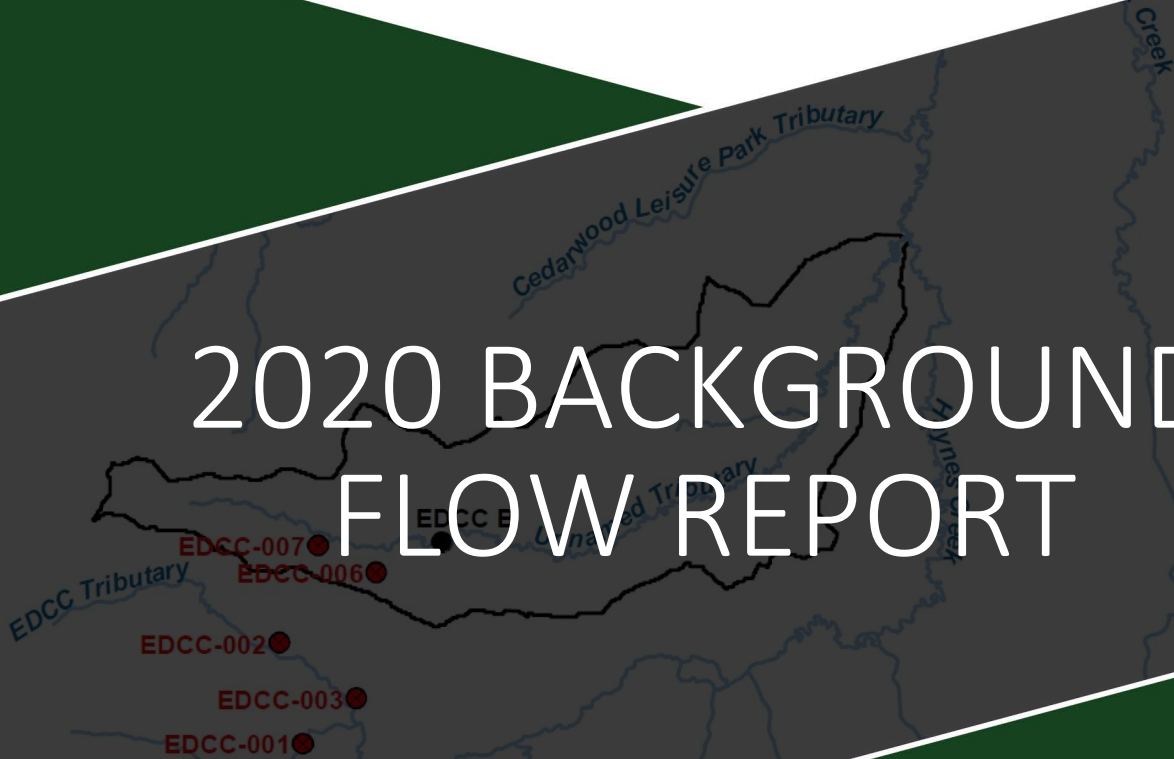




219 BROWN LANE, BRYANT, AR
WWW.GBMcASSOC.COM
501-847-7077

2020 BACKGROUND FLOW REPORT



THIS REPORT HAS BEEN CREATED BY THE
GBMc & ASSOCIATES TEAM FOR
EL DORADO CHEMICAL COMPANY ON MARCH 24, 2020

2020 Background Flow Report

Prepared for:

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March 2020

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1.0 INTRODUCTION

In compliance with Permit Appeal Resolution Docket No. 17-001-P (PAR) El Dorado Chemical Company (EDCC) has collected and analyzed background flow data and NPDES stormwater Outfalls 006 and 007 flow data for the purpose of investigating the relationship between stormwater runoff at the outfalls, and stream flow upstream in the Unnamed Tributary, which receives the discharges. This effort was to result in preparation of an updated Background Flow Report. The purpose of this report is to calculate a relationship between background flow present within the Unnamed Tributary upon stormwater discharge events from Outfalls 006 and 007. The ratio will be used in conjunction with the Haynes Creek Watershed Water Quality Study and Revised TMDLs report (previously submitted to the Arkansas Division of Environmental Quality (ADEQ) for draft review September 2019) to inform the development of final effluent limitations for minerals and ammonia and final effluent limitations for metals and whole effluent toxicity (WET) testing requirements.

2.0 BACKGROUND INFORMATION

In 2006 EDCC submitted a Background Flow Study report (2006 Report). Subsequent to the 2006 Report, EDCC has undertaken multiple projects to reduce the size of the manufacturing area that contributes stormwater runoff to Outfalls 006 and 007, eliminated Outfalls 004 and 005, re-directed stormwater runoff from stormwater outfalls to EDCC's wastewater treatment pond, and directed the discharge from the wastewater treatment pond at Outfall 001 to a pipeline that discharges to the Ouachita River, all of which have impacted the ratio of effluent flow to background flow derived from the 2006 Report. Therefore, Findings of Fact, Paragraph 19 of the PAR required EDCC to collect additional background and effluent flow data and provide an updated Background Flow Report.

The following sections provide a description of the methodology used to measure and document background flow within the Unnamed Tributary and Outfalls 006 and 007 flow during observed rainfall events. Additionally, the results of the study are summarized and calculations for the updated background flow ratio are provided. A map depicting the Unnamed Tributary and associated drainage area, EDCC NPDES Outfalls and downstream flow monitoring location is provided in Appendix A.

3.0 PROJECT ORGANIZATION

EDCC contracted GBMc & Associates (GBMc) to provide the fieldwork and data analysis for the Background Flow Report. The study was performed over a period of 1 year and 9 months, beginning April 1, 2018 and concluding January 31, 2020. During this period daily total flow volumes at both Outfalls 006 and 007 were recorded via totalizing flowmeters. Flow immediately downstream of both outfalls was monitored via instream level logger(s) at Site EDCC-B (Appendix A).

4.0 DOWNSTREAM MONITORING

A gauging station was established in the Unnamed Tributary on EDCC property (denoted as EDCC-B) downstream of Outfalls 006 and 007. The gauging station was equipped with two Hobo U-20-001-01 water level loggers which were configured to record stream level at fifteen-minute intervals and a staff gage for manual level measurements. One logger served as the primary data collector and the second served as backup in case there was a malfunction with the primary. The loggers measure pressure observed in the tributary channel and equate the reading to an equivalent water depth. An additional logger was installed outside of the stream nearby to collect local barometric pressure data. Local barometric pressure data was used to account for pressure changes associated with variability in local atmospheric air pressure. Loggers are factory calibrated and guaranteed by Hoboware to an accuracy of 0.1%. Use of these loggers and the frequent maintenance program employed during the study produced accurate data.

Site visits were conducted weekly or bi-weekly throughout the course of the study to retrieve the stored data from the loggers, perform necessary maintenance, minimize potential data loss due to equipment malfunction, and to ensure the loggers were operating properly. Due to variable stream channel dynamics, loggers were repositioned (± 3 feet) as necessary to ensure a representative water depth would be measured. Loggers were installed in protective conduits placed on the bottom center of the thalweg of the drainage channel. Precipitation data was also monitored daily with a rain gauge installed and maintained at the EDCC facility. Additional precipitation data was obtained from the El Dorado S AR Regional Airport weather station (Station USW00093992).

Instantaneous instream flow measurements were manually collected at the EDCC-B station by a field crew throughout the study duration over a range of flow conditions (41 instantaneous measurement events in total) to develop a mathematical correlation between stream level and flow rate. Instantaneous flow measurements were obtained with the velocity-area method. Instream velocity was measured using a Marsh-M^cBirney Model 201 water current meter following protocols outlined in the GBM^c & Associates Quality Assurance Plan (GBM^c QAP, Revised 2008). The cross-sectional area measured in the stream multiplied by the velocity yielded the instantaneous volumetric flow for the stream. Water depth was simultaneously measured during each instantaneous flow measurement via the in-stream gauge. Instantaneous flow measurement and water depth data is provided in Appendix B.

The instantaneous flow rate was used in conjunction with the water depth measured at the time of the flow measurement to develop a relationship between water level and flow rate.

