700	15100	1.40	1.20	7.55	0.00	0.00	6.35
5/20/2018	222200	16300	1.53	1.29	7.80	0.00	0.00	6.51
5/21/2018	195400	23000	1.41	1.19	7.59	0.00	0.00	6.40
5/22/2018	198700	27600	1.39	1.16	7.43	0.00	0.00	6.27
5/23/2018	202900	19600	1.39	1.17	7.40	0.00	0.00	6.23
5/24/2018	190800	25400	1.37	1.15	7.37	0.00	0.00	6.22
5/25/2018	191700	22600	1.34	1.13	7.28	0.00	0.00	6.15
5/26/2018	176600	10400	1.29	1.10	7.19	0.00	0.00	6.09
5/27/2018	192700	11800	1.29	1.08	7.04	0.00	0.00	5.96
5/28/2018	211700	12800	1.45	1.23	7.72	0.00	0.00	6.49
5/29/2018	191500	23200	1.38	1.17	7.45	0.00	0.00	6.28
5/30/2018	195900	23700	1.40	1.18	7.25	0.00	0.00	6.07
5/31/2018	188600	22400	1.38	1.17	7.24	0.00	0.00	6.07
Total	6183200	653100	44.53	37.69	232.58	0.26	0.15	194.89
Min	174600	10400	1.29	1.08	7.04	0.00	0.00	5.96
Max	223800	29400	1.62	1.38	7.87	0.19	0.09	6.61
Average	199458	21068	1.44	1.22	7.50	0.01	0.00	6.29

