Lake Thunderbird TMDL Monitoring Plan Implementation: Sample Year (SY) 2021- March Report



SY2021 Monthly Report

Lake Thunderbird TMDL Monitoring Plan Implementation:

March 2021 Monitoring Report

Oklahoma Water Resources Board Water Quality Programs Division Monitoring and Assessment Section 3800 N. Classen, Oklahoma City, Oklahoma 73118 405-530-8800

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TABLE OF CONTENTS

Table of Contents	. 3
List of Tables	
List of Figures	. 3
Summary of March Water Quality Sampling	
Results	

LIST OF TABLES

TABLE 1 FIELD DATA FORM	5
Table 2 Laboratory Analysis Summary	
TABLE 3 QA/QC DATA	6
Table 4 Station Discharge Summary	6
TABLE 5 STORMWATER FIELD DATA FORM WHERE AN ASTERISK DENOTES A SAMPLE FROM AN AUTOSAMPLER	8
Table 6 Stormwater Laboratory Analysis Summary	9
TABLE 7 STORMWATER STATION DISCHARGE SUMMARY	9

LIST OF FIGURES

FIGURE 1 MONITORING STATION MAP	4
FIGURE 2 DISCHARGE MEASUREMENT SUMMARY CC-1	7
FIGURE 3 DISCHARGE MEASUREMENT SUMMARY JB-1	10
FIGURE 4 DISCHARGE MEASUREMENT SUMMARY LRC-1	11
FIGURE 5 DISCHARGE MEASUREMENT SUMMARY URC-2	12
FIGURE 6 MONTHLY HYDROGRAPH TG-1	13
FIGURE 7 MONTHLY HYDROGRAPH TE-1	13
FIGURE 8 MONTHLY HYDROGRAPH WC-1	14
FIGURE 9 MONTHLY HYDROGRAPH URC-2	14
FIGURE 10 MONTHLY HYDROGRAPH LRC-1	15
FIGURE 11 MONTHLY HYDROGRAPH LDB-1	15
FIGURE 12 MONTHLY HYDROGRAPH JB-1	
FIGURE 13 MONTHLY HYDROGRAPH CC-1	
FIGURE 14 MONTHLY HYDROGRAPH UDB-1	
FIGURE 15 MARCH MESONET DATA	18

SUMMARY OF MARCH WATER QUALITY SAMPLING

Sampling for March 2021 consisted of two sampling events. The first collection occurred during base flow conditions on the fifteenth. Water samples were collected at all ten locations and a discharge measurement was collected at one location. Mesonet data shows no precipitation on the fifteenth, 0.23 inches of precipitation in the 72 hours prior to sampling, and 0.12 inches of precipitation in the 72 hours after the sampling event. The second collection occurred during stormwater conditions on the twenty-second and twenty-third. Water samples were collected via autosampler at four locations on the twenty-second, and all seven stormwater outfalls and JB-1 were collected on the twenty-third. JB-1, however, was considered a high flow sample since it was collected too far past its peak to be categorized as a stormwater sample. Discharge measurements were also collected at three locations on the twenty-third. Mesonet data shows 1.64 inches of precipitation on the twenty-second, no precipitation in the 72 hours prior to sampling, and 0.48 inches of precipitation in the 72 hours after sampling occurred. The total rainfall amount in Norman for the month of March was 2.51 inches. All water level gauges were operational for the month, except for LT-1 and UDB-1 due to equipment malfunction. TG-1, URC-2, and CC-1 also experienced minor data gaps as a result of battery issues.