Instantaneous flow and level measurements were plotted graphically, and a second-order polynomial rating curve of best fit was determined by evaluating various regression techniques. A graph of the rating curve is included in Appendix B. The resulting curve equation utilized to determine flow at EDCC-B based on measured water depth is provided as Equation 1 below.

$$Flow = 4.9014 * (Depth)^2 + 0.601 * (Depth) - 0.3071 \quad Eq. 1$$

Where flow is in cubic feet per second and depth is in feet. The R-Squared value calculated for the regression equation is 0.9976. Equation 1 was used in conjunction with logger depths measured at 15-minute intervals to calculate a total daily flow volume at the EDCC-B station.

Finally, a daily background (upstream) flow volume was calculated by subtracting the daily flow measured at Outfalls 006 and 007 from the total daily flow directly downstream from both Outfalls.

5.0 OUTFALL 006 & 007 MONITORING

Stormwater Outfalls 006 and 007 are equipped with prefabricated flumes and Teledyne Signature Totalizing Flowmeters for measurement of instantaneous flow rate. A 3 ft “H” flume is installed at Outfall 006, and a 4 ft “HL” flume is installed at Outfall 007. Totalizing flow meters were installed at each of the

Outfall stations in March 2018, and daily flow data was collected monthly. Use of the totalizing flow meters, installed for the background flow study, produced more accurate flow data than did the loggers used in the 2006 background flow study. Total combined 006 and 007 Outfall flow was compiled daily and subtracted from the measured daily downstream flow resulting in a daily calculated background flow volume upstream of both outfalls.

6.0 RESULTS

The purpose of the study was to establish the ratio of volumetric contribution of plant stormwater discharges from Outfalls 006 and 007 to background flow discharge. Therefore, Outfall 006 and 007 stormwater discharge flow was totalized on an event basis and compared to the total background storm event flow in the tributary, as calculated from the rating curve and level logger data, to determine a total storm event flow ratio for each event where a discharge occurred and reached the unnamed tributary at the gauging station.

Flow ratios were calculated by dividing the total background storm event flow volume by the total Outfall 006 and 007 storm event discharge volume. The daily measured downstream flow, combined Outfall 006 and 007 flow, calculated background flow and event ratio calculations are provided in Appendix C.

A total of 68 flow events and resulting background to combined outfall flow ratios were measured and calculated over the duration of the study. The average of the calculated ratios is equal to 20.9 : 1 (Background Flow : Combined Outfall 006 & 007 Flow).

7.0 CONCLUSION AND RECOMMENDATIONS

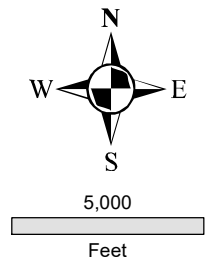
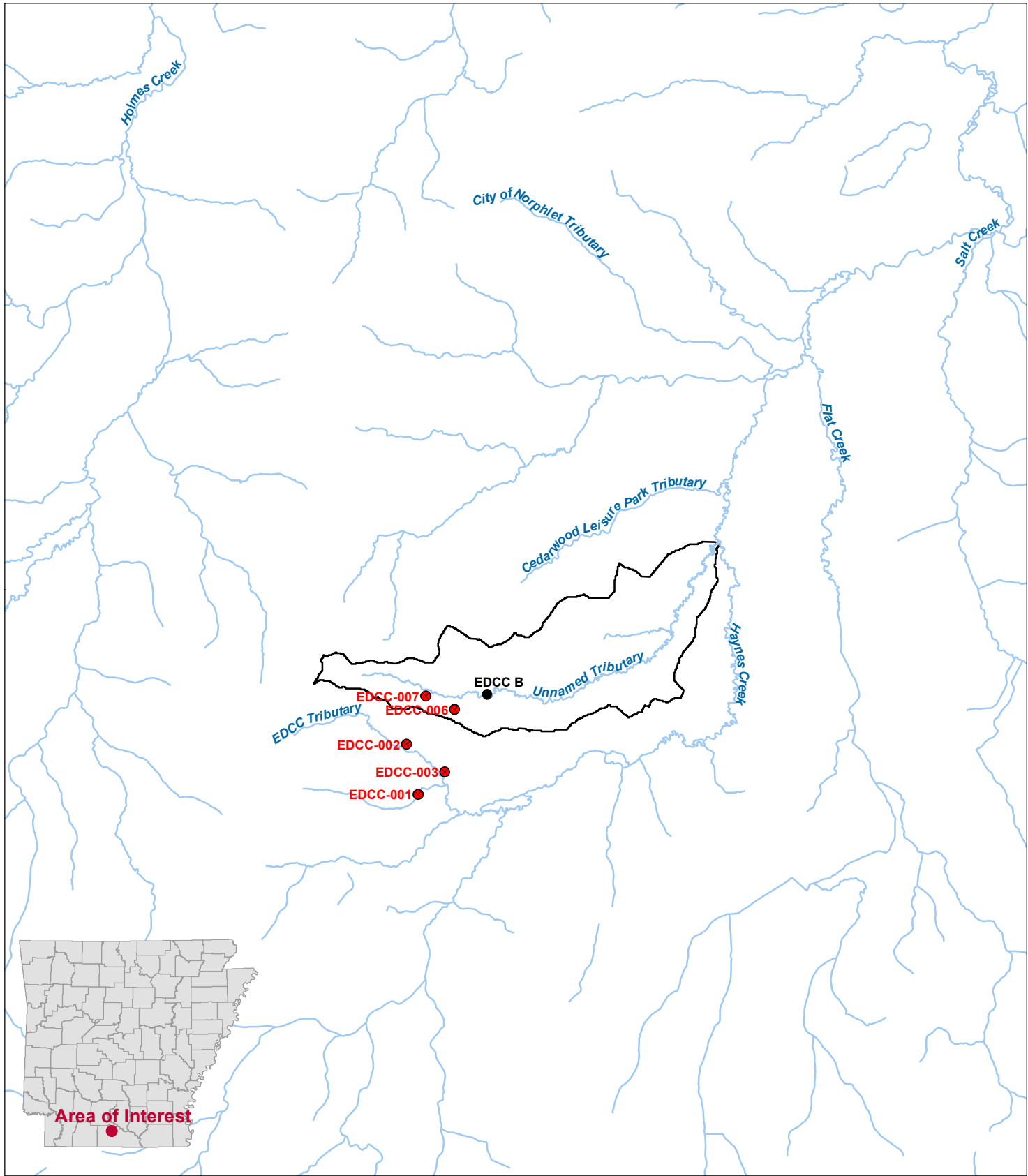
This Updated Background Flow Report fulfills EDCC's PAR requirements for the development of an updated Unnamed Tributary background flow to stormwater Outfall 006 and 007 flow ratio and confirms that background flow occurs in the Unnamed Tributary to Haynes Creek during precipitation events which result in a stormwater discharge from Outfalls 006 and 007. Recommendations for the implementation of findings of this report are as follows:

1. Update the Haynes Creek Watershed Water Quality Study and Revised TMDLs Report (submitted to ADEQ for draft review September 2019). Updates include:

- a. Average Outfall 006 and 007 flow. Average would include additional outfall flow data obtained from this study.
 - b. Average background flow for the Unnamed Tributary. The background flow is derived with the updated combined average outfall flow and the updated background to outfall flow ratio resulting from this study.
 - c. Wasteload Allocations and proposed permit limits for minerals and ammonia for Outfalls 006 and 007 based on the updated tributary background flow and combined outfall flow.
2. Following approval of the Haynes Creek watershed Water Quality Study and Revised TMDLs, the ratio and the TMDL can be used to update the EDCC NPDES permit.