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
6/1/2018	186000	25100	1.34	1.13	7.08	0.03	0.00	5.95
6/2/2018	201500	22300	1.48	1.26	7.26	0.00	0.00	6.00
6/3/2018	188800	16800	1.33	1.13	7.61	0.00	0.00	6.48
6/4/2018	191900	26000	1.38	1.16	7.29	0.00	0.00	6.13
6/5/2018	190800	22700	1.37	1.16	7.14	0.00	0.00	5.98
6/6/2018	192400	21600	1.34	1.13	7.09	0.00	0.00	5.96
6/7/2018	188800	28500	1.35	1.13	7.09	0.00	0.00	5.96
6/8/2018	183000	21600	1.29	1.08	7.09	0.00	0.28	6.01
6/9/2018	195400	14900	1.41	1.20	7.39	0.33	0.07	6.19
6/10/2018	225400	15100	1.61	1.37	7.79	0.13	0.31	6.42
6/11/2018	197800	23300	1.47	1.25	7.55	0.35	0.01	6.30
6/12/2018	183300	23400	1.38	1.17	7.29	0.00	0.00	6.12
6/13/2018	198400	24000	1.40	1.18	7.15	0.00	0.00	5.97
6/14/2018	185700	21800	1.37	1.16	7.21	0.01	0.00	6.05
6/15/2018	171900	22700	1.26	1.06	7.07	0.00	0.00	6.01
6/16/2018	210100	18900	1.48	1.25	7.23	0.00	0.01	5.98
6/17/2018	197000	19000	1.39	1.18	7.36	0.08	0.00	6.18
6/18/2018	198600	26000	1.41	1.19	7.37	0.11	0.00	6.18
6/19/2018	200900	20600	1.41	1.19	6.95	0.00	0.00	5.76
6/20/2018	200000	19000	1.37	1.15	7.29	0.00	0.00	6.14
6/21/2018	183300	19700	1.32	1.12	7.23	0.00	0.00	6.11
6/22/2018	207100	21600	1.43	1.20	7.10	0.00	0.00	5.90
6/23/2018	180700	15900	1.24	1.05	7.18	0.00	0.00	6.13
6/24/2018	187100	17800	1.29	1.09	7.32	0.00	0.00	6.23
6/25/2018	207800	17500	1.39	1.16	7.25	0.00	0.02	6.09
6/26/2018	192900	16300	1.30	1.09	7.09	0.00	0.00	6.00
6/27/2018	193300	13000	1.32	1.12	6.20	0.00	0.00	5.08
6/28/2018	188800	11500	1.29	1.09	6.96	0.00	0.00	5.87
6/29/2018	178900	14200	1.21	1.02	6.98	0.00	0.00	5.96
6/30/2018	188900	10800	1.31	1.11	7.08	0.00	0.00	5.97
Total	5796500	591600	40.95	34.56	215.69	1.04	0.70	181.13
Min	171900	10800	1.21	1.02	6.20	0.00	0.00	5.08
Max	225400	28500	1.61	1.37	7.79	0.35	0.31	6.48
Average	193217	19720	1.37	1.15	7.19	0.03	0.02	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
7/1/2018	207600	14100	1.39	1.17	7.18	0.00	0.01	6.01
7/2/2018	201100	12100	1.35	1.14	7.06	0.00	0.01	5.92
7/3/2018	170100	13000	1.20	1.01	6.97	0.01	0.00	5.96
7/4/2018	221500	12000	1.39	1.16	7.00	0.00	0.00	5.84
7/5/2018	199400	12500	1.30	1.09	6.98	0.00	0.00	5.89
7/6/2018	189100	11300	1.25	1.05	6.97	0.00	0.00	5.92
7/7/2018	193600	11500	1.33	1.12	7.04	0.00	0.00	5.92
7/8/2018	217600	15500	1.41	1.17	7.17	0.00	0.00	6.00
7/9/2018	198000	12100	1.32	1.11	7.16	0.00	0.02	6.05
7/10/2018	190400	13100	1.34	1.13	6.96	0.00	0.00	5.83
7/11/2018	178300	12700	1.27	1.08	6.94	0.00	0.00	5.86
7/12/2018	187500	12900	1.31	1.11	6.95	0.00	0.00	5.84
7/13/2018	177100	12100	1.25	1.06	6.95	0.00	0.00	5.89
7/14/2018	191700	10900	1.40	1.19	6.96	0.00	0.00	5.77
7/15/2018	193200	12600	1.33	1.13	7.06	0.00	0.00	5.93
7/16/2018	186900	14800	1.32	1.12	7.08	0.00	0.00	5.96
7/17/2018	185900	14400	1.31	1.11	6.94	0.00	0.00	5.84
7/18/2018	189400	12700	1.31	1.10	6.89	0.00	0.00	5.79
7/19/2018	199900	13400	1.35	1.14	6.92	0.00	0.00	5.78
7/20/2018	185000	12900	1.31	1.11	6.91	0.00	0.00	5.80
7/21/2018	213400	15100	1.41	1.19	6.99	0.00	0.00	5.80
7/22/2018	175700	13900	1.28	1.09	7.06	0.00	0.00	5.97
7/23/2018	189200	13500	1.37	1.16	7.02	0.00	0.00	5.86
7/24/2018	198700	15600	1.32	1.11	6.85	0.00	0.00	5.74
7/25/2018	190600	13000	1.31	1.11	6.79	0.00	0.00	5.68
7/26/2018	183800	13500	1.30	1.10	6.87	0.00	0.00	5.77
7/27/2018	179800	12600	1.22	1.03	6.82	0.00	0.00	5.79
7/28/2018	198200	13500	1.33	1.12	6.87	0.00	0.00	5.75
7/29/2018	207700	14900	1.41	1.19	7.03	0.00	0.00	5.84
7/30/2018	197800	14000	1.34	1.12	7.10	0.00	0.00	5.98
7/31/2018	193600	13400	1.34	1.13	6.93	0.00	0.00	5.80
Total	5991800	409600	41.06	34.66	216.42	0.01	0.04	181.76
Min	170100	10900	1.20	1.01	6.79	0.00	0.00	5.68
Max	221500	15600	1.41	1.19	7.18	0.01	0.02	6.05
Average	193284	13213	1.32	1.12	6.98	0.00	0.00	5.86

