TO: Bryan Bondy, Executive Director
Upper Ventura River Groundwater Agency

FROM: Kear Groundwater
P.O. Box 2601
Santa Barbara, CA 93120-2601

DATE: January 30, 2020

SUBJECT: *Ventura River Surface Water Flow Monitoring – Summary of Data Collection through Water Year 2019, Upper Ventura River Groundwater Agency*

Dear Bryan,

Kear Groundwater (KG) presents this summary memorandum detailing our Water Year 2019 efforts in periodic surface flow monitoring of the "Southern/Lower Reach" of the Ventura River, in accordance with our Master Service Agreement (MSA) with Upper Ventura River Groundwater Agency (UVRGA) and Work Order No. 6.

The monitoring activities described in this letter contributes to Sustainable Groundwater Planning Grant (Grant) Task 7 (Surface Water Flow Data), with the objective to fill data gaps, including improved characterization of the hydrogeologic conditions to serve groundwater planning and management activities. This report represents our technical memorandum to document flow measurement in the transition zone where daylighting groundwater becomes the southern/lower reach of the Ventura River.

Active Stream Gages in Ventura River Watershed

The United States Geological Survey (USGS) (Photograph 1) and the Ventura County Watershed Protection District (VCWPD), among other entities (Casitas, SWRCB, etc.) currently maintain a network of active stream/river gages within the Ventura River Watershed. Key gages relating to the UVRGA, and the time period of currently and readily available data, are summarized in Table 1, generally from upstream to downstream; see Figure 1 for gage locations.

TABLE 1 - SELECT ACTIVE STREAM GAGES WITHIN VENTURA RIVER WATERSHED		
Gage Number	**Gage Name**	**Currently Available Data**
USGS 11114495/ VCWPD 603A	Matilija Creek above Reservoir	10/01/2001 - Present Day
VCWPD 604	North Fork Matilija Creek	10/01/1928 - 10/01/2018
VCWPD 602B	Matilija Creek at Hot Springs	10/01/2006 - 8/27/2019
USGS 11116550/ Casitas MWD	Ventura River nr Meiners Oaks	6/1/1959 - 9/29/1988 [USGS]; to Present Day [CMWD]
VCWPD 605A	San Antonio Creek at Old Creek Road	10/01/2013 - 10/01/2017
USGS 11118500/ VCWPD 608	Ventura River at Foster Park	10/01/1929 - Present Day

Photograph 1. USGS personnel downloading data from the Ventura River gage at Casitas Vista Bridge/Foster Park (KG, 31-Jan-2019).

Ventura River Flow Measurements along Main Reaches

The Ventura River begins at the confluence of Matilija Creek and North Fork Matilija Creek, just south of Matilija Hot Springs Road, and runs 16.2 miles before meeting the Pacific Ocean. The approximately 1.5 mile stretch of the Ventura River from its headwaters to the Robles Diversion Facility, which periodically diverts Ventura River flow to Lake Casitas, is generally part of the river's "Northern/Upper Reach." While flow is perennial along this section, it is a losing reach (recharges groundwater); the terminal location of this losing reach varies in latitude dependent on several hydrologic and natural factors.

The approximately 6.0 mile stretch of the Ventura River from below the Robles Diversion to typically just upstream from the river's confluence with San Antonio Creek is its "Central/Middle Reach," generally defined by the northern/southern limits of the river's dry/intermittent section. The exact boundaries of the middle reach fluctuate based on the time of year, magnitude of the previous rainy season, and the level of groundwater storage; the reach typically disappears during wet winter months when surface water flows continuously across the Ventura River.

The approximately 2.0 mile stretch of the Ventura River from below its confluence with San Antonio Creek to Foster Park is known as the river's "Southern/Lower Reach." The river channel begins to narrow and receives water primarily from San Antonio Creek and from discharged groundwater (gaining reach). The live reach only lacks surface flow during multi-year dry periods (VRWC, 2015).

Available flow data from river/stream gages are insufficient in the transition zone between the middle/dry reach and the lower/wet reach. These data are needed to fully understand surface water-groundwater interactions and correlate surface flow with water table changes.

To date, KG has measured the Ventura River flow near this key transition zone (Photograph 2), situated just west of the Arroyo Mobile Home Park (and just south of the San Antonio Creek confluence), a total of 19 times between September 2017 and, most recently, December 2019.

Each profile consists of (1) identifying a suitable cross-section, (2) creating a profile of the river bottom to obtain cross-sectional area, and (3) using a propeller meter for velocity. Temporal gaps in our monitoring are due to issues such as unsafe conditions of river flow (too high to safely wade) and natural disaster issues (Thomas Fire, debris flows). Flow measurements at the key transition site may become part of the UVRGA's ongoing, long-term monitoring. All measurements are made in accordance with the Agency's Protocols (UVRGA, 2018). Field data sheets are included as Appendix A.

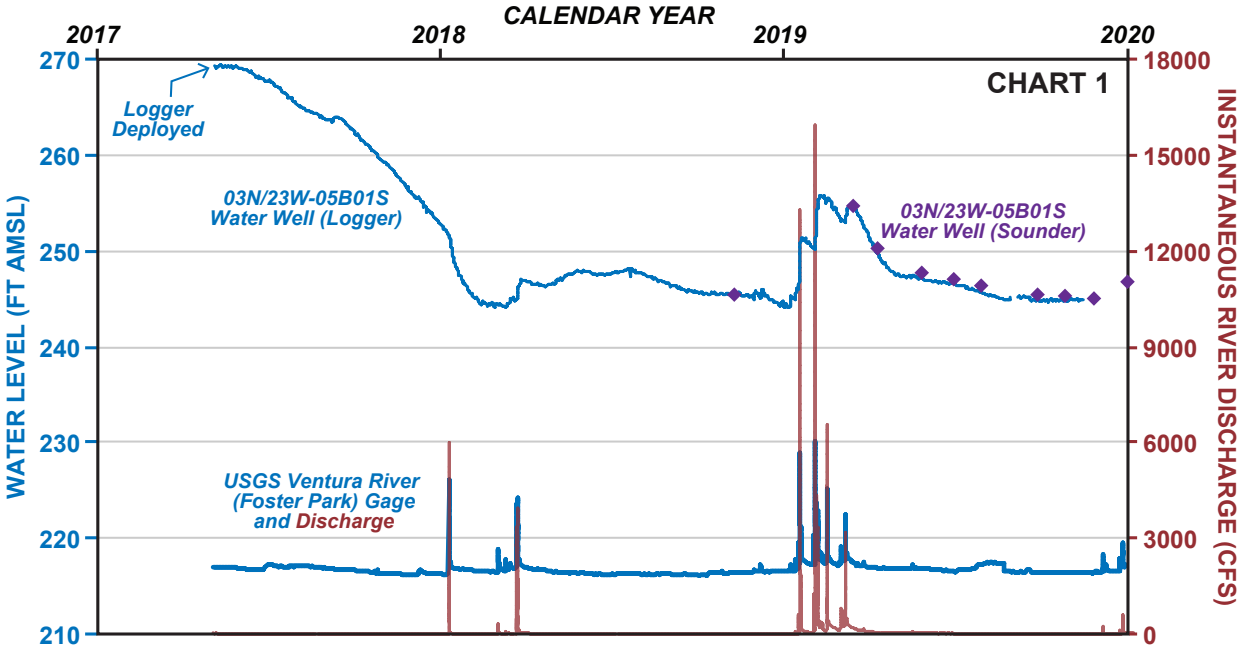
The calculated flow rates (in cubic feet per second, cfs) at the transition zone site (34°22'19.47"N, 119°18'35.00"W) are summarized in Table 2.

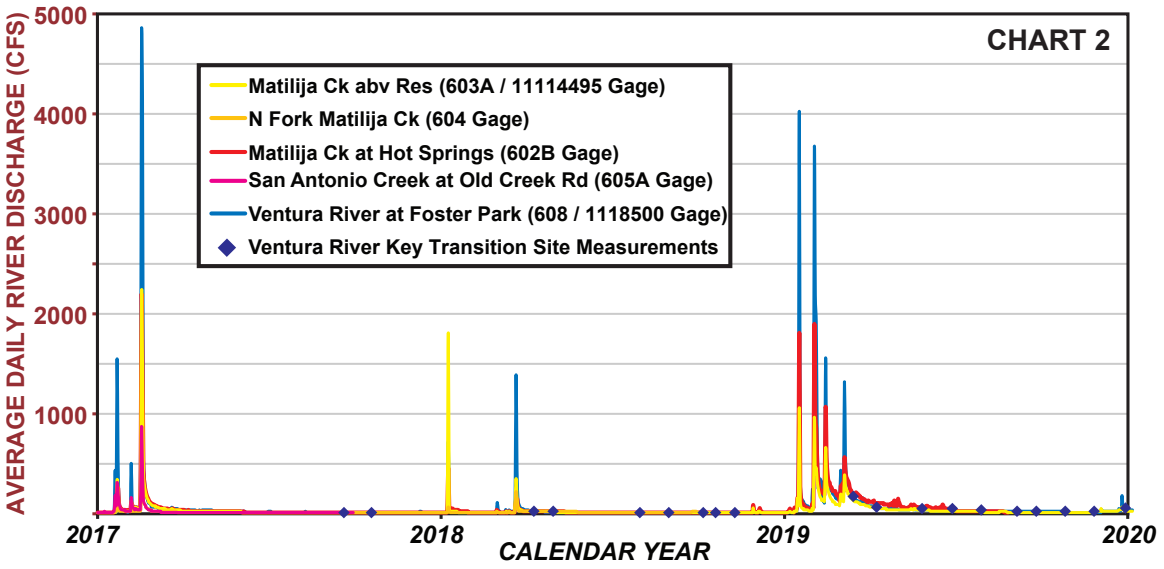
Photograph 2. Ventura River at the key transition site (KG, 9-Nov-2018).

TABLE 2 - KEY TRANSITION SITE FLOW MEASUREMENTS	
Date	**Transition Site Flow Rate (cfs)**
20-Sep-2017	3.31
20-Oct-2017	0.81
10-Apr-2018	16.98
1-May-2018	8.65
31-Jul-2018	3.81
31-Aug-2018	2.84
7-Oct-2018	1.95
20-Oct-2018	0.78
9-Nov-2018	1.94
15-Mar-2019	155.38
9-Apr-2019	53.64
27-May-2019	42.57
29-Jun-2019	34.27
29-Jul-2019	27.62
5-Sep-2019	17.34
26-Sep-2019	14.66
26-Oct-2019	12.79
26-Nov-2019	12.13
31-Dec-2019	38.92

The transition zone site has the added benefit of its close proximity to the Arroyo Mobile Home Park well (*SWN* 03N/23W-05B01S) in Casitas Springs. KG deployed a data logger, which recorded water level and temperature in one-minute intervals, in the -05B01S well from May 2017 through November 2019. Chart 1 presents a comparison of water level elevations, as feet above mean sea level, between the -05B01S well's groundwater level [based on +290 ft MSL ground surface elevation per Google Earth, accessed Jan-2020] and the surface water height at the Ventura River's Foster Park gage [based on +210 ft MSL ground surface elevation per Google Earth], in addition to the instantaneous flow rate at the gage, between May 2017 and December 2019.

Chart 2 presents a comparison of average daily discharge rates at main river gages and at the transition site, between January 2017 and December 2019. Chart 3 presents selected recent river transects through time at the key transition site.





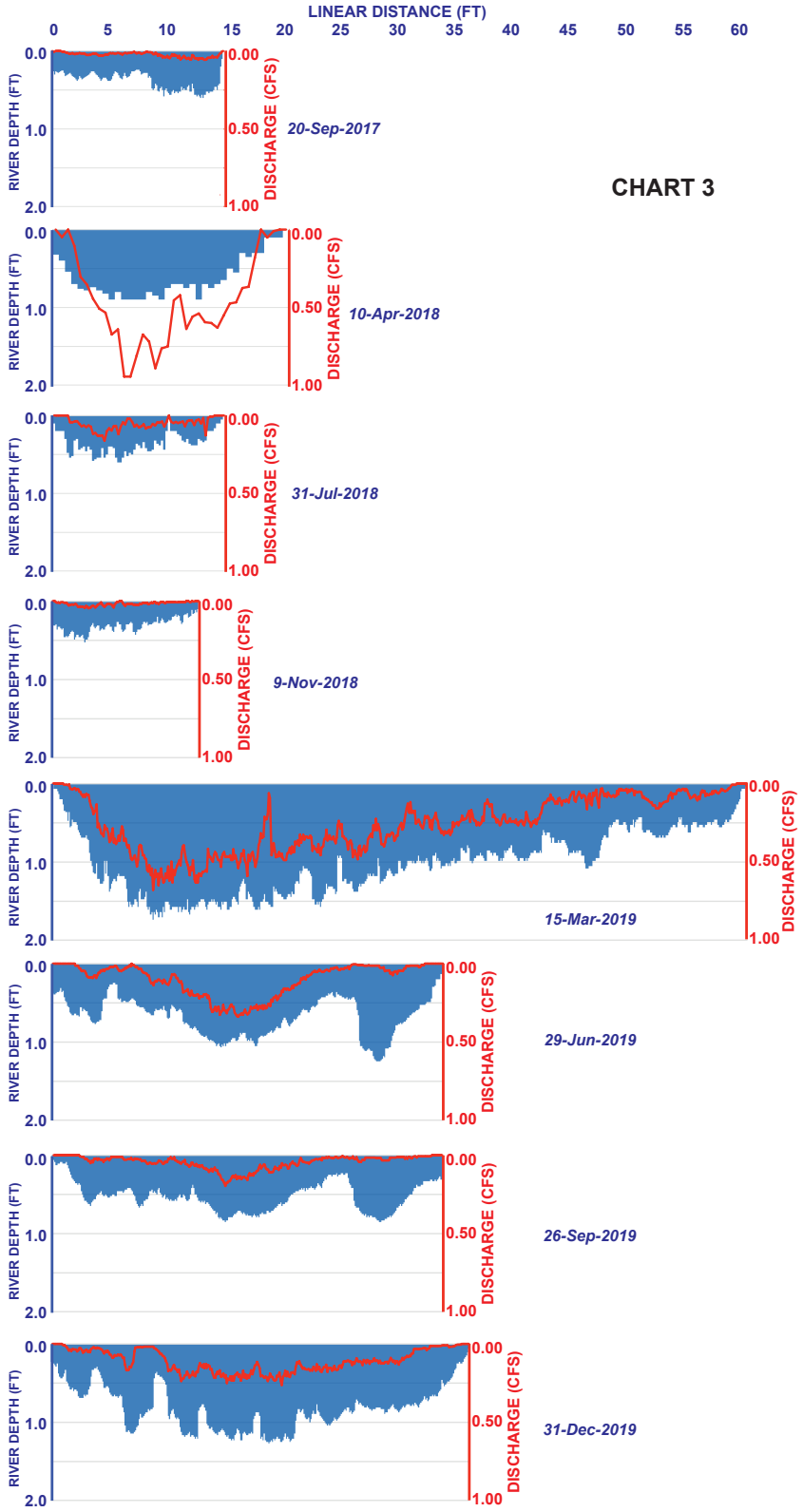


CHART 3

KEAR GROUNDWATER
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CALIFORNIA REGISTERED PROFESSIONAL GEOLOGIST N. 6960 CALIFORNIA CERTIFIED HYDROGEOLOGIST N. 749

KG has also measured the Ventura River flow at two other locations: one site (34°28'58.18"N, 119°17'46.84"W) at Camino Cielo near the river's headwaters (20.40 cfs on April 6, 2018) (Photograph 3), and one site (34°25'27.44"N, 119°18'9.04"W) just south of the Rte. 150 bridge (17.80 cfs on April 6, 2018 and 58.08 cfs on March 15, 2019) (Photograph 4).

The field data sheets are included with Appendix A.

Photograph 3. Ventura River at Camino Cielo (KG, 15-Feb-2016).

Photograph 4. Ventura River at Rte. 150 (KG, 15-Mar-2019)

Closing

KG welcomes the opportunity to continue developing this valuable dataset. Please do no hesitate to contact us with any questions.

Best Regards,

Jordan Kear
Principal Hydrogeologist
Professional Geologist No. 6960
California Certified Hydrogeologist No. 749

Timothy Becker
Professional Geologist No. 9589

Appendices

APPENDIX A – VENTURA RIVER LIVE REACH SURFACE FLOW MEASUREMENT DATA SHEETS

References

Ventura River Watershed Council [VRWC] (2015), Ventura River Watershed Management Plan, Part 3 Watershed Characteristics, Part 3.3 Hydrology.

Upper Ventura River Groundwater Agency [UVRGA] (2018), Monitoring and Data Collection Protocols.

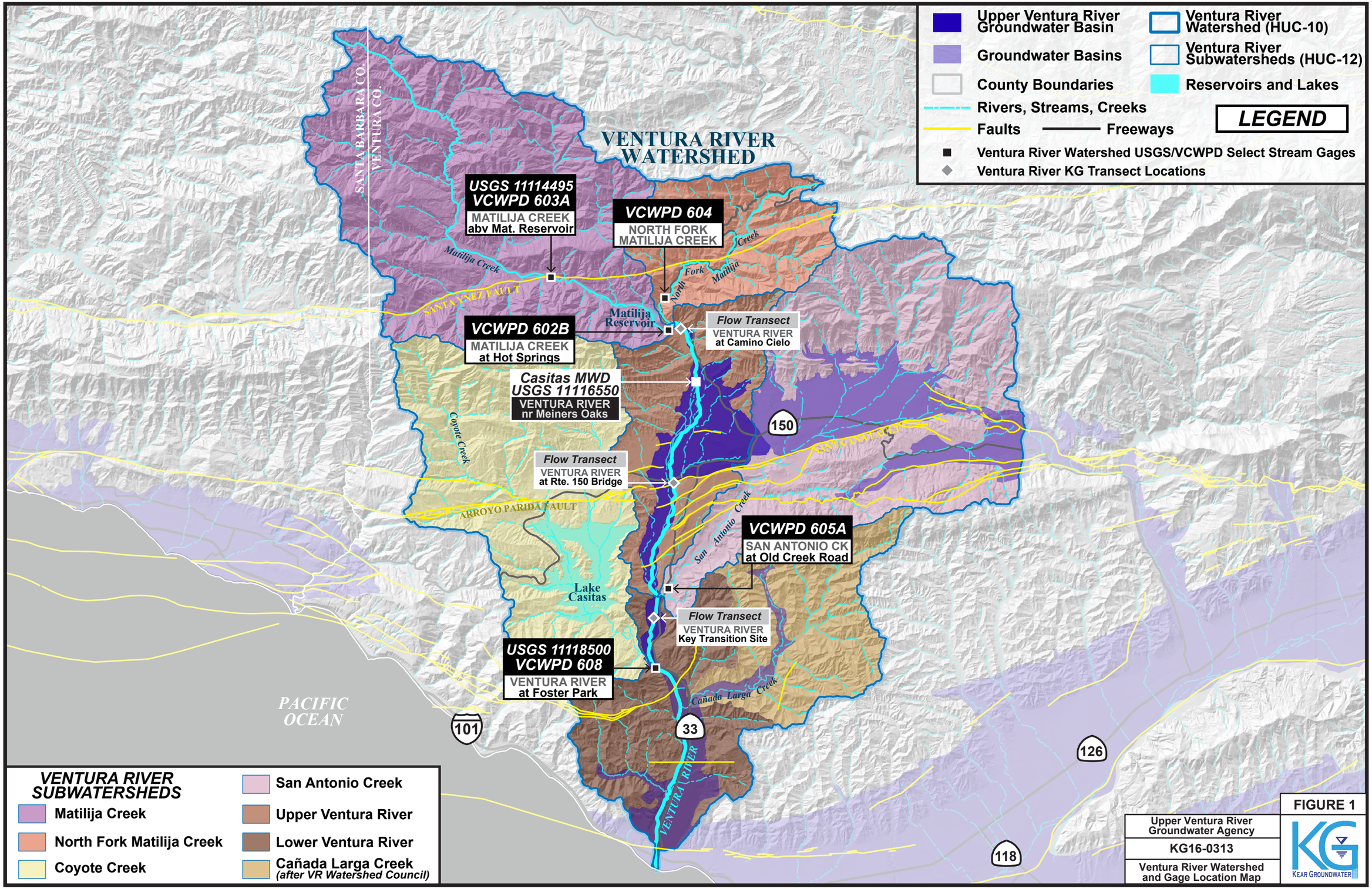

FIGURE 1

Upper Ventura River Groundwater Agency

KG16-0313

Ventura River Watershed and Gage Location Map

KEAR GROUNDWATER

Groundwater Basins: DWR Bulletin 118
Rivers, Streams, Creeks: CDFW
Watersheds, Reservoirs: USGS NHD/WBD

Faults: USGS EHP
Shaded Relief:
Modified from USGS NED

APPENDIX A

Ventura River Surface Flow Measurement Data Sheets

SURFACE WATER FLOW MEASUREMENT DATA SHEET

Location:	Key Transition Site	*Date:*	9/20/17
SECTION AREA (sq. ft):	5.542	*TOTAL FLOW (CFS):*	3.3055

Cumulative Section Length	Depth (ft)	Flow Velocity (ft/sec)	Sectional Flow (cfs)	Cumulative Flow
0.0	0	0	0	0
0.1	0.26	0.2	0.0052	0.0052
0.2	0.3	0.1	0.003	0.0082
0.3	0.26	0	0	0.0082
0.4	0.27	0	0	0.0082
0.5	0.28	0	0	0.0082
0.6	0.27	0	0	0.0082
0.7	0.26	0	0	0.0082
0.8	0.25	0.1	0.0025	0.0107
0.9	0.25	0.2	0.005	0.0157
1	0.28	0.2	0.0056	0.0213
1.1	0.32	0.2	0.0064	0.0277
1.2	0.31	0.3	0.0093	0.037
1.3	0.3	0.4	0.012	0.049
1.4	0.29	0.5	0.0145	0.0635
1.5	0.28	0.6	0.0168	0.0803
1.6	0.3	0.5	0.015	0.0953
1.7	0.32	0.4	0.0128	0.1081
1.8	0.33	0.5	0.0165	0.1246
1.9	0.34	0.6	0.0204	0.145
2	0.36	0.5	0.018	0.163
2.1	0.38	0.4	0.0152	0.1782
2.2	0.36	0.4	0.0144	0.1926
2.3	0.32	0.4	0.0128	0.2054
2.4	0.34	0.4	0.0136	0.219
2.5	0.36	0.4	0.0144	0.2334
2.6	0.35	0.4	0.014	0.2474
2.7	0.34	0.4	0.0136	0.261
2.8	0.33	0.6	0.0198	0.2808
2.9	0.32	0.8	0.0256	0.3064
3	0.31	0.8	0.0248	0.3312
3.1	0.3	0.8	0.024	0.3552
3.2	0.28	0.8	0.0224	0.3776
3.3	0.26	0.8	0.0208	0.3984
3.4	0.26	0.7	0.0182	0.4166
3.5	0.26	0.6	0.0156	0.4322
3.6	0.28	0.6	0.0168	0.449
3.7	0.3	0.6	0.018	0.467
3.8	0.31	0.7	0.0217	0.4887
3.9	0.33	0.8	0.0264	0.5151
4	0.35	0.8	0.028	0.5431
4.1	0.38	0.8	0.0304	0.5735
4.2	0.36	0.8	0.0288	0.6023
4.3	0.34	0.8	0.0272	0.6295
4.4	0.34	0.7	0.0238	0.6533
4.5	0.34	0.6	0.0204	0.6737
4.6	0.36	0.6	0.0216	0.6953
4.7	0.38	0.6	0.0228	0.7181
4.8	0.38	0.4	0.0152	0.7333
4.9	0.38	0.3	0.0114	0.7447
5	0.36	0.4	0.0144	0.7591
5.1	0.32	0.4	0.0128	0.7719
5.2	0.29	0.5	0.0145	0.7864
5.3	0.26	0.6	0.0156	0.802
5.4	0.27	0.5	0.0135	0.8155
5.5	0.28	0.4	0.0112	0.8267
5.6	0.31	0.4	0.0124	0.8391
5.7	0.34	0.4	0.0136	0.8527
5.8	0.35	0.5	0.0175	0.8702
5.9	0.36	0.6	0.0216	0.8918
6	0.32	0.5	0.016	0.9078
6.1	0.28	0.4	0.0112	0.919
6.2	0.32	0.4	0.0128	0.9318
6.3	0.34	0.4	0.0136	0.9454
6.4	0.33	0.4	0.0132	0.9586
6.5	0.32	0.4	0.0128	0.9714
6.6	0.29	0.4	0.0116	0.983
6.7	0.26	0.4	0.0104	0.9934
6.8	0.26	0.3	0.0078	1.0012
6.9	0.26	0.2	0.0052	1.0064
7	0.25	0.4	0.01	1.0164
7.1	0.24	0.6	0.0144	1.0308
7.2	0.24	0.5	0.012	1.0428
7.3	0.24	0.4	0.0096	1.0524
7.4	0.26	0.5	0.013	1.0654
7.5	0.3	0.6	0.018	1.0834
7.6	0.29	0.5	0.0145	1.0979
7.7	0.28	0.4	0.0112	1.1091
7.8	0.28	0.3	0.0084	1.1175
7.9	0.28	0.2	0.0056	1.1231
8	0.28	0.2	0.0056	1.1287
8.1	0.34	0.2	0.0068	1.1355
8.2	0.32	0.2	0.0064	1.1419
8.3	0.34	0.2	0.0068	1.1487
8.4	0.48	0.2	0.0096	1.1583
8.5	0.5	0.4	0.02	1.1783
8.6	0.48	0.4	0.0192	1.1975
8.7	0.42	0.2	0.0084	1.2059
8.8	0.44	0.4	0.0176	1.2235
8.9	0.51	0.6	0.0306	1.2541
9	0.52	0.4	0.0208	1.2749
9.1	0.48	0.6	0.0288	1.3037
9.2	0.46	0.6	0.0276	1.3313
9.3	0.5	0.8	0.04	1.3713
9.4	0.58	0.6	0.0348	1.4061
9.5	0.5	0.8	0.04	1.4461
9.6	0.48	0.8	0.0384	1.4845
9.7	0.52	0.6	0.0312	1.5157
9.8	0.54	0.8	0.0432	1.5589
9.9	0.56	0.8	0.0448	1.6037
10	0.56	0.6	0.0336	1.6373
10.1	0.52	0.4	0.0208	1.6581
10.2	0.5	0.6	0.03	1.6881
10.3	0.54	0.4	0.0216	1.7097
10.4	0.52	0.6	0.0312	1.7409
10.5	0.52	0.6	0.0312	1.7721
10.6	0.54	0.8	0.0432	1.8153
10.7	0.52	0.6	0.0312	1.8465
10.8	0.52	1	0.052	1.8985
10.9	0.46	1	0.046	1.9445
11	0.5	0.8	0.04	1.9845
11.1	0.48	0.6	0.0288	2.0133
11.2	0.5	0.8	0.04	2.0533
11.3	0.5	1	0.05	2.1033
11.4	0.46	1	0.046	2.1493
11.5	0.44	1	0.044	2.1933
11.6	0.52	1	0.052	2.2453
11.7	0.52	1	0.052	2.2973
11.8	0.42	0.6	0.0252	2.3225
11.9	0.48	0.6	0.0288	2.3513
12	0.56	0.8	0.0448	2.3961
12.1	0.56	0.8	0.0448	2.4409
12.2	0.58	0.8	0.0464	2.4873
12.3	0.56	1	0.056	2.5433
12.4	0.58	0.8	0.0464	2.5897
12.5	0.6	0.8	0.048	2.6377
12.6	0.56	0.8	0.0448	2.6825
12.7	0.6	0.8	0.048	2.7305
12.8	0.56	1	0.056	2.7865
12.9	0.56	1	0.056	2.8425
13	0.52	1	0.052	2.8945
13.1	0.52	0.8	0.0416	2.9361
13.2	0.54	0.8	0.0432	2.9793
13.3	0.52	0.8	0.0416	3.0209
13.4	0.52	0.8	0.0416	3.0625
13.5	0.52	0.6	0.0312	3.0937
13.6	0.5	0.8	0.04	3.1337
13.7	0.46	0.8	0.0368	3.1705
13.8	0.46	0.8	0.0368	3.2073
13.9	0.5	0.8	0.04	3.2473
14	0.44	0.6	0.0264	3.2737
14.1	0.42	0.4	0.0168	3.2905
14.2	0.2	0.6	0.012	3.3025
14.3	0.1	0.3	0.003	3.3055
14.4	0	0	0	3.3055

SURFACE WATER FLOW MEASUREMENT DATA SHEET

	Location:	Key Transition Site	*Date:*	10/20/17
	SECTION AREA (sq. ft):	3.813	*TOTAL FLOW (CFS):*	0.812
Cumulative Section Length	**Depth (ft)**	**Flow Velocity (ft/sec)**	**Sectional Flow (cfs)**	**Cumulative Flow**
0.0	0.3	0.2	0.006	0.006
0.1	0.3	0.2	0.006	0.012
0.2	0.3	0.4	0.012	0.024
0.3	0.36	0.6	0.0216	0.0456
0.4	0.35	0.6	0.021	0.0666
0.5	0.38	0.6	0.0228	0.0894
0.6	0.4	0.4	0.016	0.1054
0.7	0.4	0.4	0.016	0.1214
0.8	0.4	0.2	0.008	0.1294
0.9	0.35	0.2	0.007	0.1364
1	0.36	0.2	0.0072	0.1436
1.1	0.38	0.4	0.0152	0.1588
1.2	0.4	0.4	0.016	0.1748
1.3	0.42	0.2	0.0084	0.1832
1.4	0.46	0.6	0.0276	0.2108
1.5	0.42	0.6	0.0252	0.236
1.6	0.48	0.6	0.0288	0.2648
1.7	0.44	0.4	0.0176	0.2824
1.8	0.42	0.2	0.0084	0.2908
1.9	0.42	0.2	0.0084	0.2992
2	0.42	0.2	0.0084	0.3076
2.1	0.42	0.2	0.0084	0.316
2.2	0.36	0.2	0.0072	0.3232
2.3	0.32	0.2	0.0064	0.3296
2.4	0.38	0.2	0.0076	0.3372
2.5	0.38	0.4	0.0152	0.3524
2.6	0.28	0.4	0.0112	0.3636
2.7	0.3	0.2	0.006	0.3696
2.8	0.34	0.2	0.0068	0.3764
2.9	0.36	0.2	0.0072	0.3836
3	0.36	0.2	0.0072	0.3908
3.1	0.34	0.6	0.0204	0.4112
3.2	0.32	0.6	0.0192	0.4304
3.3	0.34	0.4	0.0136	0.444
3.4	0.4	0.4	0.016	0.46
3.5	0.4	0.2	0.008	0.468
3.6	0.4	0.2	0.008	0.476
3.7	0.38	0	0	0.476
3.8	0.4	0.2	0.008	0.484
3.9	0.38	0.2	0.0076	0.4916
4	0.4	0.2	0.008	0.4996
4.1	0.42	0.2	0.0084	0.508
4.2	0.46	0.2	0.0092	0.5172
4.3	0.42	0.4	0.0168	0.534
4.4	0.4	0.4	0.016	0.55
4.5	0.38	0.4	0.0152	0.5652
4.6	0.38	0.4	0.0152	0.5804
4.7	0.45	0.4	0.018	0.5984
4.8	0.42	0.4	0.0168	0.6152
4.9	0.4	0.4	0.016	0.6312
5	0.36	0.4	0.0144	0.6456
5.1	0.4	0.2	0.008	0.6536
5.2	0.4	0.2	0.008	0.6616
5.3	0.38	0.2	0.0076	0.6692
5.4	0.32	0.2	0.0064	0.6756
5.5	0.36	0.2	0.0072	0.6828
5.6	0.32	0.2	0.0064	0.6892
5.7	0.28	0.2	0.0056	0.6948
5.8	0.2	0	0	0.6948
5.9	0.2	0	0	0.6948
6	0.26	0	0	0.6948
6.1	0.26	0	0	0.6948
6.2	0.2	0	0	0.6948
6.3	0.2	0	0	0.6948
6.4	0.18	0	0	0.6948
6.5	0.18	0	0	0.6948
6.6	0.1	0	0	0.6948
6.7	0.16	0	0	0.6948
6.8	0.14	0	0	0.6948
6.9	0.1	0	0	0.6948
7	0.1	0	0	0.6948
7.1	0.1	0	0	0.6948
7.2	0.12	0	0	0.6948
7.3	0.2	0	0	0.6948
7.4	0.2	0	0	0.6948
7.5	0.2	0	0	0.6948
7.6	0.2	0	0	0.6948
7.7	0.24	0	0	0.6948
7.8	0.22	0	0	0.6948
7.9	0.2	0	0	0.6948
8	0.2	0	0	0.6948
8.1	0.22	0	0	0.6948
8.2	0.24	0	0	0.6948
8.3	0.24	0	0	0.6948
8.4	0.24	0	0	0.6948
8.5	0.2	0	0	0.6948
8.6	0.2	0	0	0.6948
8.7	0.16	0	0	0.6948
8.8	0.1	0	0	0.6948
8.9	0.12	0	0	0.6948
9	0.24	0	0	0.6948
9.1	0.2	0	0	0.6948
9.2	0.24	0	0	0.6948
9.3	0.24	0.1	0.0024	0.6972
9.4	0.1	0	0	0.6972
9.5	0.26	0.2	0.0052	0.7024
9.6	0.26	0.2	0.0052	0.7076
9.7	0.22	0.4	0.0088	0.7164
9.8	0.22	0.2	0.0044	0.7208
9.9	0.26	0.2	0.0052	0.726
10	0.26	0.2	0.0052	0.7312
10.1	0.26	0.4	0.0104	0.7416
10.2	0.26	0.2	0.0052	0.7468
10.3	0.24	0.2	0.0048	0.7516
10.4	0.2	0.2	0.004	0.7556
10.5	0.2	0.2	0.004	0.7596
10.6	0.1	0.2	0.002	0.7616
10.7	0.1	0.4	0.004	0.7656
10.8	0.18	0.4	0.0072	0.7728
10.9	0.2	0.2	0.004	0.7768
11	0.26	0.2	0.0052	0.782
11.1	0.24	0	0	0.782
11.2	0.2	0	0	0.782
11.3	0.22	0	0	0.782
11.4	0.24	0	0	0.782
11.5	0.24	0	0	0.782
11.6	0.26	0.2	0.0052	0.7872
11.7	0.2	0	0	0.7872
11.8	0.22	0.2	0.0044	0.7916
11.9	0.26	0	0	0.7916
12	0.28	0.2	0.0056	0.7972
12.1	0.24	0	0	0.7972
12.2	0.24	0	0	0.7972
12.3	0.24	0	0	0.7972
12.4	0.2	0.2	0.004	0.8012
12.5	0.24	0.2	0.0048	0.806
12.6	0.2	0.2	0.004	0.81
12.7	0.18	0	0	0.81
12.8	0.08	0	0	0.81
12.9	0.2	0	0	0.81
13	0.24	0	0	0.81
13.1	0.22	0	0	0.81
13.2	0.12	0	0	0.81
13.3	0.2	0	0	0.81
13.4	0.14	0	0	0.81
13.5	0.1	0	0	0.81
13.6	0.08	0	0	0.81
13.7	0.18	0	0	0.81
13.8	0.1	0	0	0.81
13.9	0.1	0.2	0.002	0.812
14	0.12	0	0	0.812
14.1	0	0	0	0.812