Appendix A

Location Map



- EDCC NPDES OUTFALL
- UNNAMED TRIBUTARY DRAINAGE AREA
- DOWNSTREAM FLOW MONITORING POINT (EDCC B)

2042.000.00	
EDCC UPDATED BACKGROUND FLOW REPORT LOCATION MAP	
EL DORADO CHEMICAL COMPANY UNION COUNTY, ARKANSAS	
Approved by: GJM	Project No.: 2042-99-010
Checked by: GJM	Date: 02/28/2020
Drawn by: ALB	Scale: SHOWN



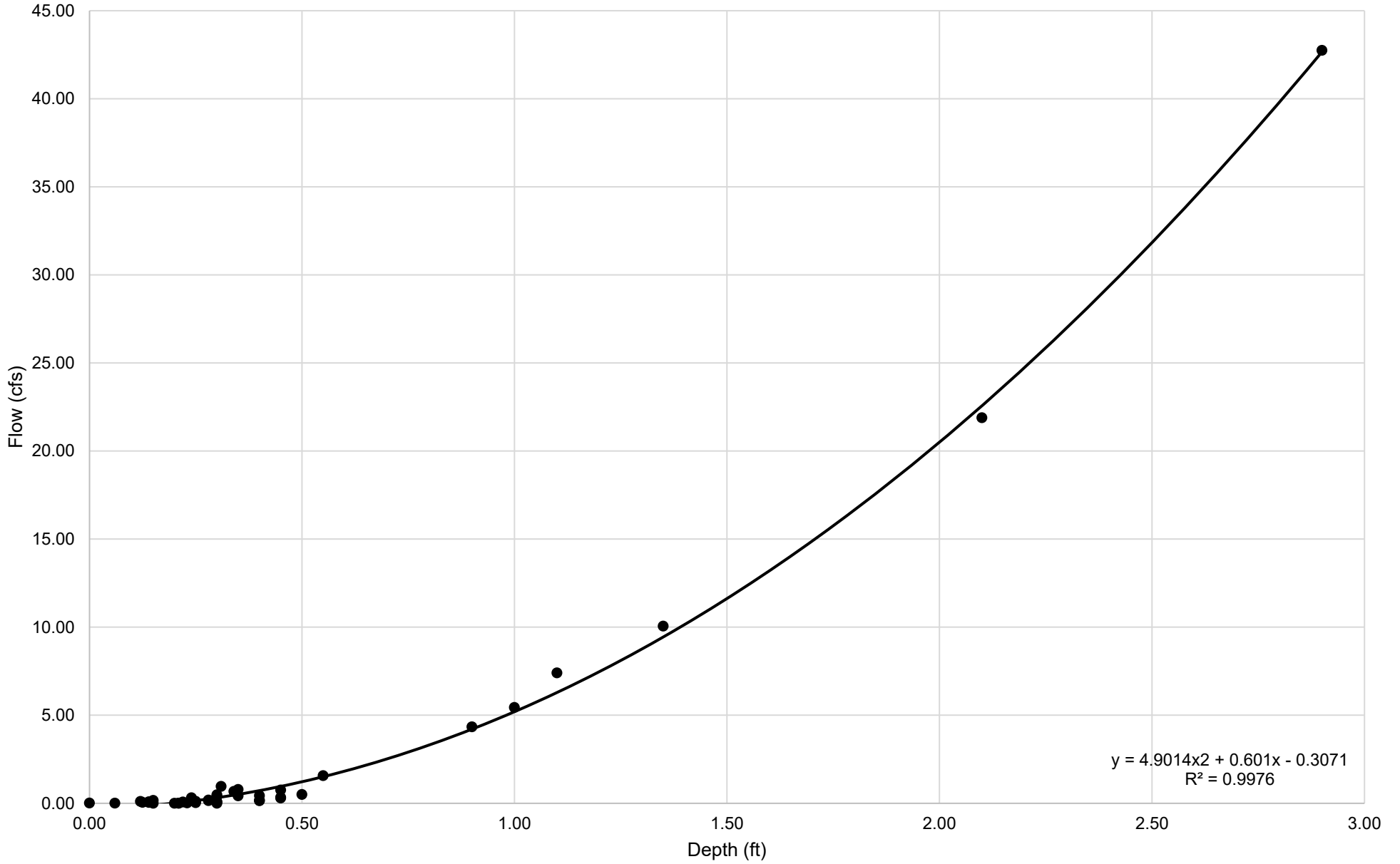
Appendix B

EDCC-B Instantaneous Depth/Flow Data

EL DORADO CHEMICAL COMPANY
EDCC-B Instantaneous Flow & Depth Measurements

Date	Time	Depth (ft)	Flow (cfs)
6/28/2017	15:33	0.20	0.00
8/30/2017	13:35	0.30	0.08
1/23/2018	12:30	0.50	0.50
1/24/2018	13:50	0.40	0.17
2/7/2018	09:00	1.35	10.06
2/7/2018	10:45	1.10	7.40
2/7/2018	12:15	1.00	5.44
2/7/2018	14:00	0.90	4.34
02/12/18	15:59	0.45	0.75
02/13/18	08:55	0.4	0.43
02/13/18	16:30	0.35	0.42
02/20/18	13:15	0.45	0.33
02/20/18	15:25	0.45	0.30
02/21/18	09:15	2.10	21.89
02/21/18	11:30	2.90	42.75
03/07/18	09:30	0.3	0.15
03/07/18	12:30	0.28	0.18
9/25/2018	-	0.13	0.05
10/17/2018	-	0.40	0.14
10/31/2018	16:25	0.15	0.00
11/6/2018	15:05	0.25	0.03
11/14/2018	15:12	0.30	0.08
11/20/2019	15:54	0.23	0.02
11/27/2018	15:22	0.21	0.00
12/4/2018	14:48	0.21	0.01
12/12/2018	17:37	0.22	0.07
12/17/2018	16:06	0.30	0.39
12/26/2018	13:30	0.25	0.11
1/9/2019	11:16	0.15	0.16
1/16/2019	12:37	0.14	0.08
1/29/2019	11:21	0.14	0.05
2/5/2019	10:49	0.12	0.10
2/13/2019	13:20	0.35	0.78
2/20/2019	16:20	0.55	1.57
2/26/2019	17:27	0.24	0.31
3/5/2019	14:34	0.3	0.48
3/12/2019	16:50	0.34	0.68
4/1/2019	16:50	0.06	0.00
4/10/2019	16:11	0.31	0.96
5/22/2019	16:00	0	0.01
7/3/2019	16:50	0.3	0.00