RESULTS

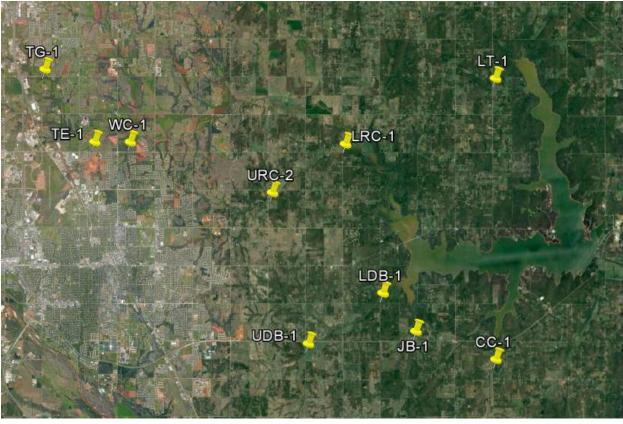


Figure 1 Monitoring Station Map

Monitoring Location ID	Monitoring Location Name	Date	Time	Field Crew	Water Temperature (°C)	Dissolved Oxygen (DO) (mg/l)	рН	Specific Conductance (mS/cm)	Turbidity (NTU)	Notes
CC-1	Clear Creek	3/15/2021	10:50	SD	12.15	10.59	7.93	686	6	
JB-1	Jim Blue Creek	3/15/2021	12:05	SD	12.62	9.77	7.82	808	4	Neither RP over water, orifice clear, visible flow. Netting installed over bridge opening
LDB-1	Lower Dave Blue Creek	3/15/2021	12:35	SD	15.65	12.63	8.04	913	13	Positive visual flow, floating debris is algae mats
LRC-1	Lower Rock Creek	3/15/2021	13:55	SD	16.00	12.53	8.11	743	8	
LT-1	Lake Laterals	3/15/2021	13:15	SD	15.77	7.80	7.73	457	8	Most filamentous on upstream, no DCP
TE-1	Little River Tributary	3/15/2021	16:00	SD	19.69	15.25	8.20	1354	11	Moderate/abundant algae, low visual flow, low stage, small beaver dam still upstream, water not flowing through
TG-1	Little River Tributary	3/15/2021	16:35	SD	17.69	14.95	8.29	995	10	Trash gone from upstream rew
UDB-1	Upper Dave Blue Creek	3/15/2021	8:45	SD	12.14	8.30	7.79	833	9	Radar not reading stage (last stage transmission 3/14 @ 02:45)
URC-2	Upper Rock Creek	3/15/2021	14:40	SD	15.55	8.17	7.84	808	19	Verified RP, purged fine, some cow activity upstream, moderate/abundant algae
WC-1	Woodcrest Creek	3/15/2021	15:25	SD	16.46	11.61	7.79	880	18	Heavier algae presence upstream of bridge, moderate/abundant

Table 1 Field Data Form

Monitoring Location ID	Monitoring Location Name	Nitrate and Nitrite (mg/l)	Kjeldahl Nitrogen (mg/l)	•	Total Suspended Solids (mg/l)
CC-1	Clear Creek	<0.05	0.24	0.027	<5.0
JB-1	Jim Blue Creek	<0.05	0.27	0.020	<5.0
LDB-1	Lower Dave Blue Creek	<0.05	0.32	0.032	<5.0
LRC-1	Lower Rock Creek	<0.05	0.23	0.066	<5.0
LT-1	Lake Laterals	<0.05	0.47	0.028	6.0
TE-1	Little River Tributary	<0.05	0.52	0.037	<5.0
TG-1	Little River Tributary	0.38	0.76	0.055	<5.0
UDB-1	Upper Dave Blue Creek	<0.05	0.32	0.023	8.0
URC-2	Upper Rock Creek	<0.05	0.48	0.051	12.0
WC-1	Woodcrest Creek	<0.05	0.47	0.058	6.0

Table 2 Laboratory Analysis Summary

Monitoring Location Name	Nitrate and Nitrite (mg/l)	Kjeldahl Nitrogen (mg/l)	Phosphorus (mg/l)	Total Suspended Solids (mg/l)
Field Blank	<0.05	<0.10	<0.010	<5.0
Duplicate	<0.05	0.23	0.027	<5.0
Duplicate RPD	0%	4.26%	0%	0%

Table 3 QA/QC Data

Quality assurance/quality control (QA/QC) of the data includes a field blank and duplicate sample from each collection event and is qualified by the OWRB. Relative Percent Difference (RPD) of the duplicate sample can be categorized into four levels, where Level 1 likely has no QA issues and Level 4 has major QA issues, and should be used with caution.