SURFACE WATER FLOW MEASUREMENT DATA SHEET

Location: **Rte. 150 Bridge** **DATE:** **4/6/18**

SECTION AREA (sq. ft): **15.404** *TOTAL FLOW (CFS):* **17.8008**

Cumulative Section Length	Depth (ft)	Flow Velocity (ft/sec)	Sectional Flow (cfs)	Cumulative Flow
0.0	0.90	0.00	0.000	
0.2	0.60	0.00	0.000	0.0000
0.4			0.000	0.0000
0.6	0.70		0.000	0.0000
0.8	0.90		0.000	0.0000
1.0	0.80		0.000	0.0000
1.2	0.80	0.00	0.000	0.0000
1.4	0.90	0.00	0.000	0.0000
1.6	1.20	0.00	0.000	0.0000
1.8	1.20	0.00	0.000	0.0000
2.0	1.20	0.10	0.024	0.0240
2.2	1.20	0.10	0.024	0.0480
2.4	1.20	0.20	0.048	0.0960
2.6	1.00	0.20	0.040	0.1360
2.8	1.10	0.20	0.044	0.1800
3.0	1.10	0.40	0.088	0.2680
3.2	1.30	0.40	0.104	0.3720
3.4	1.40	0.40	0.112	0.4840
3.6	1.40	0.60	0.168	0.6520
3.8	1.40	0.80	0.224	0.8760
4.0	1.30	1.20	0.312	1.1880
4.2	1.10	1.30	0.286	1.4740
4.4	0.98	1.20	0.235	1.7092
4.6	1.00	1.30	0.260	1.9692
4.8	0.90	1.50	0.270	2.2392
5.0	0.80	1.30	0.208	2.4472
5.2	0.90	1.50	0.270	2.7172
5.4	1.10	1.50	0.330	3.0472
5.6	1.10	1.30	0.286	3.3332
5.8	1.10	1.50	0.330	3.6632
6.0	0.90	1.50	0.270	3.9332
6.2	1.30	1.50	0.390	4.3232
6.4	1.40	1.50	0.420	4.7432
6.6	1.30	1.50	0.390	5.1332
6.8	1.50	1.50	0.450	5.5832
7.0	1.50	1.50	0.450	6.0332
7.2	1.20	1.50	0.360	6.3932
7.4	1.10	2.10	0.462	6.8552
7.6	1.70	1.70	0.578	7.4332
7.8	1.50	2.50	0.750	8.1832
8.0	1.20	2.10	0.504	8.6872
8.2	1.40	2.30	0.644	9.3312
8.4	1.30	2.30	0.598	9.9292
8.6	1.30	2.10	0.546	10.4752
8.8	1.40	1.70	0.476	10.9512
9.0	1.30	2.30	0.598	11.5492
9.2	1.50	2.30	0.690	12.2392
9.4	1.40	1.70	0.476	12.7152
9.6	1.40	2.10	0.588	13.3032
9.8	1.40	1.70	0.476	13.7792
10.0	1.20	1.70	0.408	14.1872
10.2	1.10	2.10	0.462	14.6492
10.4	1.10	1.50	0.330	14.9792
10.6	1.10	1.30	0.286	15.2652
10.8	1.10	1.30	0.286	15.5512
11.0	1.10	1.50	0.330	15.8812
11.2	0.80	1.90	0.304	16.1852
11.4	0.60	1.50	0.180	16.3652
11.6	0.50	1.70	0.170	16.5352
11.8	0.40	1.30	0.104	16.6392
12.0	0.30	1.20	0.072	16.7112
12.2	0.40	1.30	0.104	16.8152
12.4	0.90	0.60	0.108	16.9232
12.6	0.86	0.40	0.069	16.9920
12.8	0.90	0.40	0.072	17.0640
13.0	0.94	0.40	0.075	17.1392
13.2	0.78	0.60	0.094	17.2328
13.4	0.80	0.60	0.096	17.3288
13.6	0.58	1.00	0.116	17.4448
13.8	0.60	1.20	0.144	17.5888
14.0	0.80	0.40	0.064	17.6528
14.2	0.84	0.40	0.067	17.7200
14.4	0.64	0.40	0.051	17.7712
14.6	0.40	0.20	0.016	17.7872
14.8	0.34	0.20	0.014	17.8008
15.0	0.36	0.00	0.000	17.8008

SURFACE WATER FLOW MEASUREMENT DATA SHEET

Location: Ventura River - Camino Cielo		DATE: 4/6/18	
SECTION AREA (sq. ft): 7.495		*TOTAL FLOW (CFS):* 20.3960	
Cumulative Section Length	**Depth (ft)**	**Flow Velocity (ft/sec)**	**Sectional Flow (cfs)**	**Cumulative Flow**
0	0	0	0	0
0.1	0.20	1.50	0.030	0.0300
0.2	0.20	1.60	0.032	0.0620
0.3	0.20	1.70	0.034	0.0960
0.4	0.20	1.70	0.034	0.1300
0.5	0.20	1.70	0.034	0.1640
0.6	0.20	1.70	0.034	0.1980
0.7	0.20	1.90	0.038	0.2360
0.8	0.20	1.90	0.038	0.2740
0.9	0.20	2.10	0.042	0.3160
1.0	0.25	2.20	0.055	0.3710
1.1	0.25	2.20	0.055	0.4260
1.2	0.30	2.30	0.069	0.4950
1.3	0.30	2.30	0.069	0.5640
1.4	0.30	2.30	0.069	0.6330
1.5	0.30	2.30	0.069	0.7020
1.6	0.30	2.20	0.066	0.7680
1.7	0.30	2.20	0.066	0.8340
1.8	0.30	2.10	0.063	0.8970
1.9	0.30	2.20	0.066	0.9630
2.0	0.30	2.30	0.069	1.0290
2.1	0.30	2.30	0.069	1.0980
2.2	0.30	2.30	0.069	1.1670
2.3	0.30	2.30	0.069	1.2360
2.4	0.30	2.30	0.069	1.3050
2.5	0.30	2.40	0.072	1.3770
2.6	0.30	2.40	0.072	1.4490
2.7	0.30	2.50	0.075	1.5240
2.8	0.30	2.60	0.078	1.6020
2.9	0.30	2.60	0.078	1.6800
3.0	0.30	2.70	0.081	1.7610
3.1	0.30	2.80	0.084	1.8450
3.2	0.30	2.80	0.084	1.9290
3.3	0.30	2.90	0.087	2.0160
3.4	0.35	2.70	0.095	2.1105
3.5	0.35	2.70	0.095	2.2050
3.6	0.40	2.50	0.100	2.3050
3.7	0.40	2.60	0.104	2.4090
3.8	0.40	2.60	0.104	2.5130
3.9	0.40	2.70	0.108	2.6210
4.0	0.40	2.90	0.116	2.7370
4.1	0.40	2.90	0.116	2.8530
4.2	0.40	3.10	0.124	2.9770
4.3	0.35	3.20	0.112	3.0890
4.4	0.35	3.30	0.115	3.2010
4.5	0.30	3.40	0.099	3.3000
4.6	0.30	3.20	0.096	3.3960
4.7	0.30	3.20	0.096	3.4920
4.8	0.30	3.10	0.093	3.5850
4.9	0.30	3.00	0.090	3.6750
5.0	0.30	3.00	0.090	3.7650
5.1	0.30	2.90	0.087	3.8520
5.2	0.30	2.90	0.087	3.9390
5.3	0.30	2.90	0.087	4.0260
5.4	0.30	2.90	0.087	4.1130
5.5	0.35	2.90	0.102	4.2145
5.6	0.35	2.90	0.102	4.3160
5.7	0.40	2.90	0.116	4.4320
5.8	0.40	3.00	0.120	4.5520
5.9	0.40	3.00	0.120	4.6720
6.0	0.40	3.10	0.124	4.7960
6.1	0.40	3.10	0.124	4.9200
6.2	0.40	3.10	0.124	5.0440
6.3	0.40	3.10	0.124	5.1680
6.4	0.40	3.10	0.124	5.2920
6.5	0.40	3.10	0.124	5.4160
6.6	0.40	3.10	0.124	5.5400
6.7	0.40	3.10	0.124	5.6640
6.8	0.40	3.10	0.124	5.7880
6.9	0.40	3.10	0.124	5.9120
7.0	0.40	3.20	0.128	6.0400
7.1	0.40	3.20	0.128	6.1680
7.2	0.40	3.30	0.132	6.3000
7.3	0.35	3.20	0.112	6.4120
7.4	0.35	3.20	0.112	6.5240
7.5	0.30	3.10	0.093	6.6170
7.6	0.30	3.00	0.090	6.7070
7.7	0.30	3.00	0.090	6.7970
7.8	0.30	2.90	0.087	6.8840
7.9	0.30	2.90	0.087	6.9710
8.0	0.30	2.90	0.087	7.0580
8.1	0.30	2.90	0.087	7.1450
8.2	0.20	1.95	0.039	7.1840
8.3	0.20	1.95	0.039	7.2230
8.4	0.10	1.00	0.010	7.2330
8.5	0.15	1.15	0.017	7.2502
8.6	0.15	1.15	0.017	7.2675
8.7	0.20	1.30	0.026	7.2935
8.8	0.20	2.10	0.042	7.3355
8.9	0.20	2.10	0.042	7.3775
9.0	0.20	2.90	0.058	7.4355
9.1	0.20	2.90	0.058	7.4935
9.2	0.20	2.90	0.058	7.5515
9.3	0.20	2.90	0.058	7.6095
9.4	0.15	2.40	0.036	7.6455
9.5	0.15	2.40	0.036	7.6815
9.6	0.10	1.35	0.009	7.7005
9.7	0.10	1.35	0.014	7.7140
9.8	0.10	1.35	0.014	7.7275
9.9	0.10	0.80	0.008	7.7355
10.0			0.000	7.7355
10.1			0.000	7.7355
10.2			0.000	7.7355
10.3			0.000	7.7355
10.4			0.000	7.7355
10.5			0.000	7.7355
10.6	0.20	1.00	0.020	7.7555
10.7	0.20	0.90	0.018	7.7735
10.8	0.20	0.90	0.018	7.7915
10.9	0.20	0.80	0.016	7.8075
11.0	0.25	1.25	0.031	7.8387
11.1	0.25	1.25	0.031	7.8700
11.2	0.30	1.70	0.051	7.9210
11.3	0.30	1.90	0.057	7.9780
11.4	0.30	1.90	0.057	8.0350
11.5	0.30	2.10	0.063	8.0980
11.6	0.35	2.20	0.077	8.1750
11.7	0.35	2.20	0.077	8.2520
11.8	0.40	2.40	0.096	8.3440
11.9	0.40	2.40	0.096	8.4400
12.0	0.40	2.40	0.096	8.5360
12.1	0.40	2.50	0.100	8.6360
12.2	0.35	2.30	0.081	8.7165
12.3	0.35	2.30	0.081	8.7970
12.4	0.30	2.10	0.063	8.8600
12.5	0.35	2.20	0.077	8.9370
12.6	0.35	2.20	0.077	9.0140
12.7	0.40	2.30	0.092	9.1060
12.8	0.40	2.40	0.096	9.2020
12.9	0.40	2.40	0.096	9.2980
13.0	0.40	2.50	0.100	9.3980
13.1	0.35	2.30	0.081	9.4785
13.2	0.35	2.30	0.081	9.5590
13.3	0.30	2.10	0.063	9.6220
13.4	0.30	2.30	0.069	9.6910
13.5	0.30	2.30	0.069	9.7600
13.6	0.30	2.50	0.075	9.8350
13.7	0.30	2.80	0.084	9.9190
13.8	0.30	2.80	0.084	10.0030
13.9	0.30	3.10	0.093	10.0960
14.0	0.30	3.30	0.099	10.1950
14.1	0.30	3.30	0.099	10.2940
14.2	0.30	3.50	0.105	10.3990
14.3	0.35	3.50	0.123	10.5215
14.4	0.35	3.50	0.123	10.6440
14.5	0.40	3.50	0.140	10.7840
14.6	0.40	3.50	0.140	10.9240
14.7	0.40	3.50	0.140	11.0640
14.8	0.40	3.50	0.140	11.2040
14.9	0.40	3.40	0.136	11.3400
15.0	0.40	3.40	0.136	11.4760
15.1	0.40	3.30	0.132	11.6080
15.2	0.40	3.40	0.136	11.7440
15.3	0.40	3.40	0.136	11.8800
15.4	0.40	3.50	0.140	12.0200
15.5	0.40	3.50	0.140	12.1600
15.6	0.40	3.50	0.140	12.3000
15.7	0.40	3.50	0.140	12.4400
15.8	0.40	3.60	0.144	12.5840
15.9	0.40	3.60	0.144	12.7280
16.0	0.40	3.70	0.148	12.8760
16.1	0.40	3.75	0.150	13.0260
16.2	0.40	3.75	0.150	13.1760
16.3	0.40	3.80	0.152	13.3280
16.4	0.40	3.75	0.150	13.4780
16.5	0.40	3.75	0.150	13.6280
16.6	0.40	3.70	0.148	13.7760
16.7	0.40	3.70	0.148	13.9240
16.8	0.40	3.70	0.148	14.0720
16.9	0.40	3.70	0.148	14.2200
17.0	0.40	3.70	0.148	14.3680
17.1	0.40	3.70	0.148	14.5160
17.2	0.40	3.70	0.148	14.6640
17.3	0.35	3.70	0.130	14.7935
17.4	0.35	3.70	0.130	14.9230
17.5	0.30	3.70	0.111	15.0340
17.6	0.35	3.60	0.126	15.1600
17.7	0.35	3.60	0.126	15.2860
17.8	0.40	3.50	0.140	15.4260
17.9	0.40	3.30	0.132	15.5580
18.0	0.40	3.30	0.132	15.6900
18.1	0.40	3.10	0.124	15.8140
18.2	0.40	3.20	0.128	15.9420
18.3	0.40	3.20	0.128	16.0700
18.4	0.40	3.30	0.132	16.2020
18.5	0.40	3.30	0.132	16.3340
18.6	0.40	3.30	0.132	16.4660
18.7	0.40	3.30	0.132	16.5980
18.8	0.35	3.20	0.112	16.7100
18.9	0.35	3.20	0.112	16.8220
19.0	0.30	3.10	0.093	16.9150
19.1	0.30	3.00	0.090	17.0050
19.2	0.30	3.00	0.090	17.0950
19.3	0.30	2.90	0.087	17.1820
19.4	0.30	2.50	0.075	17.2570
19.5	0.30	2.50	0.075	17.3320
19.6	0.30	2.10	0.063	17.3950
19.7	0.30	2.10	0.063	17.4580
19.8	0.30	2.10	0.063	17.5210
19.9	0.30	2.10	0.063	17.5840
20.0	0.25	2.00	0.050	17.6340
20.1	0.25	2.00	0.050	17.6840
20.2	0.20	1.90	0.038	17.7220
20.3	0.15	1.60	0.024	17.7460
20.4	0.10	1.30	0.013	17.7590
20.5			0.000	17.7590
20.6			0.000	17.7590
20.7			0.000	17.7590
20.8			0.000	17.7590
20.9			0.000	17.7590
21.0			0.000	17.7590
21.1	0.00	0.00	0.000	17.7590
21.2	0.00	0.00	0.000	17.7590
21.3	0.00	0.00	0.000	17.7590
21.4	0.00	0.00	0.000	17.7590
21.5	0.00	0.00	0.000	17.7590
21.6	0.00	0.00	0.000	17.7590
21.7	0.00	0.00	0.000	17.7590
21.8	0.05	0.30	0.002	17.7605
21.9	0.05	0.30	0.002	17.7620
22.0	0.10	0.60	0.006	17.7680
22.1	0.15	0.80	0.012	17.7800
22.2	0.15	0.80	0.012	17.7920
22.3	0.20	1.00	0.020	17.8120
22.4	0.20	1.35	0.027	17.8390
22.5	0.20	1.35	0.027	17.8660
22.6	0.20	1.70	0.034	17.9000
22.7	0.20	2.00	0.040	17.9400
22.8	0.20	2.00	0.040	17.9800
22.9	0.20	2.30	0.046	18.0260
23.0	0.20	2.20	0.044	18.0700
23.1	0.20	2.20	0.044	18.1140
23.2	0.20	2.10	0.042	18.1560
23.3	0.20	2.30	0.046	18.2020
23.4	0.20	2.30	0.046	18.2480
23.5	0.20	2.50	0.050	18.2980
23.6	0.25	2.50	0.063	18.3605
23.7	0.25	2.50	0.063	18.4230
23.8	0.30	2.50	0.075	18.4980
23.9	0.30	2.50	0.075	18.5730
24.0	0.30	2.50	0.075	18.6480
24.1	0.30	2.50	0.075	18.7230
24.2	0.30	2.60	0.078	18.8010
24.3	0.30	2.70	0.081	18.8790
24.4	0.30	2.70	0.081	18.9600
24.5	0.30	2.70	0.081	19.0410
24.6	0.30	2.70	0.081	19.1220
24.7	0.30	2.70	0.081	19.2030
24.8	0.25	2.70	0.068	19.2705
24.9	0.25	2.70	0.068	19.3380
25.0	0.20	2.70	0.054	19.3920
25.1	0.15	2.80	0.042	19.4340
25.2	0.15	2.80	0.042	19.4760
25.3	0.10	2.90	0.029	19.5050
25.4	0.10	2.90	0.029	19.5340
25.5	0.10	2.90	0.029	19.5630
25.6	0.10	2.90	0.029	19.5920
25.7	0.10	2.90	0.029	19.6210
25.8	0.10	2.90	0.029	19.6500
25.9	0.10	2.90	0.029	19.6790
26.0	0.10	3.00	0.030	19.7090
26.1	0.10	3.00	0.030	19.7390
26.2	0.10	3.10	0.031	19.7700
26.3	0.15	2.80	0.042	19.8120
26.4	0.15	2.80	0.042	19.8540
26.5	0.20	2.50	0.050	19.9040
26.6	0.15	2.50	0.038	19.9415
26.7	0.15	2.50	0.038	19.9790
26.8	0.10	2.50	0.025	20.0040
26.9	0.10	2.50	0.025	20.0290
27.0	0.10	2.50	0.025	20.0540
27.1	0.10	2.50	0.025	20.0790
27.2	0.10	2.30	0.023	20.1020
27.3	0.10	2.30	0.023	20.1250
27.4	0.10	2.10	0.021	20.1460
27.5	0.10	2.10	0.021	20.1670
27.6	0.10	2.10	0.021	20.1880
27.7	0.10	2.10	0.021	20.2090
27.8	0.10	2.10	0.021	20.2300
27.9	0.10	2.10	0.021	20.2510
28.0	0.10	2.10	0.021	20.2720
28.1	0.10	1.70	0.017	20.2890
28.2	0.10	1.70	0.017	20.3060
28.3	0.10	1.30	0.013	20.3190
28.4	0.10	1.25	0.013	20.3315
28.5	0.10	1.25	0.013	20.3440
28.6	0.10	1.20	0.012	20.3560
28.7	0.10	0.90	0.009	20.3650
28.8	0.10	0.90	0.009	20.3740
28.9	0.10	0.60	0.006	20.3800
29.0	0.10	0.50	0.005	20.3850
29.1	0.10	0.50	0.005	20.3900
29.2	0.10	0.40	0.004	20.3940
29.3	0.05	0.20	0.001	20.3950
29.4	0.05	0.20	0.001	20.3960
29.5	0.00	0.00	0.000	20.3960
29.6	0.00	0.00	0.000	20.3960
29.7	0.00	0.00	0.000	20.3960
29.8	0.00	0.00	0.000	20.3960
29.9	0.00	0.00	0.000	20.3960
30.0	0.00	0.00	0.000	20.3960
30.1	0.00	0.00	0.000	20.3960
30.2	0.00	0.00	0.000	20.3960
30.3	0.00	0.00	0.000	20.3960
30.4	0.00	0.00	0.000	20.3960
30.5	0.00	0.00	0.000	20.3960
30.6	0.00	0.00	0.000	20.3960
30.7	0.00	0.00	0.000	20.3960
30.8	0.00	0.00	0.000	20.3960
30.9	0.00	0.00	0.000	20.3960
31.0	0.00	0.00	0.000	20.3960

SURFACE WATER FLOW MEASUREMENT DATA SHEET

	Location:	Key Transition Site	*Date:*	4/10/18
	SECTION AREA (sq. ft):	11.555	*TOTAL FLOW (CFS):*	16.9817
Cumulative Section Length	**Depth (ft)**	**Flow Velocity (ft/sec)**	**Sectional Flow (cfs)**	**Cumulative Flow**
0.0	0.32	0	0	0
0.3	0.4	0.4	0.048	0.0052
0.8	0.54	0	0	0.0052
1.3	0.7	0.3	0.105	0.1102
1.8	0.76	0.8	0.304	0.4142
2.3	0.78	0.9	0.351	0.7652
2.8	0.74	1.2	0.444	1.2092
3.3	0.78	1.3	0.507	1.7162
3.8	0.82	1.3	0.533	2.2492
4.3	0.9	1.5	0.675	2.9242
4.8	0.8	1.6	0.64	3.5642
5.3	0.9	2.1	0.945	4.5092
5.8	0.9	2.1	0.945	5.4542
6.3	0.9	1.8	0.81	6.2642
6.8	0.9	1.5	0.675	6.9392
7.3	0.8	1.8	0.72	7.6592
7.8	0.85	2.1	0.8925	8.5517
8.3	0.9	1.7	0.765	9.3167
8.8	0.75	2	0.75	10.0667
9.3	0.7	1.3	0.455	10.5217
9.8	0.7	1.2	0.42	10.9417
10.3	0.75	1.7	0.6375	11.5792
10.8	0.7	1.6	0.56	12.1392
11.3	0.9	1.2	0.54	12.6792
11.8	0.7	1.7	0.595	13.2742
12.3	0.75	1.6	0.6	13.8742
12.8	0.7	1.8	0.63	14.5042
13.3	0.65	1.7	0.5525	15.0567
13.8	0.5	1.9	0.475	15.5317
14.3	0.55	1.7	0.4675	15.9992
14.8	0.3	2.5	0.375	16.3742
15.3	0.35	2.1	0.3675	16.7417
15.8	0.3	1.2	0.18	16.9217
16.3	0.3	0	0	16.9217
16.8	0.1	1	0.05	16.9717
17.3	0.1	0.2	0.01	16.9817
17.8	0.1	0	0	16.9817
18.3	0	0	0	16.9817

SURFACE WATER FLOW MEASUREMENT DATA SHEET

	Location:	Key Transition Site	*Date:*	5/1/18
	SECTION AREA (sq. ft):	14.085	*TOTAL FLOW (CFS):*	8.6549
Cumulative Section Length	**Depth (ft)**	**Flow Velocity (ft/sec)**	**Sectional Flow (cfs)**	**Cumulative Flow**
0.0	0	0	0	0
1.4	0.4	0	0	0
2	0.62	0	0	0
2.5	0.66	0	0	0
3	0.83	0.5	0.2075	0.2075
3.3	0.96	0.8	0.2304	0.4379
3.5	1	1.2	0.24	0.6779
4	1.02	1.2	0.612	1.2899
4.5	0.8	1.3	0.52	1.8099
5	1.06	1.5	0.795	2.6049
5.5	1.02	1.3	0.663	3.2679
6	1.06	1.2	0.636	3.9039
6.5	0.9	1.2	0.54	4.4439
7	1	1.3	0.65	5.0939
7.5	0.76	1.5	0.57	5.6639
8	1.06	1.2	0.636	6.2999
8.5	1.12	1.2	0.672	6.9719
9	1	0.8	0.4	7.3719
9.5	0.8	0.6	0.24	7.6119
10	0.85	0.8	0.34	7.9519
10.5	0.76	0.6	0.228	8.1799
11	0.8	0.4	0.16	8.3399
11.5	0.8	0.1	0.04	8.3799
12	0.84	0.2	0.084	8.4639
12.5	0.86	0.1	0.043	8.5069
13	0.74	0.4	0.148	8.6549
13.5	0.8	0	0	8.6549
14	0.86	0	0	8.6549
14.5	0.7	0	0	8.6549
15	0.78	0	0	8.6549
15.5	0.66	0	0	8.6549
16	0.68	0	0	8.6549
16.5	0.36	0	0	8.6549
17	0.42	0	0	8.6549
17.5	0.38	0	0	8.6549
18	0.3	0	0	8.6549
18.5	0.3	0	0	8.6549
19	0.2	0	0	8.6549
19.5	0.1	0	0	8.6549
20	0.05	0	0	8.6549
20.5	0	0	0	8.6549

SURFACE WATER FLOW MEASUREMENT DATA SHEET

	Location:	Key Transition Site	*Date:*	7/31/18
	SECTION AREA (sq. ft):	5.474	*TOTAL FLOW (CFS):*	3.8152

Cumulative Section Length	Depth (ft)	Flow Velocity (ft/sec)	Sectional Flow (cfs)	Cumulative Flow
2.7	0.1	0		
3	0.2	0	0	0
3.2	0.2	0	0	0
3.4	0.2	0	0	0
3.6	0.2	0	0	0
3.8	0.3	0	0	0
4	0.48	0	0	0
4.2	0.54	0.4	0.0432	0.0432
4.4	0.52	0.4	0.0416	0.0848
4.6	0.32	0.6	0.0384	0.1232
4.8	0.3	0.6	0.036	0.1592
5	0.44	0.6	0.0528	0.212
5.2	0.42	0.8	0.0672	0.2792
5.4	0.4	0.8	0.064	0.3432
5.6	0.46	0.8	0.0736	0.4168
5.8	0.4	0.8	0.064	0.4808
6	0.44	0.8	0.0704	0.5512
6.2	0.58	1	0.116	0.6672
6.4	0.56	1	0.112	0.7792
6.6	0.54	1.2	0.1296	0.9088
6.8	0.54	1.2	0.1296	1.0384
7	0.42	1.5	0.126	1.1644
7.2	0.54	1.5	0.162	1.3264
7.4	0.5	1	0.1	1.4264
7.6	0.4	1	0.08	1.5064
7.8	0.4	1.2	0.096	1.6024
8	0.42	0.8	0.0672	1.6696
8.2	0.54	0.6	0.0648	1.7344
8.4	0.6	1	0.12	1.8544
8.6	0.6	0.6	0.072	1.9264
8.8	0.54	0.4	0.0432	1.9696
9	0.46	0.6	0.0552	2.0248
9.2	0.52	0.2	0.0208	2.0456
9.4	0.48	0.2	0.0192	2.0648
9.6	0.5	0.4	0.04	2.1048
9.8	0.44	0.8	0.0704	2.1752
10	0.36	0.8	0.0576	2.2328
10.2	0.38	1	0.076	2.3088
10.4	0.42	0.8	0.0672	2.376
10.6	0.34	0.8	0.0544	2.4304
10.8	0.42	1	0.084	2.5144
11	0.46	0.8	0.0736	2.588
11.2	0.46	0.8	0.0736	2.6616
11.4	0.44	0.6	0.0528	2.7144
11.6	0.32	1	0.064	2.7784
11.8	0.36	0.6	0.0432	2.8216
12	0.38	0.6	0.0456	2.8672
12.2	0.32	0.6	0.0384	2.9056
12.4	0.44	0.8	0.0704	2.976
12.6	0.2	1	0.04	3.016
12.8	0.2	1	0.04	3.056
13	0.2	1	0.04	3.096
13.2	0.2	1.2	0.048	3.144
13.4	0.2	1	0.04	3.184
13.6	0.24	1	0.048	3.232
13.8	0.26	0.8	0.0416	3.2736
14	0.32	0.6	0.0384	3.312
14.2	0.34	1	0.068	3.38
14.4	0.3	0.6	0.036	3.416
14.6	0.36	0.4	0.0288	3.4448
14.8	0.38	0.4	0.0304	3.4752
15	0.38	0.8	0.0608	3.536
15.2	0.38	0.4	0.0304	3.5664
15.4	0.3	0.4	0.024	3.5904
15.8	0.32	0.4	0.0512	3.6416
16	0.34	0.2	0.0136	3.6552
16.2	0.32	2	0.128	3.7832
16.6	0.2	0.2	0.016	3.7992
16.8	0.2	0.2	0.008	3.8072
17	0.2	0.2	0.008	3.8152
17.2	0.16	0	0	3.8152
17.4	0.1	0	0	3.8152
17.6	0.1	0	0	3.8152
17.8	0.05	0	0	3.8152
18	0	0	0	3.8152

SURFACE WATER FLOW MEASUREMENT DATA SHEET

	Location:	Key Transition Site	*Date:*	8/31/18
	SECTION AREA (sq. ft):	4.251	*TOTAL FLOW (CFS):*	2.836
Cumulative Section Length	**Depth (ft)**	**Flow Velocity (ft/sec)**	**Sectional Flow (cfs)**	**Cumulative Flow**
0	0.05	0	0	0
0.1	0.05	0	0	0
0.2	0.05	0	0	0
0.3	0.1	0	0	0
0.5	0.1	0	0	0
0.6	0.1	0	0	0
0.7	0.2	0	0	0
0.8	0.2	0	0	0
0.9	0.3	0	0	0
1	0.36	0	0	0
1.1	0.38	0	0	0
1.2	0.4	0	0	0
1.3	0.44	0.2	0.0088	0.0088
1.4	0.5	0.4	0.02	0.0288
1.5	0.5	0.4	0.02	0.0488
1.6	0.46	0.4	0.0184	0.0672
1.7	0.46	0.4	0.0184	0.0856
1.8	0.42	0.4	0.0168	0.1024
1.9	0.38	0.4	0.0152	0.1176
2	0.4	0.6	0.024	0.1416
2.1	0.44	0.6	0.0264	0.168
2.2	0.44	0.6	0.0264	0.1944
2.3	0.38	0.6	0.0228	0.2172
2.4	0.37	0.8	0.0296	0.2468
2.5	0.42	1	0.042	0.2888
2.6	0.5	1	0.05	0.3388
2.7	0.48	0.8	0.0384	0.3772
2.8	0.48	0.8	0.0384	0.4156
2.9	0.5	0.8	0.04	0.4556
3	0.54	0.8	0.0432	0.4988
3.1	0.52	0.8	0.0416	0.5404
3.2	0.5	0.8	0.04	0.5804
3.3	0.5	1	0.05	0.6304
3.5	0.66	1	0.132	0.7624
3.6	0.64	1	0.064	0.8264
3.7	0.6	1.1	0.066	0.8924
3.8	0.56	1.2	0.0672	0.9596
3.9	0.54	1.2	0.0648	1.0244
4.1	0.5	1.5	0.15	1.1744
4.2	0.52	1.3	0.0676	1.242
4.3	0.34	1.5	0.051	1.293
4.5	0.25	1.5	0.075	1.368
4.6	0.25	1.5	0.0375	1.4055
4.7	0.3	1.5	0.045	1.4505
4.9	0.4	1	0.08	1.5305
5	0.3	1	0.03	1.5605
5.1	0.34	0.8	0.0272	1.5877
5.2	0.36	0.8	0.0288	1.6165
5.3	0.3	0.8	0.024	1.6405
5.4	0.25	1	0.025	1.6655
5.5	0.25	1.2	0.03	1.6955
5.6	0.2	1.3	0.026	1.7215
5.7	0.2	1.3	0.026	1.7475
5.8	0.2	1.3	0.026	1.7735
5.9	0.15	1	0.015	1.7885
6	0.1	1.2	0.012	1.8005
6.1	0.1	1.2	0.012	1.8125
6.2	0.1	1.2	0.012	1.8245
6.3	0.1	1.2	0.012	1.8365
6.4	0.1	1.2	0.012	1.8485
6.5	0.1	1.2	0.012	1.8605
6.7	0.1	0.6	0.012	1.8725
6.8	0.2	0.6	0.012	1.8845
6.9	0.25	0.6	0.015	1.8995
7	0.42	0.6	0.0252	1.9247
7.1	0.35	0.6	0.021	1.9457
7.2	0.34	0.8	0.0272	1.9729
7.3	0.44	0.6	0.0264	1.9993
7.4	0.42	0.8	0.0336	2.0329
7.5	0.46	0.8	0.0368	2.0697
7.6	0.44	0.8	0.0352	2.1049
7.7	0.4	0.8	0.032	2.1369
7.8	0.36	0.8	0.0288	2.1657
7.9	0.38	0.8	0.0304	2.1961
8	0.38	0.8	0.0304	2.2265
8.1	0.38	0.6	0.0228	2.2493
8.2	0.3	0.8	0.024	2.2733
8.3	0.38	0.6	0.0228	2.2961
8.4	0.36	0.6	0.0216	2.3177
8.5	0.34	0.8	0.0272	2.3449
8.6	0.3	0.6	0.018	2.3629
8.7	0.34	0.4	0.0136	2.3765
8.8	0.34	0.4	0.0136	2.3901
8.9	0.36	0.4	0.0144	2.4045
9	0.3	0.6	0.018	2.4225
9.1	0.25	0.4	0.01	2.4325
9.2	0.38	0.4	0.0152	2.4477
9.3	0.26	0.6	0.0156	2.4633
9.4	0.2	0.8	0.016	2.4793
9.5	0.2	0.6	0.012	2.4913
9.6	0.2	0.6	0.012	2.5033
9.7	0.22	0.8	0.0176	2.5209
9.8	0.2	0.2	0.004	2.5249
9.9	0.2	0.2	0.004	2.5289
10	0.25	0.2	0.005	2.5339
10.1	0.3	0.2	0.006	2.5399
10.2	0.2	0.8	0.016	2.5559
10.4	0.2	0.6	0.024	2.5799
10.5	0.3	0.4	0.012	2.5919
10.6	0.36	0.4	0.0144	2.6063
10.7	0.36	0.2	0.0072	2.6135
10.8	0.3	0.4	0.012	2.6255
10.9	0.3	0.4	0.012	2.6375
11	0.28	0.4	0.0112	2.6487
11.1	0.26	0.4	0.0104	2.6591
11.2	0.2	0.2	0.004	2.6631
11.3	0.2	0	0	2.6631
11.4	0.2	0.1	0.002	2.6651
11.5	0.22	0.2	0.0044	2.6695
11.6	0.2	0.4	0.008	2.6775
11.7	0.1	0.4	0.004	2.6815
11.8	0	0	0	2.6815
11.9	0	0	0	2.6815
12	0.05	0.1	0.0005	2.682
12.1	0.24	0.6	0.0144	2.6964
12.2	0.26	0.6	0.0156	2.712
12.3	0.26	0.6	0.0156	2.7276
12.4	0.24	0.6	0.0144	2.742
12.5	0.26	0.4	0.0104	2.7524
12.6	0.28	0.4	0.0112	2.7636
12.7	0.28	0.4	0.0112	2.7748
12.8	0.26	0.4	0.0104	2.7852
12.9	0.25	0.4	0.01	2.7952
13	0.26	0.6	0.0156	2.8108
13.1	0.26	0.6	0.0156	2.8264
13.2	0.24	0.4	0.0096	2.836
13.3	0.1	0	0	2.836
13.4	0.1	0	0	2.836
13.5	0.1	0	0	2.836
13.6	0.15	0	0	2.836
13.7	0.15	0	0	2.836
13.8	0.2	0	0	2.836
13.9	0.2	0	0	2.836
14	0.15	0	0	2.836
14.1	0.15	0	0	2.836
14.2	0.1	0	0	2.836
14.3	0.15	0	0	2.836
14.4	0.15	0	0	2.836
14.5	0.1	0	0	2.836
14.6	0.1	0	0	2.836
14.7	0	0	0	2.836
14.8	0	0	0	2.836
14.9	0	0	0	2.836
15	0	0	0	2.836
15.1	0	0	0	2.836