EDCC-B Depth/Flow Curve



Appendix C

Measured Flow Data and Ratio Calculations

EL DORADO CHEMICAL COMPANY

Updated Background Flow Study - Measured Flow Data & Event Ratio Calculations

Date	Downstream Flow (MGD)	006 & 007 Combined Flow (MGD)	Background Flow (MGD)	Event Ratio Background : Outfall
4/1/2018	0.222549	0.002440	0.220109	88.3 : 1
4/2/2018	0.164991	0.002467	0.162524	
4/3/2018	0.150501	0.002049	0.148452	
4/4/2018	0.083219	0.000000	0.083219	
4/5/2018	0.039990	0.000000	0.039990	
4/6/2018	0.650433	0.140510	0.509923	12.8 : 1
4/7/2018	1.001676	0.005108	0.996568	
4/8/2018	0.251094	0.001669	0.249425	
4/9/2018	0.108786	0.001171	0.107615	
4/10/2018	0.031880	0.000000	0.031880	
4/11/2018	0.005570	0.001147	0.004424	
4/12/2018	0.000010	0.001477	0.000000	
4/13/2018	0.255224	0.422470	0.000000	
4/14/2018	12.832774	0.604145	12.228629	12.8 : 1
4/15/2018	0.645129	0.000326	0.644803	
4/16/2018	0.229529	0.000000	0.229529	
4/17/2018	0.124720	0.000000	0.124720	
4/18/2018	0.056253	0.000000	0.056253	
4/19/2018	0.004351	0.000000	0.004351	
4/20/2018	0.000000	0.000000	0.000000	
4/21/2018	0.020689	0.131899	0.000000	10.0 : 1
4/22/2018	3.331212	0.245354	3.085857	
4/23/2018	0.469728	0.000885	0.468843	
4/24/2018	0.151830	0.000121	0.151709	
4/25/2018	0.074008	0.027376	0.046632	
4/26/2018	0.274622	0.003992	0.270630	
4/27/2018	0.071497	0.000000	0.071497	
4/28/2018	0.001121	0.000000	0.001121	
4/29/2018	0.000000	0.000000	0.000000	
4/30/2018	0.000000	0.000000	0.000000	
5/1/2018	0.000000	0.000000	0.000000	
5/2/2018	0.000166	0.000000	0.000166	
5/3/2018	0.000000	0.000000	0.000000	
5/4/2018	0.000000	0.000000	0.000000	
5/5/2018	0.000000	0.000000	0.000000	
5/6/2018	0.000000	0.000000	0.000000	
5/7/2018	0.000000	0.000000	0.000000	
5/8/2018	0.000000	0.000000	0.000000	
5/9/2018	0.000000	0.000209	0.000000	
5/10/2018	0.000000	0.000000	0.000000	
5/11/2018	0.000000	0.000000	0.000000	
5/12/2018	0.000000	0.000000	0.000000	
5/13/2018	0.000000	0.000235	0.000000	
5/14/2018	0.000000	0.000000	0.000000	
5/15/2018	0.000000	0.000000	0.000000	
5/16/2018	0.000000	0.004656	0.000000	
5/17/2018	0.000000	0.000000	0.000000	
5/18/2018	0.000000	0.000000	0.000000	
5/19/2018	0.000000	0.000522	0.000000	
5/20/2018	0.000000	0.000240	0.000000	
5/21/2018	0.000000	0.000403	0.000000	
5/22/2018	0.000000	0.000131	0.000000	
5/23/2018	0.000000	0.000182	0.000000	
5/24/2018	0.000000	0.000000	0.000000	
5/25/2018	0.000000	0.000000	0.000000	
5/26/2018	0.000000	0.000490	0.000000	
5/27/2018	0.000000	0.000000	0.000000	
5/28/2018	0.000000	0.000108	0.000000	
5/29/2018	0.000000	0.000234	0.000000	
5/30/2018	0.000000	0.000928	0.000000	
5/31/2018	0.000000	0.000769	0.000000	

Date	Downstream Flow (MGD)	006 & 007 Combined Flow (MGD)	Background Flow (MGD)	Event Ratio Background : Outfall
6/1/2018	0.000000	0.000000	0.000000	
6/2/2018	0.000000	0.000000	0.000000	
6/3/2018	0.000000	0.000000	0.000000	
6/4/2018	0.000000	0.000000	0.000000	
6/5/2018	0.000000	0.000000	0.000000	
6/6/2018	0.000000	0.000000	0.000000	
6/7/2018	0.000000	0.000000	0.000000	
6/8/2018	0.000000	0.000000	0.000000	
6/9/2018	0.000000	0.000000	0.000000	
6/10/2018	0.000000	0.000000	0.000000	
6/11/2018	0.000000	0.000000	0.000000	
6/12/2018	0.000000	0.000000	0.000000	
6/13/2018	0.000000	0.068177	0.000000	
6/14/2018	0.000000	0.000000	0.000000	
6/15/2018	0.000000	0.000000	0.000000	
6/16/2018	0.000000	0.000000	0.000000	
6/17/2018	0.000000	0.000000	0.000000	
6/18/2018	0.000000	0.000000	0.000000	
6/19/2018	0.000000	0.000000	0.000000	
6/20/2018	0.000000	0.164414	0.000000	1.8 : 1
6/21/2018	1.178221	0.311358	0.866863	
6/22/2018	0.000000	0.000000	0.000000	
6/23/2018	0.000000	0.000000	0.000000	
6/24/2018	0.000000	0.000000	0.000000	
6/25/2018	0.000000	0.000000	0.000000	
6/26/2018	0.000000	0.000000	0.000000	
6/27/2018	0.000000	0.000000	0.000000	
6/28/2018	0.000000	0.000000	0.000000	
6/29/2018	0.000000	0.000000	0.000000	
6/30/2018	0.000000	0.000000	0.000000	
7/1/2018	0.000000	0.000000	0.000000	
7/2/2018	0.000000	0.000000	0.000000	
7/3/2018	0.000000	0.000000	0.000000	
7/4/2018	0.000000	0.000000	0.000000	
7/5/2018	0.000000	0.000000	0.000000	
7/6/2018	0.001344	0.067031	0.000000	
7/7/2018	0.000000	0.000430	0.000000	
7/8/2018	0.000000	0.000000	0.000000	
7/9/2018	0.000000	0.000000	0.000000	
7/10/2018	0.000000	0.000000	0.000000	
7/11/2018	0.000000	0.000000	0.000000	
7/12/2018	0.000000	0.000000	0.000000	
7/13/2018	0.000000	0.000000	0.000000	
7/14/2018	0.000000	0.000000	0.000000	
7/15/2018	0.000000	0.000000	0.000000	
7/16/2018	0.000000	0.000000	0.000000	
7/17/2018	0.000000	0.000000	0.000000	
7/18/2018	0.000000	0.000000	0.000000	
7/19/2018	0.000000	0.000000	0.000000	
7/20/2018	0.000000	0.000000	0.000000	
7/21/2018	0.000000	0.000000	0.000000	
7/22/2018	0.000000	0.000000	0.000000	
7/23/2018	0.000000	0.000000	0.000000	
7/24/2018	0.000000	0.000000	0.000000	
7/25/2018	0.000000	0.000000	0.000000	
7/26/2018	0.000000	0.000000	0.000000	
7/27/2018	0.000000	0.000000	0.000000	
7/28/2018	0.901042	0.651525	0.249517	0.4 : 1
7/29/2018	0.013371	0.000000	0.013371	
7/30/2018	0.000000	0.019699	0.000000	
7/31/2018	0.000000	0.000000	0.000000	
8/1/2018	0.003480	0.000000	0.003480	
8/2/2018	0.000000	0.000000	0.000000	
8/3/2018	0.000000	0.000000	0.000000	
8/4/2018	0.000000	0.000000	0.000000	
8/5/2018	0.000000	0.000000	0.000000	
8/6/2018	0.000000	0.000000	0.000000	
8/7/2018	0.000000	0.000000	0.000000	
8/8/2018	0.000000	0.010675	0.000000	
8/9/2018	0.000000	0.006967	0.000000	
8/10/2018	0.000000	0.000000	0.000000	