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
8/1/2018	213500	16200	1.30	1.07	6.86	0.00	0.00	5.79
8/2/2018	182300	13600	1.28	1.09	6.89	0.00	0.00	5.80
8/3/2018	191700	11300	1.26	1.05	6.85	0.02	0.00	5.80
8/4/2018	207900	12800	1.34	1.12	6.93	0.02	0.00	5.81
8/5/2018	191900	13900	1.39	1.18	7.15	0.00	0.00	5.97
8/6/2018	193200	15200	1.35	1.14	7.03	0.00	0.00	5.89
8/7/2018	182400	13200	1.31	1.11	6.95	0.00	0.00	5.84
8/8/2018	183900	13800	1.31	1.11	6.90	0.00	0.00	5.79
8/9/2018	172700	14200	1.28	1.10	6.90	0.00	0.00	5.80
8/10/2018	176500	15400	1.27	1.08	6.88	0.00	0.00	5.80
8/11/2018	199400	13100	1.40	1.19	6.93	0.00	0.00	5.74
8/12/2018	198100	12400	1.32	1.10	7.08	0.00	0.00	5.98
8/13/2018	196700	13100	1.35	1.14	7.04	0.00	0.00	5.90
8/14/2018	180600	12900	1.33	1.14	6.93	0.00	0.00	5.79
8/15/2018	182500	13300	1.28	1.08	6.88	0.00	0.00	5.80
8/16/2018	171000	18400	1.28	1.09	6.88	0.00	0.00	5.79
8/17/2018	184700	16100	1.22	1.02	6.87	0.00	0.00	5.85
8/18/2018	199900	16700	1.33	1.11	6.92	0.00	0.00	5.81
8/19/2018	212600	17700	1.40	1.17	7.10	0.00	0.00	5.93
8/20/2018	196100	20600	1.34	1.13	7.14	0.00	0.00	6.01
8/21/2018	194300	17900	1.29	1.08	6.99	0.00	0.00	5.91
8/22/2018	199400	14900	1.35	1.13	6.89	0.00	0.00	5.76
8/23/2018	172800	19000	1.25	1.06	6.90	0.00	0.00	5.84
8/24/2018	168200	18400	1.18	1.00	6.92	0.00	0.00	5.92
8/25/2018	182400	16800	1.31	1.11	6.99	0.00	0.00	5.88
8/26/2018	206100	21300	1.47	1.25	7.20	0.05	0.02	5.95
8/27/2018	204500	23600	1.38	1.15	7.49	0.31	0.05	6.34
8/28/2018	193300	22800	1.33	1.12	7.17	0.00	0.00	6.05
8/29/2018	182700	17400	1.30	1.10	7.18	0.00	0.00	6.08
8/30/2018	187900	22300	1.35	1.14	7.20	0.00	0.00	6.06
8/31/2018	212400	20200	1.41	1.18	7.16	0.00	0.00	5.98
Total	5921600	508500	40.97	34.54	217.20	0.40	0.07	182.66
Min	168200	11300	1.18	1.00	6.85	0.00	0.00	5.74
Max	213500	23600	1.47	1.25	7.49	0.31	0.05	6.34
Average	191019	16403	1.32	1.11	7.01	0.01	0.00	5.89

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
9/1/2018	185800	15000	1.31	1.11	7.14	0.00	0.00	6.03
9/2/2018	177400	18600	1.26	1.06	7.00	0.00	0.00	5.94
9/3/2018	193100	16800	1.30	1.09	7.53	0.00	0.00	6.44
9/4/2018	197600	24200	1.37	1.15	7.44	0.00	0.00	6.30
9/5/2018	198700	24200	1.34	1.12	7.25	0.00	0.00	6.13
9/6/2018	188300	19200	1.30	1.09	7.19	0.00	0.00	6.10
9/7/2018	180300	20300	1.28	1.08	6.91	0.00	0.00	5.83
9/8/2018	187300	16600	1.35	1.15	7.00	0.00	0.00	5.85
9/9/2018	213800	15400	1.44	1.21	7.35	0.00	0.00	6.14
9/10/2018	193400	21100	1.37	1.16	7.31	0.23	0.22	6.15
9/11/2018	200700	21500	1.40	1.17	7.11	0.11	0.13	5.94
9/12/2018	196700	21700	1.36	1.14	7.17	0.22	0.66	6.03
9/13/2018	196000	24200	1.44	1.22	7.12	0.25	0.14	5.90
9/14/2018	172600	20100	1.27	1.07	7.08	0.38	0.00	6.01
9/15/2018	184300	14600	1.37	1.17	7.17	0.00	0.07	6.00
9/16/2018	205400	16000	1.53	1.31	7.62	0.24	0.15	6.31
9/17/2018	189800	25100	1.39	1.17	7.25	0.03	0.00	6.08
9/18/2018	194800	25500	1.33	1.11	7.11	0.00	0.00	6.00
9/19/2018	219600	29900	1.34	1.09	6.99	0.00	0.00	5.90
9/20/2018	167200	21200	1.10	0.91	7.03	0.00	0.00	6.12
9/21/2018	166100	22800	1.20	1.01	6.92	0.00	0.01	5.91
9/22/2018	193700	13900	1.43	1.22	7.13	0.02	0.00	5.91
9/23/2018	207200	14800	1.43	1.21	7.44	0.03	0.00	6.23
9/24/2018	194100	27100	1.41	1.19	7.12	0.00	0.00	5.93
9/25/2018	190200	25300	1.34	1.13	6.95	0.00	0.00	5.82
9/26/2018	186200	25100	1.29	1.08	6.81	0.00	0.00	5.73
9/27/2018	190200	25600	1.36	1.14	6.86	0.00	0.00	5.72
9/28/2018	157300	24000	1.19	1.00	6.78	0.00	0.00	5.78
9/29/2018	188300	13300	1.32	1.11	6.91	0.00	0.01	5.80
9/30/2018	212600	15100	1.45	1.23	7.35	0.00	0.01	6.12
Total	5728700	618200	40.26	33.92	214.04	1.51	1.40	180.12
Min	157300	13300	1.10	0.91	6.78	0.00	0.00	5.72
Max	219600	29900	1.53	1.31	7.62	0.38	0.66	6.44
Average	190957	20607	1.34	1.13	7.13	0.05	0.05	6.00