Monitoring Location ID	Monitoring Location Name	Discharge (cfs)	Stream Stage (ft)
CC-1	Clear Creek	0.82	21.08
JB-1	Jim Blue Creek	0.04	15.40
LDB-1	Lower Dave Blue Creek	6.18	16.78
LRC-1	Lower Rock Creek	7.52	18.01
LT-1	Lake Laterals	0.77	4.69
TE-1	Little River Tributary	0.39	11.25
TG-1	Little River Tributary	1.98	9.23
UDB-1	Upper Dave Blue Creek	1.63	17.64
URC-2	Upper Rock Creek	0.11	11.22
WC-1	Woodcrest Creek	0.06	7.64

Table 4 Station Discharge Summary

All rated stream discharges are provisional and subject to change.

ile Infor	mation					Site De	etails					
ile Name			CCC	315.WA	D	Site Nar	ne				CC	
Start Date	and Tir	ne	2021/0	3/15 11:	09:40	Operato	or(s)				SCD	
System I	nforma	ation			Units	(English	Units)	Di	scharge	Uncert	tainty	
Sensor Ty			FlowTra	cker	Distance	ft			Categor			stats
Serial #			P470		Velocity	ft/		Ac	curacy		1.0%	1.0
CPU Firmw		sion	3.9		Area	ft^		De	pth		0.5%	2.5
Software			2.30		Discharge	cfs	S .	Ve	locity		1.3%	9.5
lounting	Correcti	on	0.09	%				W	idth		0.2%	0.2
Summary	,							Me	ethod		2.4%	
veraging		4	0	# Station	ic .	21		#	Stations		2.4%	
tart Edge		LE	-	Total Wi		10.00		0	/erall		3.8%	9.9
lean SNR		30.9		Total Are		5.22						
lean Tem	p	54.2	5 °F	Mean De	pth	0.52	2					
isch. Equ	ation	Mid-Se		Mean Ve		0.157	1					
				Total Di		0.820	08					
Mon Mar	Time 15 11:3	1:06 CDT 20			e Height R 21.080					ments		
leasure	15 11:3 ment F	1:06 CDT 20: Results	21 10.0	000	21.080			•			cl	
leasure t Clock	15 11:3 ment F	1:06 CDT 20 Results Method	21 10.0 Depth	000 %Dep	21.080 MeasD	Vel	CorrFa	_	MeanV	Area	Flow	
feasure t Clock	15 11:3 ment F Loc 0.00	1:06 CDT 20 Results Method None	21 10.0 Depth 0.000	000 %Dep 0.0	21.080 MeasD 0.0	Vel 0.0000	CorrFac	.00	MeanV 0.0000	Area 0.000	0.0000	(
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Measure it Clock 0 11:09	15 11:3 ment F Loc 0.00 0.50 <i>1.00</i>	1:06 CDT 20 Results Method None	21 10.0 Depth 0.000	000 %Dep 0.0	21.080 MeasD 0.0	Vel 0.0000	CorrFac	.00	MeanV 0.0000	Area 0.000	0.0000	0
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Aeasure t Clock 0 11:09 1 11:09 2 11:10 3 11:11 4 11:12 5 11:13	15 11:3 ment F Loc 0.00 0.50 1.00 1.50 2.00 2.50	1:06 CDT 20 Results Method None 0.6 0.6 0.6 0.6	21 10.0 Depth 0.000 0.400 0.500 0.400	%Dep 0.0 0.6 0.6 0.6	21.080 MeasD 0.0 0.160 0.200 0.160	Vel 0.0000 0.0003 -0.0102 0.3747 0.3517 0.4551	CorrFac 1 1 1. 1. 1. 1.	.00 .00 . <i>00</i> .00	MeanV 0.0000 0.0003 -0.0102 0.3747 0.3517 0.4551	Area 0.000 0.200 0.250 0.200	0.0000 0.0001 -0.0025 0.0749	(-0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0