Date	Downstream Flow (MGD)	006 & 007 Combined Flow (MGD)	Background Flow (MGD)	Event Ratio Background : Outfall
8/11/2018	0.000000	0.000000	0.000000	
8/12/2018	0.000000	0.000000	0.000000	
8/13/2018	0.000000	0.000000	0.000000	
8/14/2018	0.000000	0.000000	0.000000	
8/15/2018	0.000000	0.000000	0.000000	
8/16/2018	0.000000	0.000000	0.000000	
8/17/2018	0.112080	0.323854	0.000000	
8/18/2018	0.000000	0.000000	0.000000	
8/19/2018	0.000000	0.000000	0.000000	
8/20/2018	0.004718	0.081898	0.000000	
8/21/2018	0.000000	0.000000	0.000000	
8/22/2018	0.000000	0.000000	0.000000	
8/23/2018	0.000000	0.000000	0.000000	
8/24/2018	0.000000	0.000000	0.000000	
8/25/2018	0.000000	0.000000	0.000000	
8/26/2018	0.000000	0.000000	0.000000	
8/27/2018	0.000000	0.000000	0.000000	
8/28/2018	0.000000	0.000000	0.000000	
8/29/2018	0.000000	0.000000	0.000000	
8/30/2018	0.000000	0.000000	0.000000	
8/31/2018	0.000000	0.000000	0.000000	
9/1/2018	0.000000	0.000000	0.000000	
9/2/2018	0.000000	0.000000	0.000000	
9/3/2018	0.010535	0.149265	0.000000	
9/4/2018	0.000000	0.000000	0.000000	
9/5/2018	0.000000	0.000000	0.000000	
9/6/2018	0.000000	0.000000	0.000000	
9/7/2018	0.037071	0.121120	0.000000	
9/8/2018	0.014523	0.077052	0.000000	
9/9/2018	0.000000	0.000000	0.000000	
9/10/2018	0.000000	0.000000	0.000000	
9/11/2018	0.000000	0.000000	0.000000	
9/12/2018	0.000000	0.000000	0.000000	
9/13/2018	0.000000	0.000000	0.000000	
9/14/2018	0.000000	0.000000	0.000000	
9/15/2018	0.000000	0.000000	0.000000	
9/16/2018	0.000000	0.000000	0.000000	
9/17/2018	0.000000	0.000000	0.000000	
9/18/2018	0.000000	0.000000	0.000000	
9/19/2018	0.000000	0.000000	0.000000	
9/20/2018	0.000000	0.000000	0.000000	
9/21/2018	0.000000	0.000000	0.000000	
9/22/2018	0.792817	0.643527	0.149290	0.4 : 1
9/23/2018	0.136748	0.048556	0.088192	
9/24/2018	0.005117	0.000000	0.005117	
9/25/2018	0.000000	0.000000	0.000000	
9/26/2018	0.000000	0.000000	0.000000	
9/27/2018	0.000000	0.000000	0.000000	
9/28/2018	0.000000	0.000000	0.000000	
9/29/2018	0.000000	0.000000	0.000000	
9/30/2018	0.000000	0.000000	0.000000	
10/1/2018	0.000000	0.000000	0.000000	
10/2/2018	0.000000	0.000000	0.000000	
10/3/2018	0.000000	0.000000	0.000000	
10/4/2018	0.000000	0.000000	0.000000	
10/5/2018	0.000000	0.000000	0.000000	
10/6/2018	0.000000	0.000000	0.000000	
10/7/2018	0.000000	0.000000	0.000000	
10/8/2018	0.000000	0.000000	0.000000	
10/9/2018	0.514203	0.470712	0.043491	1.9 : 1
10/10/2018	0.783015	0.000851	0.782164	
10/11/2018	0.083923	0.000000	0.083923	
10/12/2018	0.011041	0.000000	0.011041	
10/13/2018	0.039976	0.007399	0.032577	4.5 : 1
10/14/2018	0.192133	0.082618	0.109515	
10/15/2018	0.204853	0.013787	0.191066	
10/16/2018	0.600172	0.163937	0.436236	
10/17/2018	0.379913	0.011844	0.368069	
10/18/2018	0.115871	0.000000	0.115871	
10/19/2018	0.044368	0.000000	0.044368	

Date	Downstream Flow (MGD)	006 & 007 Combined Flow (MGD)	Background Flow (MGD)	Event Ratio Background : Outfall
10/20/2018	0.666904	0.176256	0.490649	3.7 : 1
10/21/2018	0.163392	0.000000	0.163392	
10/22/2018	0.047838	0.000000	0.047838	
10/23/2018	0.009165	0.000000	0.009165	
10/24/2018	0.000415	0.000787	0.000000	3.7 : 1
10/25/2018	1.189094	0.305108	0.883986	
10/26/2018	0.190807	0.003061	0.187746	
10/27/2018	0.063353	0.000000	0.063353	
10/28/2018	0.027296	0.000000	0.027296	
10/29/2018	0.008253	0.000000	0.008253	
10/30/2018	0.006143	0.000000	0.006143	
10/31/2018	1.127614	0.577365	0.550249	5.3 : 1
11/1/2018	2.861536	0.091277	2.770259	
11/2/2018	0.243449	0.000000	0.243449	
11/3/2018	0.092055	0.000000	0.092055	
11/4/2018	1.056139	0.199406	0.856734	5.6 : 1
11/5/2018	0.259139	0.000000	0.259139	
11/6/2018	0.113475	0.000000	0.113475	
11/7/2018	1.110798	0.156037	0.954761	8.4 : 1
11/8/2018	0.328143	0.023292	0.304850	
11/9/2018	0.852333	0.087584	0.764749	
11/10/2018	0.213333	0.000000	0.213333	
11/11/2018	0.091076	0.000000	0.091076	
11/12/2018	4.075080	0.563162	3.511918	7.8 : 1
11/13/2018	0.721121	0.010277	0.710844	
11/14/2018	0.236901	0.000000	0.236901	
11/15/2018	0.135504	0.000000	0.135504	
11/16/2018	0.063140	0.000000	0.063140	
11/17/2018	0.000000	0.000000	0.000000	
11/18/2018	0.005481	0.000000	0.005481	
11/19/2018	0.047168	0.000000	0.047168	
11/20/2018	0.018993	0.000000	0.018993	
11/21/2018	0.000000	0.000000	0.000000	
11/22/2018	0.000000	0.000000	0.000000	
11/23/2018	0.018221	0.007319	0.010901	13.2 : 1
11/24/2018	0.045051	0.000000	0.045051	
11/25/2018	0.040990	0.000000	0.040990	
11/26/2018	0.012169	0.000000	0.012169	
11/27/2018	0.000144	0.000000	0.000144	
11/28/2018	0.000000	0.000000	0.000000	
11/29/2018	0.000498	0.000000	0.000498	
11/30/2018	0.120721	0.092772	0.027950	7.6 : 1
12/1/2018	0.590973	0.014280	0.576693	
12/2/2018	0.167944	0.002700	0.165244	
12/3/2018	0.065556	0.000000	0.065556	
12/4/2018	0.030802	0.000000	0.030802	
12/5/2018	0.024723	0.000000	0.024723	
12/6/2018	0.016732	0.000000	0.016732	
12/7/2018	3.715986	0.766186	2.949800	10.8 : 1
12/8/2018	12.926382	0.841557	12.084825	
12/9/2018	2.086855	0.014079	2.072776	
12/10/2018	0.391965	0.000000	0.391965	
12/11/2018	0.152764	0.000000	0.152764	
12/12/2018	0.105303	0.000000	0.105303	
12/13/2018	0.450361	0.152946	0.297415	14.0 : 1
12/14/2018	13.589594	0.967559	12.622035	
12/15/2018	2.867973	0.047171	2.820802	
12/16/2018	0.591336	0.000000	0.591336	
12/17/2018	0.243869	0.000000	0.243869	
12/18/2018	0.112115	0.000000	0.112115	
12/19/2018	0.252835	0.101863	0.150972	9.2 : 1
12/20/2018	1.067815	0.056328	1.011487	
12/21/2018	0.287829	0.000000	0.287829	
12/22/2018	0.076388	0.000000	0.076388	
12/23/2018	0.013836	0.000000	0.013836	
12/24/2018	0.000000	0.000000	0.000000	
12/25/2018	0.000000	0.000000	0.000000	
12/26/2018	0.020630	0.049720	0.000000	22.4 : 1
12/27/2018	15.877030	0.712995	15.164035	
12/28/2018	2.007968	0.024963	1.983005	
12/29/2018	0.487722	0.000000	0.487722	