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
10/1/2018	190000	25700	1.32	1.11	7.07	0.04	0.00	5.96
10/2/2018	196400	22900	1.34	1.12	6.98	0.01	0.00	5.86
10/3/2018	186800	22200	1.30	1.09	6.91	0.00	0.00	5.82
10/4/2018	183500	20400	1.31	1.11	6.91	0.00	0.00	5.80
10/5/2018	169200	23900	1.34	1.14	7.01	0.00	0.00	5.87
10/6/2018	178900	17300	1.36	1.17	7.32	0.58	0.00	6.15
10/7/2018	217700	17200	1.60	1.36	7.41	0.00	0.20	6.05
10/8/2018	195100	25600	1.58	1.36	7.78	0.31	0.37	6.42
10/9/2018	187700	23500	1.42	1.21	7.26	0.27	0.01	6.05
10/10/2018	198400	24100	1.40	1.18	7.02	0.01	0.00	5.84
10/11/2018	193900	21700	1.40	1.18	6.94	0.00	0.00	5.76
10/12/2018	160700	13300	1.21	1.04	6.95	0.00	0.00	5.91
10/13/2018	195500	11900	1.42	1.21	7.09	0.00	0.00	5.88
10/14/2018	205600	13700	1.43	1.21	7.30	0.00	0.00	6.09
10/15/2018	196900	20400	1.38	1.16	7.06	0.00	0.00	5.90
10/16/2018	180300	24200	1.27	1.07	6.87	0.00	0.00	5.80
10/17/2018	188600	20300	1.29	1.09	6.82	0.00	0.00	5.73
10/18/2018	180400	21600	1.31	1.11	6.82	0.00	0.00	5.71
10/19/2018	167600	21300	1.20	1.01	6.78	0.00	0.00	5.77
10/20/2018	186800	8800	1.33	1.13	6.93	0.00	0.00	5.80
10/21/2018	200700	16500	1.40	1.18	7.19	0.00	0.00	6.01
10/22/2018	186900	19000	1.34	1.13	6.99	0.00	0.00	5.86
10/23/2018	184300	21600	1.31	1.11	6.91	0.00	0.07	5.80
10/24/2018	194900	18900	1.34	1.12	6.83	0.14	0.00	5.71
10/25/2018	186000	22100	1.42	1.21	7.09	0.13	0.46	5.88
10/26/2018	165500	19000	1.38	1.19	7.12	0.46	0.34	5.93
10/27/2018	204900	26500	2.20	1.97	8.19	0.27	1.80	6.22
10/28/2018	216300	24200	2.22	1.98	10.48	2.22	0.52	8.50
10/29/2018	185900	26500	1.80	1.59	8.32	0.73	0.05	6.73
10/30/2018	197800	23400	1.73	1.51	7.65	0.07	0.07	6.14
10/31/2018	187200	26200	1.84	1.62	7.65	0.28	0.22	6.03
Total	5870400	643900	45.19	38.68	225.65	5.52	4.11	186.97
Min	160700	8800	1.20	1.01	6.78	0.00	0.00	5.71
Max	217700	26500	2.22	1.98	10.48	2.22	1.80	8.50
Average	189368	20771	1.46	1.25	7.28	0.18	0.13	6.03