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Acasure t Clock 0 11:09 1 11:09 2 11:10 3 11:11 4 11:12 5 11:13 6 11:14 7 11:15 8 11:16	15 11:3 ment F Loc 0.00 0.50 1.50 2.00 2.50 3.00 3.50 4.00	1:06 CDT 207 Results Method None 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	21 10.0 Depth 0.000 0.400 0.400 0.400 0.400 0.400 0.400 0.300 0.350	%Dep 0.0 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	21.080 MeasD 0.0 0.160 0.160 0.160 0.160 0.160 0.120 0.140	Vel 0.0000 0.0003 -0.0102 0.3747 0.3517 0.4551 0.4551 0.4501 0.4839 0.4226	CorrFac 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	.00 .00 .00 .00 .00 .00 .00 .00	MeanV 0.0000 0.0003 -0.0102 0.3747 0.3517 0.4551 0.4551 0.4501 0.4839 0.4226	Area 0.000 0.200 0.200 0.200 0.200 0.200 0.150 0.175	0.0000 0.0001 -0.0025 0.0749 0.0703 0.0910 0.0900 0.0726 0.0740	((-0 9 11 11 11 8 9
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Acasure t Clock 0 11:09 1 11:09 2 11:10 3 11:11 4 11:12 5 11:13 6 11:14 7 11:15 8 11:16 9 11:17 10 11:19 11 11:20 12 11:21 13 11:22 14 11:23 15 11:24	15 11:3 ment F Loc 0.00 0.50 1.00 1.50 2.00 2.50 3.00 3.50 4.00 4.50 5.50 6.00 6.50 7.00 7.50	1:06 CDT 207 Results Method None 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	21 10.0 Depth 0.000 0.400 0.400 0.400 0.400 0.400 0.400 0.400 0.500 0.500 0.500 0.500 0.500 0.800 0.850 0.800	%Dep 0.0 0.6	21.080 MeasD 0.0 0.160 0.160 0.160 0.160 0.160 0.160 0.120 0.140 0.200 0.260 0.280 0.280 0.320 0.340	Vel 0.0000 0.0003 -0.0102 0.3747 0.3517 0.4551 0.4551 0.4501 0.4839 0.4226 0.3048 0.2717 0.2556 0.1988 0.1076	CorrFac 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00	MeanV 0.0000 0.0003 -0.0102 0.3747 0.3517 0.4551 0.4551 0.4501 0.4839 0.4226 0.3048 0.2717 0.2556 0.1988 0.1076	Area 0.000 0.200 0.200 0.200 0.200 0.200 0.150 0.150 0.175 0.250 0.325 0.350 0.400 0.425	0.0000 0.0001 -0.0025 0.0749 0.0703 0.0910 0.0900 0.0726 0.0740 0.0762 0.0883 0.0895 0.0795 0.0457 0.0018	() () () () () () () () () () () () () (
Acasure t Clock 0 11:09 1 11:09 2 11:10 3 11:11 4 11:12 5 11:13 6 11:14 7 11:15 8 11:16 9 11:17 10 11:19 11 11:20 12 11:21 13 11:22 14 11:23 15 11:24 16 11:25	15 11:3 ment F Loc 0.00 0.50 1.00 1.50 2.00 2.50 3.00 3.50 4.00 4.50 5.50 6.00 6.50 7.00 7.50 8.00	1:06 CDT 207 Results Method None 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	21 10.0 Depth 0.000 0.400 0.400 0.400 0.400 0.400 0.400 0.400 0.500 0.500 0.500 0.500 0.500 0.500 0.800 0.800 0.750	%Dep 0.0 0.6	21.080 MeasD 0.0 0.160 0.200 0.160 0.160 0.160 0.160 0.120 0.140 0.200 0.260 0.280 0.320 0.340 0.320 0.300	Vel 0.0000 0.0003 -0.0102 0.3747 0.3517 0.4551 0.4551 0.4501 0.4839 0.4226 0.3048 0.2717 0.2556 0.1988 0.1076 0.0046 -0.0184	CorrFac 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00	MeanV 0.0000 0.0003 -0.0102 0.3747 0.3517 0.4551 0.4551 0.4501 0.4226 0.3048 0.2717 0.2556 0.1988 0.1076 0.0046 -0.0184	Area 0.000 0.200 0.200 0.200 0.200 0.200 0.150 0.150 0.325 0.350 0.400 0.425 0.400 0.375	0.0000 0.0001 -0.0025 0.0749 0.0703 0.0910 0.0900 0.0726 0.0740 0.0762 0.0883 0.0895 0.0795 0.0457 0.0018 -0.0069	() () () () () () () () () () () () () (