Date	Downstream Flow (MGD)	006 & 007 Combined Flow (MGD)	Background Flow (MGD)	Event Ratio Background : Outfall
12/30/2018	5.062702	0.460002	4.602700	23.9 : 1
12/31/2018	9.304782	0.151103	9.153678	
1/1/2019	0.847925	0.000000	0.847925	
1/2/2019	1.206310	0.181188	1.025122	13.4 : 1
1/3/2019	5.308919	0.416013	4.892906	
1/4/2019	2.199459	0.043373	2.156086	
1/5/2019	0.501325	0.000000	0.501325	
1/6/2019	0.211325	0.000000	0.211325	
1/7/2019	0.109281	0.000000	0.109281	
1/8/2019	0.042157	0.000000	0.042157	
1/9/2019	0.000000	0.000000	0.000000	
1/10/2019	0.000000	0.000000	0.000000	
1/11/2019	0.000000	0.000000	0.000000	
1/12/2019	0.246489	0.066669	0.179820	3.8 : 1
1/13/2019	0.076674	0.000000	0.076674	
1/14/2019	0.000000	0.000000	0.000000	
1/15/2019	0.000000	0.000000	0.000000	
1/16/2019	0.000000	0.000000	0.000000	
1/17/2019	0.000000	0.000000	0.000000	
1/18/2019	0.086079	0.060248	0.025831	11.0 : 1
1/19/2019	1.697588	0.112083	1.585505	
1/20/2019	0.289931	0.000000	0.289931	
1/21/2019	0.058588	0.000000	0.058588	
1/22/2019	0.043191	0.020347	0.022844	15.1 : 1
1/23/2019	13.076239	0.850546	12.225693	
1/24/2019	0.902073	0.000000	0.902073	
1/25/2019	0.183977	0.000000	0.183977	
1/26/2019	0.048891	0.000000	0.048891	
1/27/2019	0.000285	0.000000	0.000285	
1/28/2019	0.002511	0.000000	0.002511	
1/29/2019	0.000185	0.000000	0.000185	
1/30/2019	0.000000	0.000000	0.000000	
1/31/2019	0.000000	0.000000	0.000000	
2/1/2019	0.000000	0.000000	0.000000	
2/2/2019	0.000000	0.000000	0.000000	
2/3/2019	0.000000	0.000000	0.000000	
2/4/2019	0.000000	0.000000	0.000000	
2/5/2019	0.000000	0.000000	0.000000	
2/6/2019	0.000000	0.000000	0.000000	
2/7/2019	0.798165	0.138601	0.659564	5.9 : 1
2/8/2019	0.362647	0.029087	0.333560	
2/9/2019	0.002839	0.000000	0.002839	
2/10/2019	0.000000	0.000000	0.000000	
2/11/2019	2.758539	0.485727	2.272812	13.3 : 1
2/12/2019	5.147372	0.093536	5.053836	
2/13/2019	0.363373	0.000000	0.363373	
2/14/2019	0.096659	0.000000	0.096659	
2/15/2019	0.014768	0.000000	0.014768	
2/16/2019	0.000000	0.000000	0.000000	
2/17/2019	0.000000	0.000000	0.000000	
2/18/2019	0.000000	0.000000	0.000000	
2/19/2019	1.397910	0.172229	1.225681	15.2 : 1
2/20/2019	1.438723	0.014118	1.424605	
2/21/2019	2.849298	0.272918	2.576380	
2/22/2019	8.450774	0.592462	7.858312	
2/23/2019	2.960481	0.054764	2.905717	
2/24/2019	0.789897	0.000000	0.789897	
2/25/2019	0.178008	0.000000	0.178008	
2/26/2019	0.053367	0.000000	0.053367	
2/27/2019	0.047530	0.000000	0.047530	
2/28/2019	0.036913	0.000000	0.036913	
3/1/2019	0.103714	0.000000	0.103714	
3/2/2019	0.060466	0.000000	0.060466	
3/3/2019	6.491703	0.541890	5.949813	12.7 : 1
3/4/2019	0.952003	0.000000	0.952003	
3/5/2019	0.289695	0.000000	0.289695	
3/6/2019	0.123792	0.000000	0.123792	
3/7/2019	0.068354	0.000000	0.068354	

Date	Downstream Flow (MGD)	006 & 007 Combined Flow (MGD)	Background Flow (MGD)	Event Ratio Background : Outfall
3/8/2019	0.100338	0.000000	0.100338	
3/9/2019	1.575931	0.148860	1.427071	18.2 : 1
3/10/2019	0.798973	0.000266	0.798706	
3/11/2019	0.970977	0.048043	0.922933	
3/12/2019	0.439495	0.000000	0.439495	
3/13/2019	7.969988	0.625021	7.344967	16.0 : 1
3/14/2019	4.985627	0.172064	4.813562	
3/15/2019	0.601086	0.000000	0.601086	
3/16/2019	0.178881	0.000000	0.178881	
3/17/2019	0.058836	0.000000	0.058836	
3/18/2019	0.002215	0.000000	0.002215	
3/19/2019	0.000000	0.000000	0.000000	
3/20/2019	0.000000	0.000000	0.000000	
3/21/2019	0.000000	0.000000	0.000000	
3/22/2019	0.000000	0.000000	0.000000	
3/23/2019	0.000000	0.000000	0.000000	
3/24/2019	0.000000	0.000000	0.000000	
3/25/2019	0.000000	0.000000	0.000000	
3/26/2019	0.000000	0.000000	0.000000	
3/27/2019	0.000000	0.000000	0.000000	
3/28/2019	0.000000	0.000000	0.000000	
3/29/2019	0.000000	0.000000	0.000000	
3/30/2019	0.000000	0.000000	0.000000	
3/31/2019	0.000000	0.000000	0.000000	
4/1/2019	0.282457	0.000000	0.282457	
4/2/2019	0.257262	0.000000	0.257262	
4/3/2019	0.229331	0.000000	0.229331	
4/4/2019	4.730649	0.375187	4.355462	14.9 : 1
4/5/2019	2.102158	0.001250	2.100908	
4/6/2019	3.163345	0.265397	2.897949	
4/7/2019	31.651430	2.318248	29.333182	
4/8/2019	4.564137	0.012954	4.551183	
4/9/2019	1.200831	0.000000	1.200831	
4/10/2019	0.262720	0.000000	0.262720	
4/11/2019	0.104020	0.000000	0.104020	
4/12/2019	0.004776	0.000000	0.004776	
4/13/2019	15.755265	1.062946	14.692319	17.1 : 1
4/14/2019	2.717943	0.006145	2.711799	
4/15/2019	0.900674	0.000000	0.900674	
4/16/2019	0.547408	0.000000	0.547408	
4/17/2019	0.509904	0.000000	0.509904	
4/18/2019	7.257305	0.491002	6.766303	21.6 : 1
4/19/2019	2.990491	0.004454	2.986037	
4/20/2019	0.968810	0.000000	0.968810	
4/21/2019	0.572164	0.000000	0.572164	
4/22/2019	0.402011	0.000000	0.402011	
4/23/2019	0.330822	0.000000	0.330822	
4/24/2019	0.301140	0.000388	0.300752	17.9 : 1
4/25/2019	2.311843	0.169148	2.142695	
4/26/2019	0.583867	0.000000	0.583867	
4/27/2019	0.274994	0.000000	0.274994	
4/28/2019	0.151124	0.000000	0.151124	
4/29/2019	0.096399	0.000000	0.096399	
4/30/2019	0.054269	0.000000	0.054269	
5/1/2019	0.563932	0.048962	0.514970	26.1 : 1
5/2/2019	0.762367	0.000000	0.762367	
5/3/2019	0.614651	0.073745	0.540906	19.1 : 1
5/4/2019	5.818271	0.317403	5.500868	
5/5/2019	1.439121	0.000000	1.439121	
5/6/2019	0.671884	0.000000	0.671884	
5/7/2019	0.430450	0.000000	0.430450	
5/8/2019	1.815548	0.229742	1.585806	17.5 : 1
5/9/2019	10.626618	0.524780	10.101838	
5/10/2019	1.515258	0.000000	1.515258	
5/11/2019	1.378616	0.049900	1.328716	54.7 : 1
5/12/2019	1.401273	0.000000	1.401273	
5/13/2019	0.663304	0.000000	0.663304	
5/14/2019	0.371959	0.000000	0.371959	
5/15/2019	0.217620	0.000000	0.217620	
5/16/2019	0.106309	0.000000	0.106309	