SURFACE WATER FLOW MEASUREMENT DATA SHEET

	Location:	Key Transition Site	*Date:*	10/7/18
	SECTION AREA (sq. ft):	3.303	*TOTAL FLOW (CFS):*	1.9544
Cumulative Section Length	**Depth (ft)**	**Flow Velocity (ft/sec)**	**Sectional Flow (cfs)**	**Cumulative Flow**
0	0	0		
0.1	0.05	0	0	0
0.2	0.05	0	0	0
0.3	0.05	0	0	0
0.6	0.05	0	0	0
0.7	0.05	0	0	0
0.8	0.1	0	0	0
0.9	0.1	0	0	0
1	0.1	0	0	0
1.1	0.1	0	0	0
1.2	0.3	0	0	0
1.3	0.3	0	0	0
1.4	0.36	0	0	0
1.5	0.44	0	0	0
1.6	0.44	0	0	0
1.7	0.46	0	0	0
1.8	0.44	0	0	0
1.9	0.38	0	0	0
2	0.38	0	0	0
2.1	0.32	0	0	0
2.2	0.32	0	0	0
2.3	0.38	0.2	0.0076	0.0076
2.4	0.4	0.2	0.008	0.0156
2.5	0.32	0.6	0.0192	0.0348
2.6	0.32	0.8	0.0256	0.0604
2.7	0.32	0.8	0.0256	0.086
2.8	0.38	0.8	0.0304	0.1164
2.9	0.44	0.8	0.0352	0.1516
3	0.4	1	0.04	0.1916
3.1	0.4	0.8	0.032	0.2236
3.2	0.46	0.8	0.0368	0.2604
3.3	0.5	0.8	0.04	0.3004
3.4	0.44	0.8	0.0352	0.3356
3.5	0.44	0.8	0.0352	0.3708
3.6	0.44	0.8	0.0352	0.406
3.7	0.44	1	0.044	0.45
3.8	0.48	0.6	0.0288	0.4788
3.9	0.6	0.8	0.048	0.5268
4	0.62	1	0.062	0.5888
4.1	0.58	1	0.058	0.6468
4.2	0.56	1	0.056	0.7028
4.3	0.42	1	0.042	0.7448
4.4	0.34	1	0.034	0.7788
4.5	0.34	1	0.034	0.8128
4.6	0.2	1.3	0.026	0.8388
4.7	0.2	1.3	0.026	0.8648
4.8	0.2	1.2	0.024	0.8888
4.9	0.2	1.5	0.03	0.9188
5	0.3	1	0.03	0.9488
5.1	0.28	1	0.028	0.9768
5.3	0.4	0.6	0.048	1.0248
5.4	0.38	0.8	0.0304	1.0552
5.5	0.3	0.4	0.012	1.0672
5.6	0.26	0.2	0.0052	1.0724
5.7	0.2	0.6	0.012	1.0844
5.8	0.2	0.8	0.016	1.1004
5.9	0.1	1	0.01	1.1104
6	0.1	1	0.01	1.1204
6.1	0.1	0.8	0.008	1.1284
6.2	0.1	1	0.01	1.1384
6.3	0.1	1	0.01	1.1484
6.4	0.08	0.8	0.0064	1.1548
6.5	0.06	0.8	0.0048	1.1596
6.6	0.1	0.8	0.008	1.1676
6.7	0.1	0.8	0.008	1.1756
6.8	0.1	0.6	0.006	1.1816
6.9	0.1	0.6	0.006	1.1876
7	0.14	0.6	0.0084	1.196
7.1	0.2	0.4	0.008	1.204
7.2	0.28	0.4	0.0112	1.2152
7.3	0.38	0.4	0.0152	1.2304
7.4	0.38	0.4	0.0152	1.2456
7.5	0.38	0.6	0.0228	1.2684
7.6	0.4	0.6	0.024	1.2924
7.7	0.42	0.6	0.0252	1.3176
7.8	0.32	0.8	0.0256	1.3432
7.9	0.38	0.6	0.0228	1.366
8	0.32	0.8	0.0256	1.3916
8.1	0.32	1	0.032	1.4236
8.2	0.34	0.8	0.0272	1.4508
8.3	0.32	0.8	0.0256	1.4764
8.4	0.26	0.8	0.0208	1.4972
8.5	0.26	0.8	0.0208	1.518
8.6	0.26	0.6	0.0156	1.5336
8.7	0.32	0.8	0.0256	1.5592
8.8	0.32	0.6	0.0192	1.5784
8.9	0.3	0.2	0.006	1.5844
9	0.32	0.4	0.0128	1.5972
9.1	0.3	0.6	0.018	1.6152
9.2	0.26	0.8	0.0208	1.636
9.4	0.24	0.6	0.0288	1.6648
9.5	0.28	0.6	0.0168	1.6816
9.6	0.12	0.8	0.96	1.6912
9.7	0.1	0.6	0.006	1.6972
9.8	0.08	0.4	0.0032	1.7004
9.9	0.1	0.6	0.006	1.7064
10	0.08	0.6	0.0048	1.7112
10.1	0.1	0.8	0.008	1.7192
10.2	0.1	0.8	0.008	1.7272
10.3	0.12	0.8	0.0096	1.7368
10.4	0.24	0.8	0.0192	1.756
10.5	0.12	1	0.012	1.768
10.6	0.1	0.8	0.008	1.776
10.7	0.12	0.8	0.0096	1.7856
10.8	0.26	0.6	0.0156	1.8012
10.9	0.1	0.6	0.006	1.8072
11	0.1	0.6	0.006	1.8132
11.1	0.24	0.8	0.0192	1.8324
11.2	0.28	0.6	0.0168	1.8492
11.3	0.28	0.6	0.0168	1.866
11.4	0.26	0.6	0.0156	1.8816
11.5	0.04	0	0	1.8816
11.6	0.05	0	0	1.8816
11.7	0.05	0	0	1.8816
11.8	0.06	0.4	0.0024	1.884
11.9	0.1	0.4	0.004	1.888
12	0.1	0.6	0.006	1.894
12.1	0	0	0	1.894
12.2	0.02	0	0	1.894
12.3	0.02	0	0	1.894
12.4	0.05	0.4	0.002	1.896
12.5	0.24	0.6	0.0144	1.9104
12.6	0.12	0.6	0.0072	1.9176
12.7	0.12	0.6	0.0072	1.9248
12.8	0.1	0.6	0.006	1.9308
12.9	0.1	0.4	0.004	1.9348
13	0.1	0.2	0.002	1.9368
13.1	0.22	0.2	0.0044	1.9412
13.2	0.18	0.2	0.0036	1.9448
13.3	0.12	0.4	0.0048	1.9496
13.4	0.12	0.2	0.0024	1.952
13.5	0.1	0	0	1.952
13.6	0.1	0	0	1.952
13.7	0.12	0.2	0.0024	1.9544
13.8	0.14	0	0	1.9544
13.9	0.05	0	0	1.9544
14	0.05	0	0	1.9544
14.1	0.05	0	0	1.9544
14.2	0.05	0	0	1.9544
14.3	0.05	0	0	1.9544
14.4	0.05	0	0	1.9544
14.5	0.05	0	0	1.9544
14.6	0	0	0	1.9544

SURFACE WATER FLOW MEASUREMENT DATA SHEET

	Location:	Key Transition Site	*Date:*	10/20/18
	SECTION AREA (sq. ft):	3.785	*TOTAL FLOW (CFS):*	0.7756
Cumulative Section Length	**Depth (ft)**	**Flow Velocity (ft/sec)**	**Sectional Flow (cfs)**	**Cumulative Flow**
0	0.3	0.2		
0.1	0.3	0.3	0.009	0
0.2	0.3	0.4	0.012	0
0.3	0.36	0.6	0.0216	0
0.4	0.35	0.6	0.021	0.021
0.5	0.38	0.6	0.0228	0.0438
0.6	0.4	0.4	0.016	0.0598
0.7	0.4	0.4	0.016	0.0758
0.8	0.4	0.2	0.008	0.0838
0.9	0.35	0.2	0.007	0.0908
1	0.36	0.2	0.0072	0.098
1.1	0.38	0.4	0.0152	0.1132
1.2	0.4	0.4	0.016	0.1292
1.3	0.42	0.2	0.0084	0.1376
1.4	0.46	0.6	0.0276	0.1652
1.5	0.42	0.6	0.0252	0.1904
1.6	0.48	0.6	0.0288	0.2192
1.7	0.44	0.4	0.0176	0.2368
1.8	0.42	0.2	0.0084	0.2452
1.9	0.42	0.2	0.0084	0.2536
2	0.42	0.2	0.0084	0.262
2.1	0.42	0.2	0.0084	0.2704
2.2	0.36	0.2	0.0072	0.2776
2.3	0.32	0.2	0.0064	0.284
2.4	0.38	0.2	0.0076	0.2916
2.5	0.38	0.4	0.0152	0.3068
2.6	0.28	0.4	0.0112	0.318
2.7	0.3	0.2	0.006	0.324
2.8	0.34	0.2	0.0068	0.3308
2.9	0.36	0.2	0.0072	0.338
3	0.36	0.2	0.0072	0.3452
3.1	0.34	0.6	0.0204	0.3656
3.2	0.32	0.6	0.0192	0.3848
3.3	0.34	0.4	0.0136	0.3984
3.4	0.4	0.4	0.016	0.4144
3.5	0.34	0.2	0.0068	0.4212
3.6	0.4	0.2	0.008	0.4292
3.7	0.38	0	0	0.4292
3.8	0.4	0.2	0.008	0.4372
3.9	0.38	0.2	0.0076	0.4448
4	0.4	0.2	0.008	0.4528
4.1	0.42	0.2	0.0084	0.4612
4.2	0.46	0.2	0.0092	0.4704
4.3	0.42	0.4	0.0168	0.4872
4.4	0.4	0.4	0.016	0.5032
4.5	0.38	0.4	0.0152	0.5184
4.6	0.38	0.4	0.0152	0.5336
4.7	0.45	0.4	0.018	0.5516
4.8	0.42	0.4	0.0168	0.5684
4.9	0.4	0.4	0.016	0.5844
5	0.36	0.4	0.0144	0.5988
5.1	0.4	0.2	0.008	0.6068
5.2	0.4	0.2	0.008	0.6148
5.3	0.38	0.2	0.0076	0.6224
5.4	0.32	0.2	0.0064	0.6288
5.5	0.36	0.2	0.0072	0.636
5.6	0.32	0.2	0.0064	0.6424
5.7	0.28	0.2	0.0056	0.648
5.8	0.28	0.2	0.0056	0.6536
5.9	0.2	0	0	0.6536
6	0.26	0	0	0.6536
6.1	0.26	0	0	0.6536
6.2	0.2	0	0	0.6536
6.3	0.2	0	0	0.6536
6.4	0.18	0	0	0.6536
6.5	0.18	0	0	0.6536
6.6	0.1	0	0	0.6536
6.7	0.16	0	0	0.6536
6.8	0.14	0	0	0.6536
6.9	0.1	0	0	0.6536
7	0.1	0	0	0.6536
7.1	0.1	0	0	0.6536
7.2	0.12	0	0	0.6536
7.3	0.2	0	0	0.6536
7.2	0.2	0	0	0.6536
7.5	0.2	0	0	0.6536
7.6	0.2	0	0	0.6536
7.7	0.24	0	0	0.6536
7.8	0.22	0	0	0.6536
7.9	0.2	0	0	0.6536
8	0.2	0	0	0.6536
8.1	0.22	0	0	0.6536
8.2	0.24	0	0	0.6536
8.3	0.24	0	0	0.6536
8.4	0.24	0	0	0.6536
8.5	0.2	0	0	0.6536
8.6	0.2	0	0	0.6536
8.7	0.16	0	0	0.6536
8.8	0.1	0	0	0.6536
8.9	0.12	0	0	0.6536
9	0.24	0	0	0.6536
9.1	0.2	0	0	0.6536
9.2	0.24	0	0	0.6536
9.3	0.24	0.1	0.0024	0.656
9.4	0.1	0	0	0.656
9.5	0.26	0.2	0.0052	0.6612
9.6	0.26	0.2	0.0052	0.6664
9.7	0.22	0.4	0.0088	0.6752
9.8	0.22	0.2	0.0044	0.6796
9.9	0.26	0.2	0.0052	0.6848
10	0.26	0.2	0.0052	0.69
10.1	0.26	0.4	0.0104	0.7004
10.2	0.26	0.2	0.0052	0.7056
10.3	0.24	0.2	0.0048	0.7104
10.4	0.2	0.2	0.004	0.7144
10.5	0.2	0.2	0.004	0.7184
10.6	0.1	0.2	0.002	0.7204
10.7	0.1	0.4	0.004	0.7244
10.8	0.18	0.4	0.0072	0.7316
10.9	0.2	0.2	0.004	0.7356
11	0.26	0.2	0.0052	0.7408
11.1	0.24	0	0	0.7408
11.2	0.2	0	0	0.7408
11.3	0.22	0	0	0.7408
11.4	0.24	0	0	0.7408
11.5	0.24	0	0	0.7408
11.6	0.26	0.2	0.0052	0.746
11.7	0.2	0	0	0.746
11.8	0.22	0.2	0.0044	0.7504
11.9	0.26	0	0	0.7504
12	0.28	0.2	0.0056	0.756
12.1	0.24	0	0	0.756
12.2	0.24	0	0	0.756
12.3	0.24	0.2	0.0048	0.7608
12.4	0.2	0.2	0.004	0.7648
12.5	0.24	0.2	0.0048	0.7696
12.6	0.2	0.2	0.004	0.7736
12.7	0.18	0	0	0.7736
12.8	0.08	0	0	0.7736
12.9	0.2	0	0	0.7736
13	0.24	0	0	0.7736
13.1	0.22	0	0	0.7736
13.2	0.12	0	0	0.7736
13.3	0.2	0	0	0.7736
13.4	0.14	0	0	0.7736
13.5	0.1	0	0	0.7736
13.6	0.08	0	0	0.7736
13.7	0.18	0	0	0.7736
13.8	0.1	0	0	0.7736
13.9	0.1	0.2	0.002	0.7756
14	0.12	0	0	0.7756
14.1	0	0	0	0.7756

SURFACE WATER FLOW MEASUREMENT DATA SHEET

Location:	Key Transition Site	*Date:*	11/9/18
SECTION AREA (sq. ft):	3.934887139	*TOTAL FLOW (CFS):*	1.94

Cumulative Section Length	Depth (ft)	Flow Velocity (ft/sec)	Sectional Flow (cfs)	Cumulative Flow
0	0.00	0		
0.1	0.31	0	0.00	0.00
0.2	0.31	0	0.00	0.00
0.3	0.30	0.2	0.01	0.01
0.4	0.36	0.3	0.01	0.02
0.5	0.33	0.2	0.01	0.02
0.6	0.33	0.4	0.01	0.04
0.7	0.34	0.2	0.01	0.04
0.8	0.36	0.2	0.01	0.05
0.9	0.34	0.2	0.01	0.06
1	0.46	0.2	0.01	0.07
1.1	0.46	0.2	0.01	0.08
1.2	0.44	0.2	0.01	0.08
1.3	0.46	0.4	0.02	0.10
1.4	0.44	0.6	0.03	0.13
1.5	0.42	0.6	0.03	0.15
1.6	0.39	0.6	0.02	0.18
1.7	0.38	0.5	0.02	0.20
1.8	0.39	0.6	0.02	0.22
1.9	0.49	0.4	0.02	0.24
2	0.46	0.4	0.02	0.26
2.1	0.43	0.6	0.03	0.28
2.2	0.43	0.8	0.03	0.32
2.3	0.46	0.8	0.04	0.36
2.4	0.46	0.7	0.03	0.39
2.5	0.44	0.8	0.04	0.42
2.6	0.43	0.8	0.03	0.46
2.7	0.48	0.8	0.04	0.50
2.8	0.52	0.8	0.04	0.54
2.9	0.49	0.6	0.03	0.57
3	0.49	0.7	0.03	0.60
3.1	0.46	1	0.05	0.65
3.2	0.39	1	0.04	0.69
3.3	0.33	1.2	0.04	0.73
3.4	0.30	1.1	0.03	0.76
3.5	0.28	1	0.03	0.79
3.6	0.33	1	0.03	0.82
3.7	0.34	1.2	0.04	0.86
3.8	0.33	1	0.03	0.89
3.9	0.31	0.8	0.02	0.92
4	0.31	0.6	0.02	0.94
4.1	0.38	0.4	0.02	0.95
4.2	0.36	0.2	0.01	0.96
4.3	0.34	0.6	0.02	0.98
4.4	0.36	0.8	0.03	1.01
4.5	0.36	1	0.04	1.05
4.6	0.33	0.8	0.03	1.07
4.7	0.31	0.6	0.02	1.09
4.8	0.30	0.6	0.02	1.11
4.9	0.30	0.6	0.02	1.13
5	0.33	0.6	0.02	1.15
5.1	0.33	0.6	0.02	1.17
5.2	0.38	0.8	0.03	1.20
5.3	0.39	1	0.04	1.23
5.4	0.33	0.6	0.02	1.25
5.5	0.33	0.4	0.01	1.27
5.6	0.26	0.2	0.01	1.27
5.7	0.26	0.2	0.01	1.28
5.8	0.30	0	0.00	1.28
5.9	0.30	0	0.00	1.28
6	0.36	0	0.00	1.28
6.1	0.39	0.3	0.01	1.29
6.2	0.38	0.6	0.02	1.31
6.3	0.36	0.8	0.03	1.34
6.4	0.30	0.7	0.02	1.36
6.5	0.30	0.6	0.02	1.38
6.6	0.30	0.6	0.02	1.40
6.7	0.28	0.6	0.02	1.41
6.8	0.26	0.6	0.02	1.43
6.9	0.28	0.6	0.02	1.45
7	0.39	0.6	0.02	1.47
7.1	0.39	0.5	0.02	1.49
7.2	0.43	0.6	0.03	1.52
7.3	0.39	0.6	0.02	1.54
7.4	0.36	0.6	0.02	1.56
7.5	0.36	0.6	0.02	1.58
7.6	0.36	0.4	0.01	1.60
7.7	0.34	0.5	0.02	1.61
7.8	0.30	0.4	0.01	1.63
7.9	0.26	0.4	0.01	1.64
8	0.26	0.4	0.01	1.65
8.1	0.28	0.4	0.01	1.66
8.2	0.26	0.4	0.01	1.67
8.3	0.31	0.6	0.02	1.69
8.4	0.30	0.6	0.02	1.71
8.5	0.30	0.4	0.01	1.72
8.6	0.30	0.2	0.01	1.72
8.7	0.28	0.4	0.01	1.73
8.8	0.26	0.2	0.01	1.74
8.9	0.26	0.2	0.01	1.74
9	0.26	0.6	0.02	1.76
9.1	0.20	0.6	0.01	1.77
9.2	0.28	0.6	0.02	1.79
9.3	0.28	0.4	0.01	1.80
9.4	0.25	0.2	0.01	1.81
9.5	0.22	0.2	0.00	1.81
9.6	0.24	0.2	0.00	1.81
9.7	0.27	0.4	0.01	1.83
9.8	0.28	0.4	0.01	1.84
9.9	0.27	0.2	0.01	1.84
10	0.26	0.2	0.01	1.85
10.1	0.24	0.2	0.00	1.85
10.2	0.25	0.2	0.00	1.86
10.3	0.24	0.2	0.00	1.86
10.4	0.20	0.2	0.00	1.87
10.5	0.20	0.2	0.00	1.87
10.6	0.19	0.2	0.00	1.87
10.7	0.17	0.4	0.01	1.88
10.8	0.20	0.4	0.01	1.89
10.9	0.18	0.4	0.01	1.90
11	0.19	0.2	0.00	1.90
11.1	0.25	0.2	0.00	1.90
11.2	0.29	0.2	0.01	1.91
11.3	0.27	0.2	0.01	1.92
11.4	0.18	0.2	0.00	1.92
11.5	0.17	0.4	0.01	1.93
11.6	0.17	0	0.00	1.93
11.7	0.15	0	0.00	1.93
11.8	0.21	0	0.00	1.93
11.9	0.20	0.2	0.00	1.93
12	0.19	0.2	0.00	1.93
12.1	0.11	0	0.00	1.93
12.2	0.16	0.2	0.00	1.94
12.3	0.15	0.2	0.00	1.94
12.4	0.11	0	0.00	1.94
12.5	0.14	0	0.00	1.94
12.6	0.10	0	0.00	1.94
12.7	0	0	0.00	1.94

SURFACE WATER FLOW MEASUREMENT DATA SHEET

	Location:	Key Transition Site	*Date:*	3/15/19
	SECTION AREA (sq. ft):	61.36638058	*TOTAL FLOW (CFS):*	155.3781079

Cumulative Section Length	Depth (ft)	Flow Velocity (ft/sec)	Sectional Flow (cfs)	Cumulative Flow
0.0	0	0	0	0
0.1	0.07	0	0	0
0.2	0.07	0	0	0
0.3	0.07	0	0	0
0.4	0.10	0	0	0
0.5	0.13	0	0	0
0.6	0.20	0	0	0
0.7	0.20	0	0	0
0.8	0.20	0	0	0
0.9	0.26	0	0	0
1	0.34	0.2	0.01	0.01
1.1	0.36	0.2	0.01	0.01
1.2	0.36	0.2	0.01	0.02
1.3	0.48	0.2	0.01	0.03
1.4	0.36	0.1	0.00	0.03
1.5	0.56	0.6	0.03	0.07
1.6	0.54	0.6	0.03	0.10
1.7	0.46	0.8	0.04	0.14
1.8	0.49	0.6	0.03	0.17
1.9	0.49	0.6	0.03	0.20
2	0.49	0.8	0.04	0.24
2.1	0.52	0.6	0.03	0.27
2.2	0.59	0.6	0.04	0.30
2.3	0.62	0.8	0.05	0.35
2.4	0.66	0.8	0.05	0.40
2.5	0.69	1	0.07	0.47
2.6	0.69	1.2	0.08	0.56
2.7	0.69	1	0.07	0.63
2.8	0.69	1.2	0.08	0.71
2.9	0.66	1	0.07	0.77
3	0.71	1	0.07	0.84
3.1	0.72	1	0.07	0.92
3.2	0.89	1.2	0.11	1.02
3.3	0.98	1.5	0.15	1.17
3.4	1.05	1.5	0.16	1.33
3.5	1.13	1.7	0.19	1.52
3.6	1.15	1.5	0.17	1.69
3.7	1.15	1.5	0.17	1.86
3.8	1.02	1.3	0.13	2.00
3.9	1.21	2.3	0.28	2.28
4	1.21	2.1	0.25	2.53
4.1	1.28	2.3	0.29	2.83
4.2	1.28	2.5	0.32	3.15
4.3	1.28	2.5	0.32	3.47
4.4	1.25	2.7	0.34	3.80
4.5	0.98	2.7	0.27	4.07
4.6	1.15	2.5	0.29	4.35
4.7	0.98	2.9	0.29	4.64
4.8	1.18	2.7	0.32	4.96
4.9	1.38	2.7	0.37	5.33
5	1.35	2.7	0.36	5.69
5.1	1.28	2.5	0.32	6.01
5.2	1.25	2.3	0.29	6.30
5.3	1.21	3.1	0.38	6.68
5.4	1.21	2.9	0.35	7.03
5.5	1.25	3.1	0.39	7.42
5.6	1.18	3.1	0.37	7.78
5.7	1.15	2.9	0.33	8.11
5.8	1.18	3.1	0.37	8.48
5.9	1.18	2.7	0.32	8.80
6	1.18	2.3	0.27	9.07
6.1	1.18	2.5	0.30	9.37
6.2	1.18	3.1	0.37	9.73
6.3	1.21	2.9	0.35	10.08
6.4	1.35	2.9	0.39	10.47
6.5	1.51	2.7	0.41	10.88
6.6	1.57	2.5	0.39	11.28
6.7	1.51	2.9	0.44	11.71
6.8	1.54	3.1	0.48	12.19
6.9	1.57	3.1	0.49	12.68
7	1.54	3.1	0.48	13.16
7.1	1.48	3.1	0.46	13.62
7.2	1.48	3.3	0.49	14.10
7.3	1.51	3.5	0.53	14.63
7.4	1.57	3.1	0.49	15.12
7.5	1.38	2.9	0.40	15.52
7.6	1.35	2.9	0.39	15.91
7.7	1.48	2.7	0.40	16.31
7.8	1.48	3.1	0.46	16.77
7.9	1.48	3.1	0.46	17.22
8	1.44	3.3	0.48	17.70
8.1	1.38	3.5	0.48	18.18
8.2	1.57	3.5	0.55	18.73
8.3	1.61	3.5	0.56	19.30
8.4	1.57	3.3	0.52	19.82
8.5	1.67	3.5	0.59	20.40
8.6	1.64	3.3	0.54	20.94
8.7	1.74	3.9	0.68	21.62
8.8	1.64	3.7	0.61	22.23
8.9	1.67	3.3	0.55	22.78
9	1.61	3.7	0.59	23.37
9.1	1.64	3.5	0.57	23.95
9.2	1.71	3.8	0.65	24.60
9.3	1.64	3.5	0.57	25.17
9.4	1.64	3.3	0.54	25.71
9.5	1.71	3.5	0.60	26.31
9.6	1.57	4	0.63	26.94
9.7	1.64	3.8	0.62	27.56
9.8	1.51	3.8	0.57	28.14
9.9	1.51	4	0.60	28.74
10	1.51	3.5	0.53	29.27
10.1	1.54	4	0.62	29.88
10.2	1.61	3.8	0.61	30.50
10.3	1.61	3.1	0.50	30.99
10.4	1.57	4	0.63	31.62
10.5	1.57	3.5	0.55	32.18
10.6	1.57	3.7	0.58	32.76
10.7	1.57	3.5	0.55	33.31
10.8	1.57	3.3	0.52	33.83
10.9	1.64	3.1	0.51	34.34
11	1.57	3.1	0.49	34.83
11.1	1.57	3.3	0.52	35.34
11.2	1.64	2.7	0.44	35.79
11.3	1.61	2.5	0.40	36.19
11.4	1.57	2.5	0.39	36.58
11.5	1.61	2.9	0.47	37.05
11.6	1.61	3.1	0.50	37.55
11.7	1.48	3.5	0.52	38.06
11.8	1.64	3.3	0.54	38.61
11.9	1.67	3.5	0.59	39.19
12	1.61	3.3	0.53	39.72
12.1	1.57	3.5	0.55	40.27
12.2	1.57	3.1	0.49	40.76
12.3	1.61	3.8	0.61	41.37
12.4	1.57	4	0.63	42.00
12.5	1.54	3.8	0.59	42.59
12.6	1.57	4	0.63	43.22
12.7	1.51	3.8	0.57	43.79
12.8	1.51	3.8	0.57	44.37
12.9	1.48	4	0.59	44.96
13	1.48	3.8	0.56	45.52
13.1	1.48	3.8	0.56	46.08
13.2	1.51	3.7	0.56	46.64
13.3	1.57	3.5	0.55	47.19
13.4	1.61	3.5	0.56	47.75
13.5	1.54	2.7	0.42	48.17
13.6	1.51	3.1	0.47	48.63
13.7	1.51	3.1	0.47	49.10
13.8	1.48	3.3	0.49	49.59
13.9	1.51	3.3	0.50	50.09
14	1.48	3.1	0.46	50.55
14.1	1.51	2.9	0.44	50.98
14.2	1.54	2.9	0.45	51.43
14.3	1.51	3.1	0.47	51.90
14.4	1.57	3.1	0.49	52.39
14.5	1.57	3.1	0.49	52.87
14.6	1.61	3.3	0.53	53.40
14.7	1.51	3.1	0.47	53.87
14.8	1.54	2.9	0.45	54.32
14.9	1.51	2.9	0.44	54.76
15	1.51	3.1	0.47	55.23
15.1	1.51	3.1	0.47	55.69
15.2	1.61	2.9	0.47	56.16
15.3	1.61	2.9	0.47	56.63
15.4	1.57	2.9	0.46	57.08
15.5	1.57	3.1	0.49	57.57
15.6	1.48	3.3	0.49	58.06
15.7	1.44	2.9	0.42	58.48
15.8	1.44	3.3	0.48	58.95
15.9	1.48	3.1	0.46	59.41
16	1.51	3.3	0.50	59.91
16.1	1.54	3.5	0.54	60.45
16.2	1.38	3.7	0.51	60.96
16.3	1.31	3.8	0.50	61.46
16.4	1.28	3.5	0.45	61.90
16.5	1.25	3.7	0.46	62.37
16.6	1.21	3.5	0.42	62.79
16.7	1.28	3.8	0.49	63.28
16.8	1.48	3.5	0.52	63.79
16.9	1.48	4	0.59	64.38
17	1.38	3.3	0.45	64.84
17.1	1.41	3.5	0.49	65.33
17.2	1.44	3.3	0.48	65.81
17.3	1.44	3.1	0.45	66.26
17.4	1.51	2.9	0.44	66.69
17.5	1.57	3.1	0.49	67.18
17.6	1.61	3.3	0.53	67.71
17.7	1.61	3.1	0.50	68.21
17.8	1.61	2.9	0.47	68.68
17.9	1.57	2.5	0.39	69.07
18	1.61	2.3	0.37	69.44
18.1	1.51	2.1	0.32	69.76
18.2	1.51	2.3	0.35	70.10
18.3	1.48	2.3	0.34	70.44
18.4	1.41	1.5	0.21	70.66
18.5	1.51	1.5	0.23	70.88
18.6	1.51	1.5	0.23	71.11
18.7	1.51	1.3	0.20	71.30
18.8	1.54	0.4	0.06	71.37
18.9	1.54	0.6	0.09	71.46
19	1.57	2.9	0.46	71.92
19.1	1.57	2.7	0.43	72.34
19.2	1.31	2.9	0.38	72.72
19.3	1.38	3.1	0.43	73.15
19.4	1.35	3.5	0.47	73.62
19.5	1.38	3.3	0.45	74.07
19.6	1.41	3.3	0.47	74.54
19.7	1.41	3.1	0.44	74.98
19.8	1.41	3.3	0.47	75.44
19.9	1.44	3.1	0.45	75.89
20	1.44	3.3	0.48	76.37
20.1	1.48	3.3	0.49	76.85
20.2	1.48	3.3	0.49	77.34
20.3	1.48	3.3	0.49	77.83
20.4	1.44	3.1	0.45	78.28
20.5	1.41	3.1	0.44	78.71
20.6	1.41	2.9	0.41	79.12
20.7	1.44	3.1	0.45	79.57
20.8	1.38	2.9	0.40	79.97
20.9	1.41	3.1	0.44	80.41
21	1.41	3.1	0.44	80.84
21.1	1.28	2.9	0.37	81.22
21.2	1.25	3.1	0.39	81.60
21.3	1.25	2.9	0.36	81.96
21.4	1.28	3.1	0.40	82.36
21.5	1.12	2.9	0.32	82.68
21.6	1.15	3.3	0.38	83.06
21.7	1.12	3.1	0.35	83.41
21.8	1.05	3.1	0.33	83.73
21.9	1.08	3.3	0.36	84.09
22	1.08	3.1	0.34	84.43
22.1	1.08	3.1	0.34	84.76
22.2	1.12	3.1	0.35	85.11
22.3	1.12	3.1	0.35	85.45
22.4	1.15	2.9	0.33	85.79
22.5	1.18	2.9	0.34	86.13
22.6	1.48	2.9	0.43	86.56
22.7	1.48	2.7	0.40	86.96
22.8	1.54	2.7	0.42	87.37
22.9	1.54	2.7	0.42	87.79
23	1.51	2.9	0.44	88.23
23.1	1.54	2.5	0.39	88.61
23.2	1.51	2.9	0.44	89.05
23.3	1.57	2.9	0.46	89.51
23.4	1.51	2.7	0.41	89.91
23.5	1.48	2.7	0.40	90.31
23.6	1.41	2.5	0.35	90.66
23.7	1.41	2.5	0.35	91.02
23.8	1.28	2.3	0.29	91.31
23.9	1.35	2.7	0.36	91.68
24	1.31	2.7	0.35	92.03
24.1	1.31	2.5	0.33	92.36
24.2	1.31	2.7	0.35	92.71
24.3	1.31	2.7	0.35	93.07
24.4	1.35	2.5	0.34	93.40
24.5	1.35	2.7	0.36	93.77
24.6	1.41	2.7	0.38	94.15
24.7	1.38	2.5	0.34	94.49
24.8	0.92	2.9	0.27	94.76
24.9	0.95	2.5	0.24	95.00
25	0.92	3.1	0.28	95.28
25.1	0.95	2.7	0.26	95.54
25.2	1.25	2.7	0.34	95.87
25.3	1.25	2.7	0.34	96.21
25.4	1.21	2.9	0.35	96.56
25.5	1.21	2.9	0.35	96.91
25.6	1.28	2.9	0.37	97.29
25.7	1.28	3.3	0.42	97.71
25.8	1.28	2.9	0.37	98.08
25.9	1.25	2.9	0.36	98.44
26	1.25	3.1	0.39	98.83
26.1	1.35	3.5	0.47	99.30
26.2	1.38	3.1	0.43	99.72
26.3	1.38	3.1	0.43	100.15
26.4	1.38	3.3	0.45	100.61
26.5	1.38	3.5	0.48	101.09
26.6	1.31	3.1	0.41	101.50
26.7	1.28	3.1	0.40	101.89
26.8	1.31	3.5	0.46	102.35
26.9	1.28	3.3	0.42	102.77
27	1.28	3.3	0.42	103.20
27.1	1.28	3.1	0.40	103.59
27.2	1.25	3.5	0.44	104.03
27.3	1.21	3.5	0.42	104.45
27.4	1.15	3.1	0.36	104.81
27.5	1.18	2.9	0.34	105.15
27.6	1.15	2.9	0.33	105.49
27.7	1.18	2.7	0.32	105.80
27.8	1.18	2.9	0.34	106.15
27.9	1.15	2.3	0.26	106.41
28	1.18	2.5	0.30	106.71
28.1	1.18	1.9	0.22	106.93
28.2	1.18	2.5	0.30	107.23
28.3	0.95	2.7	0.26	107.48
28.4	1.05	2.7	0.28	107.77
28.5	1.28	2.5	0.32	108.09
28.6	1.25	3.1	0.39	108.47
28.7	1.25	3.1	0.39	108.86
28.8	1.21	3.3	0.40	109.26
28.9	1.21	3.1	0.38	109.64
29	1.18	2.9	0.34	109.98
29.1	1.12	2.9	0.32	110.30
29.2	1.12	2.9	0.32	110.63
29.3	1.08	3.1	0.34	110.96
29.4	1.12	2.9	0.32	111.28
29.5	1.15	2.7	0.31	111.59
29.6	1.18	2.7	0.32	111.91
29.7	1.18	3.1	0.37	112.28
29.8	1.15	3.1	0.36	112.64
29.9	1.15	2.9	0.33	112.97
30	1.15	2.9	0.33	113.30
30.1	0.98	2.9	0.29	113.59
30.2	0.98	2.7	0.27	113.85
30.3	1.08	2.3	0.25	114.10
30.4	1.08	2.7	0.29	114.39
30.5	1.12	2.5	0.28	114.67
30.6	1.12	2.1	0.23	114.91
30.7	1.08	1.8	0.19	115.10
30.8	1.05	1.5	0.16	115.26
30.9	0.98	1.3	0.13	115.39
31	0.98	1.9	0.19	115.57
31.1	0.98	1.2	0.12	115.69
31.2	0.98	1.9	0.19	115.88
31.3	1.02	1.7	0.17	116.05
31.4	0.98	1.9	0.19	116.24
31.5	1.02	1.7	0.17	116.41
31.6	1.02	2.5	0.25	116.67
31.7	0.98	2.5	0.25	116.91
31.8	0.92	2.5	0.23	117.14
31.9	0.98	2.5	0.25	117.39
32	0.98	2.7	0.27	117.65
32.1	1.02	2.7	0.27	117.93
32.2	0.98	2.9	0.29	118.21
32.3	1.02	2.5	0.25	118.47
32.4	0.98	2.1	0.21	118.68
32.5	0.95	2.3	0.22	118.89
32.6	0.98	2.1	0.21	119.10
32.7	1.05	2.1	0.22	119.32
32.8	1.12	2.5	0.28	119.60
32.9	1.12	2.1	0.23	119.83
33	1.08	2.7	0.29	120.13
33.1	0.92	2.5	0.23	120.36
33.2	0.92	2.3	0.21	120.57
33.3	0.89	2.1	0.19	120.75
33.4	0.98	2.3	0.23	120.98
33.5	0.95	2.5	0.24	121.22
33.6	0.98	2.9	0.29	121.50
33.7	0.98	2.9	0.29	121.79
33.8	1.08	2.9	0.31	122.10
33.9	1.05	2.9	0.30	122.41
34	1.05	3.1	0.33	122.73
34.1	1.05	2.9	0.30	123.04
34.2	1.02	3.1	0.32	123.35
34.3	1.02	3.1	0.32	123.67
34.4	1.05	2.9	0.30	123.97
34.5	1.02	2.9	0.29	124.27
34.6	1.05	3.1	0.33	124.59
34.7	0.98	3.1	0.31	124.90
34.8	0.98	2.5	0.25	125.14
34.9	0.95	2.9	0.28	125.42
35	1.02	2.5	0.25	125.67
35.1	1.02	2.5	0.25	125.93
35.2	0.98	2.5	0.25	126.17
35.3	0.98	2.7	0.27	126.44
35.4	0.98	2.5	0.25	126.69
35.5	0.82	2.9	0.24	126.92
35.6	0.82	2.5	0.21	127.13
35.7	0.85	2.7	0.23	127.36
35.8	0.85	2.7	0.23	127.59
35.9	0.89	2.5	0.22	127.81
36	0.89	2.5	0.22	128.03
36.1	0.79	2.5	0.20	128.23
36.2	0.82	2.1	0.17	128.40
36.3	0.98	2.5	0.25	128.65
36.4	0.98	1.7	0.17	128.82
36.5	1.02	1.9	0.19	129.01
36.6	0.98	2.3	0.23	129.23
36.7	0.95	2.5	0.24	129.47
36.8	0.95	2.5	0.24	129.71
36.9	0.92	2.9	0.27	129.98
37	0.92	2.7	0.25	130.22
37.1	0.92	2.9	0.27	130.49
37.2	0.89	2.9	0.26	130.75
37.3	0.92	2.7	0.25	131.00
37.4	0.92	2.3	0.21	131.21
37.5	0.95	2.5	0.24	131.45
37.6	0.98	1.3	0.13	131.57
37.7	0.98	1.3	0.13	131.70
37.8	0.85	1.2	0.10	131.80
37.9	0.85	1.5	0.13	131.93
38	0.85	1.7	0.15	132.08
38.1	0.89	1.5	0.13	132.21
38.2	0.89	1.5	0.13	132.34
38.3	0.92	2.3	0.21	132.55
38.4	0.89	2.3	0.20	132.76
38.5	0.89	2.5	0.22	132.98
38.6	0.92	2.7	0.25	133.23
38.7	0.92	2.5	0.23	133.46
38.8	0.98	2.5	0.25	133.70
38.9	0.98	2.7	0.27	133.97
39	0.95	2.7	0.26	134.23
39.1	0.98	2.3	0.23	134.45
39.2	0.95	2.1	0.20	134.65
39.3	0.85	2.3	0.20	134.85
39.4	0.89	2.7	0.24	135.09
39.5	0.85	2.9	0.25	135.33
39.6	0.85	2.9	0.25	135.58
39.7	0.82	2.9	0.24	135.82
39.8	0.82	2.7	0.22	136.04
39.9	0.79	3.1	0.24	136.28
40	0.89	2.7	0.24	136.52
40.1	0.89	2.7	0.24	136.76
40.2	0.92	2.7	0.25	137.01
40.3	0.92	2.5	0.23	137.24
40.4	0.95	2.7	0.26	137.50
40.5	0.98	2.7	0.27	137.76
40.6	0.98	2.5	0.25	138.01
40.7	0.95	2.5	0.24	138.25
40.8	0.95	2.5	0.24	138.49
40.9	0.95	2.7	0.26	138.74
41	0.98	2.7	0.27	139.01
41.1	0.98	2.5	0.25	139.25
41.2	0.95	1.9	0.18	139.43
41.3	0.98	2.1	0.21	139.64
41.4	0.95	2.5	0.24	139.88
41.5	0.92	2.7	0.25	140.13
41.6	0.89	3.1	0.27	140.40
41.7	0.89	2.9	0.26	140.66
41.8	0.89	2.7	0.24	140.90
41.9	0.85	2.9	0.25	141.15
42	0.85	2.7	0.23	141.38
42.1	0.89	2.9	0.26	141.63
42.2	0.89	2.5	0.22	141.85
42.3	0.89	2.5	0.22	142.08
42.4	0.85	2.3	0.20	142.27
42.5	0.89	2.1	0.19	142.46
42.6	0.66	2.3	0.15	142.61
42.7	0.59	2.1	0.12	142.73
42.8	0.62	1.9	0.12	142.85
42.9	0.66	1.9	0.12	142.98
43	0.62	1.7	0.11	143.08
43.1	0.62	1.5	0.09	143.18
43.2	0.62	1.7	0.11	143.28
43.3	0.69	1	0.07	143.35
43.4	0.75	1.3	0.10	143.45
43.5	0.69	1.3	0.09	143.54
43.6	0.69	1.5	0.10	143.64
43.7	0.75	1.7	0.13	143.77
43.8	0.75	1.5	0.11	143.88
43.9	0.75	1.7	0.13	144.01
44	0.72	1.3	0.09	144.10
44.1	0.75	1.2	0.09	144.20
44.2	0.75	1.5	0.11	144.31
44.3	0.72	1.9	0.14	144.45
44.4	0.72	1.5	0.11	144.55
44.5	0.72	1.5	0.11	144.66
44.6	0.75	1.5	0.11	144.78
44.7	0.79	1.3	0.10	144.88
44.8	0.82	1.3	0.11	144.98
44.9	0.92	1.3	0.12	145.10
45	0.89	1	0.09	145.19
45.1	0.89	0.8	0.07	145.26
45.2	0.89	0.6	0.05	145.32
45.3	0.85	0.6	0.05	145.37
45.4	0.89	1.2	0.11	145.47
45.5	0.89	1.3	0.12	145.59
45.6	0.85	1	0.09	145.67
45.7	0.89	0.8	0.07	145.75
45.8	0.85	0.6	0.05	145.80
45.9	0.85	0.8	0.07	145.86
46	0.92	1	0.09	145.96
46.1	0.92	0.8	0.07	146.03
46.2	0.92	0.8	0.07	146.10
46.3	1.02	0.8	0.08	146.18
46.4	1.08	1	0.11	146.29
46.5	1.08	1.5	0.16	146.46
46.6	1.08	0.8	0.09	146.54
46.7	1.05	0.6	0.06	146.61
46.8	1.05	1.2	0.13	146.73
46.9	1.05	1.3	0.14	146.87
47	0.98	0.6	0.06	146.93
47.1	0.98	0.8	0.08	147.01
47.2	0.98	0.6	0.06	147.06
47.3	0.95	0.4	0.04	147.10
47.4	0.95	1	0.10	147.20
47.5	0.95	1.6	0.15	147.35
47.6	0.85	0.8	0.07	147.42
47.7	0.79	0.4	0.03	147.45
47.8	0.72	0.4	0.03	147.48
47.9	0.69	0.8	0.06	147.53
48	0.66	1.2	0.08	147.61
48.1	0.66	1	0.07	147.68
48.2	0.69	1.2	0.08	147.76
48.3	0.69	0.8	0.06	147.82
48.4	0.56	1.3	0.07	147.89
48.5	0.52	1.5	0.08	147.97
48.6	0.56	1.5	0.08	148.05
48.7	0.52	1.5	0.08	148.13
48.8	0.49	1.5	0.07	148.20
48.9	0.49	1.7	0.08	148.29
49	0.46	1.7	0.08	148.36
49.1	0.46	1	0.05	148.41
49.2	0.46	1.5	0.07	148.48
49.3	0.52	0.6	0.03	148.51
49.4	0.52	0.8	0.04	148.55
49.5	0.52	0.6	0.03	148.58
49.6	0.52	0.8	0.04	148.63
49.7	0.49	0.8	0.04	148.67
49.8	0.49	0.8	0.04	148.71
49.9	0.52	0.6	0.03	148.74
50	0.59	1	0.06	148.80
50.1	0.62	0.6	0.04	148.83
50.2	0.62	0.8	0.05	148.88
50.3	0.52	0.8	0.04	148.93
50.4	0.52	0.6	0.03	148.96
50.5	0.46	1	0.05	149.00
50.6	0.56	1.3	0.07	149.08
50.7	0.49	1	0.05	149.12
50.8	0.46	1.2	0.06	149.18
50.9	0.46	1.2	0.06	149.23
51	0.43	1.2	0.05	149.29
51.1	0.43	1.2	0.05	149.34
51.2	0.43	1.3	0.06	149.39
51.3	0.59	1.5	0.09	149.48
51.4	0.62	1.3	0.08	149.56
51.5	0.62	1.5	0.09	149.66
51.6	0.62	1.5	0.09	149.75
51.7	0.59	1.7	0.10	149.85
51.8	0.59	1.7	0.10	149.95
51.9	0.59	1.9	0.11	150.06
52	0.62	1.9	0.12	150.18
52.1	0.62	1.9	0.12	150.30
52.2	0.66	2.1	0.14	150.44
52.3	0.66	2.1	0.14	150.57
52.4	0.66	2.1	0.14	150.71
52.5	0.69	2.3	0.16	150.87
52.6	0.69	2.3	0.16	151.03
52.7	0.69	2.3	0.16	151.19
52.8	0.66	1.9	0.12	151.31
52.9	0.69	2.1	0.14	151.46
53	0.69	1.9	0.13	151.59
53.1	0.66	1.9	0.12	151.71
53.2	0.69	1.7	0.12	151.83
53.3	0.69	1.7	0.12	151.95
53.4	0.66	1.7	0.11	152.06
53.5	0.66	1.7	0.11	152.17
53.6	0.62	1.2	0.07	152.24
53.7	0.59	1.2	0.07	152.32
53.8	0.56	1	0.06	152.37
53.9	0.56	1.7	0.09	152.47
54	0.52	1.2	0.06	152.53
54.1	0.52	1.2	0.06	152.59
54.2	0.56	1.2	0.07	152.66
54.3	0.56	0.8	0.04	152.70
54.4	0.49	0.8	0.04	152.74
54.5	0.43	0.8	0.03	152.78
54.6	0.46	1	0.05	152.82
54.7	0.43	1	0.04	152.87
54.8	0.52	0.6	0.03	152.90
54.9	0.52	0.6	0.03	152.93
55	0.56	0.8	0.04	152.97
55.1	0.52	0.6	0.03	153.01
55.2	0.52	0.8	0.04	153.05
55.3	0.62	1	0.06	153.11
55.4	0.62	1.2	0.07	153.18
55.5	0.62	1.5	0.09	153.28
55.6	0.52	1.7	0.09	153.37
55.7	0.49	1.7	0.08	153.45
55.8	0.49	1.5	0.07	153.52
55.9	0.49	1.5	0.07	153.60
56	0.49	1.9	0.09	153.69
56.1	0.56	1.9	0.11	153.80
56.2	0.56	1.5	0.08	153.88
56.3	0.52	1.9	0.10	153.98
56.4	0.52	1	0.05	154.03
56.5	0.52	0.8	0.04	154.08
56.6	0.56	1	0.06	154.13
56.7	0.56	0.8	0.04	154.18
56.8	0.52	1.5	0.08	154.25
56.9	0.52	1.2	0.06	154.32
57	0.49	1.5	0.07	154.39
57.1	0.49	1.5	0.07	154.47
57.2	0.49	1.3	0.06	154.53
57.3	0.52	1.3	0.07	154.60
57.4	0.49	1	0.05	154.65
57.5	0.49	1.3	0.06	154.71
57.6	0.46	1	0.05	154.76
57.7	0.46	1	0.05	154.80
57.8	0.46	1.2	0.06	154.86
57.9	0.52	1.2	0.06	154.92
58	0.56	1	0.06	154.98
58.1	0.56	0.8	0.04	155.02
58.2	0.56	0.6	0.03	155.05
58.3	0.52	0.8	0.04	155.10
58.4	0.52	0.8	0.04	155.14
58.5	0.49	1	0.05	155.19
58.6	0.46	1	0.05	155.23
58.7	0.49	0.8	0.04	155.27
58.8	0.49	0.6	0.03	155.30
58.9	0.46	0.6	0.03	155.33
59	0.46	0.4	0.02	155.35
59.1	0.39	0.2	0.01	155.36