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
11/1/2018	207900	28900	1.92	1.68	7.71	0.36	0.00	6.03
11/2/2018	159200	23400	1.60	1.41	7.65	0.34	0.09	6.24
11/3/2018	182600	18400	1.76	1.56	7.68	0.03	0.04	6.12
11/4/2018	217400	17800	1.91	1.68	7.96	0.20	0.05	6.28
11/5/2018	186900	23500	1.80	1.59	7.63	0.10	0.10	6.04
11/6/2018	189200	24500	1.76	1.55	7.58	0.36	0.08	6.03
11/7/2018	194600	23300	1.65	1.43	7.34	0.07	0.01	5.91
11/8/2018	186000	22000	1.57	1.36	7.33	0.01	0.00	5.97
11/9/2018	195200	19200	1.57	1.35	7.19	0.00	0.01	5.84
11/10/2018	200100	12700	1.58	1.36	7.36	0.00	0.00	6.00
11/11/2018	195800	14800	1.52	1.31	7.37	0.00	0.01	6.06
11/12/2018	181700	12000	1.38	1.19	7.46	0.00	0.00	6.27
11/13/2018	187800	22200	1.41	1.20	7.09	0.00	0.00	5.89
11/14/2018	190200	21400	1.42	1.21	6.99	0.03	0.02	5.78
11/15/2018	188300	25100	1.40	1.19	7.02	0.03	0.02	5.83
11/16/2018	166500	22400	1.33	1.14	6.96	0.05	0.01	5.82
11/17/2018	201300	12200	1.46	1.24	7.31	0.00	0.00	6.07
11/18/2018	217500	17100	1.54	1.31	7.45	0.00	0.00	6.14
11/19/2018	189300	22100	1.39	1.17	7.15	0.00	0.00	5.98
11/20/2018	200800	21100	1.44	1.22	7.01	0.00	0.01	5.79
11/21/2018	187200	14800	1.34	1.14	7.28	0.00	0.05	6.14
11/22/2018	245200	17700	1.73	1.47	7.98	0.28	0.57	6.51
11/23/2018	200400	16600	1.72	1.51	7.79	0.62	0.24	6.28
11/24/2018	191700	14100	1.62	1.41	7.76	0.30	0.00	6.35
11/25/2018	212800	17500	1.64	1.41	7.75	0.00	0.00	6.34
11/26/2018	199100	28000	1.75	1.52	7.46	0.03	0.26	5.94
11/27/2018	210600	32400	2.14	1.90	8.71	1.00	1.05	6.81
11/28/2018	200700	30600	2.04	1.81	8.34	0.07	0.20	6.53
11/29/2018	187700	27700	1.79	1.58	7.98	0.27	0.01	6.40
11/30/2018	183500	29800	1.99	1.77	7.93	0.07	0.00	6.16
Total	5857200	633300	49.15	42.66	226.22	4.22	2.83	183.56
Min	159200	12000	1.33	1.14	6.96	0.00	0.00	5.78
Max	245200	32400	2.14	1.90	8.71	1.00	1.05	6.81
Average	195240	21110	1.64	1.42	7.54	0.14	0.09	6.12