Date	Downstream Flow (MGD)	006 & 007 Combined Flow (MGD)	Background Flow (MGD)	Event Ratio Background : Outfall
5/17/2019	0.044479	0.000000	0.044479	
5/18/2019	1.470699	0.427869	1.042830	11.1 : 1
5/19/2019	3.145912	0.016774	3.129139	
5/20/2019	0.741810	0.000000	0.741810	
5/21/2019	0.360388	0.000000	0.360388	
5/22/2019	0.213524	0.000000	0.213524	
5/23/2019	0.135906	0.000000	0.135906	
5/24/2019	0.059567	0.000000	0.059567	
5/25/2019	0.002559	0.000000	0.002559	
5/26/2019	0.000000	0.000000	0.000000	
5/27/2019	0.000000	0.000000	0.000000	
5/28/2019	0.000000	0.000000	0.000000	
5/29/2019	0.000000	0.000000	0.000000	
5/30/2019	0.000000	0.000000	0.000000	
5/31/2019	0.000000	0.000000	0.000000	
6/1/2019	0.000000	0.000000	0.000000	
6/2/2019	0.000000	0.000000	0.000000	
6/3/2019	0.000000	0.000000	0.000000	
6/4/2019	0.000000	0.000000	0.000000	
6/5/2019	0.000000	0.000000	0.000000	
6/6/2019	0.224708	0.052711	0.171997	6.7 : 1
6/7/2019	0.089065	0.002711	0.086354	
6/8/2019	0.121995	0.002727	0.119269	
6/9/2019	0.010507	0.000000	0.010507	
6/10/2019	0.000000	0.000000	0.000000	
6/11/2019	0.000000	0.000000	0.000000	
6/12/2019	0.000000	0.000000	0.000000	
6/13/2019	0.000000	0.000000	0.000000	
6/14/2019	0.001108	0.000000	0.001108	
6/15/2019	0.000000	0.000000	0.000000	
6/16/2019	0.000010	0.000000	0.000000	
6/17/2019	0.000215	0.000000	0.000215	
6/18/2019	0.000158	0.000000	0.000158	
6/19/2019	0.024012	0.042309	0.000000	
6/20/2019	0.290758	0.061435	0.229323	3.7 : 1
6/21/2019	0.000123	0.000000	0.000123	
6/22/2019	0.000000	0.000000	0.000000	
6/23/2019	2.631104	1.286918	1.344186	6.9 : 1
6/24/2019	8.417113	0.198852	8.218261	
6/25/2019	0.728443	0.000000	0.728443	
6/26/2019	0.331106	0.000000	0.331106	
6/27/2019	0.152527	0.000000	0.152527	
6/28/2019	0.082825	0.003997	0.078828	57.7 : 1
6/29/2019	0.152001	0.000000	0.152001	
6/30/2019	2.073080	0.180959	1.892121	16.4 : 1
7/1/2019	0.830402	0.007858	0.822544	
7/2/2019	0.383484	0.000000	0.383484	
7/3/2019	0.135742	0.000000	0.135742	
7/4/2019	2.004124	0.366242	1.637882	7.5 : 1
7/5/2019	1.114558	0.000000	1.114558	
7/6/2019	0.340484	0.000000	0.340484	
7/7/2019	1.778336	0.172294	1.606042	15.8 : 1
7/8/2019	1.110235	0.000000	1.110235	
7/9/2019	0.402930	0.000000	0.402930	
7/10/2019	0.148909	0.000000	0.148909	
7/11/2019	0.044412	0.000000	0.044412	
7/12/2019	0.001701	0.000000	0.001701	
7/13/2019	0.000000	0.000000	0.000000	
7/14/2019	1.112367	0.216883	0.895484	14.3 : 1
7/15/2019	1.615151	0.035626	1.579525	
7/16/2019	4.851339	0.332966	4.518373	
7/17/2019	1.364333	0.000000	1.364333	
7/18/2019	0.501816	0.000000	0.501816	
7/19/2019	0.238882	0.000000	0.238882	
7/20/2019	0.090915	0.000000	0.090915	
7/21/2019	0.029121	0.000000	0.029121	
7/22/2019	0.052577	0.053842	0.000000	12.4 : 1
7/23/2019	0.670302	0.000000	0.670302	
7/24/2019	0.237584	0.000000	0.237584	
7/25/2019	0.040870	0.000000	0.040870	

Date	Downstream Flow (MGD)	006 & 007 Combined Flow (MGD)	Background Flow (MGD)	Event Ratio Background : Outfall
7/26/2019	0.000000	0.000000	0.000000	
7/27/2019	0.000000	0.000000	0.000000	
7/28/2019	0.000000	0.000000	0.000000	
7/29/2019	0.000000	0.000000	0.000000	
7/30/2019	0.000000	0.000001	0.000000	
7/31/2019	0.000000	0.000000	0.000000	
8/1/2019	0.000000	0.000000	0.000000	
8/2/2019	0.000000	0.000000	0.000000	
8/3/2019	0.000469	0.000000	0.000469	
8/4/2019	0.026232	0.000000	0.026232	
8/5/2019	0.045584	0.000000	0.045584	
8/6/2019	0.072076	0.024669	0.047407	3.7 : 1
8/7/2019	0.044983	0.000000	0.044983	
8/8/2019	0.019120	0.000000	0.019120	
8/9/2019	0.000774	0.000000	0.000774	
8/10/2019	0.000000	0.000000	0.000000	
8/11/2019	0.000000	0.000000	0.000000	
8/12/2019	0.000000	0.000000	0.000000	
8/13/2019	0.000000	0.000000	0.000000	
8/14/2019	0.000000	0.000000	0.000000	
8/15/2019	0.000000	0.000000	0.000000	
8/16/2019	0.000000	0.000000	0.000000	
8/17/2019	0.000000	0.000000	0.000000	
8/18/2019	0.000000	0.000000	0.000000	
8/19/2019	0.000000	0.000000	0.000000	
8/20/2019	0.000000	0.000000	0.000000	
8/21/2019	0.000000	0.000000	0.000000	
8/22/2019	0.000000	0.000000	0.000000	
8/23/2019	0.000000	0.000000	0.000000	
8/24/2019	0.000000	0.000000	0.000000	
8/25/2019	0.000000	0.000000	0.000000	
8/26/2019	0.000000	0.000000	0.000000	
8/27/2019	0.000000	0.000000	0.000000	
8/28/2019	0.000000	0.000000	0.000000	
8/29/2019	0.000000	0.000000	0.000000	
8/30/2019	0.000000	0.000000	0.000000	
8/31/2019	0.000000	0.000000	0.000000	
9/1/2019	0.002437	0.000000	0.002437	
9/2/2019	0.000000	0.000000	0.000000	
9/3/2019	0.000000	0.000000	0.000000	
9/4/2019	0.000000	0.000000	0.000000	
9/5/2019	0.000000	0.000000	0.000000	
9/6/2019	0.000000	0.000000	0.000000	
9/7/2019	0.000000	0.000000	0.000000	
9/8/2019	0.000000	0.000000	0.000000	
9/9/2019	0.000000	0.000000	0.000000	
9/10/2019	0.000000	0.000000	0.000000	
9/11/2019	0.000000	0.000000	0.000000	
9/12/2019	0.000000	0.000000	0.000000	
9/13/2019	0.000000	0.000000	0.000000	
9/14/2019	0.000000	0.000000	0.000000	
9/15/2019	0.000000	0.000000	0.000000	
9/16/2019	0.000000	0.000000	0.000000	
9/17/2019	0.000000	0.000000	0.000000	
9/18/2019	0.000000	0.000000	0.000000	
9/19/2019	0.000000	0.000000	0.000000	
9/20/2019	0.000000	0.000000	0.000000	
9/21/2019	0.000000	0.000000	0.000000	
9/22/2019	0.000000	0.000000	0.000000	
9/23/2019	0.000000	0.000000	0.000000	
9/24/2019	0.000000	0.000000	0.000000	
9/25/2019	0.000000	0.000000	0.000000	
9/26/2019	0.000000	0.000000	0.000000	
9/27/2019	0.000255	0.000000	0.000255	
9/28/2019	0.000000	0.000000	0.000000	
9/29/2019	0.000000	0.000000	0.000000	
9/30/2019	0.000000	0.000000	0.000000	
10/1/2019	0.000000	0.000000	0.000000	
10/2/2019	0.000000	0.000000	0.000000	
10/3/2019	0.004464	0.073952	0.000000	
10/4/2019	0.018194	0.023266	0.000000	