SURFACE WATER FLOW MEASUREMENT DATA SHEET

Location: **Rte. 150 Bridge** **DATE:** **3/15/19**

SECTION AREA (sq. ft): **55.230** *TOTAL FLOW (CFS):* **58.0813**

Cumulative Section Length	Depth (ft)	Flow Velocity (ft/sec)	Sectional Flow (cfs)	Cumulative Flow
0.0	0.00	0.00	0.000	0.0000
0.1	0.10	0.00	0.000	0.0000
0.2	0.30	0.00	0.000	0.0000
0.3	0.30	0.20	0.006	0.0059
0.4	0.43	0.00	0.000	0.0059
0.5	0.66	0.00	0.000	0.0059
0.6	0.72	0.00	0.000	0.0059
0.7	0.75	0.20	0.015	0.0210
0.8	0.75	0.20	0.015	0.0361
0.9	0.52	0.20	0.010	0.0466
1.0	0.43	0.00	0.000	0.0466
1.1	0.39	0.20	0.008	0.0545
1.2	0.39	0.00	0.000	0.0545
1.3	0.49	0.40	0.020	0.0741
1.4	0.36	0.60	0.022	0.0957
1.5	0.66	0.40	0.026	0.1220
1.6	0.72	0.60	0.043	0.1653
1.7	0.72	1.00	0.072	0.2375
1.8	0.69	0.80	0.055	0.2926
1.9	0.66	0.60	0.039	0.3320
2.0	0.62	1.20	0.075	0.4068
2.1	0.59	1.00	0.059	0.4658
2.2	1.41	0.60	0.085	0.5505
2.3	1.41	0.60	0.085	0.6351
2.4	1.38	0.80	0.110	0.7454
2.5	1.41	0.60	0.085	0.8300
2.6	1.41	0.80	0.113	0.9429
2.7	1.38	0.60	0.083	1.0255
2.8	1.38	1.00	0.138	1.1633
2.9	1.38	0.80	0.110	1.2460
3.0	1.44	0.40	0.115	1.3615
3.1	1.44	0.40	0.058	1.4192
3.2	1.48	0.20	0.030	1.4488
3.3	1.48	0.20	0.030	1.4783
3.4	1.35	0.40	0.054	1.5321
3.5	1.21	0.20	0.024	1.5564
3.6	1.21	0.40	0.049	1.6049
3.7	1.38	0.20	0.028	1.6325
3.8	1.41	0.20	0.028	1.6607
3.9	1.38	0.20	0.028	1.6883
4.0	0.69	0.20	0.014	1.7020
4.1	0.75	0.20	0.015	1.7171
4.2	0.89	0.20	0.018	1.7349
4.3	1.31	0.20	0.026	1.7611
4.4	1.31	0.40	0.052	1.8130
4.5	1.38	0.40	0.055	1.8687
4.6	1.41	0.20	0.028	1.8969
4.7	1.38	0.20	0.028	1.9245
4.8	1.41	0.20	0.028	1.9527
4.9	1.41	0.60	0.085	2.0373
5.0	0.95	0.40	0.038	2.0754
5.1	0.92	0.20	0.018	2.0938
5.2	0.92	0.20	0.018	2.1122
5.3	0.92	0.20	0.018	2.1305
5.4	0.92	0.20	0.018	2.1489
5.5	0.92	0.20	0.018	2.1673
5.6	0.95	0.40	0.038	2.2053
5.7	0.95	0.60	0.057	2.2624
5.8	0.98	0.20	0.020	2.2821
5.9	1.38	0.20	0.028	2.3097
6.0	1.38	0.20	0.028	2.3372
6.1	1.41	0.40	0.056	2.3936
6.2	1.44	0.80	0.115	2.5091
6.3	1.48	0.60	0.089	2.5977
6.4	1.48	0.80	0.118	2.7158
6.5	1.54	1.00	0.154	2.8700
6.6	1.54	1.20	0.185	3.0551
6.7	1.84	0.80	0.147	3.2020
6.8	1.84	1.00	0.184	3.3858
6.9	1.84	1.30	0.239	3.6246
7.0	1.84	1.50	0.276	3.9002
7.1	1.84	1.20	0.220	4.1207
7.2	1.84	1.50	0.276	4.3963
7.3	1.80	1.20	0.217	4.6128
7.4	1.80	1.20	0.217	4.8293
7.5	1.77	1.30	0.301	5.1305
7.6	1.74	1.30	0.226	5.3566
7.7	1.71	1.30	0.222	5.5784
7.8	1.71	1.20	0.205	5.7831
7.9	1.74	1.20	0.209	5.9917
8.0	1.74	1.20	0.209	6.2004
8.1	2.00	1.00	0.200	6.4005
8.2	2.03	1.20	0.244	6.6446
8.3	2.03	0.80	0.163	6.8074
8.4	2.10	0.20	0.252	7.0593
8.5	2.13	0.80	0.171	7.2299
8.6	2.17	1.30	0.281	7.5114
8.7	2.17	0.80	0.173	7.6847
8.8	2.20	1.30	0.286	7.9704
8.9	2.26	1.50	0.340	8.3100
9.0	2.26	1.30	0.294	8.6043
9.1	2.26	1.50	0.340	8.9438
9.2	2.30	1.90	0.436	9.3802
9.3	2.33	1.50	0.349	9.7296
9.4	2.30	1.90	0.436	10.1660
9.5	2.33	1.70	0.396	10.5620
9.6	2.20	1.70	0.374	10.9356
9.7	2.17	1.50	0.325	11.2604
9.8	2.17	1.50	0.325	11.5852
9.9	2.23	1.70	0.379	11.9645
10.0	2.23	1.50	0.335	12.2992
10.1	2.23	1.70	0.379	12.6784
10.2	2.23	1.50	0.335	13.0131
10.3	2.30	1.20	0.276	13.2887
10.4	2.26	1.50	0.340	13.6282
10.5	2.26	1.20	0.272	13.8999
10.6	2.23	1.30	0.290	14.1899
10.7	2.23	1.20	0.268	14.4576
10.8	2.23	1.00	0.223	14.6807
10.9	2.23	1.20	0.268	14.9484
11.0	2.30	1.30	0.299	15.2470
11.1	2.30	1.20	0.276	15.4767
11.2	2.30	1.00	0.230	15.7065
11.3	2.30	1.20	0.276	15.9819
11.4	2.36	1.00	0.236	16.2181
11.5	2.43	1.30	0.316	16.4609
11.6	2.30	1.20	0.276	16.7365
11.7	2.33	1.20	0.280	17.0160
11.8	2.33	1.00	0.233	17.2490
11.9	2.43	1.30	0.316	17.5646
12.0	2.66	1.20	0.319	17.8835
12.1	2.69	1.00	0.269	18.1525
12.2	2.69	1.00	0.269	18.4215
12.3	2.43	1.00	0.243	18.6643
12.4	2.46	1.30	0.320	18.9842
12.5	2.46	1.30	0.320	19.3041
12.6	2.49	1.30	0.324	19.6282
12.7	2.62	1.50	0.394	20.0219
12.8	2.53	1.30	0.328	20.3503
12.9	2.56	1.50	0.384	20.7342
13.0	2.49	1.50	0.374	21.1082
13.1	2.46	1.20	0.295	21.4035
13.2	2.46	1.90	0.468	21.8710
13.3	2.46	1.90	0.468	22.3385
13.4	2.46	1.50	0.369	22.7076
13.5	2.40	1.50	0.359	23.0669
13.6	2.49	1.90	0.474	23.5406
13.7	2.49	1.50	0.374	23.9146
13.8	2.07	1.30	0.269	24.1833
13.9	2.10	1.50	0.315	24.4983
14.0	2.20	1.70	0.374	24.8720
14.1	2.72	1.30	0.354	25.2260
14.2	2.72	1.50	0.408	25.6345
14.3	2.66	1.00	0.266	25.9002
14.4	2.72	1.50	0.408	26.3087
14.5	2.69	1.30	0.350	26.6584
14.6	2.72	1.20	0.327	26.9852
14.7	2.72	1.30	0.354	27.3392
14.8	2.72	1.00	0.272	27.6115
14.9	2.69	1.50	0.404	28.0150
15.0	2.69	1.20	0.323	28.3379
15.1	2.76	1.00	0.276	28.6135
15.2	2.79	1.20	0.335	28.9481
15.3	2.79	1.00	0.279	29.2270
15.4	2.79	1.00	0.279	29.5059
15.5	2.85	1.20	0.343	29.8404
15.6	2.82	1.00	0.282	30.1305
15.7	2.82	1.00	0.282	30.4127
15.8	2.79	1.00	0.279	30.6915
15.9	2.79	0.80	0.223	30.9148
16.0	2.76	1.00	0.276	31.1902
16.1	2.72	0.80	0.218	31.4081
16.2	2.66	0.80	0.213	31.6207
16.3	2.66	1.00	0.266	31.8864
16.4	2.62	0.80	0.210	32.0964
16.5	2.62	0.60	0.157	32.2539
16.6	2.59	0.80	0.207	32.4612
16.7	2.62	0.80	0.210	32.6712
16.8	2.66	0.60	0.159	32.8307
16.9	2.66	0.80	0.213	33.0433
17.0	2.66	1.00	0.266	33.3090
17.1	2.69	1.00	0.269	33.5780
17.2	2.66	1.00	0.266	33.8438
17.3	2.56	1.00	0.256	34.0997
17.4	2.76	1.30	0.358	34.4580
17.5	2.76	1.00	0.276	34.7334
17.6	2.72	1.00	0.272	35.0059
17.7	2.72	1.00	0.272	35.2782
17.8	2.76	0.80	0.220	35.4986
17.9	2.76	1.20	0.331	35.8293
18.0	2.76	1.00	0.276	36.1049
18.1	2.76	0.80	0.220	36.3254
18.2	2.76	1.00	0.276	36.6010
18.3	2.72	1.20	0.327	36.9278
18.4	2.72	1.30	0.354	37.2818
18.5	2.72	1.20	0.327	37.6085
18.6	2.72	1.20	0.327	37.9353
18.7	2.69	1.00	0.269	38.2043
18.8	2.69	1.20	0.323	38.5272
18.9	2.72	0.80	0.218	38.7490
19.0	2.62	1.30	0.339	39.0600
19.1	2.53	1.20	0.303	39.3631
19.2	2.49	1.00	0.249	39.6125
19.3	2.49	1.20	0.299	39.9117
19.4	2.43	1.00	0.243	40.1545
19.5	2.30	1.20	0.276	40.4301
19.6	2.46	1.00	0.246	40.6728
19.7	2.46	1.20	0.295	40.9189
19.8	2.30	0.80	0.184	41.1026
19.9	2.23	0.80	0.178	41.2811
20.0	2.20	0.80	0.176	41.4570
20.1	2.20	0.60	0.132	41.5889
20.2	2.17	0.60	0.130	41.7188
20.3	2.13	1.00	0.213	41.9320
20.4	2.07	0.80	0.165	42.0974
20.5	2.07	0.60	0.124	42.2214
20.6	2.07	0.40	0.083	42.3041
20.7	1.51	0.40	0.060	42.3644
20.8	1.61	0.60	0.096	42.4609
20.9	1.80	0.80	0.144	42.6053
21.0	1.94	0.80	0.155	42.7601
21.1	1.97	0.60	0.118	42.8782
21.2	1.97	0.40	0.079	42.9570
21.3	2.00	0.60	0.120	43.1171
21.4	2.03	0.60	0.122	43.2391
21.5	2.03	0.60	0.122	43.3612
21.6	2.03	0.40	0.081	43.4423
21.7	2.03	0.60	0.122	43.5646
21.8	2.03	0.60	0.122	43.6866
21.9	2.07	0.80	0.165	43.8520
22.0	2.03	0.60	0.122	43.9740
22.1	1.94	1.00	0.194	44.1676
22.2	1.80	1.30	0.235	44.4022
22.3	1.84	1.00	0.184	44.5859
22.4	1.84	1.30	0.239	44.8247
22.5	1.87	1.00	0.187	45.0118
22.6	1.90	1.30	0.247	45.2591
22.7	1.90	1.50	0.285	45.5446
22.8	1.90	1.90	0.362	45.9061
22.9	1.90	1.90	0.362	46.2677
23.0	1.94	2.10	0.406	46.6742
23.1	1.90	1.70	0.323	46.9976
23.2	1.94	1.70	0.329	47.3267
23.3	1.94	1.30	0.252	47.5784
23.4	1.94	1.50	0.290	47.8687
23.5	1.97	1.30	0.256	48.1246
23.6	1.94	1.20	0.232	48.3569
23.7	1.97	1.70	0.335	48.6915
23.8	1.97	1.30	0.256	48.9475
23.9	1.94	1.20	0.232	49.1797
24.0	1.90	1.80	0.342	49.5320
24.1	1.87	1.00	0.187	49.7190
24.2	1.87	1.20	0.224	49.7434
24.3	1.87	1.20	0.224	49.9678
24.4	1.84	1.30	0.239	50.2066
24.5	1.80	1.50	0.270	50.4773
24.6	1.77	1.30	0.230	50.7076
24.7	1.77	1.30	0.230	50.9379
24.8	1.74	1.20	0.209	51.1466
24.9	1.64	1.50	0.246	51.3927
25.0	1.54	1.20	0.185	51.5777
25.1	1.28	1.30	0.166	51.7440
25.2	1.21	1.50	0.182	51.9261
25.3	1.25	1.20	0.150	52.0757
25.4	1.35	1.30	0.175	52.2506
25.5	1.48	1.30	0.192	52.4425
25.6	1.48	1.20	0.177	52.6197
25.7	1.48	1.20	0.177	52.7969
25.8	1.48	1.00	0.148	52.9445
25.9	1.44	1.20	0.173	53.1177
26.0	1.35	1.00	0.135	53.2512
26.1	1.15	1.00	0.115	53.3671
26.2	1.21	1.30	0.158	53.5249
26.3	1.28	1.00	0.128	53.6528
26.4	1.28	1.00	0.128	53.7808
26.5	1.31	1.20	0.157	53.9383
26.6	1.31	1.00	0.131	54.0695
26.7	1.31	0.80	0.105	54.1745
26.8	1.18	0.60	0.071	54.2454
26.9	1.08	0.80	0.087	54.3320
27.0	1.05	1.00	0.105	54.4370
27.1	1.08	0.80	0.087	54.5236
27.2	1.05	0.80	0.084	54.6076
27.3	1.05	0.60	0.063	54.6706
27.4	1.31	0.60	0.079	54.7493
27.5	1.31	0.60	0.079	54.8280
27.6	1.28	0.60	0.077	54.9048
27.7	1.25	0.60	0.075	54.9796
27.8	0.98	0.60	0.059	55.0387
27.9	0.92	0.80	0.073	55.1122
28.0	1.12	1.00	0.112	55.2237
28.1	1.08	1.20	0.130	55.3536
28.2	1.12	1.20	0.134	55.4875
28.3	1.08	1.00	0.108	55.5957
28.4	1.08	1.30	0.140	55.7257
28.5	1.08	1.20	0.130	55.8556
28.6	1.12	1.50	0.168	56.0006
28.7	1.08	1.50	0.162	56.1630
28.8	1.05	1.50	0.157	56.3205
28.9	1.02	1.30	0.132	56.4537
29.0	0.98	1.20	0.118	56.5708
29.1	1.12	1.20	0.134	56.7047
29.2	1.12	1.00	0.112	56.8162
29.3	1.15	1.00	0.115	56.9612
29.4	1.15	1.00	0.115	57.0761
29.5	1.18	1.30	0.154	57.2296
29.6	1.18	1.20	0.142	57.3713
29.7	1.18	1.00	0.118	57.4894
29.8	0.20	1.50	0.030	57.5190
29.9	0.20	1.50	0.030	57.5485
30.0	0.20	1.30	0.026	57.5780
30.1	0.20	1.50	0.030	57.6076
30.2	0.23	0.80	0.018	57.6220
30.3	0.26	1.00	0.026	57.6482
30.4	0.30	1.00	0.030	57.6778
30.5	0.30	0.60	0.018	57.6955
30.6	0.46	0.80	0.037	57.7322
30.7	0.39	0.60	0.024	57.7559
30.8	0.46	0.60	0.028	57.7834
30.9	0.46	0.60	0.028	57.8110
31.0	0.43	0.80	0.034	57.8451
31.1	0.52	0.60	0.031	57.8766
31.2	0.62	0.40	0.025	57.9015
31.3	0.59	0.40	0.024	57.9251
31.4	0.59	0.40	0.024	57.9488
31.5	0.56	0.60	0.033	57.9822
31.6	0.56	0.60	0.033	58.0157
31.7	0.52	0.40	0.021	58.0367
31.8	0.56	0.40	0.045	58.0813
31.9	0.00	0.00	0.000	58.0813

SURFACE WATER FLOW MEASUREMENT DATA SHEET

Location:	Key Transition Site	Date:
SECTION AREA (sq. ft):	28.99278308	TOTAL FLOW (CFS):