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
12/1/2018	193900	17600	1.95	1.74	8.34	0.65	0.05	6.60
12/2/2018	218500	21700	1.95	1.71	8.26	0.01	0.01	6.55
12/3/2018	201300	22900	1.74	1.52	7.77	0.02	0.00	6.25
12/4/2018	192300	24000	1.69	1.47	7.55	0.00	0.00	6.08
12/5/2018	206500	22800	1.65	1.42	7.41	0.00	0.00	5.99
12/6/2018	208100	23600	1.67	1.44	7.32	0.00	0.00	5.88
12/7/2018	164200	21800	1.36	1.17	7.26	0.00	0.01	6.09
12/8/2018	192200	14900	1.57	1.36	7.49	0.04	0.05	6.13
12/9/2018	207100	20300	1.80	1.57	7.92	0.00	0.41	6.35
12/10/2018	208500	24600	1.77	1.53	7.77	0.49	0.01	6.24
12/11/2018	204400	33100	2.03	1.79	8.06	0.18	0.65	6.27
12/12/2018	204100	28100	1.96	1.73	8.30	0.60	0.00	6.57
12/13/2018	207800	26100	1.93	1.69	8.27	0.03	0.00	6.58
12/14/2018	174100	24400	1.62	1.42	7.69	0.00	0.00	6.27
12/15/2018	193800	16400	1.79	1.58	7.85	0.66	0.19	6.27
12/16/2018	244600	24700	2.18	1.91	8.57	0.18	0.45	6.66
12/17/2018	234000	46300	2.65	2.37	8.60	0.40	0.65	6.23
12/18/2018	260300	51600	3.21	2.90	11.36	1.57	1.11	8.46
12/19/2018	216800	31300	2.38	2.13	9.40	0.18	0.00	7.27
12/20/2018	212600	29400	2.23	1.99	8.72	0.01	0.00	6.73
12/21/2018	225900	26500	2.17	1.91	8.48	0.13	0.01	6.57
12/22/2018	211100	21200	2.13	1.90	8.79	0.00	0.64	6.89
12/23/2018	285300	34000	2.90	2.58	10.19	0.77	0.73	7.61
12/24/2018	250800	22200	2.39	2.12	9.86	0.37	0.00	7.75
12/25/2018	239500	19400	2.16	1.90	8.59	0.01	0.00	6.69
12/26/2018	249600	22700	2.30	2.03	8.82	0.03	0.25	6.79
12/27/2018	223400	19700	2.07	1.83	8.59	0.30	0.06	6.76
12/28/2018	248100	35600	2.41	2.12	8.64	0.06	0.05	6.52
12/29/2018	265800	36600	2.79	2.48	9.43	0.59	0.53	6.95
12/30/2018	269300	29200	2.65	2.35	10.07	0.61	0.11	7.72
12/31/2018	249800	23000	2.40	2.13	9.27	0.14	0.01	7.14
Total	6863700	815700	65.48	57.80	264.64	8.03	5.98	206.84
Min	164200	14900	1.36	1.17	7.26	0.00	0.00	5.88
Max	285300	51600	3.21	2.90	11.36	1.57	1.11	8.46
Average	221410	26313	2.11	1.86	8.54	0.26	0.19	6.67



APPENDIX D

ERU AND SEWER LINE DATA



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

Year: Jan 2018 - Dec 2018

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		24363.0		5857.8		4108.6	34329.4				2094275	396.6	
Jan	98.0	24461.0	49.6 ♦	5907.4	14.7 ♦	4123.3	34491.7	6819	0	2101094		397.9	VTP
Feb	72.0	24533.0	56.0 ♦	5963.4	3.6 ♦	4126.9	34623.3	10859	0	2111953		400.0	Res 23.0
Mar	85.0	24618.0	52.0 ♦	6015.4	1.0 ♦	4127.9	34761.3	9610	0	2121563		401.8	Multi-Family 52.8
Apr	79.0	24697.0	8.0 ♦	6023.4	0.0	4127.9	34848.3	2399	0	2123962		402.3	Comm 8.3
May	124.0	24821.0	16.0 ♦	6039.4	2.5 ♦	4130.4	34990.8	11304	0	2135266		404.4	Total 84.1
Jun	141.0	24962.0	0.8 ♦	6040.2	45.4 ♦	4175.8	35178.0	3116	0	2138382		405.0	RTP
Jul	89.0	25051.0	82.0 ♦	6122.2	3.8 ♦	4179.6	35352.8	2343	0	2140725		405.4	Res 59.0
Aug	91.0	25142.0	0.0	6122.2	13.4 ♦	4193.0	35457.2	1488	0	2142213		405.7	Multi-Family -
Sep	59.0	25201.0	14.4 ♦	6136.6	1.8 ♦	4194.8	35532.4	2998	13391	2158602		408.8	Comm 18.0
Oct	62.0	25263.0	52.0 ♦	6188.6	4.0 ♦	4198.8	35650.4	13280	0	2171882		411.3	Total 77.0
Nov	58.0	25321.0	0.0	6188.6	3.1 ♦	4201.9	35711.5	1949	0	2173831		411.7	Permits
Dec	50.0	25371.0	47.8 ♦	6236.4	4.6 ♦	4206.5	35813.9	4783	0	2178614		412.6	SCTP 1309
Subtotals	1008.0		378.6		97.9			70948	13391				RTP 59
Total ERU's		25371.0		6236.4		4206.5	35813.9			2178614		412.6	VTP 25
													Total 1393