Date	Downstream Flow (MGD)	006 & 007 Combined Flow (MGD)	Background Flow (MGD)	Event Ratio Background : Outfall
10/5/2019	0.000000	0.000000	0.000000	
10/6/2019	0.000000	0.000000	0.000000	
10/7/2019	0.631548	0.240049	0.391500	1.6 : 1
10/8/2019	0.003049	0.000000	0.003049	
10/9/2019	0.000000	0.000000	0.000000	
10/10/2019	0.000000	0.000000	0.000000	
10/11/2019	0.000000	0.000000	0.000000	
10/12/2019	0.000000	0.000000	0.000000	
10/13/2019	0.000000	0.000000	0.000000	
10/14/2019	0.000000	0.000000	0.000000	
10/15/2019	5.802004	1.386857	4.415147	5.1 : 1
10/16/2019	2.289731	0.011143	2.278588	
10/17/2019	0.429521	0.000000	0.429521	
10/18/2019	0.224475	0.000000	0.224475	
10/19/2019	0.114425	0.000000	0.114425	
10/20/2019	0.073348	0.000000	0.073348	
10/21/2019	0.832817	0.099240	0.733577	11.8 : 1
10/22/2019	0.439816	0.000000	0.439816	
10/23/2019	0.203158	0.000000	0.203158	
10/24/2019	0.105737	0.000000	0.105737	
10/25/2019	6.413692	0.911716	5.501976	9.5 : 1
10/26/2019	2.732967	0.048222	2.684745	
10/27/2019	0.911612	0.000000	0.911612	
10/28/2019	0.600645	0.000000	0.600645	
10/29/2019	0.518991	0.000000	0.518991	
10/30/2019	1.433756	0.262843	1.170912	16.1 : 1
10/31/2019	3.778544	0.041936	3.736608	
11/1/2019	0.000000	0.000000	0.000000	
11/2/2019	0.000000	0.000000	0.000000	
11/3/2019	0.000000	0.000000	0.000000	
11/4/2019	0.000000	0.000000	0.000000	
11/5/2019	0.000000	0.000000	0.000000	
11/6/2019	0.000000	0.000000	0.000000	
11/7/2019	0.000000	0.000000	0.000000	
11/8/2019	0.294693	0.000000	0.294693	
11/9/2019	0.512465	0.000000	0.512465	
11/10/2019	0.513195	0.000000	0.513195	
11/11/2019	0.585969	0.000000	0.585969	
11/12/2019	0.669117	0.000000	0.669117	
11/13/2019	0.624935	0.000000	0.624935	
11/14/2019	0.665951	0.000000	0.665951	
11/15/2019	0.600631	0.000000	0.600631	
11/16/2019	0.560066	0.000000	0.560066	
11/17/2019	0.533636	0.000000	0.533636	
11/18/2019	0.557940	0.000000	0.557940	
11/19/2019	0.537406	0.000000	0.537406	
11/20/2019	0.499249	0.000000	0.499249	
11/21/2019	1.453944	0.097106	1.356838	38.3 : 1
11/22/2019	1.584219	0.013575	1.570644	
11/23/2019	1.308732	0.000000	1.308732	
11/24/2019	0.981763	0.000000	0.981763	
11/25/2019	0.909358	0.000000	0.909358	
11/26/2019	0.959240	0.054008	0.905232	47.3 : 1
11/27/2019	2.188328	0.035186	2.153142	
11/28/2019	1.164912	0.000000	1.164912	
11/29/2019	0.952423	0.000000	0.952423	
11/30/2019	3.808541	0.318136	3.490405	19.2 : 1
12/1/2019	2.619939	0.000000	2.619939	

Date	Downstream Flow (MGD)	006 & 007 Combined Flow (MGD)	Background Flow (MGD)	Event Ratio Background : Outfall
12/2/2019	1.262225	0.000000	1.262225	
12/3/2019	0.999349	0.000000	0.999349	
12/4/2019	0.890463	0.000000	0.890463	
12/5/2019	0.820017	0.000000	0.820017	
12/6/2019	0.811235	0.000000	0.811235	
12/7/2019	0.784922	0.000000	0.784922	
12/8/2019	0.782154	0.000000	0.782154	
12/9/2019	0.796079	0.000000	0.796079	
12/10/2019	2.028130	0.116163	1.911967	33.2 : 1
12/11/2019	1.942018	0.000000	1.942018	
12/12/2019	1.218157	0.000000	1.218157	
12/13/2019	1.101085	0.000000	1.101085	
12/14/2019	1.024405	0.000000	1.024405	
12/15/2019	0.935960	0.000000	0.935960	
12/16/2019	1.146285	0.013699	1.132586	169.4 : 1
12/17/2019	1.187846	0.000000	1.187846	
12/18/2019	0.902252	0.000000	0.902252	
12/19/2019	0.816817	0.000000	0.816817	
12/20/2019	0.791441	0.000000	0.791441	
12/21/2019	0.808437	0.000000	0.808437	
12/22/2019	0.811717	0.000000	0.811717	
12/23/2019	0.791178	0.000000	0.791178	
12/24/2019	0.777807	0.000000	0.777807	
12/25/2019	0.781407	0.000000	0.781407	
12/26/2019	0.778548	0.000000	0.778548	
12/27/2019	0.785088	0.000000	0.785088	
12/28/2019	0.863124	0.000000	0.863124	
12/29/2019	4.120391	0.254210	3.866181	24.7 : 1
12/30/2019	2.420851	0.000000	2.420851	
12/31/2019	1.346202	0.000000	1.346202	
1/1/2020	1.047582	0.000000	1.047582	
1/2/2020	4.191526	0.291381	3.900145	27.4 : 1
1/3/2020	3.150642	0.015351	3.135291	
1/4/2020	1.383940	0.000000	1.383940	
1/5/2020	0.959040	0.000000	0.959040	
1/6/2020	0.818894	0.000000	0.818894	
1/7/2020	0.666608	0.000000	0.666608	
1/8/2020	0.580060	0.000000	0.580060	
1/9/2020	0.576083	0.000000	0.576083	
1/10/2020	0.610338	0.000000	0.610338	
1/11/2020	15.454005	0.899648	14.554357	18.0 : 1
1/12/2020	1.619648	0.000000	1.619648	
1/13/2020	1.033527	0.000000	1.033527	
1/14/2020	1.162818	0.000000	1.162818	

Date	Downstream Flow (MGD)	006 & 007 Combined Flow (MGD)	Background Flow (MGD)	Event Ratio Background : Outfall
1/15/2020	1.012541	0.000000	1.012541	
1/16/2020	1.629578	0.030126	1.599452	92.0 : 1
1/17/2020	1.173171	0.000000	1.173171	
1/18/2020	1.303329	0.019113	1.284216	116.4 : 1
1/19/2020	0.939928	0.000000	0.939928	
1/20/2020	0.687614	0.000000	0.687614	
1/21/2020	0.581612	0.000000	0.581612	
1/22/2020	3.167045	0.366579	2.800467	23.9 : 1
1/23/2020	13.679393	0.399539	13.279854	
1/24/2020	2.234059	0.000000	2.234059	
1/25/2020	1.270029	0.000000	1.270029	
1/26/2020	1.525711	0.000000	1.525711	
1/27/2020	1.275437	0.000000	1.275437	
1/28/2020	1.410737	0.036953	1.373784	32.0 : 1
1/29/2020	6.114070	0.245911	5.868160	
1/30/2020	1.819366	0.000000	1.819366	
1/31/2020	1.230836	0.000000	1.230836	
Average:				20.9 : 1

Notes:

- Storm events resulting in a calculated ratio are indicated in grey.
- Daily outfall or background flow volumes less than 100 gallons were conservatively removed from ratio analysis.
- Flow events were determined based on when observed precipitation events correlated with simultaneous or near simultaneous flow measured at both 006 and 007 Outfalls and EDCC-B (background flow).
- The total drainage area flowing to EDCC-B is larger than the combined Outfall 006 and 007 drainage area, and background flows measured in each event typically continued several days following cease of flow at Outfalls 006 and 007. For event ratio calculations, measured background flow was conservatively assumed to stop one day after the cease of flow at Outfalls 006 and 007.
- Daily Background Flow = Daily Downstream Flow - Totalized Daily 006 & 007 Outfall Flow*
- Background : Outfall Ratio = $\sum(\text{Background Event Flow}) / \sum(\text{Outfall 006 \& 007 Event Flow})$*



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