Cumulative Section Length	Depth (ft)	Flow Velocity (ft/sec)	Sectional Flow (cfs)	Cumulative Flow
0	0.07	0	0.00	
0.1	0.10	0	0.00	0.00
0.2	0.13	0	0.00	0.00
0.3	0.03	0	0.00	0.00
0.4	0.00	0	0.00	0.00
0.5	0.07	0	0.00	0.00
0.6	0.07	0	0.00	0.00
0.7	0.07	0	0.00	0.00
0.8	0.07	0	0.00	0.00
0.9	0.03	0	0.00	0.00
1	0.03	0	0.00	0.00
1.1	0.07	0	0.00	0.00
1.2	0.10	0	0.00	0.00
1.3	0.13	0	0.00	0.00
1.4	0.16	0	0.00	0.00
1.5	0.20	0	0.00	0.00
1.6	0.26	0	0.00	0.00
1.7	0.26	0	0.00	0.00
1.8	0.26	0	0.00	0.00
1.9	0.33	0	0.00	0.00
2	0.33	0	0.00	0.00
2.1	0.33	0.2	0.01	0.01
2.2	0.36	0.3	0.01	0.02
2.3	0.36	0.2	0.01	0.02
2.4	0.39	0	0.00	0.02
2.5	0.43	0	0.00	0.02
2.6	0.46	0	0.00	0.02
2.7	0.46	0	0.00	0.02
2.8	0.46	0	0.00	0.02
2.9	0.46	0	0.00	0.02
3	0.36	0	0.00	0.02
3.1	0.36	0	0.00	0.02
3.2	0.43	0.3	0.01	0.03
3.3	0.46	0.2	0.01	0.06
3.4	0.46	0.4	0.02	0.08
3.5	0.39	0.2	0.01	0.08
3.6	0.36	0.3	0.01	0.09
3.7	0.33	0.2	0.01	0.10
3.8	0.36	0.3	0.01	0.11
3.9	0.43	0.4	0.02	0.13
4	0.46	0.4	0.02	0.15
4.1	0.46	0.3	0.01	0.16
4.2	0.46	0.4	0.02	0.18
4.3	0.49	0.2	0.01	0.19
4.4	0.52	0.2	0.01	0.20
4.5	0.49	0.2	0.01	0.21
4.6	0.49	0.2	0.01	0.22
4.7	0.39	0.2	0.01	0.23
4.8	0.39	0.2	0.01	0.24
4.9	0.39	0.4	0.02	0.25
5	0.43	0.5	0.02	0.27
5.1	0.43	0.4	0.02	0.29
5.2	0.33	0.7	0.02	0.31
5.3	0.33	0.5	0.02	0.33
5.4	0.33	0.5	0.02	0.35
5.5	0.33	0.6	0.02	0.37
5.6	0.33	0.5	0.02	0.38
5.7	0.33	0.7	0.02	0.40
5.8	0.36	0.7	0.02	0.42
5.9	0.36	1.1	0.05	0.50
6	0.46	1.1	0.05	0.55
6.1	0.56	0.8	0.04	0.59
6.2	0.52	0.6	0.03	0.62
6.3	0.56	0.6	0.03	0.66
6.4	0.56	0.8	0.04	0.70
6.5	0.59	0.5	0.03	0.73
6.6	0.59	0.4	0.02	0.76
6.7	0.59	0.5	0.03	0.78
6.8	0.59	0.6	0.03	0.81
6.9	0.56	0.4	0.02	0.84
7	0.43	0	0.01	0.86
7.1	0.49	0.6	0.02	0.88
7.2	0.46	0.2	0.01	0.89
7.3	0.39	0	0.00	0.89
7.4	0.36	1.5	0.05	1.02
7.5	0.36	1.6	0.05	1.07
7.6	0.26	1.6	0.04	1.11
7.7	0.30	1	0.03	1.14
7.8	0.33	0.8	0.03	1.17
7.9	0.36	1.2	0.04	1.21
8	0.46	1.2	0.06	1.27
8.1	0.59	1.3	0.08	1.35
8.2	0.79	1.3	0.08	1.42
8.3	0.92	1.4	0.07	1.49
8.4	0.92	1.2	0.06	1.56
8.5	0.89	1	0.05	1.60
8.6	0.89	0.4	0.02	1.62
8.7	0.86	0.6	0.03	1.64
8.8	0.85	0.8	0.04	1.69
8.9	0.82	0.3	0.02	1.71
9	0.69	1.5	0.10	1.82
9.1	0.72	1.6	0.12	1.93
9.2	0.69	1.5	0.13	2.06
9.3	0.85	1.3	0.11	2.18
9.4	0.82	1.3	0.11	2.28
9.5	0.82	1.6	0.13	2.41
9.6	0.79	1.5	0.12	2.53
9.7	0.79	1.8	0.14	2.67
9.8	0.82	1.4	0.11	2.78
9.9	0.79	1.6	0.13	2.91
10	0.79	1.5	0.12	3.03
10.1	0.85	1.3	0.12	3.16
10.2	0.89	1.3	0.12	3.28
10.3	0.85	1.5	0.13	3.40
10.4	0.92	1.8	0.17	3.57
10.5	0.92	1.7	0.16	3.73
10.6	0.95	1.8	0.17	3.90
10.7	0.85	1.7	0.15	4.04
10.8	0.82	1.2	0.10	4.14
10.9	0.82	1.2	0.10	4.24
11	0.89	1.7	0.15	4.39
11.1	0.92	1.6	0.15	4.54
11.2	0.89	1.5	0.13	4.67
11.3	0.79	1.5	0.12	4.79
11.4	0.69	1.5	0.09	4.88
11.5	0.66	1.5	0.09	4.97
11.6	0.66	1	0.07	5.03
11.7	0.69	1.5	0.09	5.12
11.8	0.72	1.3	0.09	5.22
11.9	0.75	1.3	0.10	5.32
12	0.69	1.2	0.11	5.42
12.1	0.85	1	0.09	5.51
12.2	0.85	1.3	0.11	5.62
12.3	0.85	1.5	0.13	5.75
12.4	0.89	1.2	0.11	5.86
12.5	0.95	1.3	0.12	5.98
12.6	0.82	1.2	0.10	6.08
12.7	0.95	1.3	0.12	6.20
12.8	0.95	1.3	0.12	6.32
12.9	0.92	1.3	0.12	6.45
13	0.85	1.3	0.11	6.56
13.1	0.79	1.3	0.11	6.67
13.2	0.69	1.3	0.09	6.76
13.3	0.66	1.7	0.09	6.85
13.4	0.52	1.9	0.10	6.95
13.5	0.49	1.5	0.07	7.03
13.6	0.56	1.5	0.08	7.11
13.7	0.52	2.1	0.11	7.22
13.8	0.69	1.7	0.12	7.34
13.9	0.82	1.9	0.16	7.50
14	0.89	1.7	0.17	7.66
14.1	0.92	1.7	0.17	7.83
14.2	0.95	2	0.21	8.04
14.3	0.95	2.3	0.24	8.34
14.4	0.92	2.3	0.23	8.57
14.5	0.98	2.3	0.24	8.80
14.6	1.01	2.2	0.23	9.01
14.7	0.95	2.5	0.25	9.26
14.8	0.98	2	0.20	9.45
14.9	0.95	2.1	0.20	9.65
15	0.95	1.5	0.14	9.80
15.1	0.95	2.3	0.22	10.02
15.2	0.95	2.3	0.22	10.17
15.3	0.98	1.5	0.15	10.32
15.4	1.05	2.9	0.30	10.47
15.5	1.05	2.7	0.28	10.75
15.6	1.12	2.7	0.29	11.03
15.7	1.12	2.7	0.30	11.35
15.8	1.15	2.7	0.26	11.62
15.9	1.12	3.2	0.27	11.89
16	1.15	2.7	0.26	11.95
16.1	1.12	2.5	0.28	12.23
16.2	1.15	1.9	0.22	12.45
16.3	1.12	2.1	0.23	12.66
16.4	1.21	1.7	0.21	12.87
16.5	1.21	1.9	0.23	13.10
16.6	1.21	1.9	0.23	13.33
16.7	1.25	2	0.26	13.60
16.8	1.25	2.1	0.27	13.82
16.9	1.25	2.3	0.29	14.11
17	1.31	2.5	0.33	14.45
17.1	1.31	2.2	0.26	14.72
17.2	1.28	2.3	0.32	15.04
17.3	1.28	2.3	0.32	15.30
17.4	1.38	2.1	0.29	15.58
17.5	0.89	1.2	0.15	15.74
17.6	0.89	1.7	0.15	15.89
17.7	0.89	1.7	0.15	16.04
17.8	0.85	1.6	0.13	16.17
17.9	0.89	1.5	0.13	16.31
18	0.95	1.6	0.15	16.46
18.1	1.12	1.7	0.19	16.65
18.2	1.18	1.6	0.18	16.83
18.3	1.12	1.7	0.19	17.02
18.4	1.12	1.7	0.19	17.21
18.5	1.12	2.1	0.23	17.44
18.6	1.05	2.5	0.26	17.70
18.7	1.05	2.6	0.27	18.04
18.8	1.08	2.4	0.26	18.30
18.9	1.05	2.5	0.26	18.56
19	1.22	2.3	0.26	18.82
19.1	1.25	2.3	0.29	19.10
19.2	1.21	2.3	0.28	19.38
19.3	1.22	2.3	0.28	19.66
19.4	1.02	2.9	0.29	19.97
19.5	1.08	2.7	0.34	20.31
19.6	0.98	2.7	0.27	20.58
19.7	1.05	2.7	0.28	20.87
19.8	0.92	2.6	0.24	21.09
19.9	0.89	2.5	0.22	21.28
20	0.89	2.9	0.26	21.54
20.1	0.82	3	0.25	21.79
20.2	0.89	2.9	0.26	22.04
20.3	0.92	3.1	0.28	22.33
20.4	1.15	2.9	0.33	22.66
20.5	1.12	2.7	0.30	22.96
20.6	1.08	3.1	0.34	23.30
20.7	1.05	2.3	0.24	23.54
20.8	1.12	2.9	0.32	23.86
20.9	1.18	2.3	0.27	24.13
21	1.21	2.3	0.28	24.41
21.1	1.25	2.2	0.27	24.67
21.2	0.92	2.5	0.23	24.86
21.3	1.12	2.1	0.23	25.09
21.4	1.02	2.8	0.28	25.38
21.5	0.98	1.8	0.18	25.55
21.6	1.02	1.7	0.16	25.71
21.7	0.98	1.6	0.15	25.86
21.8	0.98	1.7	0.17	26.03
21.9	1.05	1.9	0.19	26.22
22	0.98	2.3	0.23	26.45
22.1	1.18	2.1	0.25	26.70
22.2	1.05	1.9	0.20	26.90
22.3	1.21	2.5	0.30	27.20
22.4	1.21	2.3	0.28	27.48
22.5	1.21	2.3	0.28	27.76
22.6	1.25	2.5	0.30	28.07
22.7	1.28	2.3	0.29	28.36
22.8	1.28	2.4	0.31	28.67
22.9	1.25	2.1	0.26	28.93
23	1.08	2.3	0.25	29.18
23.1	1.05	2.3	0.24	29.42
23.2	1.02	1.9	0.19	29.62
23.3	1.05	2.3	0.22	29.84
23.4	0.98	2.3	0.23	30.06
23.5	0.98	1.9	0.19	30.25
23.6	1.08	1.6	0.15	30.40
23.7	1.05	1.5	0.16	30.56
23.8	1.05	1.9	0.20	30.76
23.9	1.05	1.8	0.17	30.93
24	1.02	1.9	0.19	31.12
24.1	1.02	1.8	0.18	31.30
24.2	1.05	2.1	0.21	31.57
24.3	0.98	2.5	0.21	31.78
24.4	0.95	2.3	0.22	32.03
24.5	0.95	2.2	0.21	32.25
24.6	0.92	2.5	0.23	32.48
24.7	0.95	2.1	0.20	32.68
24.8	1.02	1.7	0.17	32.85
24.9	1.02	2.1	0.21	33.06
25	1.08	1.9	0.21	33.27
25.1	1.08	1.9	0.21	33.48
25.2	1.05	2.2	0.23	33.71
25.3	1.08	2.2	0.23	33.94
25.4	1.08	2.1	0.23	34.17
25.5	1.05	2.5	0.26	34.37
25.6	1.05	2.6	0.27	34.65
25.7	1.12	2.5	0.28	34.93
25.8	1.12	2.5	0.28	35.21
25.9	1.12	2.5	0.28	35.48
26	1.15	2.3	0.26	35.75
26.1	1.18	2.3	0.27	36.02
26.2	1.08	2.5	0.27	36.29
26.3	1.05	2.5	0.25	36.54
26.4	1.05	2.5	0.26	36.81
26.5	0.95	2.3	0.22	37.02
26.6	0.95	2.5	0.23	37.25
26.7	0.95	2.5	0.23	37.48
26.8	0.98	2.6	0.26	37.74
26.9	0.92	2.6	0.25	38.00
27	0.98	2.5	0.25	38.25
27.1	0.95	2.5	0.24	38.50
27.2	0.95	2.3	0.22	38.72
27.3	1.02	2.6	0.27	39.00
27.4	1.05	2.6	0.27	39.27
27.5	1.05	2.7	0.28	39.55
27.6	1.08	2.3	0.25	39.80
27.7	1.08	2.5	0.27	40.07
27.8	1.05	2.7	0.28	40.32
27.9	1.05	2.7	0.28	40.60
28	1.05	2.7	0.28	40.89
28.1	1.05	1.5	0.15	40.83
28.2	0.82	2.7	0.19	41.02
28.3	0.82	2.1	0.17	41.19
28.4	0.79	1.5	0.11	41.30
28.5	0.72	1.7	0.12	41.43
28.6	0.69	1.5	0.10	41.53
28.7	0.72	1.7	0.12	41.65
28.8	0.66	1.9	0.12	41.78
28.9	0.66	1.7	0.11	41.89
29	0.62	2.1	0.13	42.02
29.1	0.62	2.1	0.13	42.15
29.2	0.59	2.3	0.14	42.29
29.3	0.59	2.3	0.15	42.43
29.4	0.59	2.3	0.15	42.58
29.5	0.66	2.3	0.15	42.73
29.6	0.66	2.2	0.15	42.89
29.7	0.79	2.2	0.17	43.06
29.8	0.79	2.1	0.18	43.25
29.9	0.82	1.9	0.16	43.40
30	0.82	2.1	0.17	43.57
30.1	0.82	2.3	0.20	43.75
30.2	0.85	2.3	0.20	43.94
30.3	0.79	2.3	0.18	44.12
30.4	0.82	1.7	0.14	44.26
30.5	0.82	2.3	0.20	44.47
30.6	0.85	2.1	0.18	44.63
30.7	0.79	2.3	0.18	44.81
30.8	0.79	2.3	0.17	44.97
30.9	0.79	2.1	0.17	45.13
31	0.79	1.9	0.15	45.27
31.1	0.72	2.1	0.13	45.34
31.2	0.72	2.1	0.15	45.50
31.3	0.79	2.1	0.17	45.66
31.4	0.75	2.1	0.16	45.82
31.5	0.66	2.1	0.14	45.96
31.6	0.79	2.3	0.17	46.12
31.7	0.79	2.3	0.18	46.30
31.8	0.75	2.1	0.16	46.46
31.9	0.72	1.9	0.14	46.60
32	0.69	2.1	0.15	46.75
32.1	0.72	2.3	0.18	46.93
32.2	0.69	2.3	0.17	47.10
32.3	0.69	2.3	0.17	47.27
32.4	0.72	1.5	0.11	47.38
32.5	0.72	1.3	0.09	47.47
32.6	0.79	1.2	0.10	47.57
32.7	0.72	1.9	0.14	47.64
32.8	0.72	2.1	0.15	47.79
32.9	0.69	2.3	0.17	47.96
33	0.69	2.3	0.16	48.08
33.1	0.72	2.4	0.18	48.26
33.2	0.82	2.3	0.16	48.42
33.3	0.85	2.3	0.18	48.60
33.4	0.72	2.3	0.18	48.78
33.5	0.72	2.3	0.17	48.95
33.6	0.66	2.3	0.15	49.23
33.7	0.66	2.3	0.16	49.40
33.8	0.62	2.3	0.14	49.54
33.9	0.66	2.3	0.15	49.69
34	0.62	2.3	0.14	49.81
34.1	0.69	2.3	0.15	49.97
34.2	0.72	2.3	0.17	50.12
34.3	0.66	2.5	0.16	50.28
34.4	0.62	2.5	0.16	50.43
34.5	0.66	2.5	0.17	50.60
34.6	0.62	2.5	0.16	50.75
34.7	0.69	2.5	0.17	50.93
34.8	0.69	2.3	0.16	50.78
34.9	0.62	2.3	0.14	50.91
35	0.62	1.1	0.07	50.98
35.2	0.62	0.2	0.01	50.89
35.3	0.52	0.2	0.01	50.91
35.4	0.36	0	0.00	50.91
35.5	0.36	0	0.00	50.91
35.6	0.43	0	0.00	50.91
35.7	0.43	0.2	0.01	50.91
35.8	0.56	0	0.00	50.91
35.9	0.56	0.4	0.02	50.93
36	0.52	1.9	0.10	51.04
36.1	0.49	2.1	0.12	51.16
36.2	0.52	2.1	0.11	51.27
36.3	0.52	2.1	0.11	51.38
36.4	0.52	1.9	0.10	51.48
36.5	0.59	2.1	0.12	51.64
36.6	0.52	2.7	0.12	51.76
36.7	0.56	2.1	0.12	51.88
36.8	0.69	1.9	0.13	52.01
36.9	0.66	2.1	0.15	52.16
37	0.52	2.1	0.11	52.27
37.1	0.46	2.1	0.10	52.37
37.2	0.46	2.1	0.10	52.47
37.3	0.46	2.1	0.11	52.57
37.4	0.46	2.1	0.10	52.67
37.5	0.49	2.1	0.10	52.77
37.6	0.49	1.9	0.11	52.88
37.7	0.46	2.1	0.10	52.98
37.8	0.66	2.1	0.14	53.16
37.9	0.56	2.3	0.14	53.30
38	0.56	1	0.06	53.36
38.1	0.46	1.3	0.06	53.42
38.2	0.39	1.5	0.04	53.46
38.3	0.39	1.3	0.03	53.49
38.4	0.26	1.9	0.05	53.54
38.5	0.26	1.5	0.04	53.58
38.6	0.26	1.2	0.03	53.61
38.7	0.26	1	0.03	53.64

SURFACE WATER FLOW MEASUREMENT DATA SHEET

Location:	Key Transition Site	*Date:*	5/27/19
SECTION AREA (sq. ft):	28.0843832	*TOTAL FLOW (CFS):*	42.57

Cumulative Section Length	Depth (ft)	Flow Velocity (ft/sec)	Sectional Flow (cfs)	Cumulative Flow
0	0.07	0	0	0
0.1	0.07	0	0	0
0.2	0.07	0	0	0
0.3	0.07	0	0	0
0.4	0.13	0	0	0
0.5	0.13	0	0	0
0.6	0.13	0	0	0
0.7	0.20	0	0	0
0.8	0.20	0	0	0
0.9	0.20	0	0	0
1	0.36	0	0	0
1.1	0.33	0	0	0
1.2	0.36	0.2	0.01	0.01
1.3	0.43	0.3	0.01	0.02
1.4	0.44	0.2	0.01	0.03
1.5	0.49	0.2	0.01	0.04
1.6	0.46	0	0.00	0.04
1.7	0.44	0.4	0.02	0.06
1.8	0.46	0.2	0.01	0.07
1.9	0.46	0	0.00	0.07
2	0.49	0	0.00	0.07
2.1	0.52	0.1	0.01	0.08
2.2	0.56	0	0.00	0.08
2.3	0.49	0	0.00	0.08
2.4	0.46	0.2	0.01	0.08
2.5	0.44	0.4	0.02	0.10
2.6	0.49	0.2	0.01	0.11
2.7	0.52	0.2	0.01	0.12
2.8	0.39	0.2	0.01	0.13
2.9	0.36	0.2	0.01	0.14
3	0.36	0.4	0.01	0.15
3.1	0.33	0.3	0.01	0.16
3.2	0.30	0.4	0.01	0.17
3.3	0.36	0.5	0.02	0.19
3.4	0.66	0.4	0.03	0.22
3.5	0.69	0.4	0.03	0.25
3.6	0.62	0.5	0.03	0.28
3.7	0.66	0.4	0.03	0.30
3.8	0.69	0.4	0.03	0.33
3.9	0.69	0.4	0.03	0.36
4	0.72	0.2	0.01	0.37
4.1	0.33	0.2	0.01	0.38
4.2	0.36	0.2	0.01	0.39
4.3	0.30	0	0.00	0.39
4.4	0.26	0	0.00	0.39
4.5	0.26	0	0.00	0.39
4.6	0.26	0	0.00	0.39
4.7	0.36	0.2	0.01	0.39
4.8	0.56	0.1	0.01	0.40
4.9	0.62	0.2	0.01	0.41
5	0.62	0.3	0.02	0.43
5.1	0.49	0.3	0.01	0.45
5.2	0.56	0.4	0.02	0.47
5.3	0.62	0.4	0.03	0.50
5.4	0.85	0.2	0.02	0.52
5.5	0.85	0.5	0.04	0.56
5.6	0.82	0.6	0.05	0.61
5.7	0.79	0.4	0.03	0.64
5.8	0.66	0.4	0.03	0.67
5.9	0.66	0.4	0.03	0.69
6	0.62	0.4	0.02	0.71
6.1	0.72	0.4	0.03	0.73
6.2	0.69	0.6	0.04	0.78
6.3	0.72	0.6	0.04	0.82
6.4	0.46	0.8	0.04	0.86
6.5	0.43	0.6	0.03	0.89
6.6	0.46	1	0.05	0.94
6.7	0.49	1.2	0.06	1.00
6.8	0.49	1	0.05	1.04
6.9	0.49	1	0.05	1.09
7	0.56	0.8	0.04	1.14
7.1	0.57	0.8	0.05	1.18
7.2	0.61	0.4	0.02	1.21
7.3	0.69	0.6	0.04	1.25
7.4	0.69	0.6	0.04	1.29
7.5	0.64	0.4	0.03	1.32
7.6	0.62	0.3	0.02	1.33
7.7	0.62	0.4	0.02	1.36
7.8	0.62	0.2	0.01	1.37
7.9	0.66	0.3	0.02	1.39
8	0.74	0.4	0.03	1.42
8.1	0.77	0.4	0.03	1.45
8.2	0.71	0.4	0.03	1.48
8.3	0.71	0.2	0.01	1.49
8.4	0.79	0.1	0.01	1.50
8.5	0.75	0	0.00	1.50
8.6	0.75	0.1	0.01	1.51
8.7	0.79	0.2	0.01	1.52
8.8	0.75	0.2	0.02	1.54
8.9	0.74	0.2	0.01	1.56
9	0.72	0.4	0.03	1.58
9.1	0.72	0.2	0.01	1.59
9.2	0.74	0.6	0.04	1.66
9.3	0.74	0.6	0.04	1.70
9.4	0.87	1	0.09	1.79
9.5	0.89	1.2	0.11	1.90
9.6	0.89	1	0.09	1.99
9.7	0.89	1.2	0.11	2.09
9.8	0.90	1.3	0.12	2.21
9.9	0.95	1	0.10	2.30
10	0.92	1	0.09	2.39
10.1	0.79	1.2	0.09	2.48
10.2	0.75	1	0.08	2.56
10.3	0.89	1.3	0.12	2.68
10.4	0.89	1.5	0.13	2.81
10.5	0.87	1.5	0.13	2.96
10.6	0.89	1.9	0.17	3.13
10.7	0.95	1.9	0.18	3.31
10.8	0.85	1.9	0.16	3.47
10.9	0.84	1.7	0.14	3.62
11	0.80	1.7	0.14	3.76
11.1	0.87	1.7	0.14	3.84
11.2	0.89	2.1	0.18	4.02
11.3	0.89	2.1	0.19	4.21
11.4	0.89	2.1	0.19	4.40
11.5	0.85	1.9	0.16	4.54
11.6	0.85	1.7	0.15	4.68
11.7	0.85	1.7	0.15	4.83
11.8	0.87	1.7	0.15	4.96
11.9	0.84	1.5	0.13	5.08
12	0.82	1.3	0.14	5.22
12.1	0.80	1.3	0.10	5.32
12.2	0.82	1.3	0.11	5.43
12.3	0.82	1.2	0.10	5.53
12.4	0.82	0.8	0.07	5.59
12.5	0.84	1	0.08	5.68
12.6	0.89	1	0.09	5.77
12.7	0.89	1.2	0.11	5.87
12.8	0.89	1.3	0.12	5.99
12.9	0.85	1.3	0.11	6.10
13	0.87	1.2	0.10	6.20
13.1	0.92	1.3	0.12	6.32
13.2	0.92	1.2	0.11	6.43
13.3	0.82	1.3	0.11	6.54
13.4	0.69	1.3	0.13	6.67
13.5	0.87	1.3	0.11	6.79
13.6	0.95	1.9	0.16	6.95
13.7	0.85	2.1	0.18	7.13
13.8	0.98	2.1	0.21	7.33
13.9	1.02	2.1	0.21	7.55
14	1.05	1.9	0.20	7.75
14.1	1.07	2.1	0.22	7.97
14.2	1.08	1.7	0.18	8.15
14.3	1.05	1.9	0.20	8.35
14.4	1.15	1.7	0.18	8.53
14.5	1.05	1.9	0.20	8.73
14.6	1.11	2.1	0.24	8.97
14.7	1.15	1.7	0.20	9.17
14.8	1.15	2.1	0.24	9.41
14.9	1.15	1.7	0.20	9.60
15	1.12	2.1	0.24	9.84
15.1	1.15	2.3	0.26	10.10
15.2	1.15	2.3	0.26	10.36
15.3	1.13	2.3	0.26	10.62
15.4	1.15	2.5	0.29	10.91
15.5	1.13	2.5	0.28	11.19
15.6	1.15	2.7	0.31	11.50
15.7	1.13	2.5	0.28	11.79
15.8	1.15	2.7	0.31	12.10
15.9	1.16	3.1	0.36	12.46
16	1.15	2.9	0.33	12.79
16.1	1.15	3.1	0.36	13.15
16.2	1.15	2.9	0.33	13.48
16.3	1.12	2.7	0.30	13.78
16.4	1.18	2.5	0.30	14.08
16.5	1.18	2.9	0.34	14.42
16.6	1.21	2.7	0.33	14.75
16.7	1.23	2.7	0.33	15.08
16.8	1.21	2.9	0.35	15.43
16.9	1.23	2.7	0.33	15.76
17	1.21	2.9	0.35	16.11
17.1	1.15	2.9	0.33	16.47
17.2	1.13	2.7	0.31	16.78
17.3	1.13	2.9	0.35	17.13
17.4	1.18	2.9	0.32	17.46
17.5	1.16	2.9	0.34	17.80
17.6	1.21	3.3	0.40	18.21
17.7	1.23	3.3	0.41	18.60
17.8	1.25	3.5	0.44	19.04
17.9	1.26	3.3	0.42	19.45
18	1.25	3.5	0.45	19.91
18.1	1.25	3.5	0.44	20.34
18.2	1.25	3.5	0.44	20.78
18.3	1.20	3.7	0.44	21.22
18.4	1.21	3.7	0.45	21.65
18.5	1.20	3.7	0.44	22.10
18.6	1.21	3.7	0.45	22.55
18.7	1.15	3.1	0.36	22.90
18.8	1.21	3.3	0.38	23.28
18.9	1.21	3.3	0.40	23.69
19	1.20	3.5	0.42	24.10
19.1	1.21	3.3	0.40	24.50
19.2	1.16	3.3	0.43	24.94
19.3	1.16	3.5	0.41	25.34
19.4	1.18	3.3	0.39	25.73
19.5	1.20	3.5	0.42	26.15
19.6	1.23	3.8	0.47	26.62
19.7	1.21	3.7	0.45	27.07
19.8	1.20	3.7	0.44	27.51
19.9	1.18	3.5	0.41	27.93
20	1.18	3.5	0.41	28.34
20.1	1.12	3.3	0.37	28.71
20.2	1.08	3.3	0.37	29.08
20.3	1.08	2.9	0.31	29.31
20.4	1.08	3.1	0.34	29.64
20.5	1.10	2.9	0.32	29.96
20.6	1.10	3.1	0.34	30.30
20.7	1.07	3.1	0.33	30.63
20.8	1.05	2.9	0.30	30.94
20.9	1.02	2.9	0.29	31.23
21	1.01	2.9	0.29	31.53
21.1	1.00	2.7	0.27	31.80
21.2	0.99	2.7	0.26	32.06
21.3	0.92	2.5	0.23	32.29
21.4	0.89	2.4	0.22	32.51
21.5	0.89	2.5	0.22	32.73
21.6	0.90	2.5	0.22	32.95
21.7	0.89	2.5	0.22	33.20
21.8	0.89	2.5	0.22	33.42
21.9	0.87	2.3	0.20	33.62
22	0.85	2.3	0.20	33.82
22.1	0.85	2.1	0.18	33.99
22.2	0.85	2.1	0.18	34.21
22.3	0.84	2.1	0.18	34.38
22.4	0.84	2.1	0.18	34.56
22.5	0.82	1.9	0.16	34.71
22.6	0.79	1.7	0.13	34.85
22.7	0.80	1.7	0.14	34.98
22.8	0.79	1.5	0.12	35.10
22.9	0.79	1.5	0.12	35.22
23	0.76	1.7	0.13	35.35
23.1	0.79	1.7	0.13	35.48
23.2	0.79	1.7	0.13	35.61
23.3	0.79	1.5	0.13	35.74
23.4	0.79	1.2	0.10	35.85
23.5	0.79	1.2	0.09	35.94
23.6	0.79	1.2	0.10	36.04
23.7	0.79	1.2	0.09	36.13
23.8	0.69	1.3	0.09	36.21
23.9	0.69	1.3	0.09	36.31
24	0.56	1.2	0.07	36.38
24.1	0.54	1.2	0.06	36.45
24.2	0.54	1.3	0.07	36.52
24.3	0.54	1.2	0.07	36.59
24.4	0.56	1.2	0.06	36.65
24.5	0.59	1.2	0.06	36.70
24.6	0.56	1.5	0.06	36.76
24.7	0.56	1.5	0.06	36.81
24.8	0.59	1.2	0.06	36.87
24.9	0.59	1.2	0.06	36.93
25	0.41	1.2	0.05	36.97
25.1	0.43	1.2	0.05	37.02
25.2	0.59	1.2	0.07	37.14
25.3	0.59	1.2	0.07	37.21
25.4	0.59	1.2	0.07	37.28
25.5	0.66	1.2	0.07	37.35
25.6	0.62	1.2	0.07	37.43
25.7	0.62	1.2	0.07	37.50
25.8	0.62	1.3	0.08	37.59
25.9	0.66	1.2	0.07	37.68
26	0.66	0.8	0.05	37.73
26.1	0.66	0.8	0.05	37.79
26.2	0.66	0.6	0.04	37.82
26.3	0.69	0.6	0.04	37.86
26.4	0.69	0.4	0.03	37.89
26.5	0.69	0.8	0.06	37.95
26.6	0.67	0.6	0.04	37.99
26.7	0.62	0.6	0.04	38.03
26.8	0.59	0.8	0.05	38.07
26.9	0.59	0.8	0.04	38.11
27	0.61	0.8	0.05	38.16
27.1	1.18	0.8	0.09	38.25
27.2	1.21	1	0.12	38.37
27.3	1.21	1.2	0.15	38.52
27.4	1.23	1.2	0.15	38.67
27.5	1.21	1.2	0.15	38.82
27.6	1.20	1	0.12	38.94
27.7	1.21	1	0.12	39.05
27.8	1.21	1	0.12	39.18
27.9	1.21	1.4	0.18	39.36
28	1.21	1.2	0.15	39.45
28.1	1.21	0.8	0.10	39.54
28.2	1.25	0.8	0.10	39.64
28.3	1.21	0.8	0.08	39.72
28.4	1.35	0.6	0.08	39.80
28.5	1.21	0.4	0.05	39.86
28.6	1.38	0.4	0.06	39.91
28.7	1.38	0.6	0.08	39.99
28.8	1.38	0.4	0.06	40.05
28.9	1.38	0.4	0.06	40.10
29	1.36	0.6	0.08	40.19
29.1	1.25	0.4	0.05	40.24
29.2	1.25	0.4	0.05	40.29
29.3	1.21	0.4	0.05	40.35
29.4	1.23	0.6	0.08	40.43
29.5	1.30	0.6	0.08	40.50
29.6	1.28	0.6	0.08	40.58
29.7	1.28	0.6	0.08	40.65
29.8	1.21	0.6	0.07	40.73
29.9	1.20	0.6	0.07	40.80
30	1.16	0.4	0.05	40.85
30.1	1.15	0.4	0.05	40.89
30.2	1.13	0.6	0.07	40.96
30.3	1.10	0.6	0.07	41.03
30.4	1.08	0.6	0.06	41.09
30.5	1.03	0.6	0.06	41.16
30.6	1.03	0.6	0.06	41.22
30.7	1.03	0.4	0.04	41.26
30.8	1.00	0.4	0.04	41.30
30.9	0.95	0.6	0.06	41.36
31	0.98	0.6	0.06	41.42
31.1	0.97	0.8	0.08	41.49
31.2	0.97	0.6	0.06	41.55
31.3	0.98	0.8	0.08	41.63
31.4	0.95	0.8	0.08	41.70
31.5	0.95	0.6	0.06	41.76
31.6	0.92	0.6	0.06	41.82
31.7	0.92	0.6	0.05	41.87
31.8	0.85	0.6	0.05	41.92
31.9	0.82	0.6	0.05	41.97
32	0.75	0.6	0.05	42.02
32.1	0.75	0.6	0.05	42.06
32.2	0.79	0.6	0.05	42.11
32.3	0.77	0.6	0.05	42.15
32.4	0.75	0.6	0.05	42.20
32.5	0.74	0.8	0.06	42.26
32.6	0.69	0.8	0.06	42.31
32.7	0.67	0.6	0.04	42.35
32.8	0.67	0.6	0.04	42.39
32.9	0.67	0.6	0.04	42.44
33	0.71	0.6	0.04	42.48
33.1	0.69	0.6	0.04	42.52
33.2	0.67	0.4	0.03	42.55
33.3	0.66	0.2	0.01	42.56
33.4	0.66	0.1	0.01	42.57
33.5	0.66	0	0.00	42.57
33.6	0.62	0	0.00	42.57
33.7	0.62	0	0.00	42.57
33.8	0.48	0	0.00	42.57
33.9	0.45	0	0.00	42.57
34	0.43	0	0.00	42.57
34.1	0.41	0	0.00	42.57
34.2	0.38	0	0.00	42.57
34.3	0.34	0	0.00	42.57
34.4	0.30	0	0.00	42.57
34.5	0.26	0	0.00	42.57
34.6	0.26	0	0.00	42.57
34.7	0.20	0	0.00	42.57
34.8	0.20	0	0.00	42.57
34.9	0.20	0	0.00	42.57
35	0.13	0	0.00	42.57
35.1	0.13	0	0.00	42.57
35.2	0.13	0	0.00	42.57
35.3	0.13	0	0.00	42.57
35.4	0.13	0	0.00	42.57
35.5	0.13	0	0.00	42.57
35.6	0.07	0	0.00	42.57
35.7	0.07	0	0.00	42.57
35.8	0.07	0	0.00	42.57
35.9	0.07	0	0.00	42.57
36	0.07	0	0.00	42.57
36.1	0.07	0	0.00	42.57