♦ See reverse for explanation

Month	Project Name	Address	Category	Value	Notes
January	Brush Prairie Apartments	11806 NE 122nd Ave	SCTP	8.0	
	◆ Bldg H			8.0	
	◆ Bldg J			8.0	
	◆ Bldg W			6.4	
	◆ Bldg Y			19.2	
February	Union Park Apartments	11803 NE 124th Ave	SCTP	14.7	
	◆ Bldg F			1.0	
March	Brush Prairie Apartments	11806 NE 122nd Ave	SCTP	3.6	
	◆ Bldg D			8.8	
	◆ Bldg F			8.8	
April	Heritage Villas Apartments	2301 NE 81st St	SCTP	16.0	
	◆ Bldg E			16.0	
	Heritage Villas Apartments	2301 NE 81st St	SCTP	0.2	
	◆ Bldg J			13.5	
May	Heritage Villas Apartments	2301 NE 81st St	SCTP	14.7	
	◆ Bldg E			1.0	
June	Heritage Villas Apartments	2301 NE 81st St	SCTP	8.0	
	◆ Bldg X			9.6	
July	Promenade Apartments	11903 NE 116th Ave	SCTP	1.6	
	◆ All Buildings			3.6	
	Heritage Villas Apartments	2301 NE 81st St	SCTP	8.0	
August	Comerstone Christian School	10702 NE 117th Ave	SCTP	1.0	
	◆ 10702 NE 117th Ave			1.0	
September	Wingate Square Apartments	9700 NE 76th St	SCTP	16.0	
	◆ Bldg B			16.0	
October	Wingate Square Apartments	9700 NE 76th St	SCTP	0.8	
	◆ Bldg A			0.8	
November	Wingate Square Apartments	9700 NE 76th St	SCTP	43.4	
	◆ Bldg C			43.4	
December	Wingate Square Apartments	9700 NE 76th St	SCTP	2.0	
	◆ Bldg D			2.0	
January	Brush Prairie Apartments	11806 NE 122nd Ave	SCTP	19.2	
	◆ Bldg D			19.2	
February	Union Park Apartments	11803 NE 124th Ave	SCTP	56.0	
	◆ Bldg E			56.0	
March	Promenade Apartments	11903 NE 116th Ave	SCTP	82.0	
	◆ All Buildings			82.0	
April	Heritage Villas Apartments	2301 NE 81st St	SCTP	9.6	
	◆ Mens Barber Shop			8.0	
May	Heritage Villas Apartments	2301 NE 81st St	SCTP	8.0	
	◆ The Gathering Place			8.8	
June	Heritage Villas Apartments	2301 NE 81st St	SCTP	8.0	
	◆ Mens Barber Shop			8.8	
July	Promenade Apartments	11903 NE 116th Ave	SCTP	8.0	
	◆ All Buildings			8.8	
August	Comerstone Christian School	10702 NE 117th Ave	SCTP	1.0	
	◆ 10702 NE 117th Ave			1.0	
September	Wingate Square Apartments	9700 NE 76th St	SCTP	16.0	
	◆ Bldg B			16.0	
October	Wingate Square Apartments	9700 NE 76th St	SCTP	0.8	
	◆ Bldg A			0.8	
November	Wingate Square Apartments	9700 NE 76th St	SCTP	43.4	
	◆ Bldg C			43.4	

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

Year: Jan 2018 - Dec 2018

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 Miles
								Developer	District	Construction	
Balance Forward		741.0		2.4		108.6	852.0			28511	5.4
Jan	1.0	742.0	0.0	2.4	0.0	108.6	853.0	0	0	28511	5.4
Feb	0.0	742.0	0.0	2.4	0.0	108.6	853.0	87	0	28598	5.4
Mar	0.0	742.0	0.0	2.4	0.0	108.6	853.0	0	0	28598	5.4
Apr	0.0	742.0	0.0	2.4	0.0	108.6	853.0	0	0	28598	5.4
May	1.0	743.0	0.0	2.4	0.0	108.6	854.0	0	0	28598	5.4
Jun	1.0	744.0	0.0	2.4	0.0	108.6	855.0	0	0	28598	5.4
Jul	0.0	744.0	0.0	2.4	0.0	108.6	855.0	0	0	28598	5.4
Aug	1.0	745.0	0.0	2.4	0.0	108.6	856.0	0	0	28598	5.4
Sep	0.0	745.0	0.0	2.4	0.0	108.6	856.0	0	0	28598	5.4
Oct	0.0	745.0	0.0	2.4	0.0	108.6	856.0	0	0	28598	5.4
Nov	1.0	746.0	0.0	2.4	0.0	108.6	857.0	0	0	28598	5.4
Dec	0.0	746.0	0.0	2.4	0.0	108.6	857.0	0	0	28598	5.4
Subtotals	5.0		0.0		0.0			87	0		
Total ERU's		746.0		2.4		108.6	857.0			28598	5.4