Measure t Clock 0 11:09 1 11:09 2 11:10 3 11:11 4 11:12 5 11:13 6 11:14 7 11:15 8 11:16 9 11:17 10 11:20 12 11:21 13 11:22 14 11:23 15 11:24 16 11:25 17 11:26	15 11:3 ment F Loc 0.00 0.50 1.00 1.50 2.00 2.50 3.00 3.50 4.00 4.50 5.50 6.00 6.50 7.00 7.50 8.00 8.50	1:06 CDT 207 Results Method None 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	21 10.0 Depth 0.000 0.400 0.400 0.400 0.400 0.400 0.400 0.400 0.500 0.500 0.500 0.500 0.500 0.500 0.800 0.850 0.800 0.750 0.700	%Dep 0.0 0.6	21.080 MeasD 0.0 0.160 0.160 0.160 0.160 0.160 0.160 0.120 0.140 0.200 0.260 0.280 0.320 0.340 0.320 0.320 0.300 0.280	Vel 0.0000 0.0003 -0.0102 0.3747 0.3517 0.4551 0.4551 0.4501 0.4839 0.4226 0.3048 0.2717 0.2556 0.1988 0.1076 0.0046 -0.0184 -0.0079	CorrFac 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00	MeanV 0.0000 0.0003 -0.0102 0.3747 0.3517 0.4551 0.4551 0.4501 0.4226 0.3048 0.2717 0.2556 0.1988 0.1076 0.0046 -0.0184 -0.0079	Area 0.000 0.200 0.200 0.200 0.200 0.200 0.150 0.150 0.325 0.350 0.400 0.425 0.400 0.375 0.350	0.0000 0.0001 -0.0025 0.0749 0.0703 0.0910 0.0706 0.0740 0.0762 0.0883 0.0895 0.0795 0.0457 0.0018 -0.0069 -0.0028	((() () () () () () () () () () () () (
Measure it Clock 0 11:09 1 11:09 2 11:10 3 11:11 4 11:12 5 11:13 6 11:14 7 11:15 8 11:16 9 11:17 10 11:19 11 11:20 12 11:21 13 11:22 14 11:23 15 11:24 16 11:25 17 11:26	15 11:3 ment F Loc 0.00 0.50 1.00 1.50 2.00 2.50 3.00 3.50 4.00 4.50 5.50 6.00 6.50 7.00 7.50 8.00 8.50 9.00 9.50	1:06 CDT 207 Results Method None 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	21 10.0 Depth 0.000 0.400 0.400 0.400 0.400 0.400 0.400 0.400 0.400 0.500 0.500 0.500 0.500 0.800 0.850 0.800 0.750 0.700 0.700 0.650	%Dep 0.0 0.6	21.080 MeasD 0.0 0.160 0.200 0.160 0.160 0.160 0.160 0.160 0.120 0.260 0.280 0.320 0.220 0.320 0.320 0.320 0.320 0.320 0.320 0.220 0.320 0.320 0.320 0.220 0.320 0.220 0.320 0.200 0.200 0.200 0.200 0.200 0.200 0.200 0.200 0.200 0.2	Vel 0.0000 0.0003 -0.0102 0.3747 0.3517 0.4551 0.4551 0.4501 0.4839 0.4226 0.3048 0.2717 0.2556 0.1988 0.1076 0.0046 -0.0184 -0.0079 -0.0312	CorrFac 1 1 1 1 1 1 1 1 1 1 1 1 1	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00	MeanV 0.0000 0.0003 -0.0102 0.3747 0.3517 0.4551 0.4551 0.4501 0.4226 0.3048 0.2717 0.2556 0.1988 0.1076 0.0046 -0.0184 -0.0079 -0.0312	Area 0.000 0.200 0.200 0.200 0.200 0.200 0.150 0.325 0.350 0.400 0.425 0.400 0.375 0.350 0.350 0.350 0.350	0.0000 0.0001 -0.0025 0.0749 0.0703 0.0910 0.0706 0.0740 0.0762 0.0883 0.0895 0.0795 0.0457 0.0018 -0.0069 -0.0028 -0.0101 0.0002 -0.0109	(() () () () () () () () () () () () ()