SURFACE WATER FLOW MEASUREMENT DATA SHEET

Location: **Key Transition Site** *Date:* **6/29/19**

SECTION AREA (sq. ft): **23.45917323** *TOTAL FLOW (CFS):* **34.27**

Cumulative Section Length	Depth (ft)	Flow Velocity (ft/sec)	Sectional Flow (cfs)	Cumulative Flow
0	0.38	0.0	0.00	0.00
0.1	0.39	0.0	0.00	0.00
0.2	0.39	0.0	0.00	0.00
0.3	0.38	0.0	0.00	0.00
0.4	0.36	0.0	0.00	0.00
0.5	0.36	0.0	0.00	0.00
0.6	0.34	0.0	0.00	0.00
0.7	0.31	0.0	0.00	0.00
0.8	0.36	0.0	0.00	0.00
0.9	0.34	0.0	0.00	0.00
1	0.43	0.0	0.00	0.00
1.1	0.48	0.0	0.00	0.00
1.2	0.49	0.0	0.00	0.00
1.3	0.54	0.0	0.00	0.00
1.4	0.56	0.0	0.00	0.00
1.5	0.62	0.0	0.00	0.00
1.6	0.64	0.0	0.00	0.00
1.7	0.66	0.0	0.00	0.00
1.8	0.66	0.0	0.00	0.00
1.9	0.64	0.0	0.00	0.00
2	0.64	0.2	0.01	0.01
2.1	0.66	0.2	0.01	0.03
2.2	0.66	0.2	0.01	0.04
2.3	0.67	0.2	0.01	0.07
2.4	0.56	0.6	0.03	0.10
2.5	0.56	0.8	0.04	0.14
2.6	0.61	0.8	0.05	0.19
2.7	0.57	0.8	0.05	0.24
2.8	0.59	0.8	0.05	0.29
2.9	0.61	1.0	0.06	0.35
3	0.61	1.3	0.08	0.43
3.1	0.66	1.3	0.09	0.51
3.2	0.67	1.3	0.09	0.60
3.3	0.72	1.2	0.09	0.68
3.4	0.75	1.2	0.09	0.77
3.5	0.75	1.2	0.09	0.86
3.6	0.75	1.0	0.08	0.94
3.7	0.77	1.0	0.08	1.02
3.8	0.75	1.2	0.09	1.11
3.9	0.74	1.0	0.08	1.18
4	0.74	0.8	0.06	1.24
4.1	0.72	0.8	0.06	1.30
4.2	0.72	0.6	0.04	1.34
4.3	0.61	0.8	0.05	1.39
4.4	0.46	0.8	0.04	1.43
4.5	0.44	1.0	0.04	1.47
4.6	0.44	0.8	0.04	1.51
4.7	0.44	0.8	0.04	1.54
4.8	0.33	1.0	0.03	1.57
4.9	0.30	1.0	0.03	1.60
5	0.26	0.8	0.02	1.62
5.1	0.26	0.8	0.02	1.65
5.2	0.26	0.8	0.02	1.67
5.3	0.25	0.8	0.02	1.69
5.4	0.25	0.6	0.01	1.70
5.5	0.26	0.6	0.02	1.72
5.6	0.26	0.8	0.02	1.74
5.7	0.44	0.8	0.04	1.78
5.8	0.46	1.0	0.05	1.82
5.9	0.44	1.0	0.04	1.86
6	0.49	1.0	0.05	1.91
6.1	0.49	0.8	0.04	1.95
6.2	0.48	0.8	0.04	1.99
6.3	0.48	0.6	0.03	2.02
6.4	0.49	0.6	0.03	2.05
6.5	0.49	0.4	0.02	2.07
6.6	0.49	0.4	0.02	2.09
6.7	0.48	0.2	0.01	2.10
6.8	0.46	0.4	0.02	2.12
6.9	0.44	0.6	0.02	2.14
7	0.44	0.2	0.01	2.15
7.1	0.46	0.2	0.01	2.16
7.2	0.48	0.4	0.02	2.18
7.3	0.52	0.4	0.02	2.21
7.4	0.54	0.4	0.02	2.23
7.5	0.54	0.6	0.03	2.25
7.6	0.56	0.6	0.03	2.28
7.7	0.56	0.6	0.03	2.31
7.8	0.56	0.8	0.04	2.34
7.9	0.56	1.0	0.06	2.40
8	0.57	1.0	0.06	2.45
8.1	0.61	1.0	0.06	2.51
8.2	0.62	1.0	0.06	2.58
8.3	0.62	1.2	0.07	2.65
8.4	0.62	1.2	0.07	2.72
8.5	0.64	1.3	0.11	2.83
8.6	0.66	1.9	0.12	2.96
8.7	0.66	1.9	0.12	3.08
8.8	0.66	2.1	0.14	3.22
8.9	0.61	1.9	0.12	3.34
9	0.57	1.9	0.11	3.45
9.1	0.59	1.9	0.11	3.56
9.2	0.59	1.7	0.10	3.66
9.3	0.59	1.7	0.10	3.76
9.4	0.57	1.9	0.11	3.87
9.5	0.57	1.9	0.11	3.98
9.6	0.59	2.1	0.12	4.10
9.7	0.54	1.9	0.10	4.20
9.8	0.59	1.9	0.11	4.32
9.9	0.61	2.1	0.13	4.44
10	0.69	1.9	0.13	4.57
10.1	0.71	1.9	0.13	4.71
10.2	0.69	1.7	0.12	4.83
10.3	0.57	1.7	0.10	4.92
10.4	0.52	1.3	0.07	4.99
10.5	0.54	1.3	0.07	5.06
10.6	0.56	1.2	0.07	5.13
10.7	0.57	1.3	0.07	5.20
10.8	0.61	1.5	0.09	5.29
10.9	0.61	1.5	0.09	5.39
11	0.59	1.9	0.11	5.50
11.1	0.57	2.1	0.12	5.62
11.2	0.59	1.9	0.11	5.73
11.3	0.61	2.1	0.13	5.86
11.4	0.74	2.5	0.18	6.05
11.5	0.77	2.3	0.17	6.22
11.6	0.75	2.3	0.17	6.40
11.7	0.75	2.3	0.17	6.57
11.8	0.77	2.1	0.16	6.73
11.9	0.79	2.5	0.20	6.93
12	0.82	2.5	0.21	7.13
12.1	0.82	2.1	0.17	7.31
12.2	0.84	2.3	0.19	7.50
12.3	0.82	2.5	0.21	7.70
12.4	0.80	2.5	0.20	7.90
12.5	0.82	2.5	0.21	8.11
12.6	0.85	2.3	0.20	8.31
12.7	0.85	2.3	0.20	8.50
12.8	0.89	2.5	0.22	8.72
12.9	0.90	2.3	0.21	8.93
13	0.92	2.3	0.21	9.14
13.1	0.92	2.3	0.21	9.35
13.2	0.94	2.1	0.20	9.55
13.3	0.94	2.1	0.20	9.75
13.4	0.92	2.1	0.19	9.94
13.5	0.95	2.3	0.22	10.16
13.6	0.97	2.1	0.20	10.36
13.7	0.98	2.5	0.24	10.59
13.8	0.97	2.9	0.28	10.87
13.9	0.98	3.1	0.31	11.17
14	1.00	3.1	0.31	11.48
14.1	1.00	2.9	0.29	11.77
14.2	1.02	2.7	0.27	12.04
14.3	1.05	2.9	0.30	12.35
14.4	1.03	2.7	0.28	12.63
14.5	1.02	2.7	0.27	12.90
14.6	1.05	3.1	0.33	13.23
14.7	1.07	3.3	0.36	13.58
14.8	1.03	2.9	0.30	13.84
14.9	1.05	2.5	0.26	14.10
15	1.02	2.9	0.29	14.39
15.1	1.05	3.1	0.32	14.70
15.2	1.02	3.1	0.32	15.01
15.3	1.02	2.9	0.29	15.31
15.4	1.00	2.9	0.29	15.60
15.5	1.00	2.7	0.27	15.87
15.6	0.97	2.7	0.26	16.13
15.7	0.95	2.9	0.28	16.41
15.8	0.95	2.9	0.28	16.68
15.9	0.95	3.3	0.31	17.00
16	0.98	3.3	0.32	17.32
16.1	0.98	3.4	0.33	17.65
16.2	0.97	3.5	0.34	17.99
16.3	0.94	3.5	0.33	18.32
16.4	0.89	3.7	0.33	18.65
16.5	0.90	3.5	0.32	18.96
16.6	0.87	3.7	0.33	19.29
16.7	0.89	3.5	0.31	19.60
16.8	0.89	3.3	0.29	19.89
16.9	0.95	3.3	0.31	20.21
17	0.98	3.3	0.32	20.53
17.1	0.97	3.3	0.32	20.85
17.2	0.98	3.1	0.31	21.16
17.3	0.95	2.9	0.28	21.43
17.4	0.98	2.8	0.29	21.72
17.5	0.98	2.9	0.29	22.00
17.6	1.02	2.7	0.27	22.28
17.7	1.02	2.5	0.26	22.54
17.8	1.05	2.5	0.26	22.82
17.9	1.02	2.9	0.29	23.12
18	0.95	2.9	0.28	23.40
18.1	0.94	2.9	0.27	23.67
18.2	0.92	3.1	0.28	23.95
18.3	0.92	2.9	0.27	24.22
18.4	0.94	3.1	0.29	24.51
18.5	0.92	2.9	0.27	24.78
18.6	0.92	3.1	0.28	25.06
18.7	0.90	3.1	0.28	25.34
18.8	0.89	2.9	0.26	25.60
18.9	0.89	2.9	0.26	25.85
19	0.87	3.1	0.27	26.12
19.1	0.85	2.7	0.23	26.35
19.2	0.89	2.7	0.24	26.59
19.3	0.87	2.5	0.22	26.81
19.4	0.85	2.5	0.21	27.02
19.5	0.82	2.5	0.21	27.23
19.6	0.80	2.9	0.23	27.46
19.7	0.82	2.7	0.22	27.68
19.8	0.82	2.5	0.21	27.89
19.9	0.82	2.5	0.21	28.09
20	0.75	2.5	0.17	28.27
20.1	0.72	2.5	0.18	28.45
20.2	0.69	2.3	0.16	28.60
20.3	0.69	2.3	0.16	28.76
20.4	0.72	2.3	0.17	28.93
20.5	0.75	2.1	0.16	29.09
20.6	0.79	2.1	0.17	29.25
20.7	0.80	2.1	0.17	29.42
20.8	0.77	2.1	0.16	29.58
20.9	0.75	1.9	0.14	29.73
21	0.74	2.1	0.16	29.88
21.1	0.71	1.9	0.13	30.02
21.2	0.72	1.9	0.14	30.15
21.3	0.71	1.9	0.13	30.29
21.4	0.67	1.9	0.13	30.41
21.5	0.66	1.9	0.12	30.54
21.6	0.66	1.9	0.12	30.66
21.7	0.61	1.5	0.09	30.76
21.8	0.59	1.7	0.10	30.86
21.9	0.57	1.5	0.09	30.94
22	0.59	1.5	0.09	31.03
22.1	0.59	1.7	0.10	31.13
22.2	0.59	1.3	0.08	31.21
22.3	0.62	1.3	0.08	31.29
22.4	0.62	1.2	0.07	31.37
22.5	0.59	1.2	0.07	31.44
22.6	0.56	1.2	0.07	31.50
22.7	0.54	1.0	0.05	31.56
22.8	0.54	1.0	0.05	31.61
22.9	0.56	0.8	0.04	31.66
23	0.54	1.0	0.05	31.71
23.1	0.52	1.0	0.05	31.76
23.2	0.46	1.0	0.05	31.81
23.3	0.46	0.8	0.04	31.85
23.4	0.44	1.0	0.04	31.89
23.5	0.43	1.2	0.05	31.94
23.6	0.43	1.2	0.05	31.99
23.7	0.43	1.2	0.05	32.04
23.8	0.41	1.0	0.04	32.09
23.9	0.41	1.0	0.04	32.13
24	0.41	1.0	0.04	32.17
24.1	0.38	1.2	0.05	32.21
24.2	0.39	1.2	0.05	32.26
24.3	0.38	0.8	0.03	32.29
24.4	0.36	0.8	0.03	32.32
24.5	0.41	0.8	0.03	32.35
24.6	0.43	0.6	0.03	32.38
24.7	0.43	0.6	0.03	32.40
24.8	0.36	0.8	0.02	32.43
24.9	0.39	0.8	0.03	32.46
25	0.39	0.8	0.03	32.50
25.1	0.41	1.0	0.04	32.54
25.2	0.41	0.8	0.03	32.57
25.3	0.43	0.8	0.03	32.60
25.4	0.43	0.8	0.03	32.64
25.5	0.44	0.6	0.03	32.67
25.6	0.44	0.6	0.03	32.69
25.7	0.43	0.6	0.02	32.72
25.8	0.46	0.4	0.02	32.74
25.9	0.44	0.8	0.04	32.77
26	0.46	0.4	0.02	32.79
26.1	0.44	0.2	0.01	32.80
26.2	0.43	0.1	0.00	32.80
26.3	0.43	0.1	0.00	32.81
26.4	0.46	0.1	0.00	32.81
26.5	0.49	0.1	0.00	32.82
26.6	0.59	0.1	0.01	32.82
26.7	0.66	0.1	0.01	32.83
26.8	0.98	0.1	0.01	32.84
26.9	1.05	0.1	0.01	32.85
27	1.05	0.1	0.01	32.86
27.1	1.08	0.1	0.01	32.87
27.2	1.10	0.1	0.01	32.88
27.3	1.12	0.1	0.01	32.89
27.4	1.12	0.1	0.01	32.90
27.5	1.10	0.1	0.01	32.91
27.6	1.08	0.1	0.01	32.93
27.7	1.10	0.1	0.01	32.94
27.8	1.12	0.1	0.01	32.95
27.9	1.12	0.1	0.01	32.96
28	1.18	0.1	0.01	32.97
28.1	1.21	0.1	0.01	32.98
28.2	1.25	0.1	0.01	33.00
28.3	1.25	0.1	0.01	33.01
28.4	1.25	0.1	0.01	33.02
28.5	1.25	0.1	0.01	33.03
28.6	1.25	0.2	0.02	33.06
28.7	1.23	0.2	0.02	33.08
28.8	1.21	0.2	0.02	33.11
28.9	1.18	0.2	0.02	33.13
29	1.20	0.4	0.05	33.18
29.1	1.08	0.4	0.04	33.22
29.2	1.08	0.4	0.04	33.26
29.3	1.08	0.4	0.04	33.31
29.4	1.07	0.4	0.04	33.35
29.5	1.07	0.6	0.06	33.41
29.6	0.92	0.6	0.05	33.47
29.7	0.92	0.8	0.07	33.54
29.8	0.89	0.8	0.06	33.60
29.9	0.85	0.6	0.05	33.65
30	0.79	0.6	0.05	33.70
30.1	0.79	0.8	0.06	33.76
30.2	0.77	0.6	0.05	33.81
30.3	0.77	0.6	0.05	33.85
30.4	0.75	0.6	0.05	33.90
30.5	0.77	0.6	0.05	33.95
30.6	0.75	0.6	0.05	33.99
30.7	0.74	0.4	0.03	34.02
30.8	0.74	0.4	0.03	34.05
30.9	0.72	0.2	0.01	34.06
31	0.69	0.2	0.01	34.08
31.1	0.69	0.2	0.01	34.09
31.2	0.66	0.2	0.01	34.10
31.3	0.66	0.2	0.01	34.12
31.4	0.64	0.2	0.01	34.13
31.5	0.62	0.2	0.01	34.14
31.6	0.62	0.2	0.01	34.16
31.7	0.62	0.2	0.01	34.17
31.8	0.59	0.2	0.01	34.18
31.9	0.59	0.2	0.01	34.19
32	0.57	0.4	0.02	34.21
32.1	0.52	0.4	0.02	34.24
32.2	0.52	0.2	0.01	34.25
32.3	0.52	0.2	0.01	34.26
32.4	0.52	0.2	0.01	34.27
32.5	0.52	0.0	0.00	34.27
32.6	0.51	0.0	0.00	34.27
32.7	0.49	0.0	0.00	34.27
32.8	0.49	0.0	0.00	34.27
32.9	0.49	0.0	0.00	34.27
33	0.49	0.0	0.00	34.27
33.1	0.44	0.0	0.00	34.27
33.2	0.40	0.0	0.00	34.27
33.3	0.30	0.0	0.00	34.27
33.4	0.28	0.0	0.00	34.27
33.5	0.20	0.0	0.00	34.27
33.6	0.20	0.0	0.00	34.27
33.7	0.20	0.0	0.00	34.27
33.8	0.20	0.0	0.00	34.27
33.9	0.13	0.0	0.00	34.27
34	0.13	0.0	0.00	34.27
34.1	0.13	0.0	0.00	34.27

SURFACE WATER FLOW MEASUREMENT DATA SHEET

Location: Key Transition Site *Date:* 7/29/19

SECTION AREA (sq. ft): 20.72905184 *TOTAL FLOW (CFS):* 27.62

Cumulative Section Length	Depth (ft)	Flow Velocity (ft/sec)	Sectional Flow (cfs)	Cumulative Flow
0	0.17	0.0	0.00	0.00
0.1	0.21	0.0	0.00	0.00
0.2	0.21	0.0	0.00	0.00
0.3	0.27	0.0	0.00	0.00
0.4	0.31	0.0	0.00	0.00
0.5	0.31	0.0	0.00	0.00
0.6	0.33	0.0	0.00	0.00
0.7	0.35	0.0	0.00	0.00
0.8	0.40	0.0	0.00	0.00
0.9	0.44	0.0	0.00	0.00
1	0.41	0.0	0.00	0.00
1.2	0.44	0.0	0.00	0.00
1.3	0.43	0.0	0.00	0.00
1.4	0.44	0.0	0.00	0.00
1.5	0.43	0.0	0.00	0.00
1.6	0.34	0.0	0.00	0.00
1.7	0.33	0.0	0.00	0.00
1.8	0.33	0.0	0.00	0.00
1.9	0.34	0.0	0.00	0.00
2	0.33	0.2	0.01	0.01
2.1	0.34	0.2	0.01	0.01
2.2	0.41	0.2	0.01	0.02
2.3	0.62	0.2	0.01	0.03
2.4	0.64	0.2	0.01	0.05
2.5	0.67	0.2	0.01	0.06
2.6	0.69	0.4	0.03	0.09
2.7	0.67	0.6	0.04	0.13
2.8	0.64	0.6	0.04	0.17
2.9	0.62	0.6	0.04	0.21
3	0.61	1.0	0.06	0.26
3.1	0.59	0.6	0.05	0.31
3.2	0.59	0.8	0.05	0.36
3.3	0.56	1.0	0.06	0.42
3.4	0.56	1.2	0.07	0.49
3.5	0.59	0.8	0.05	0.54
3.6	0.62	0.8	0.05	0.59
3.7	0.64	1.0	0.06	0.65
3.8	0.64	0.8	0.05	0.70
3.9	0.54	1.0	0.05	0.76
4	0.56	1.0	0.06	0.81
4.1	0.57	1.2	0.07	0.88
4.2	0.54	1.2	0.06	0.94
4.3	0.56	1.3	0.07	1.02
4.4	0.54	1.5	0.08	1.10
4.5	0.54	1.3	0.07	1.17
4.6	0.56	1.5	0.08	1.25
4.7	0.49	1.3	0.06	1.32
4.8	0.49	1.5	0.07	1.39
4.9	0.49	1.5	0.07	1.46
5	0.51	1.5	0.08	1.54
5.1	0.49	1.5	0.07	1.61
5.2	0.48	1.3	0.06	1.68
5.3	0.46	1.5	0.07	1.75
5.4	0.43	1.3	0.07	1.82
5.5	0.46	1.7	0.08	1.90
5.6	0.48	1.5	0.07	1.97
5.7	0.48	1.5	0.07	2.04
5.8	0.57	1.3	0.07	2.12
5.9	0.57	1.5	0.09	2.21
6	0.57	1.5	0.09	2.29
6.1	0.51	1.3	0.07	2.36
6.2	0.51	1.5	0.08	2.44
6.3	0.52	1.2	0.06	2.50
6.4	0.52	0.8	0.04	2.54
6.5	0.54	0.6	0.03	2.57
6.6	0.46	0.8	0.02	2.60
6.7	0.44	0.8	0.04	2.65
6.8	0.39	0.6	0.02	2.67
6.9	0.39	0.8	0.03	2.70
7	0.39	0.8	0.02	2.73
7.1	0.41	0.8	0.03	2.76
7.2	0.44	1.0	0.04	2.80
7.3	0.44	0.8	0.04	2.84
7.4	0.46	1.0	0.05	2.88
7.5	0.44	1.0	0.04	2.92
7.6	0.46	1.2	0.06	2.98
7.7	0.41	1.3	0.05	3.04
7.8	0.44	1.2	0.05	3.09
7.9	0.39	1.2	0.05	3.13
8	0.46	1.3	0.06	3.19
8.1	0.48	1.5	0.07	3.26
8.2	0.46	1.3	0.06	3.32
8.3	0.46	1.5	0.07	3.39
8.4	0.48	1.3	0.08	3.47
8.5	0.46	1.3	0.07	3.54
8.6	0.48	1.3	0.08	3.62
8.7	0.49	1.9	0.09	3.71
8.8	0.51	1.9	0.10	3.82
8.9	0.52	1.7	0.09	3.90
9	0.52	1.7	0.09	3.99
9.1	0.52	1.5	0.08	4.07
9.2	0.54	1.5	0.08	4.15
9.3	0.54	1.5	0.08	4.23
9.4	0.54	1.5	0.08	4.32
9.5	0.54	1.3	0.09	4.41
9.6	0.54	1.3	0.08	4.50
9.7	0.57	1.3	0.10	4.59
9.8	0.59	1.5	0.09	4.68
9.9	0.61	1.3	0.10	4.78
10	0.57	1.9	0.11	4.89
10.1	0.56	1.7	0.09	4.99
10.2	0.54	1.5	0.08	5.07
10.3	0.57	1.3	0.10	5.17
10.4	0.56	1.7	0.09	5.26
10.5	0.56	1.5	0.08	5.35
10.6	0.59	1.2	0.07	5.42
10.7	0.57	1.2	0.07	5.49
10.8	0.56	1.7	0.09	5.58
10.9	0.56	1.3	0.09	5.68
11	0.64	1.9	0.12	5.80
11.1	0.62	2.1	0.13	5.93
11.2	0.66	2.3	0.15	6.08
11.3	0.66	2.3	0.15	6.23
11.4	0.67	2.3	0.14	6.37
11.5	0.66	1.9	0.12	6.50
11.6	0.64	1.9	0.12	6.62
11.7	0.66	1.9	0.12	6.74
11.8	0.64	1.7	0.11	6.85
11.9	0.66	1.9	0.12	6.97
12	0.71	1.9	0.13	7.10
12.1	0.69	2.3	0.16	7.27
12.2	0.72	2.3	0.17	7.44
12.3	0.72	2.3	0.18	7.61
12.4	0.71	2.5	0.18	7.79
12.5	0.71	2.3	0.16	7.95
12.6	0.67	2.1	0.14	8.09
12.7	0.66	2.1	0.14	8.23
12.8	0.67	2.3	0.15	8.39
12.9	0.67	2.3	0.15	8.54
13	0.67	2.1	0.14	8.68
13.1	0.69	2.1	0.14	8.83
13.2	0.69	2.1	0.14	8.97
13.3	0.71	1.9	0.13	9.11
13.4	0.82	2.1	0.17	9.28
13.5	0.85	2.1	0.18	9.46
13.6	0.85	2.3	0.20	9.65
13.7	0.87	2.5	0.22	9.87
13.8	0.89	2.7	0.24	10.11
13.9	0.89	2.5	0.22	10.33
14	0.90	2.7	0.24	10.57
14.1	0.89	2.9	0.26	10.83
14.2	0.92	2.5	0.23	11.06
14.3	0.92	2.7	0.24	11.31
14.4	0.90	2.7	0.24	11.55
14.5	0.87	2.5	0.22	11.77
14.6	0.85	2.7	0.23	12.00
14.7	0.85	2.5	0.21	12.21
14.8	0.85	2.7	0.23	12.44
14.9	0.87	2.7	0.23	12.67
15	0.95	2.9	0.26	12.96
15.1	0.95	2.9	0.28	13.24
15.2	0.97	3.1	0.30	13.54
15.3	0.92	2.9	0.27	13.80
15.4	0.90	2.9	0.26	14.07
15.5	0.89	3.1	0.27	14.34
15.6	0.82	3.1	0.26	14.60
15.7	0.82	3.1	0.27	14.87
15.8	0.80	3.1	0.25	15.11
15.9	0.72	3.1	0.22	15.34
16	0.69	3.3	0.23	15.57
16.1	0.69	3.1	0.21	15.78
16.2	0.77	3.1	0.24	16.02
16.3	0.79	2.9	0.23	16.25
16.4	0.75	2.9	0.22	16.47
16.5	0.77	2.7	0.21	16.67
16.6	0.75	2.7	0.20	16.88
16.7	0.77	2.9	0.22	17.10
16.8	0.82	2.7	0.22	17.32
16.9	0.87	2.9	0.25	17.57
17	0.85	2.9	0.25	17.82
17.1	0.84	2.7	0.23	18.05
17.2	0.82	2.5	0.21	18.26
17.3	0.84	2.9	0.24	18.50
17.4	0.82	2.7	0.22	18.72
17.5	0.87	2.9	0.25	18.97
17.6	0.89	2.9	0.26	19.23
17.7	0.87	2.7	0.23	19.46
17.8	0.82	2.9	0.24	19.70
17.9	0.82	2.9	0.24	19.94
18	0.71	2.7	0.22	20.14
18.1	0.79	2.7	0.21	20.36
18.2	0.77	2.7	0.21	20.56
18.3	0.79	2.7	0.21	20.78
18.4	0.75	2.7	0.20	20.98
18.5	0.74	2.7	0.20	21.18
18.6	0.72	2.9	0.21	21.39
18.7	0.72	2.7	0.19	21.58
18.8	0.71	2.7	0.19	21.78
18.9	0.72	2.5	0.18	21.96
19	0.69	2.5	0.17	22.13
19.1	0.67	2.5	0.17	22.30
19.2	0.67	2.3	0.15	22.45
19.3	0.71	2.3	0.16	22.61
19.4	0.71	2.1	0.15	22.76
19.5	0.69	2.1	0.14	22.91
19.6	0.72	2.1	0.15	23.06
19.7	0.71	2.1	0.15	23.21
19.8	0.67	2.3	0.15	23.36
19.9	0.69	2.1	0.14	23.50
20	0.69	2.1	0.14	23.65
20.1	0.69	1.9	0.13	23.78
20.2	0.67	1.9	0.13	23.91
20.3	0.61	1.7	0.10	24.01
20.4	0.62	1.7	0.11	24.12
20.5	0.69	1.9	0.13	24.25
20.6	0.64	1.5	0.10	24.30
20.7	0.66	1.5	0.10	24.40
20.8	0.64	1.5	0.10	24.50
20.9	0.59	1.7	0.10	24.60
21	0.56	1.5	0.08	24.68
21.1	0.54	1.5	0.09	24.77
21.2	0.54	1.5	0.08	24.85
21.3	0.54	1.7	0.09	24.94
21.4	0.54	1.7	0.09	25.03
21.5	0.51	1.5	0.08	25.11
21.6	0.49	1.3	0.06	25.17
21.7	0.48	1.5	0.07	25.24
21.8	0.46	1.2	0.06	25.30
21.9	0.39	1.2	0.05	25.35
22	0.38	1.3	0.05	25.40
22.1	0.39	1.2	0.05	25.45
22.2	0.39	1.2	0.05	25.49
22.3	0.41	1.2	0.05	25.55
22.4	0.39	1.2	0.05	25.60
22.5	0.39	1.3	0.05	25.65
22.6	0.43	1.2	0.05	25.70
22.7	0.42	1.2	0.05	25.75
22.8	0.41	1.2	0.05	25.80
22.9	0.36	1.2	0.04	25.84
23	0.34	1.3	0.04	25.89
23.1	0.34	1.2	0.04	25.93
23.2	0.34	1.3	0.04	25.97
23.3	0.34	1.2	0.04	26.02
23.4	0.33	1.0	0.03	26.05
23.5	0.34	1.0	0.03	26.09
23.6	0.31	0.8	0.02	26.11
23.7	0.33	0.8	0.03	26.14
23.8	0.33	1.0	0.03	26.17
23.9	0.34	0.8	0.03	26.20
24	0.38	1.0	0.04	26.24
24.1	0.38	1.0	0.04	26.27
24.2	0.38	1.0	0.04	26.31
24.3	0.36	1.0	0.04	26.35
24.4	0.38	0.8	0.03	26.38
24.5	0.36	1.0	0.04	26.41
24.6	0.34	0.8	0.03	26.44
24.7	0.33	1.0	0.03	26.47
24.8	0.33	0.8	0.03	26.50
24.9	0.34	0.8	0.03	26.53
25	0.34	0.6	0.02	26.55
25.1	0.34	0.8	0.03	26.58
25.2	0.36	0.8	0.03	26.60
25.3	0.38	0.8	0.03	26.63
25.4	0.34	0.8	0.03	26.66
25.5	0.38	0.8	0.04	26.70
25.6	0.39	0.6	0.02	26.72
25.7	0.41	0.6	0.02	26.75
25.8	0.41	0.8	0.03	26.78
25.9	0.52	1.0	0.05	26.83
26	0.56	0.8	0.04	26.88
26.1	0.57	0.8	0.05	26.93
26.2	0.66	0.6	0.04	26.96
26.3	0.72	0.8	0.06	27.02
26.4	0.74	0.6	0.04	27.07
26.5	0.82	0.6	0.05	27.12
26.6	0.85	0.6	0.05	27.17
26.7	0.85	0.6	0.05	27.22
26.8	0.90	0.6	0.05	27.27
26.9	1.05	0.6	0.06	27.34
27	1.10	0.4	0.04	27.38
27.1	1.12	0.4	0.04	27.42
27.2	1.13	0.2	0.02	27.45
27.3	1.12	0.2	0.02	27.47
27.4	1.12	0.2	0.02	27.49
27.5	1.10	0.0	0.00	27.49
27.6	1.12	0.0	0.00	27.49
27.7	1.13	0.0	0.00	27.49
27.8	1.16	0.0	0.00	27.49
27.9	1.18	0.0	0.00	27.49
28	1.18	0.0	0.00	27.49
28.1	1.18	0.0	0.00	27.49
28.2	1.18	0.0	0.00	27.49
28.3	1.16	0.0	0.00	27.49
28.4	1.16	0.0	0.00	27.49
28.5	1.15	0.0	0.00	27.49
28.6	1.15	0.0	0.00	27.49
28.7	1.10	0.0	0.00	27.49
28.8	1.10	0.0	0.00	27.49
28.9	1.07	0.0	0.00	27.49
29	1.00	0.0	0.00	27.49
29.1	0.98	0.0	0.00	27.49
29.2	0.95	0.0	0.00	27.49
29.3	0.94	0.0	0.00	27.49
29.4	0.92	0.0	0.00	27.49
29.5	0.89	0.0	0.00	27.49
29.6	0.85	0.0	0.00	27.49
29.7	0.84	0.0	0.00	27.49
29.8	0.82	0.0	0.00	27.49
29.9	0.82	0.0	0.00	27.49
30	0.80	0.0	0.00	27.49
30.1	0.77	0.2	0.00	27.49
30.2	0.77	0.2	0.02	27.51
30.3	0.74	0.2	0.02	27.52
30.4	0.72	0.2	0.01	27.54
30.5	0.69	0.2	0.01	27.55
30.6	0.69	0.2	0.01	27.56
30.7	0.67	0.2	0.01	27.58
30.8	0.66	0.2	0.01	27.59
30.9	0.66	0.2	0.01	27.60
31	0.64	0.2	0.01	27.62
31.1	0.64	0.0	0.00	27.62
31.2	0.59	0.0	0.00	27.62
31.3	0.57	0.0	0.00	27.62
31.4	0.57	0.0	0.00	27.62
31.5	0.54	0.0	0.00	27.62
31.6	0.49	0.0	0.00	27.62
31.7	0.51	0.0	0.00	27.62
31.8	0.49	0.0	0.00	27.62
31.9	0.46	0.0	0.00	27.62
32	0.46	0.0	0.00	27.62
32.1	0.46	0.0	0.00	27.62
32.2	0.46	0.0	0.00	27.62
32.3	0.44	0.0	0.00	27.62
32.4	0.43	0.0	0.00	27.62
32.5	0.43	0.0	0.00	27.62
32.6	0.43	0.0	0.00	27.62
32.7	0.41	0.0	0.00	27.62
32.8	0.39	0.0	0.00	27.62
32.9	0.36	0.0	0.00	27.62
33	0.31	0.0	0.00	27.62
33.1	0.21	0.0	0.00	27.62
33.2	0.21	0.0	0.00	27.62
33.3	0.19	0.0	0.00	27.62
33.4	0.17	0.0	0.00	27.62
33.5	0.17	0.0	0.00	27.62
33.6	0.15	0.0	0.00	27.62

SURFACE WATER FLOW MEASUREMENT DATA SHEET

Location: Key Transition Site *Date:* 9/5/19

SECTION AREA (sq. ft): 17.49583333 *TOTAL FLOW (CFS):* 17.34

Cumulative Section Length	Depth (ft)	Flow Velocity (ft/sec)	Sectional Flow (cfs)	Cumulative Flow
0	0.15	0.0	0.00	0.00
0.1	0.17	0.0	0.00	0.00
0.2	0.17	0.0	0.00	0.00
0.3	0.19	0.0	0.00	0.00
0.4	0.15	0.0	0.00	0.00
0.5	0.15	0.0	0.00	0.00
0.6	0.13	0.0	0.00	0.00
0.7	0.13	0.0	0.00	0.00
0.8	0.10	0.0	0.00	0.00
0.9	0.13	0.0	0.00	0.00
1	0.08	0.0	0.00	0.00
1.2	0.10	0.0	0.00	0.00
1.3	0.10	0.0	0.00	0.00
1.4	0.13	0.0	0.00	0.00
1.5	0.17	0.0	0.00	0.00
1.6	0.25	0.0	0.00	0.00
1.7	0.27	0.0	0.00	0.00
1.8	0.29	0.0	0.00	0.00
1.9	0.38	0.0	0.00	0.00
2	0.40	0.0	0.00	0.00
2.1	0.38	0.0	0.00	0.00
2.2	0.44	0.0	0.00	0.00
2.3	0.46	0.0	0.00	0.00
2.4	0.33	0.0	0.00	0.00
2.5	0.25	0.0	0.00	0.00
2.6	0.23	0.0	0.00	0.00
2.7	0.21	0.0	0.00	0.00
2.8	0.13	0.0	0.00	0.00
2.9	0.13	0.0	0.00	0.00
3	0.10	0.0	0.00	0.00
3.1	0.15	1.2	0.02	0.02
3.2	0.15	1.3	0.02	0.04
3.3	0.29	1.3	0.04	0.07
3.4	0.29	0.6	0.02	0.09
3.5	0.31	0.0	0.00	0.09
3.6	0.38	0.0	0.00	0.09
3.7	0.46	0.0	0.00	0.09
3.8	0.46	0.0	0.00	0.09
3.9	0.48	0.0	0.00	0.09
4	0.50	0.0	0.00	0.09
4.1	0.50	0.0	0.00	0.09
4.2	0.46	0.0	0.00	0.09
4.3	0.44	0.0	0.00	0.09
4.4	0.42	0.8	0.03	0.13
4.5	0.44	1.0	0.04	0.17
4.6	0.44	1.1	0.05	0.22
4.7	0.44	1.1	0.05	0.27
4.8	0.46	0.8	0.04	0.30
4.9	0.48	1.1	0.05	0.35
5	0.50	1.1	0.05	0.41
5.1	0.50	1.0	0.05	0.46
5.2	0.50	1.0	0.05	0.51
5.3	0.42	0.9	0.03	0.54
5.4	0.42	0.6	0.02	0.57
5.5	0.40	0.4	0.02	0.59
5.6	0.42	0.2	0.01	0.59
5.7	0.42	0.4	0.02	0.61
5.8	0.46	0.2	0.01	0.62
5.9	0.46	0.4	0.02	0.64
6	0.40	0.4	0.02	0.65
6.1	0.42	0.6	0.02	0.68
6.2	0.42	1.0	0.04	0.72
6.3	0.44	1.1	0.05	0.77
6.4	0.42	1.0	0.04	0.81
6.5	0.42	0.8	0.03	0.84
6.6	0.44	0.4	0.02	0.86
6.7	0.46	0.2	0.01	0.87
6.8	0.40	0.2	0.01	0.88
6.9	0.42	0.2	0.01	0.88
7	0.42	0.4	0.02	0.90
7.1	0.44	0.2	0.01	0.91
7.2	0.42	0.4	0.02	0.93
7.3	0.46	0.4	0.02	0.95
7.4	0.50	0.3	0.03	0.97
7.5	0.50	0.6	0.04	1.01
7.6	0.50	1.0	0.05	1.06
7.7	0.50	1.0	0.05	1.11
7.8	0.52	1.0	0.05	1.17
7.9	0.54	1.0	0.05	1.22
8	0.56	0.8	0.05	1.27
8.1	0.60	0.8	0.05	1.31
8.2	0.60	0.6	0.04	1.35
8.3	0.58	0.6	0.03	1.39
8.4	0.56	1.0	0.06	1.45
8.5	0.58	1.0	0.06	1.51
8.6	0.63	1.3	0.07	1.58
8.7	0.65	1.3	0.07	1.66
8.8	0.67	1.3	0.09	1.75
8.9	0.67	1.1	0.07	1.82
9	0.54	1.3	0.07	1.89
9.1	0.56	1.1	0.06	1.95
9.2	0.56	1.1	0.06	2.01
9.3	0.58	1.0	0.06	2.07
9.4	0.58	1.0	0.06	2.13
9.5	0.56	0.8	0.05	2.17
9.6	0.58	0.6	0.03	2.21
9.7	0.56	0.8	0.04	2.25
9.8	0.54	0.4	0.02	2.27
9.9	0.54	0.4	0.02	2.30
10	0.52	0.2	0.01	2.31
10.1	0.52	0.4	0.02	2.33
10.2	0.52	0.4	0.02	2.35
10.3	0.54	0.6	0.03	2.38
10.4	0.63	0.8	0.05	2.43
10.5	0.63	0.6	0.04	2.47
10.6	0.56	0.8	0.03	2.50
10.7	0.58	0.6	0.03	2.54
10.8	0.54	0.8	0.04	2.58
10.9	0.56	0.6	0.03	2.61
11	0.52	0.6	0.03	2.65
11.1	0.54	0.4	0.02	2.67
11.2	0.54	0.6	0.03	2.70
11.3	0.56	0.4	0.02	2.72
11.4	0.56	0.4	0.02	2.74
11.5	0.50	0.6	0.03	2.77
11.6	0.48	0.4	0.02	2.79
11.7	0.42	0.4	0.02	2.81
11.8	0.42	0.4	0.02	2.83
11.9	0.44	0.6	0.03	2.85
12	0.44	0.8	0.04	2.89
12.1	0.50	1.0	0.05	2.94
12.2	0.63	1.0	0.06	3.00
12.3	0.63	1.3	0.08	3.08
12.4	0.60	1.3	0.07	3.15
12.5	0.65	1.0	0.06	3.21
12.6	0.63	1.1	0.07	3.28
12.7	0.67	1.3	0.09	3.37
12.8	0.67	1.3	0.09	3.46
12.9	0.73	1.5	0.11	3.56
13	0.75	1.3	0.10	3.66
13.1	0.75	1.3	0.10	3.76
13.2	0.73	1.3	0.11	3.87
13.3	0.71	1.7	0.12	3.99
13.4	0.67	1.7	0.11	4.10
13.5	0.71	1.9	0.13	4.24
13.6	0.71	2.1	0.15	4.39
13.7	0.75	1.9	0.14	4.53
13.8	0.79	1.7	0.13	4.66
13.9	0.77	1.9	0.15	4.81
14	0.81	1.9	0.15	4.96
14.1	0.81	1.9	0.15	5.12
14.2	0.83	1.7	0.14	5.26
14.3	0.83	1.9	0.16	5.42
14.4	0.81	2.1	0.17	5.59
14.5	0.83	2.1	0.18	5.76
14.6	0.81	1.9	0.15	5.92
14.7	0.77	2.3	0.18	6.10
14.8	0.75	2.3	0.17	6.27
14.9	0.75	2.3	0.17	6.44
15	0.63	2.5	0.16	6.60
15.1	0.60	2.7	0.16	6.74
15.2	0.63	2.5	0.16	6.90
15.3	0.65	2.5	0.16	7.06
15.4	0.67	2.7	0.18	7.24
15.5	0.67	2.5	0.17	7.41
15.6	0.69	2.5	0.16	7.56
15.7	0.71	2.3	0.16	7.73
15.8	0.73	2.3	0.18	7.91
15.9	0.75	2.5	0.19	8.10
16	0.75	2.7	0.20	8.30
16.1	0.77	2.5	0.19	8.49
16.2	0.75	2.5	0.17	8.66
16.3	0.73	2.5	0.18	8.85
16.4	0.79	2.5	0.20	9.04
16.5	0.79	2.5	0.20	9.22
16.6	0.81	2.1	0.17	9.39
16.7	0.83	2.3	0.19	9.58
16.8	0.83	2.1	0.18	9.76
16.9	0.81	2.3	0.19	9.95
17	0.79	2.1	0.17	10.11
17.1	0.81	2.1	0.17	10.28
17.2	0.79	1.9	0.15	10.43
17.3	0.79	2.1	0.17	10.60
17.4	0.81	2.1	0.17	10.77
17.5	0.81	2.1	0.17	10.94
17.6	0.75	1.9	0.14	11.08
17.7	0.77	1.5	0.10	11.18
17.8	0.77	1.3	0.10	11.28
17.9	0.75	1.1	0.08	11.36
18	0.75	1.3	0.10	11.46
18.1	0.75	1.0	0.08	11.54
18.2	0.73	1.1	0.09	11.63
18.3	0.73	1.1	0.08	11.71
18.4	0.73	1.5	0.11	11.82
18.5	0.71	1.7	0.12	11.94
18.6	0.71	1.9	0.13	12.08
18.7	0.73	2.1	0.15	12.23
18.8	0.75	1.9	0.14	12.37
18.9	0.71	1.7	0.12	12.49
19	0.71	1.7	0.12	12.61
19.1	0.69	1.5	0.10	12.72
19.2	0.73	1.5	0.11	12.83
19.3	0.71	1.1	0.08	12.90
19.4	0.69	1.3	0.09	12.99
19.5	0.69	1.1	0.08	13.07
19.6	0.67	1.0	0.07	13.14
19.7	0.71	1.2	0.09	13.23
19.8	0.71	1.5	0.11	13.33
19.9	0.71	1.7	0.12	13.46
20	0.67	1.9	0.13	13.58
20.1	0.67	1.7	0.11	13.69
20.2	0.65	1.7	0.11	13.80
20.3	0.65	1.5	0.09	13.90
20.4	0.58	1.3	0.08	13.97
20.5	0.60	1.3	0.08	14.05
20.6	0.56	1.3	0.07	14.12
20.7	0.54	1.3	0.07	14.19
20.8	0.52	1.3	0.06	14.25
20.9	0.50	1.3	0.06	14.32
21	0.44	1.3	0.06	14.37
21.1	0.46	1.3	0.07	14.44
21.2	0.48	1.3	0.07	14.51
21.3	0.46	1.3	0.07	14.58
21.4	0.44	1.3	0.06	14.64
21.5	0.46	1.3	0.07	14.71
21.6	0.44	1.3	0.07	14.77
21.7	0.42	1.3	0.06	14.84
21.8	0.42	1.3	0.05	14.89
21.9	0.35	1.3	0.05	14.94
22	0.42	1.3	0.06	15.00
22.1	0.38	1.3	0.05	15.05
22.2	0.44	1.3	0.06	15.10
22.3	0.44	1.3	0.05	15.15
22.4	0.42	1.3	0.05	15.20
22.5	0.38	1.1	0.04	15.24
22.6	0.35	1.0	0.04	15.28
22.7	0.38	1.0	0.04	15.31
22.8	0.40	1.1	0.04	15.36
22.9	0.42	1.0	0.04	15.40
23	0.42	1.0	0.04	15.44
23.1	0.40	1.0	0.04	15.48
23.2	0.40	0.8	0.03	15.51
23.3	0.35	0.8	0.02	15.54
23.4	0.31	0.8	0.02	15.56
23.5	0.25	1.0	0.02	15.59
23.6	0.25	1.0	0.03	15.61
23.7	0.29	1.0	0.03	15.64
23.8	0.29	1.0	0.03	15.67
23.9	0.29	1.0	0.03	15.70
24	0.29	0.6	0.02	15.71
24.1	0.27	0.8	0.02	15.74
24.2	0.29	0.8	0.02	15.76
24.3	0.27	0.8	0.02	15.78
24.4	0.29	0.8	0.02	15.80
24.5	0.31	1.0	0.03	15.83
24.6	0.29	0.8	0.02	15.86
24.7	0.27	0.8	0.02	15.88
24.8	0.25	0.8	0.02	15.89
24.9	0.25	0.4	0.01	15.90
25	0.27	0.2	0.01	15.91
25.1	0.29	0.2	0.01	15.92
25.2	0.33	0.0	0.00	15.92
25.3	0.33	0.0	0.00	15.92
25.4	0.40	0.0	0.00	15.92
25.5	0.50	0.0	0.00	15.92
25.6	0.54	0.0	0.00	15.92
25.7	0.56	0.0	0.00	15.92
25.8	0.63	0.0	0.00	15.92
25.9	0.65	0.0	0.00	15.92
26	0.67	0.0	0.00	15.92
26.1	0.67	0.0	0.00	15.92
26.2	0.71	0.2	0.01	15.93
26.3	0.69	0.2	0.01	15.94
26.4	0.71	0.0	0.00	15.94
26.5	0.69	0.2	0.01	15.96
26.6	0.73	0.2	0.01	15.97
26.7	0.75	0.0	0.00	15.97
26.8	0.75	0.0	0.00	15.97
26.9	0.77	0.0	0.00	15.97
27	0.77	0.0	0.00	15.97
27.1	0.77	0.4	0.01	15.98
27.2	0.75	0.4	0.01	16.00
27.3	0.77	0.6	0.01	16.01
27.4	0.77	0.6	0.01	16.03
27.5	0.79	0.6	0.01	16.04
27.6	0.79	0.6	0.01	16.06
27.7	0.79	0.6	0.01	16.07
27.8	0.79	0.4	0.01	16.08
27.9	0.81	0.4	0.01	16.09
28	0.81	0.4	0.01	16.10
28.1	0.83	0.2	0.01	16.11
28.2	0.83	0.2	0.01	16.12
28.3	0.81	0.6	0.01	16.13
28.4	0.81	0.6	0.01	16.15
28.5	0.79	0.2	0.01	16.16
28.6	0.79	0.2	0.01	16.17
28.7	0.79	0.2	0.01	16.18
28.8	0.79	0.2	0.01	16.19
28.9	0.77	0.2	0.01	16.20
29	0.75	0.4	0.01	16.21
29.1	0.75	0.4	0.01	16.22
29.2	0.71	0.6	0.01	16.23
29.3	0.71	0.6	0.01	16.24
29.4	0.67	0.6	0.01	16.25
29.5	0.67	0.4	0.01	16.26
29.6	0.65	0.4	0.01	16.27
29.7	0.60	0.4	0.01	16.28
29.8	0.58	0.4	0.01	16.29
29.9	0.58	0.4	0.01	16.30
30	0.56	0.6	0.01	16.31
30.1	0.54	0.4	0.01	16.32
30.2	0.54	0.4	0.01	16.33
30.3	0.54	0.4	0.01	16.34
30.4	0.52	0.4	0.01	16.35
30.5	0.50	0.4	0.01	17.01
30.6	0.50	0.4	0.02	17.03
30.7	0.50	0.4	0.02	17.05
30.8	0.48	0.4	0.02	17.07
30.9	0.46	0.4	0.02	17.08
31	0.42	0.4	0.02	17.10
31.1	0.40	0.4	0.02	17.12
31.2	0.40	0.4	0.02	17.13
31.3	0.38	0.4	0.02	17.15
31.4	0.38	0.4	0.02	17.17
31.5	0.38	0.4	0.02	17.18
31.6	0.38	0.4	0.02	17.20
31.7	0.35	0.6	0.02	17.22
31.8	0.33	0.6	0.02	17.23
31.9	0.33	0.4	0.01	17.25
32	0.33	0.4	0.01	17.26
32.1	0.31	0.4	0.01	17.27
32.2	0.31	0.4	0.01	17.29
32.3	0.29	0.2	0.01	17.29
32.4	0.29	0.2	0.01	17.30
32.5	0.29	0.2	0.01	17.30
32.6	0.31	0.2	0.01	17.31
32.7	0.31	0.2	0.01	17.32
32.8	0.33	0.2	0.01	17.32
32.9	0.33	0.2	0.01	17.33
33	0.31	0.2	0.01	17.34
33.1	0.31	0.2	0.00	17.34
33.2	0.08	0.2	0.00	17.34
33.3	0.08	0.0	0.00	17.34
33.4	0.08	0.0	0.00	17.34
33.5	0.06	0.0	0.00	17.34
33.6	0.08	0.0	0.00	17.34