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

Year: Jan 2018 - Dec 2018

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		68.0	0.0	0.0		135.5	203.5			6567	1.2
Jan	0.0	68.0	0.0	0.0	0.0	135.5	203.5	0	0	6567	1.2
Feb	0.0	68.0	0.0	0.0	0.0	135.5	203.5	0	0	6567	1.2
Mar	0.0	68.0	0.0	0.0	0.0	135.5	203.5	0	0	6567	1.2
Apr	0.0	66.0	0.0	0.0	0.0	135.5	203.5	0	0	6567	1.2
May	0.0	68.0	0.0	0.0	0.0	135.5	203.5	0	0	6567	1.2
Jun	1.0	69.0	0.0	0.0	0.0	135.5	204.5	0	0	6567	1.2
Jul	0.0	69.0	0.0	0.0	1.8 ◆	137.3	206.3	0	0	6567	1.2
Aug	0.0	69.0	0.0	0.0	0.0	137.3	206.3	0	0	6567	1.2
Sep	0.0	69.0	0.0	0.0	0.0	137.3	206.3	0	0	6567	1.2
Oct	2.0	71.0	0.0	0.0	0.0	137.3	208.3	0	0	6567	1.2
Nov	0.0	71.0	0.0	0.0	0.0	137.3	208.3	0	0	6567	1.2
Dec	1.0	72.0	0.0	0.0	0.0	137.3	209.3	494	0	7061	1.3
Subtotals	4.0		0.0		1.8			494	0		
Total ERU's		72.0	0.0	0.0		137.3	209.3			7061	1.3

◆ See next page for explanation

July
SCTP H Heritage Bible Church
◆ 16391 NE 182nd Ave

1.8
1.8

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

Year: Jan 2018 - Dec 2018

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		509.0	0.0	0.0	0.0	158.2	727.2			103974.0	19.7
Jan	18.0	527.0	0.0	0.0	0.0	154.1	681.1	0.0	0.0	83873.0	15.9
Feb	5.0	532.0	0.0	0.0	1.0 ♦	155.1	687.1	7185.0	0.0	91058.0	17.2
Mar	20.0	552.0	0.0	0.0	3.1 ♦	158.2	710.2	12916.0	0.0	103974.0	19.7
Apr	17.0	569.0	0.0	0.0	0.0	158.2	727.2	0.0	0.0	103974.0	19.7
May	23.0	592.0	0.0	0.0	1.0 ♦	159.2	751.2	0.0	0.0	103974.0	19.7
Jun	21.0	613.0	0.0	0.0	0.0	159.2	772.2	0.0	0.0	103974.0	19.7
Jul	19.0	632.0	0.0	0.0	0.0	159.2	791.2	0.0	0.0	103974.0	19.7
Aug	60.0	692.0	0.0	0.0	40.0 ♦	199.2	891.2	3618.0	0.0	107592.0	20.4
Sep	26.0	718.0	0.0	0.0	0.0	199.2	917.2	18405.0	0.0	125997.0	23.9
Oct	19.0	737.0	0.0	0.0	0.0	199.2	936.2	5812.0	0.0	131809.0	25.0
Nov	11.0	748.0	0.0	0.0	0.0	199.2	947.2	0.0	0.0	131809.0	25.0
Dec	11.0	759.0	0.0	0.0	0.0	199.2	958.2	11785.0	0.0	143594.0	27.2
Subtotals	250.0		0.0		45.1			59721.0	0.0		
Total ERU's		759.0		0.0		199.2	958.2			143594	27.2

♦ See next page for explanation

February
SCTP R South 11th Street
6300 S 11th St
◆ Shell Building

1.0
1.0

May
SCTP R Altru Ventures Industrial
5813 S 11th St
◆ Shell Building

1.0
1.0

August
SCTP R Rogefeld Intermediate VRMS
◆ 3215 S Hillhurst Rd

40.0
40.0