SURFACE WATER FLOW MEASUREMENT DATA SHEET

Location: Key Transition Site — *Date:* 9/26/19

SECTION AREA (sq. ft): 17.9125 — *TOTAL FLOW (CFS):* 14.66

Cumulative Section Length	Depth (ft)	Flow Velocity (ft/sec)	Sectional Flow (cfs)	Cumulative Flow
0	0.06	0.0	0.00	0.00
0.1	0.06	0.0	0.00	0.00
0.2	0.08	0.0	0.00	0.00
0.3	0.13	0.0	0.00	0.00
0.4	0.13	0.0	0.00	0.00
0.5	0.10	0.0	0.00	0.00
0.6	0.08	0.0	0.00	0.00
0.7	0.08	0.0	0.00	0.00
0.8	0.08	0.0	0.00	0.00
0.9	0.10	0.0	0.00	0.00
1	0.10	0.0	0.00	0.00
1.2	0.08	0.0	0.00	0.00
1.3	0.13	0.0	0.00	0.00
1.4	0.17	0.0	0.00	0.00
1.5	0.21	0.0	0.00	0.00
1.6	0.25	0.0	0.00	0.00
1.7	0.29	0.0	0.00	0.00
1.8	0.31	0.0	0.00	0.00
1.9	0.33	0.0	0.00	0.00
2	0.35	0.0	0.00	0.00
2.1	0.35	0.0	0.00	0.00
2.2	0.38	0.0	0.00	0.00
2.3	0.35	0.0	0.00	0.00
2.4	0.38	0.2	0.01	0.01
2.5	0.46	0.2	0.01	0.02
2.6	0.50	0.2	0.01	0.03
2.7	0.54	0.2	0.01	0.04
2.8	0.58	0.4	0.02	0.06
2.9	0.58	0.4	0.02	0.08
3	0.60	0.4	0.02	0.11
3.1	0.63	0.6	0.04	0.15
3.2	0.63	0.6	0.04	0.18
3.3	0.65	0.8	0.05	0.24
3.4	0.60	0.8	0.04	0.27
3.5	0.58	0.8	0.05	0.32
3.6	0.56	0.8	0.04	0.35
3.7	0.56	0.4	0.02	0.36
3.8	0.52	0.4	0.02	0.38
3.9	0.50	0.6	0.03	0.41
4	0.50	0.4	0.02	0.43
4.1	0.48	0.6	0.03	0.46
4.2	0.46	0.6	0.03	0.49
4.3	0.50	0.6	0.03	0.52
4.4	0.52	0.8	0.04	0.56
4.5	0.52	0.6	0.03	0.59
4.6	0.50	0.6	0.03	0.62
4.7	0.52	0.4	0.02	0.64
4.8	0.54	0.4	0.02	0.67
4.9	0.54	0.6	0.03	0.70
5	0.52	0.4	0.02	0.72
5.1	0.52	0.2	0.01	0.73
5.2	0.50	0.2	0.01	0.74
5.3	0.50	0.2	0.01	0.75
5.4	0.52	0.2	0.01	0.76
5.5	0.52	0.2	0.01	0.77
5.6	0.46	0.2	0.01	0.78
5.7	0.46	0.2	0.01	0.79
5.8	0.46	0.2	0.01	0.80
5.9	0.46	0.2	0.01	0.81
6	0.46	0.2	0.01	0.82
6.1	0.48	0.4	0.02	0.83
6.2	0.46	0.6	0.03	0.86
6.3	0.44	0.6	0.03	0.89
6.4	0.44	0.6	0.03	0.91
6.5	0.42	0.6	0.02	0.94
6.6	0.42	0.6	0.02	0.96
6.7	0.42	0.6	0.02	0.99
6.8	0.44	0.4	0.02	1.01
6.9	0.46	0.6	0.03	1.04
7	0.50	0.6	0.03	1.07
7.1	0.52	0.4	0.02	1.09
7.2	0.58	0.4	0.02	1.11
7.3	0.63	0.4	0.02	1.13
7.4	0.65	0.4	0.03	1.16
7.5	0.67	0.4	0.03	1.19
7.6	0.65	0.4	0.03	1.21
7.7	0.63	0.6	0.04	1.25
7.8	0.60	0.6	0.04	1.29
7.9	0.58	0.6	0.03	1.32
8	0.58	0.6	0.03	1.36
8.1	0.58	0.8	0.05	1.41
8.2	0.56	1.0	0.06	1.46
8.3	0.52	1.0	0.05	1.51
8.4	0.46	1.0	0.05	1.56
8.5	0.46	1.0	0.05	1.61
8.6	0.44	1.3	0.06	1.67
8.7	0.48	1.3	0.05	1.72
8.8	0.46	1.3	0.05	1.77
8.9	0.48	1.3	0.05	1.82
9	0.50	1.0	0.05	1.87
9.1	0.44	1.0	0.04	1.91
9.2	0.42	0.8	0.03	1.95
9.3	0.48	0.8	0.04	1.99
9.4	0.50	0.8	0.04	2.03
9.5	0.54	1.0	0.05	2.08
9.6	0.52	1.0	0.05	2.13
9.7	0.50	0.8	0.04	2.17
9.8	0.56	0.8	0.04	2.22
9.9	0.54	0.8	0.04	2.26
10	0.56	0.4	0.02	2.28
10.1	0.58	0.4	0.02	2.31
10.2	0.56	0.2	0.01	2.32
10.3	0.58	0.4	0.02	2.35
10.4	0.58	0.4	0.02	2.38
10.5	0.58	0.2	0.01	2.38
10.6	0.56	0.6	0.03	2.41
10.7	0.58	0.6	0.03	2.45
10.8	0.54	0.8	0.04	2.49
10.9	0.52	0.8	0.04	2.53
11	0.50	1.0	0.05	2.58
11.1	0.54	1.0	0.05	2.63
11.2	0.54	0.8	0.04	2.67
11.3	0.52	0.8	0.04	2.72
11.4	0.52	0.6	0.03	2.75
11.5	0.56	1.0	0.06	2.81
11.6	0.58	1.0	0.06	2.86
11.7	0.58	1.3	0.06	2.93
11.8	0.56	1.3	0.07	3.00
11.9	0.50	1.3	0.07	3.07
12	0.42	1.3	0.05	3.13
12.1	0.38	1.3	0.05	3.16
12.2	0.42	1.5	0.06	3.22
12.3	0.50	1.3	0.07	3.29
12.4	0.50	1.3	0.06	3.34
12.5	0.54	1.3	0.07	3.41
12.6	0.58	1.3	0.06	3.48
12.7	0.58	1.3	0.06	3.54
12.8	0.60	1.3	0.06	3.60
12.9	0.58	1.3	0.06	3.68
13	0.60	1.3	0.08	3.76
13.1	0.63	1.5	0.09	3.85
13.2	0.63	1.3	0.08	3.93
13.3	0.60	1.5	0.09	4.02
13.4	0.60	1.5	0.09	4.11
13.5	0.63	1.5	0.11	4.22
13.6	0.65	1.5	0.10	4.32
13.7	0.67	1.3	0.09	4.40
13.8	0.69	1.5	0.10	4.51
13.9	0.71	1.3	0.09	4.60
14	0.71	1.1	0.08	4.68
14.1	0.75	1.1	0.08	4.77
14.2	0.73	1.3	0.09	4.87
14.3	0.79	1.5	0.12	4.99
14.4	0.81	1.5	0.12	5.11
14.5	0.79	1.7	0.13	5.24
14.6	0.81	1.9	0.15	5.40
14.7	0.83	1.9	0.16	5.56
14.8	0.83	2.1	0.18	5.73
14.9	0.85	2.3	0.20	5.93
15	0.83	2.1	0.18	6.10
15.1	0.83	2.1	0.18	6.28
15.2	0.79	2.1	0.17	6.44
15.3	0.79	2.1	0.17	6.61
15.4	0.79	1.9	0.15	6.76
15.5	0.79	1.7	0.13	6.89
15.6	0.77	1.7	0.13	7.03
15.7	0.75	1.9	0.14	7.17
15.8	0.75	1.7	0.13	7.30
15.9	0.73	2.1	0.15	7.45
16	0.71	1.9	0.13	7.58
16.1	0.71	2.1	0.15	7.73
16.2	0.71	1.9	0.13	7.87
16.3	0.73	2.1	0.15	8.02
16.4	0.75	1.9	0.14	8.16
16.5	0.75	1.9	0.14	8.30
16.6	0.75	1.9	0.14	8.44
16.7	0.77	1.9	0.15	8.59
16.8	0.75	2.1	0.16	8.75
16.9	0.77	1.7	0.13	8.88
17	0.77	1.7	0.12	8.99
17.1	0.77	1.7	0.13	9.12
17.2	0.79	1.5	0.12	9.24
17.3	0.77	1.7	0.13	9.37
17.4	0.75	1.5	0.11	9.49
17.5	0.77	1.5	0.12	9.60
17.6	0.79	1.3	0.10	9.71
17.7	0.77	1.3	0.10	9.81
17.8	0.79	1.0	0.08	9.89
17.9	0.75	0.8	0.06	9.95
18	0.75	1.1	0.08	10.03
18.1	0.73	1.0	0.07	10.10
18.2	0.75	0.8	0.06	10.16
18.3	0.75	0.8	0.06	10.22
18.4	0.75	1.1	0.08	10.30
18.5	0.71	1.3	0.09	10.40
18.6	0.71	1.3	0.09	10.49
18.7	0.73	1.5	0.11	10.60
18.8	0.73	1.5	0.11	10.71
18.9	0.71	1.5	0.11	10.81
19	0.71	1.5	0.11	10.92
19.1	0.69	1.3	0.09	11.01
19.2	0.67	1.1	0.07	11.08
19.3	0.67	1.3	0.09	11.17
19.4	0.65	1.5	0.10	11.25
19.5	0.63	1.5	0.09	11.35
19.6	0.63	1.1	0.07	11.41
19.7	0.60	1.3	0.08	11.49
19.8	0.65	0.8	0.05	11.54
19.9	0.63	1.0	0.06	11.61
20	0.63	1.0	0.06	11.67
20.1	0.60	1.0	0.06	11.73
20.2	0.60	1.1	0.07	11.80
20.3	0.58	1.3	0.09	11.88
20.4	0.54	1.5	0.08	11.97
20.5	0.52	1.1	0.06	12.02
20.6	0.50	1.0	0.05	12.07
20.7	0.50	0.8	0.04	12.11
20.8	0.48	1.1	0.05	12.17
20.9	0.48	1.3	0.06	12.22
21	0.46	1.3	0.06	12.28
21.1	0.46	1.5	0.07	12.35
21.2	0.44	1.3	0.06	12.41
21.3	0.42	0.8	0.04	12.44
21.4	0.44	0.8	0.02	12.46
21.5	0.42	0.8	0.03	12.49
21.6	0.44	1.0	0.04	12.54
21.7	0.42	1.0	0.04	12.58
21.8	0.46	1.0	0.05	12.62
21.9	0.42	1.1	0.05	12.67
22	0.44	1.1	0.05	12.72
22.1	0.42	1.1	0.05	12.77
22.2	0.42	1.1	0.05	12.82
22.3	0.40	1.0	0.04	12.86
22.4	0.42	0.8	0.03	12.89
22.5	0.42	0.8	0.03	12.92
22.6	0.44	0.6	0.03	12.95
22.7	0.42	0.6	0.02	12.97
22.8	0.40	0.6	0.02	13.00
22.9	0.35	0.8	0.03	13.03
23	0.38	0.6	0.02	13.05
23.1	0.40	0.6	0.02	13.07
23.2	0.42	0.8	0.03	13.11
23.3	0.35	0.4	0.01	13.12
23.4	0.33	0.6	0.02	13.14
23.5	0.29	0.6	0.02	13.16
23.6	0.25	0.4	0.01	13.17
23.7	0.27	0.6	0.02	13.19
23.8	0.25	0.4	0.01	13.20
23.9	0.25	0.6	0.01	13.21
24	0.25	0.6	0.02	13.23
24.1	0.27	0.6	0.02	13.24
24.2	0.25	0.8	0.02	13.26
24.3	0.25	0.8	0.02	13.28
24.4	0.25	0.4	0.01	13.29
24.5	0.23	0.4	0.01	13.30
24.6	0.27	0.6	0.02	13.31
24.7	0.25	0.6	0.01	13.33
24.8	0.25	0.6	0.02	13.34
24.9	0.23	0.4	0.01	13.35
25	0.23	0.2	0.00	13.36
25.1	0.25	0.4	0.01	13.37
25.2	0.25	0.6	0.01	13.38
25.3	0.23	0.6	0.01	13.40
25.4	0.23	0.4	0.01	13.40
25.5	0.29	0.6	0.02	13.42
25.6	0.35	0.6	0.02	13.44
25.7	0.38	0.6	0.01	13.46
25.8	0.42	0.6	0.02	13.48
25.9	0.42	0.4	0.01	13.48
26	0.58	0.4	0.02	13.51
26.1	0.65	0.4	0.03	13.53
26.2	0.67	0.6	0.04	13.55
26.3	0.67	0.4	0.03	13.57
26.4	0.67	0.6	0.04	13.61
26.5	0.69	0.6	0.04	13.66
26.6	0.73	0.6	0.04	13.70
26.7	0.75	0.4	0.03	13.73
26.8	0.75	0.4	0.03	13.76
26.9	0.77	0.4	0.03	13.79
27	0.75	0.2	0.02	13.80
27.1	0.79	0.2	0.02	13.82
27.2	0.77	0.2	0.02	13.84
27.3	0.77	0.2	0.02	13.85
27.4	0.77	0.2	0.02	13.87
27.5	0.77	0.2	0.02	13.88
27.6	0.79	0.2	0.02	13.90
27.7	0.79	0.2	0.02	13.91
27.8	0.79	0.2	0.02	13.93
27.9	0.81	0.2	0.02	13.95
28	0.83	0.2	0.02	13.96
28.1	0.83	0.2	0.02	13.98
28.2	0.85	0.2	0.02	14.00
28.3	0.85	0.2	0.02	14.01
28.4	0.85	0.2	0.02	14.03
28.5	0.83	0.4	0.03	14.06
28.6	0.83	0.4	0.03	14.11
28.7	0.81	0.4	0.03	14.15
28.8	0.81	0.4	0.03	14.18
28.9	0.79	0.4	0.03	14.21
29	0.79	0.4	0.03	14.24
29.1	0.77	0.2	0.02	14.26
29.2	0.79	0.2	0.02	14.27
29.3	0.77	0.2	0.02	14.29
29.4	0.75	0.2	0.02	14.30
29.5	0.73	0.2	0.02	14.32
29.6	0.71	0.2	0.01	14.33
29.7	0.69	0.2	0.01	14.35
29.8	0.67	0.2	0.01	14.36
29.9	0.65	0.2	0.01	14.37
30	0.63	0.2	0.01	14.38
30.1	0.65	0.2	0.01	14.40
30.2	0.63	0.2	0.01	14.41
30.3	0.60	0.2	0.01	14.42
30.4	0.56	0.2	0.01	14.44
30.5	0.56	0.2	0.01	14.46
30.6	0.54	0.4	0.02	14.48
30.7	0.52	0.2	0.01	14.49
30.8	0.50	0.2	0.01	14.50
30.9	0.50	0.2	0.01	14.52
31	0.50	0.4	0.02	14.54
31.1	0.46	0.2	0.01	14.55
31.2	0.42	0.2	0.01	14.56
31.3	0.42	0.2	0.01	14.56
31.4	0.38	0.2	0.01	14.58
31.5	0.40	0.2	0.01	14.59
31.6	0.40	0.2	0.01	14.59
31.7	0.40	0.2	0.01	14.60
31.8	0.38	0.2	0.01	14.61
31.9	0.38	0.2	0.01	14.62
32	0.33	0.2	0.01	14.62
32.1	0.33	0.2	0.01	14.63
32.2	0.33	0.2	0.01	14.64
32.3	0.33	0.2	0.01	14.64
32.4	0.33	0.2	0.01	14.65
32.5	0.33	0.2	0.01	14.65
32.6	0.31	0.2	0.01	14.66
32.7	0.31	0.0	0.00	14.66
32.8	0.33	0.0	0.00	14.66
32.9	0.33	0.0	0.00	14.66
33	0.31	0.0	0.00	14.66
33.1	0.33	0.0	0.00	14.66
33.2	0.31	0.0	0.00	14.66
33.3	0.29	0.0	0.00	14.66
33.4	0.27	0.0	0.00	14.66
33.5	0.31	0.0	0.00	14.66
33.6	0.33	0.0	0.00	14.66

SURFACE WATER FLOW MEASUREMENT DATA SHEET

Location: Key Transition Site *Date:* 10/26/19

SECTION AREA (sq. ft): 16.13985333 *TOTAL FLOW (CFS):* 12.79

Cumulative Section Length	Depth (ft)	Flow Velocity (ft/sec)	Sectional Flow (cfs)	Cumulative Flow
0	0.08	0.0	0.00	0.00
0.1	0.08	0.0	0.00	0.00
0.2	0.08	0.0	0.00	0.00
0.3	0.08	0.0	0.00	0.00
0.4	0.08	0.0	0.00	0.00
0.5	0.17	0.0	0.00	0.00
0.6	0.21	0.0	0.00	0.00
0.7	0.25	0.0	0.00	0.00
0.8	0.25	0.0	0.00	0.00
0.9	0.29	0.0	0.00	0.00
1	0.29	0.0	0.00	0.00
1.1	0.31	0.0	0.00	0.00
1.2	0.31	0.0	0.00	0.00
1.3	0.29	0.0	0.00	0.00
1.4	0.29	0.0	0.00	0.00
1.5	0.29	0.0	0.00	0.00
1.6	0.31	0.0	0.00	0.00
1.7	0.33	0.0	0.00	0.00
1.8	0.42	0.0	0.00	0.00
1.9	0.46	0.0	0.00	0.00
2	0.46	0.0	0.00	0.00
2.1	0.42	0.0	0.00	0.00
2.2	0.42	0.0	0.00	0.00
2.3	0.46	0.0	0.00	0.00
2.4	0.50	0.0	0.00	0.00
2.5	0.52	0.2	0.01	0.01
2.6	0.52	0.2	0.01	0.02
2.7	0.56	0.2	0.01	0.03
2.8	0.52	0.2	0.01	0.04
2.9	0.54	0.2	0.01	0.05
3	0.52	0.4	0.02	0.07
3.1	0.54	0.4	0.02	0.09
3.2	0.52	0.6	0.03	0.13
3.3	0.50	0.6	0.03	0.16
3.4	0.48	0.6	0.03	0.18
3.5	0.46	0.6	0.03	0.21
3.6	0.46	0.6	0.03	0.24
3.7	0.58	0.8	0.04	0.28
3.8	0.50	0.8	0.04	0.32
3.9	0.52	1.0	0.05	0.37
4	0.54	1.1	0.06	0.43
4.1	0.54	1.1	0.06	0.49
4.2	0.56	1.0	0.06	0.55
4.3	0.58	0.8	0.05	0.59
4.4	0.56	0.2	0.01	0.60
4.5	0.56	0.2	0.01	0.62
4.6	0.54	0.2	0.01	0.63
4.7	0.46	0.2	0.01	0.64
4.8	0.44	0.2	0.01	0.64
4.9	0.44	0.2	0.01	0.65
5	0.42	0.2	0.01	0.66
5.1	0.42	0.2	0.01	0.67
5.2	0.48	0.2	0.01	0.68
5.3	0.42	0.2	0.01	0.69
5.4	0.40	0.2	0.01	0.70
5.5	0.40	0.2	0.01	0.70
5.6	0.38	0.2	0.01	0.71
5.7	0.35	0.2	0.01	0.72
5.8	0.35	0.2	0.01	0.73
5.9	0.38	0.4	0.02	0.74
6	0.35	0.4	0.01	0.75
6.1	0.33	0.4	0.01	0.77
6.2	0.33	0.4	0.01	0.78
6.3	0.38	0.4	0.01	0.80
6.4	0.42	0.6	0.03	0.83
6.5	0.46	0.6	0.03	0.86
6.6	0.46	0.6	0.03	0.88
6.7	0.50	0.6	0.03	0.91
6.8	0.52	0.6	0.03	0.95
6.9	0.54	0.4	0.02	0.97
7	0.58	0.6	0.02	0.99
7.1	0.56	0.6	0.03	1.02
7.2	0.58	0.6	0.03	1.06
7.3	0.58	0.6	0.03	1.09
7.4	0.58	0.6	0.03	1.13
7.5	0.52	0.6	0.03	1.16
7.6	0.52	0.6	0.03	1.19
7.7	0.50	0.8	0.04	1.23
7.8	0.50	0.6	0.03	1.26
7.9	0.46	1.0	0.05	1.31
8	0.48	0.8	0.04	1.35
8.1	0.40	1.0	0.04	1.39
8.2	0.40	1.0	0.04	1.43
8.3	0.38	0.8	0.03	1.46
8.4	0.42	0.6	0.03	1.48
8.5	0.42	0.6	0.03	1.51
8.6	0.44	0.6	0.03	1.53
8.7	0.44	0.6	0.03	1.56
8.8	0.46	0.6	0.03	1.59
8.9	0.44	0.8	0.03	1.62
9	0.44	0.8	0.03	1.66
9.1	0.46	1.0	0.05	1.70
9.2	0.48	0.8	0.04	1.74
9.3	0.52	0.6	0.03	1.77
9.4	0.54	0.6	0.03	1.80
9.5	0.54	0.4	0.02	1.82
9.6	0.52	0.2	0.01	1.84
9.7	0.54	0.2	0.01	1.85
9.8	0.48	0.2	0.01	1.86
9.9	0.48	0.2	0.01	1.87
10	0.50	0.2	0.01	1.88
10.1	0.50	0.2	0.01	1.89
10.2	0.52	0.2	0.01	1.90
10.3	0.46	0.6	0.03	1.92
10.4	0.50	0.8	0.04	1.96
10.5	0.46	0.8	0.04	2.00
10.6	0.48	0.8	0.04	2.04
10.7	0.50	0.6	0.04	2.08
10.8	0.48	0.6	0.03	2.11
10.9	0.46	0.8	0.04	2.14
11	0.46	0.6	0.03	2.17
11.1	0.50	0.6	0.03	2.20
11.2	0.52	0.6	0.03	2.23
11.3	0.50	0.8	0.04	2.27
11.4	0.46	0.8	0.04	2.31
11.5	0.42	0.8	0.03	2.34
11.6	0.40	0.8	0.03	2.37
11.7	0.40	0.8	0.03	2.40
11.8	0.46	1.0	0.05	2.45
11.9	0.50	1.1	0.05	2.51
12	0.52	0.8	0.04	2.55
12.1	0.50	0.8	0.04	2.59
12.2	0.54	1.0	0.05	2.64
12.3	0.56	1.3	0.07	2.72
12.4	0.56	1.3	0.07	2.79
12.5	0.58	1.3	0.08	2.86
12.6	0.54	1.1	0.06	2.92
12.7	0.50	1.3	0.06	2.99
12.8	0.48	1.3	0.06	3.05
12.9	0.50	1.5	0.07	3.12
13	0.56	1.5	0.08	3.21
13.1	0.56	1.5	0.08	3.29
13.2	0.54	1.5	0.08	3.37
13.3	0.56	1.5	0.08	3.46
13.4	0.58	1.5	0.09	3.55
13.5	0.63	1.3	0.08	3.63
13.6	0.65	1.1	0.07	3.70
13.7	0.67	1.3	0.09	3.78
13.8	0.69	1.3	0.09	3.87
13.9	0.71	1.5	0.11	3.98
14	0.73	1.5	0.11	4.09
14.1	0.73	1.3	0.09	4.18
14.2	0.75	1.5	0.11	4.30
14.3	0.77	1.7	0.13	4.43
14.4	0.77	1.9	0.15	4.57
14.5	0.79	1.9	0.15	4.72
14.6	0.77	2.1	0.16	4.89
14.7	0.75	1.9	0.14	5.03
14.8	0.75	2.1	0.16	5.19
14.9	0.73	1.9	0.14	5.32
15	0.71	2.1	0.15	5.47
15.1	0.75	2.3	0.17	5.65
15.2	0.71	2.1	0.15	5.79
15.3	0.67	2.3	0.15	5.95
15.4	0.67	1.9	0.13	6.07
15.5	0.69	2.1	0.14	6.22
15.6	0.69	2.3	0.16	6.38
15.7	0.71	2.1	0.15	6.53
15.8	0.65	2.1	0.14	6.66
15.9	0.71	2.3	0.16	6.82
16	0.73	2.3	0.17	6.99
16.1	0.73	2.3	0.17	7.15
16.2	0.73	2.1	0.15	7.30
16.3	0.75	2.1	0.16	7.46
16.4	0.75	2.1	0.16	7.61
16.5	0.77	1.9	0.15	7.76
16.6	0.75	1.9	0.14	7.90
16.7	0.75	1.7	0.13	8.03
16.8	0.73	1.7	0.12	8.15
16.9	0.71	1.7	0.12	8.27
17	0.71	1.5	0.11	8.38
17.1	0.69	1.3	0.09	8.47
17.2	0.65	1.0	0.06	8.53
17.3	0.63	1.0	0.06	8.60
17.4	0.63	0.8	0.05	8.65
17.5	0.63	1.0	0.06	8.71
17.6	0.63	0.8	0.05	8.76
17.7	0.65	1.0	0.06	8.82
17.8	0.60	0.8	0.05	8.87
17.9	0.63	1.1	0.07	8.94
18	0.63	1.5	0.09	9.02
18.1	0.58	1.5	0.09	9.12
18.2	0.60	1.9	0.11	9.24
18.3	0.60	1.7	0.10	9.34
18.4	0.65	1.5	0.10	9.44
18.5	0.60	1.5	0.09	9.53
18.6	0.56	1.7	0.10	9.63
18.7	0.54	1.7	0.09	9.72
18.8	0.58	1.7	0.10	9.82
18.9	0.58	1.5	0.09	9.90
19	0.58	1.7	0.10	10.00
19.1	0.58	1.3	0.08	10.08
19.2	0.54	1.3	0.07	10.15
19.3	0.56	1.3	0.07	10.22
19.4	0.58	1.5	0.09	10.31
19.5	0.56	1.3	0.07	10.38
19.6	0.54	1.3	0.07	10.45
19.7	0.56	1.3	0.07	10.53
19.8	0.58	1.1	0.06	10.59
19.9	0.50	1.3	0.05	10.65
20	0.48	1.1	0.05	10.70
20.1	0.50	1.0	0.05	10.75
20.2	0.50	0.8	0.04	10.79
20.3	0.46	1.0	0.05	10.83
20.4	0.46	0.8	0.04	10.87
20.5	0.44	0.6	0.03	10.90
20.6	0.42	0.8	0.03	10.93
20.7	0.42	0.6	0.03	10.96
20.8	0.40	0.4	0.02	10.97
20.9	0.40	0.6	0.02	11.00
21	0.38	0.6	0.02	11.02
21.1	0.33	0.4	0.01	11.03
21.2	0.33	0.4	0.01	11.04
21.3	0.33	0.8	0.03	11.07
21.4	0.38	0.8	0.03	11.10
21.5	0.35	1.0	0.04	11.14
21.6	0.33	1.1	0.04	11.17
21.7	0.33	1.0	0.03	11.21
21.8	0.33	1.0	0.03	11.24
21.9	0.33	1.0	0.03	11.27
22	0.35	0.6	0.02	11.29
22.1	0.38	0.6	0.02	11.32
22.2	0.38	0.6	0.02	11.34
22.3	0.35	0.4	0.01	11.35
22.4	0.35	0.6	0.02	11.38
22.5	0.35	0.4	0.01	11.39
22.6	0.31	0.6	0.02	11.41
22.7	0.25	0.6	0.01	11.42
22.8	0.33	0.8	0.03	11.45
22.9	0.33	0.6	0.02	11.47
23	0.31	0.4	0.01	11.48
23.1	0.29	0.4	0.01	11.49
23.2	0.29	0.4	0.01	11.51
23.3	0.29	0.4	0.01	11.52
23.4	0.25	0.4	0.01	11.53
23.5	0.23	0.4	0.01	11.53
23.6	0.23	0.4	0.01	11.54
23.7	0.23	0.2	0.00	11.55
23.8	0.23	0.2	0.00	11.55
23.9	0.21	0.2	0.00	11.55
24	0.21	0.2	0.00	11.56
24.1	0.21	0.2	0.00	11.56
24.2	0.21	0.2	0.00	11.57
24.3	0.19	0.2	0.00	11.57
24.4	0.23	0.4	0.01	11.58
24.5	0.23	0.4	0.01	11.59
24.6	0.17	0.4	0.01	11.60
24.7	0.21	0.2	0.00	11.60
24.8	0.23	0.2	0.00	11.60
24.9	0.23	0.2	0.00	11.61
25	0.23	0.2	0.00	11.61
25.1	0.25	0.6	0.02	11.63
25.2	0.25	0.8	0.02	11.65
25.3	0.29	0.8	0.02	11.67
25.4	0.33	0.6	0.02	11.69
25.5	0.35	0.6	0.02	11.71
25.6	0.50	0.8	0.04	11.75
25.7	0.58	0.8	0.05	11.80
25.8	0.60	0.6	0.04	11.83
25.9	0.63	0.6	0.04	11.87
26	0.63	0.4	0.03	11.90
26.1	0.67	0.4	0.03	11.92
26.2	0.67	0.4	0.03	11.95
26.3	0.69	0.6	0.04	11.99
26.4	0.71	0.4	0.03	12.02
26.5	0.71	0.4	0.03	12.05
26.6	0.73	0.4	0.03	12.08
26.7	0.73	0.4	0.03	12.11
26.8	0.75	0.4	0.03	12.14
26.9	0.73	0.2	0.01	12.15
27	0.73	0.2	0.01	12.17
27.1	0.75	0.4	0.03	12.20
27.2	0.73	0.2	0.01	12.21
27.3	0.73	0.2	0.01	12.23
27.4	0.73	0.2	0.01	12.24
27.5	0.75	0.2	0.02	12.25
27.6	0.75	0.2	0.02	12.27
27.7	0.75	0.2	0.01	12.28
27.8	0.77	0.4	0.02	12.30
27.9	0.77	0.4	0.03	12.33
28	0.77	0.2	0.02	12.35
28.1	0.77	0.2	0.02	12.36
28.2	0.77	0.2	0.02	12.38
28.3	0.75	0.2	0.02	12.39
28.4	0.75	0.4	0.03	12.42
28.5	0.75	0.4	0.03	12.45
28.6	0.75	0.4	0.03	12.48
28.7	0.73	0.2	0.01	12.50
28.8	0.73	0.4	0.03	12.53
28.9	0.71	0.4	0.03	12.55
29	0.69	0.2	0.01	12.57
29.1	0.67	0.4	0.03	12.60
29.2	0.67	0.4	0.03	12.62
29.3	0.65	0.2	0.01	12.63
29.4	0.60	0.2	0.01	12.65
29.5	0.60	0.2	0.01	12.66
29.6	0.58	0.2	0.01	12.67
29.7	0.58	0.2	0.01	12.68
29.8	0.56	0.2	0.01	12.69
29.9	0.54	0.2	0.01	12.70
30	0.50	0.2	0.01	12.71
30.1	0.48	0.2	0.00	12.72
30.2	0.46	0.2	0.00	12.73
30.3	0.42	0.2	0.00	12.74
30.4	0.42	0.2	0.00	12.75
30.5	0.40	0.2	0.00	12.76
30.6	0.38	0.2	0.00	12.76
30.7	0.35	0.2	0.00	12.77
30.8	0.35	0.2	0.00	12.78
30.9	0.33	0.2	0.00	12.78
31	0.33	0.2	0.01	12.79
31.1	0.33	0.0	0.00	12.79
31.2	0.29	0.0	0.00	12.79
31.3	0.31	0.0	0.00	12.79
31.4	0.31	0.0	0.00	12.79
31.5	0.29	0.0	0.00	12.79
31.6	0.29	0.0	0.00	12.79
31.7	0.31	0.0	0.00	12.79
31.8	0.29	0.0	0.00	12.79
31.9	0.29	0.0	0.00	12.79
32	0.29	0.0	0.00	12.79
32.1	0.29	0.0	0.00	12.79
32.2	0.27	0.0	0.00	12.79
32.3	0.27	0.0	0.00	12.79
32.4	0.25	0.0	0.00	12.79
32.5	0.25	0.0	0.00	12.79
32.6	0.23	0.0	0.00	12.79
32.7	0.23	0.0	0.00	12.79
32.8	0.17	0.0	0.00	12.79
32.9	0.15	0.0	0.00	12.79
33	0.15	0.0	0.00	12.79
33.1	0.17	0.0	0.00	12.79

SURFACE WATER FLOW MEASUREMENT DATA SHEET

Location: Key Transition Site *Date:* 11/26/19

SECTION AREA (sq. ft): 16.83125 *TOTAL FLOW (CFS):* 12.13

Cumulative Section Length	Depth (ft)	Flow Velocity (ft/sec)	Sectional Flow (cfs)	Cumulative Flow
0	0.25	0.0	0.00	0.00
0.1	0.27	0.0	0.00	0.00
0.2	0.31	0.0	0.00	0.00
0.3	0.33	0.0	0.00	0.00
0.4	0.35	0.0	0.00	0.00
0.5	0.35	0.0	0.00	0.00
0.6	0.32	0.0	0.00	0.00
0.7	0.33	0.0	0.00	0.00
0.8	0.33	0.0	0.00	0.00
0.9	0.31	0.0	0.00	0.00
1	0.31	0.0	0.00	0.00
1.1	0.31	0.0	0.00	0.00
1.2	0.29	0.0	0.00	0.00
1.3	0.31	0.0	0.00	0.00
1.4	0.33	0.0	0.00	0.00
1.5	0.33	0.0	0.00	0.00
1.6	0.33	0.0	0.00	0.00
1.7	0.40	0.0	0.00	0.00
1.8	0.42	0.2	0.01	0.01
1.9	0.42	0.2	0.01	0.02
2	0.44	0.2	0.01	0.03
2.1	0.44	0.2	0.01	0.03
2.2	0.42	0.4	0.02	0.05
2.3	0.42	0.4	0.02	0.07
2.4	0.42	0.4	0.02	0.08
2.5	0.42	0.4	0.02	0.10
2.6	0.44	0.6	0.03	0.13
2.7	0.48	0.6	0.03	0.16
2.8	0.46	0.6	0.03	0.19
2.9	0.50	0.6	0.03	0.22
3	0.48	0.6	0.03	0.24
3.1	0.48	0.4	0.02	0.26
3.2	0.44	0.6	0.03	0.29
3.3	0.48	0.4	0.02	0.31
3.4	0.52	0.6	0.03	0.34
3.5	0.56	0.4	0.02	0.36
3.6	0.54	0.4	0.02	0.38
3.7	0.54	0.4	0.02	0.40
3.8	0.52	0.6	0.03	0.44
3.9	0.52	0.4	0.02	0.46
4	0.52	0.2	0.01	0.47
4.1	0.46	0.2	0.01	0.48
4.2	0.35	0.4	0.01	0.49
4.3	0.33	0.4	0.01	0.50
4.4	0.35	0.2	0.01	0.52
4.5	0.35	0.2	0.01	0.52
4.6	0.38	0.2	0.01	0.53
4.7	0.35	0.2	0.01	0.54
4.8	0.33	0.2	0.01	0.55
4.9	0.35	0.2	0.01	0.55
5	0.33	0.2	0.01	0.56
5.1	0.31	0.2	0.01	0.57
5.2	0.29	0.2	0.01	0.57
5.3	0.33	0.2	0.01	0.58
5.4	0.33	0.2	0.01	0.58
5.5	0.33	0.2	0.01	0.59
5.6	0.33	0.2	0.01	0.60
5.7	0.44	0.2	0.01	0.61
5.8	0.46	0.2	0.01	0.62
5.9	0.48	0.2	0.01	0.63
6	0.48	0.2	0.01	0.64
6.1	0.48	0.2	0.01	0.64
6.2	0.50	0.2	0.01	0.65
6.3	0.46	0.2	0.01	0.66
6.4	0.48	0.2	0.01	0.67
6.5	0.48	0.2	0.01	0.68
6.6	0.50	0.2	0.01	0.69
6.7	0.50	0.2	0.01	0.70
6.8	0.50	0.2	0.01	0.71
6.9	0.48	0.2	0.01	0.72
7	0.46	0.2	0.01	0.73
7.1	0.46	0.4	0.02	0.75
7.2	0.44	0.4	0.02	0.77
7.3	0.44	0.4	0.02	0.79
7.4	0.44	0.4	0.02	0.80
7.5	0.46	0.8	0.04	0.84
7.6	0.42	0.8	0.03	0.87
7.7	0.44	0.8	0.04	0.91
7.8	0.50	0.8	0.04	0.95
7.9	0.54	1.0	0.05	1.00
8	0.54	1.0	0.05	1.06
8.1	0.56	0.6	0.04	1.10
8.2	0.46	0.8	0.04	1.14
8.3	0.50	0.6	0.04	1.18
8.4	0.52	0.8	0.04	1.22
8.5	0.52	0.8	0.04	1.26
8.6	0.50	0.6	0.03	1.29
8.7	0.50	0.8	0.04	1.33
8.8	0.46	0.8	0.04	1.37
8.9	0.44	0.4	0.02	1.39
9	0.46	0.4	0.02	1.40
9.1	0.46	0.2	0.01	1.41
9.2	0.42	0.2	0.01	1.42
9.3	0.44	0.2	0.01	1.43
9.4	0.46	0.2	0.01	1.44
9.5	0.46	0.2	0.01	1.45
9.6	0.46	0.2	0.01	1.46
9.7	0.46	0.2	0.01	1.47
9.8	0.44	0.2	0.01	1.48
9.9	0.44	0.2	0.01	1.48
10	0.46	0.2	0.01	1.49
10.1	0.50	0.2	0.01	1.50
10.2	0.48	0.2	0.01	1.51
10.3	0.52	0.2	0.01	1.52
10.4	0.54	0.4	0.02	1.54
10.5	0.54	0.4	0.02	1.57
10.6	0.52	0.6	0.03	1.60
10.7	0.54	0.6	0.03	1.63
10.8	0.52	0.4	0.02	1.65
10.9	0.54	0.6	0.03	1.68
11	0.52	0.6	0.03	1.71
11.1	0.54	0.8	0.04	1.76
11.2	0.54	1.0	0.05	1.81
11.3	0.52	1.1	0.06	1.87
11.4	0.54	1.1	0.06	1.93
11.5	0.54	1.0	0.05	1.98
11.6	0.58	0.8	0.05	2.03
11.7	0.60	1.0	0.06	2.09
11.8	0.63	1.1	0.07	2.16
11.9	0.67	1.0	0.07	2.23
12	0.67	1.1	0.07	2.29
12.1	0.60	1.3	0.08	2.37
12.2	0.63	1.3	0.08	2.45
12.3	0.67	1.5	0.10	2.55
12.4	0.67	1.5	0.10	2.65
12.5	0.71	1.3	0.09	2.75
12.6	0.73	1.3	0.09	2.84
12.7	0.67	1.3	0.09	2.93
12.8	0.67	1.3	0.09	3.00
12.9	0.69	1.3	0.09	3.09
13	0.67	1.1	0.07	3.16
13.1	0.69	1.3	0.09	3.24
13.2	0.69	1.3	0.09	3.33
13.3	0.75	1.1	0.08	3.41
13.4	0.75	1.3	0.10	3.51
13.5	0.75	1.3	0.10	3.60
13.6	0.77	1.3	0.10	3.70
13.7	0.77	1.3	0.10	3.80
13.8	0.75	1.1	0.08	3.89
13.9	0.73	1.3	0.09	3.98
14	0.69	1.3	0.09	4.07
14.1	0.71	1.1	0.08	4.15
14.2	0.73	1.3	0.09	4.24
14.3	0.69	1.3	0.09	4.32
14.4	0.67	1.7	0.11	4.43
14.5	0.67	1.7	0.11	4.55
14.6	0.67	1.9	0.13	4.67
14.7	0.69	1.7	0.12	4.79
14.8	0.75	1.9	0.14	4.93
14.9	0.75	1.7	0.13	5.06
15	0.79	1.7	0.13	5.19
15.1	0.77	1.9	0.15	5.34
15.2	0.77	1.7	0.13	5.47
15.3	0.75	1.9	0.14	5.61
15.4	0.73	1.7	0.12	5.73
15.5	0.69	1.9	0.13	5.87
15.6	0.71	1.7	0.12	5.99
15.7	0.73	1.7	0.12	6.11
15.8	0.75	2.1	0.16	6.27
15.9	0.75	1.9	0.14	6.41
16	0.77	1.9	0.15	6.56
16.1	0.79	1.9	0.15	6.71
16.2	0.77	1.7	0.13	6.84
16.3	0.75	1.9	0.14	6.98
16.4	0.75	2.3	0.17	7.15
16.5	0.73	1.9	0.14	7.29
16.6	0.75	1.9	0.14	7.43
16.7	0.77	1.9	0.15	7.58
16.8	0.79	1.7	0.13	7.71
16.9	0.81	1.5	0.12	7.84
17	0.81	1.3	0.11	7.94
17.1	0.79	1.1	0.09	8.03
17.2	0.77	1.1	0.08	8.11
17.3	0.75	1.3	0.10	8.21
17.4	0.75	1.3	0.10	8.31
17.5	0.73	1.0	0.07	8.38
17.6	0.71	1.0	0.07	8.45
17.7	0.69	1.0	0.07	8.52
17.8	0.71	0.8	0.06	8.58
17.9	0.71	0.8	0.06	8.63
18	0.73	1.0	0.07	8.71
18.1	0.69	0.8	0.05	8.76
18.2	0.65	0.8	0.05	8.81
18.3	0.65	0.8	0.05	8.87
18.4	0.63	0.8	0.05	8.92
18.5	0.65	0.8	0.05	8.97
18.6	0.67	1.0	0.07	9.03
18.7	0.67	1.0	0.07	9.10
18.8	0.63	1.1	0.07	9.17
18.9	0.60	1.1	0.07	9.24
19	0.60	1.0	0.06	9.30
19.1	0.63	1.0	0.06	9.36
19.2	0.63	1.0	0.06	9.42
19.3	0.58	1.1	0.06	9.49
19.4	0.54	0.8	0.04	9.53
19.5	0.58	1.0	0.06	9.59
19.6	0.54	1.0	0.05	9.64
19.7	0.56	0.8	0.05	9.69
19.8	0.58	1.0	0.06	9.75
19.9	0.58	1.1	0.06	9.81
20	0.56	1.1	0.06	9.87
20.1	0.54	1.0	0.05	9.93
20.2	0.52	1.1	0.06	9.98
20.3	0.54	1.1	0.06	10.04
20.4	0.54	1.0	0.05	10.10
20.5	0.54	0.8	0.04	10.14
20.6	0.56	1.0	0.06	10.20
20.7	0.54	1.0	0.05	10.25
20.8	0.50	0.8	0.04	10.29
20.9	0.54	0.8	0.04	10.33
21	0.52	1.0	0.04	10.38
21.1	0.42	0.8	0.03	10.41
21.2	0.40	0.6	0.02	10.43
21.3	0.42	0.6	0.02	10.46
21.4	0.38	0.4	0.02	10.47
21.5	0.35	0.4	0.01	10.49
21.6	0.40	0.6	0.02	10.51
21.7	0.38	0.6	0.02	10.53
21.8	0.35	0.6	0.02	10.55
21.9	0.33	0.6	0.02	10.57
22	0.33	0.8	0.03	10.60
22.1	0.33	0.8	0.03	10.63
22.2	0.31	0.6	0.02	10.65
22.3	0.29	0.6	0.02	10.66
22.4	0.27	0.4	0.01	10.67
22.5	0.27	0.4	0.01	10.69
22.6	0.25	0.4	0.01	10.70
22.7	0.25	0.4	0.01	10.71
22.8	0.29	0.6	0.02	10.72
22.9	0.25	0.4	0.01	10.73
23	0.21	0.8	0.02	10.75
23.1	0.25	0.6	0.02	10.76
23.2	0.25	0.8	0.02	10.78
23.3	0.23	0.6	0.01	10.80
23.4	0.21	0.4	0.01	10.81
23.5	0.29	0.4	0.01	10.82
23.6	0.29	0.6	0.02	10.84
23.7	0.27	0.6	0.02	10.85
23.8	0.25	0.8	0.02	10.87
23.9	0.21	0.8	0.02	10.89
24	0.25	1.0	0.03	10.91
24.1	0.23	0.6	0.01	10.93
24.2	0.23	0.8	0.02	10.94
24.3	0.25	0.8	0.02	10.96
24.4	0.31	0.6	0.02	10.98
24.5	0.33	0.6	0.02	11.00
24.6	0.33	0.4	0.01	11.02
24.7	0.44	0.4	0.02	11.03
24.8	0.50	0.4	0.02	11.05
24.9	0.50	0.8	0.04	11.09
25	0.52	0.6	0.03	11.13
25.1	0.52	0.6	0.03	11.16
25.2	0.54	0.4	0.02	11.18
25.3	0.54	0.4	0.02	11.20
25.4	0.52	0.4	0.02	11.22
25.5	0.52	0.4	0.02	11.24
25.6	0.52	0.4	0.02	11.26
25.7	0.50	0.4	0.02	11.28
25.8	0.58	0.4	0.02	11.31
25.9	0.58	0.4	0.02	11.33
26	0.58	0.2	0.01	11.34
26.1	0.58	0.2	0.01	11.35
26.2	0.58	0.2	0.01	11.36
26.3	0.58	0.2	0.01	11.38
26.4	0.58	0.2	0.01	11.39
26.5	0.60	0.2	0.01	11.40
26.6	0.63	0.2	0.01	11.41
26.7	0.65	0.2	0.01	11.42
26.8	0.65	0.4	0.03	11.45
26.9	0.63	0.4	0.03	11.48
27	0.58	0.4	0.02	11.50
27.1	0.58	0.4	0.02	11.52
27.2	0.56	0.4	0.02	11.54
27.3	0.54	0.4	0.02	11.57
27.4	0.58	0.4	0.02	11.59
27.5	0.58	0.4	0.02	11.61
27.6	0.58	0.4	0.02	11.64
27.7	0.54	0.4	0.02	11.66
27.8	0.54	0.4	0.02	11.68
27.9	0.54	0.4	0.02	11.70
28	0.52	0.4	0.02	11.72
28.1	0.52	0.4	0.02	11.74
28.2	0.52	0.4	0.02	11.76
28.3	0.54	0.4	0.02	11.78
28.4	0.54	0.4	0.02	11.81
28.5	0.54	0.4	0.02	11.83
28.6	0.50	0.4	0.02	11.85
28.7	0.50	0.2	0.01	11.86
28.8	0.46	0.2	0.01	11.87
28.9	0.46	0.2	0.01	11.88
29	0.46	0.2	0.01	11.89
29.1	0.44	0.2	0.01	11.90
29.2	0.42	0.2	0.01	11.90
29.3	0.42	0.2	0.01	11.91
29.4	0.38	0.2	0.01	11.92
29.5	0.38	0.2	0.01	11.93
29.6	0.35	0.2	0.01	11.93
29.7	0.35	0.2	0.01	11.94
29.8	0.33	0.2	0.01	11.95
29.9	0.33	0.2	0.01	11.95
30	0.33	0.2	0.01	11.96
30.1	0.31	0.2	0.01	11.97
30.2	0.31	0.2	0.01	11.97
30.3	0.29	0.2	0.01	11.98
30.4	0.29	0.2	0.01	11.98
30.5	0.29	0.2	0.01	11.99
30.6	0.27	0.2	0.01	12.00
30.7	0.27	0.2	0.01	12.00
30.8	0.25	0.4	0.01	12.01
30.9	0.25	0.4	0.01	12.02
31	0.25	0.4	0.01	12.03
31.1	0.25	0.4	0.01	12.04
31.2	0.27	0.4	0.01	12.05
31.3	0.25	0.4	0.01	12.06
31.4	0.27	0.4	0.01	12.07
31.5	0.27	0.4	0.01	12.08
31.6	0.25	0.2	0.00	12.08
31.7	0.23	0.2	0.00	12.09
31.8	0.23	0.2	0.00	12.09
31.9	0.23	0.2	0.00	12.10
32	0.21	0.4	0.00	12.11
32.1	0.17	0.2	0.00	12.11
32.2	0.17	0.2	0.00	12.12
32.3	0.17	0.2	0.00	12.12
32.4	0.21	0.2	0.00	12.12
32.5	0.19	0.2	0.00	12.13
32.6	0.19	0.0	0.00	12.13
32.7	0.17	0.0	0.00	12.13
32.8	0.17	0.0	0.00	12.13
32.9	0.15	0.0	0.00	12.13
33	0.15	0.0	0.00	12.13
33.1	0.15	0.0	0.00	12.13

SURFACE WATER FLOW MEASUREMENT DATA SHEET

Location:	Key Transition Site	*Date:*	12/31/19
SECTION AREA (sq. ft):	29.56316667	*TOTAL FLOW (CFS):*	38.92

Cumulative Section Length	Depth (ft)	Flow Velocity (ft/sec)	Sectional Flow (cfs)	Cumulative Flow
0	0.23	0.0	0.00	0.00
0.1	0.25	0.0	0.00	0.00
0.2	0.25	0.0	0.00	0.00
0.3	0.27	0.0	0.00	0.00
0.4	0.29	0.0	0.00	0.00
0.5	0.25	0.0	0.00	0.00
0.6	0.38	0.0	0.00	0.00
0.7	0.42	0.0	0.00	0.00
0.8	0.44	0.0	0.00	0.00
0.9	0.44	0.0	0.00	0.00
1	0.42	0.2	0.01	0.01
1.1	0.38	0.2	0.01	0.02
1.2	0.33	0.4	0.01	0.03
1.3	0.48	0.4	0.02	0.05
1.4	0.50	0.6	0.03	0.08
1.5	0.54	0.8	0.04	0.12
1.6	0.58	0.6	0.03	0.16
1.7	0.58	0.8	0.05	0.20
1.8	0.56	0.6	0.03	0.24
1.9	0.60	0.6	0.04	0.27
2	0.58	0.6	0.04	0.31
2.1	0.58	0.8	0.05	0.35
2.2	0.60	0.8	0.05	0.39
2.3	0.65	0.8	0.06	0.45
2.4	0.69	0.6	0.03	0.46
2.5	0.69	0.8	0.04	0.49
2.6	0.69	0.6	0.04	0.53
2.7	0.65	0.8	0.05	0.58
2.8	0.65	0.8	0.05	0.63
2.9	0.65	0.6	0.04	0.67
3	0.63	0.6	0.04	0.71
3.1	0.60	0.8	0.05	0.76
3.2	0.58	0.8	0.05	0.81
3.3	0.54	1.0	0.07	0.88
3.4	0.42	0.8	0.03	0.90
3.5	0.33	0.6	0.02	0.92
3.6	0.33	0.8	0.02	0.95
3.7	0.31	0.8	0.02	0.97
3.8	0.31	1.0	0.03	1.00
3.9	0.29	0.8	0.02	1.03
4	0.33	0.8	0.02	1.05
4.1	0.35	0.8	0.03	1.08
4.2	0.40	0.8	0.03	1.11
4.3	0.44	0.8	0.04	1.15
4.4	0.48	1.0	0.05	1.20
4.5	0.56	1.1	0.06	1.26
4.6	0.56	0.8	0.04	1.30
4.7	0.54	1.0	0.05	1.36
4.8	0.54	0.8	0.04	1.40
4.9	0.56	1.0	0.06	1.46
5	0.63	1.1	0.07	1.53
5.1	0.65	1.1	0.07	1.60
5.2	0.67	1.3	0.09	1.68
5.3	0.67	1.3	0.09	1.77
5.4	0.65	1.1	0.07	1.84
5.5	0.67	1.1	0.08	1.91
5.6	0.67	1.1	0.07	1.99
5.7	0.69	1.0	0.07	2.05
5.8	0.67	1.1	0.07	2.12
5.9	0.65	1.0	0.06	2.19
6	0.67	1.1	0.07	2.26
6.1	0.81	1.1	0.09	2.36
6.2	0.88	1.3	0.12	2.48
6.3	1.04	1.3	0.14	2.58
6.4	1.13	1.3	0.15	2.73
6.5	1.13	1.5	0.17	2.92
6.6	1.10	1.3	0.15	3.08
6.7	1.13	1.3	0.15	3.23
6.8	1.15	1.1	0.13	3.36
6.9	1.15	1.1	0.13	3.50
7	1.15	1.0	0.11	3.62
7.1	1.13	0.4	0.04	3.66
7.2	1.10	0.2	0.02	3.68
7.3	1.06	0.2	0.02	3.71
7.4	1.04	0.2	0.02	3.73
7.5	0.96	0.2	0.02	3.75
7.6	0.90	0.2	0.02	3.78
7.7	0.94	0.2	0.02	3.80
7.8	0.94	0.2	0.02	3.82
7.9	0.92	0.2	0.02	3.84
8	0.88	0.2	0.02	3.86
8.1	0.88	0.2	0.02	3.87
8.2	0.88	0.2	0.02	3.89
8.3	0.83	0.2	0.02	3.91
8.4	0.85	0.2	0.02	3.93
8.5	0.83	0.2	0.02	3.94
8.6	0.83	0.2	0.02	3.96
8.7	0.81	0.2	0.02	3.98
8.8	0.44	0.6	0.03	3.98
8.9	0.38	0.8	0.03	4.01
9	0.35	1.0	0.04	4.05
9.1	0.40	1.1	0.04	4.09
9.2	0.40	1.3	0.05	4.14
9.3	0.42	1.5	0.06	4.21
9.4	0.42	1.5	0.06	4.27
9.5	0.46	1.7	0.07	4.34
9.6	0.46	1.7	0.08	4.42
9.7	0.48	1.9	0.09	4.51
9.8	0.52	2.1	0.11	4.62
9.9	0.67	1.9	0.13	4.75
10	0.92	1.9	0.17	4.92
10.1	0.96	1.7	0.16	5.08
10.2	0.90	1.9	0.17	5.25
10.3	0.85	1.9	0.16	5.42
10.4	0.83	1.7	0.14	5.56
10.5	0.90	1.5	0.13	5.69
10.6	0.94	1.7	0.16	5.85
10.7	0.96	1.7	0.16	6.02
10.8	0.94	1.9	0.18	6.19
10.9	0.96	1.7	0.16	6.36
11	1.06	1.9	0.20	6.55
11.1	1.13	2.1	0.24	6.79
11.2	1.17	1.9	0.22	7.02
11.3	1.17	1.9	0.22	7.24
11.4	1.15	1.7	0.20	7.44
11.5	1.17	1.7	0.20	7.64
11.6	1.17	1.5	0.18	7.81
11.7	1.15	1.7	0.19	8.01
11.8	1.13	1.9	0.21	8.22
11.9	1.19	1.7	0.20	8.42
12	1.17	1.5	0.18	8.60
12.1	1.17	1.5	0.18	8.80
12.2	1.19	1.7	0.20	9.00
12.3	1.21	1.7	0.21	9.20
12.4	1.19	1.5	0.18	9.38
12.5	1.21	1.5	0.18	9.56
12.6	1.21	0.7	0.15	9.71
12.7	0.81	1.5	0.12	9.83
12.8	0.80	1.7	0.14	9.97
12.9	0.77	1.9	0.15	10.11
13	0.77	1.7	0.13	10.24
13.1	0.81	1.9	0.15	10.40
13.2	0.85	1.5	0.13	10.53
13.3	1.02	1.5	0.15	10.68
13.4	1.04	1.3	0.14	10.81
13.5	1.08	1.3	0.14	10.96
13.6	1.08	1.5	0.16	11.12
13.7	1.06	1.5	0.16	11.28
13.8	1.10	1.5	0.16	11.46
13.9	1.13	1.9	0.21	11.68
14	1.15	1.9	0.22	11.90
14.1	1.15	1.7	0.19	12.09
14.2	1.17	1.5	0.18	12.27
14.3	1.13	1.7	0.19	12.46
14.4	1.13	1.5	0.17	12.63
14.5	1.10	1.9	0.21	12.84
14.6	1.08	1.9	0.21	13.05
14.7	1.10	1.7	0.19	13.23
14.8	1.13	1.9	0.21	13.44
14.9	1.17	1.7	0.20	13.64
15	1.19	2.1	0.25	13.89
15.1	1.17	1.9	0.22	14.11
15.2	1.21	1.9	0.23	14.34
15.3	1.21	1.7	0.21	14.55
15.4	1.23	1.9	0.23	14.78
15.5	1.21	1.7	0.21	14.99
15.6	1.23	1.9	0.23	15.22
15.7	1.17	1.7	0.20	15.42
15.8	1.15	1.7	0.19	15.61
15.9	1.08	1.7	0.18	15.80
16	1.10	1.9	0.21	16.01
16.1	1.15	1.7	0.19	16.20
16.2	1.23	1.9	0.23	16.44
16.3	1.23	1.7	0.21	16.64
16.4	1.15	1.5	0.17	16.82
16.5	1.13	1.9	0.21	17.03
16.6	1.15	1.7	0.19	17.22
16.7	1.17	1.9	0.22	17.45
16.8	1.17	1.7	0.20	17.64
16.9	1.15	1.9	0.22	17.86
17	1.15	1.7	0.19	18.05
17.1	1.13	1.5	0.17	18.23
17.2	1.15	1.7	0.19	18.42
17.3	0.96	1.7	0.16	18.58
17.4	0.92	1.5	0.14	18.72
17.5	0.88	1.5	0.13	18.85
17.6	0.88	1.3	0.11	18.97
17.7	0.88	1.5	0.13	19.10
17.8	0.92	1.7	0.16	19.26
17.9	1.21	1.7	0.21	19.46
18	1.19	1.7	0.20	19.66
18.1	1.23	1.7	0.21	19.87
18.2	1.23	1.7	0.21	20.09
18.3	1.23	1.7	0.21	20.30
18.4	1.25	1.7	0.21	20.51
18.5	1.25	1.9	0.24	20.75
18.6	1.27	1.9	0.22	20.96
18.7	1.25	1.5	0.19	21.15
18.8	1.27	1.7	0.21	21.36
18.9	1.25	1.7	0.21	21.57
19	1.21	1.9	0.23	21.80
19.1	1.23	1.9	0.23	22.03
19.2	1.21	1.9	0.23	22.26
19.3	1.19	1.7	0.20	22.47
19.4	1.21	1.7	0.21	22.67
19.5	1.21	1.5	0.18	22.85
19.6	1.25	1.9	0.24	23.09
19.7	1.25	2.1	0.26	23.35
19.8	1.23	1.7	0.21	23.56
19.9	1.19	1.7	0.20	23.76
20	1.15	1.5	0.17	23.94
20.1	1.21	1.7	0.21	24.14
20.2	1.19	1.5	0.18	24.32
20.3	1.21	1.7	0.21	24.53
20.4	1.25	1.7	0.21	24.74
20.5	1.23	1.5	0.18	24.92
20.6	1.21	1.5	0.18	25.10
20.7	1.21	1.5	0.18	25.28
20.8	1.15	1.5	0.17	25.45
20.9	0.98	1.5	0.15	25.63
21	0.90	1.3	0.12	25.74
21.1	0.83	1.5	0.12	25.87
21.2	0.83	1.5	0.11	25.98
21.3	0.88	1.5	0.13	26.11
21.4	0.85	1.7	0.15	26.25
21.5	0.83	1.9	0.16	26.41
21.6	0.90	1.7	0.15	26.56
21.7	0.94	1.7	0.16	26.72
21.8	0.96	1.7	0.16	26.88
21.9	0.96	1.7	0.16	27.05
22	0.94	1.7	0.16	27.21
22.1	1.00	1.7	0.17	27.38
22.2	1.00	1.7	0.17	27.54
22.3	0.90	1.9	0.17	27.71
22.4	0.85	1.7	0.15	27.86
22.5	0.90	1.7	0.16	28.01
22.6	0.90	1.7	0.16	28.18
22.7	0.77	1.7	0.13	28.31
22.8	0.85	1.7	0.16	28.47
22.9	0.88	1.7	0.15	28.62
23	0.92	1.7	0.16	28.80
23.1	0.94	1.9	0.18	28.98
23.2	0.96	1.7	0.16	29.14
23.3	0.98	1.5	0.15	29.29
23.4	1.04	1.5	0.16	29.44
23.5	1.02	1.3	0.13	29.57
23.6	1.04	1.5	0.18	29.75
23.7	1.02	1.5	0.15	29.90
23.8	1.04	1.5	0.16	30.05
23.9	1.02	1.5	0.15	30.21
24	1.00	1.7	0.17	30.38
24.1	0.98	1.7	0.17	30.54
24.2	0.94	1.7	0.16	30.68
24.3	0.96	1.7	0.16	30.83
24.4	0.98	1.7	0.17	31.01
24.5	0.96	1.7	0.16	31.18
24.6	0.94	1.5	0.14	31.32
24.7	0.92	1.5	0.14	31.46
24.8	0.90	1.7	0.15	31.61
24.9	0.88	1.5	0.13	31.74
25	0.85	1.5	0.13	31.87
25.1	0.83	1.3	0.11	31.98
25.2	0.85	1.3	0.11	32.07
25.3	0.81	1.3	0.11	32.17
25.4	0.88	1.3	0.12	32.28
25.5	0.88	1.3	0.11	32.39
25.6	0.85	1.3	0.11	32.51
25.7	0.90	1.5	0.13	32.64
25.8	0.88	1.5	0.13	32.77
25.9	0.85	1.5	0.13	32.88
26	0.75	1.5	0.12	32.99
26.1	0.71	1.3	0.09	33.09
26.2	0.73	1.3	0.10	33.20
26.3	0.77	1.5	0.12	33.31
26.4	0.75	1.5	0.12	33.42
26.5	0.77	1.5	0.12	33.54
26.6	0.77	1.5	0.12	33.67
26.7	0.79	1.3	0.10	33.78
26.8	0.81	1.5	0.12	33.88
26.9	0.81	1.5	0.12	34.00
27	0.79	1.3	0.10	34.11
27.1	0.81	1.3	0.11	34.21
27.2	0.83	1.3	0.11	34.34
27.3	0.83	1.3	0.11	34.45
27.4	0.83	1.3	0.11	34.56
27.5	0.83	1.3	0.11	34.67
27.6	0.83	1.3	0.11	34.78
27.7	0.83	1.3	0.11	34.87
27.8	0.81	1.3	0.11	34.97
27.9	0.81	1.3	0.11	35.08
28	0.81	1.3	0.12	35.20
28.1	0.81	1.3	0.11	35.31
28.2	0.83	1.3	0.11	35.43
28.3	0.81	1.5	0.12	35.56
28.4	0.83	1.5	0.12	35.68
28.5	0.90	1.3	0.12	35.80
28.6	0.88	1.3	0.11	35.91
28.7	0.88	1.3	0.11	36.02
28.8	0.85	1.3	0.11	36.13
28.9	0.83	1.3	0.11	36.24
29	0.81	1.3	0.11	36.35
29.1	0.79	1.3	0.10	36.45
29.2	0.77	1.3	0.10	36.55
29.3	0.81	1.3	0.11	36.67
29.4	0.85	1.3	0.11	36.80
29.5	0.83	1.3	0.11	36.90
29.6	0.88	1.3	0.11	37.02
29.7	0.88	1.3	0.11	37.13
29.8	0.88	1.3	0.11	37.25
29.9	0.83	1.3	0.11	37.36
30	0.88	1.3	0.09	37.46
30.1	0.77	1.0	0.08	37.55
30.2	0.88	1.3	0.09	37.65
30.3	0.79	1.0	0.08	37.74
30.4	0.77	1.0	0.08	37.83
30.5	0.77	1.0	0.08	37.91
30.6	0.77	1.0	0.08	37.99
30.7	0.79	1.0	0.08	38.05
30.8	0.79	0.8	0.06	38.12
30.9	0.77	0.8	0.06	38.18
31	0.79	0.4	0.03	38.21
31.1	0.79	0.4	0.03	38.24
31.2	0.77	0.4	0.03	38.27
31.3	0.79	0.4	0.03	38.30
31.4	0.81	0.4	0.03	38.34
31.5	0.79	0.4	0.03	38.37
31.6	0.75	0.4	0.03	38.40
31.7	0.75	0.4	0.03	38.43
31.8	0.73	0.4	0.03	38.45
31.9	0.67	0.4	0.03	38.48
32	0.73	0.4	0.03	38.51
32.1	0.69	0.6	0.04	38.55
32.2	0.73	0.4	0.03	38.58
32.3	0.67	0.4	0.03	38.61
32.4	0.67	0.4	0.03	38.62
32.5	0.67	0.4	0.03	38.65
32.6	0.65	0.2	0.01	38.65
32.7	0.67	0.2	0.01	38.66
32.8	0.65	0.2	0.01	38.67
32.9	0.67	0.2	0.01	38.69
33	0.67	0.2	0.01	38.70
33.1	0.65	0.2	0.01	38.71
33.2	0.58	0.2	0.01	38.72
33.3	0.52	0.2	0.01	38.73
33.4	0.46	0.2	0.01	38.75
33.5	0.50	0.2	0.01	38.76
33.6	0.54	0.2	0.01	38.77
33.7	0.52	0.2	0.01	38.78
33.8	0.50	0.2	0.01	38.79
33.9	0.48	0.2	0.01	38.80
34	0.48	0.4	0.02	38.82
34.1	0.46	0.4	0.02	38.83
34.2	0.44	0.4	0.02	38.85
34.3	0.40	0.4	0.02	38.87
34.4	0.38	0.4	0.02	38.88
34.5	0.35	0.4	0.02	38.90
34.6	0.31	0.2	0.01	38.90
34.7	0.25	0.2	0.00	38.91
34.8	0.25	0.2	0.00	38.91
34.9	0.25	0.2	0.00	38.92
35	0.25	0.2	0.01	38.92
35.1	0.25	0.0	0.00	38.92
35.2	0.23	0.0	0.00	38.92
35.3	0.23	0.0	0.00	38.92
35.4	0.17	0.0	0.00	38.92
35.5	0.17	0.0	0.00	38.92
35.6	0.10	0.0	0.00	38.92
35.7	0.10	0.0	0.00	38.92