Figure 2 Discharge Measurement Summary CC-1

Monitoring Location ID	Monitoring Location Name	Date	Time	Field Crew	Water Temperature (°C)	Dissolved Oxygen (DO) (mg/l)	рН	Specific Conductance (mS/cm)	Turbidity (NTU)	Notes
JB-1	Jim Blue Creek	3/23/2021	13:30	SD	13.23	8.65	7.64	264	109	Foam mostly stuck in netting under bridge/ backwater on lew. Took flow: before td=17.13, after td=17.02, flow=22.888 cfs. Not considered storm sample: 2ft down from peak
LDB-1	Lower Dave Blue Creek	3/22/2021	21:15	SD	*	*	8.11	266	1000	T1 collected, peak at 17.67 @ 22:00 on 3/22
LRC-1	Lower Rock Creek	3/22/2021	22:00	SD	*	*	8.01	237	1000	T2 collected, peak at 23.24 @ 22:30 on 3/22. Took flow: before td=19.87, after td=19.77, flow=39.749 cfs
URC-2	Upper Rock Creek	3/22/2021	20:30	SD	*	*	7.88	364	1000	T1 collected, peak at 16.69 @ 21:15 on 3/22, neighbor across the street had over 2 in. of rain. Took flow: before td=13.1, after td=13.03, flow=26.819 cfs
WC-1	Woodcrest Creek	3/22/2021	19:30	SD	*	*	8.11	201	1000	T1 collected, peak at 13.15 @ 20:15 on 3/22
SW-08	Stormwater Outfall 08	3/23/2021	9:40	SD	11.17	9.95	7.88	183	76	Bottles had more floating debis than current, probably filled the previous night. Neighbor recorded over 3 in. of rain
SW-09	Stormwater Outfall 09	3/23/2021	12:05	SD	11.35	8.90	7.63	384	26	Collected from current conditions, most of floating debris is styrofoam trash, small amount of foam mostly near culvert opening
SW-10	Stormwater Outfall 10	3/23/2021	11:20	SD	10.76	10.67	8.65	262	31	More small floating debris in samplers than current, samplers probably filled previous night, stream was at least 1ft higher than current
SW-11	Stormwater Outfall 11	3/23/2021	11:40	SD	12.15	9.04	7.47	560	42	Collected from current conditions
SW-12	Stormwater Outfall 12	3/23/2021	10:05	SD	11.81	8.97	7.88	525	22	Collected from current conditions
SW-13	Stormwater Outfall 13	3/23/2021	10:45	SD	10.73	9.95	7.85	372	151	Stream was at least 1 ft higher than current conditions, samplers probably filled previous night
SW-14	Stormwater Outfall 14	3/23/2021	8:50	SD	11.00	9.49	7.77	291	117	Collected from current conditions

Table 5 Stormwater Field Data Form Where an Asterisk Denotes a Sample from an Autosampler

Monitoring Location ID	Monitoring Location Name	Nitrate and Nitrite (mg/l)	Kjeldahl Nitrogen (mg/l)	Phosphorus (mg/l)	Total Suspended Solids (mg/l)
JB-1	Jim Blue Creek	0.17	1.20	0.174	46.0
LDB-1	Lower Dave Blue Creek	0.10	3.11	0.902	1380
LRC-1	Lower Rock Creek	0.17	6.32	2.00	4560
URC-2	Upper Rock Creek	0.41	4.71	1.42	4600
WC-1	Woodcrest Creek	0.70	3.12	1.08	1440
SW-08	Stormwater Outfall 08	1.16	2.28	0.660	236
SW-09	Stormwater Outfall 09	0.09	1.36	0.349	<5.0
SW-10	Stormwater Outfall 10	0.07	0.65	0.109	54.0
SW-11	Stormwater Outfall 11	1.27	0.85	0.127	20.0
SW-12	Stormwater Outfall 12	0.12	0.90	0.053	8.0
SW-13	Stormwater Outfall 13	0.30	1.29	0.161	116
SW-14	Stormwater Outfall 14	0.29	1.45	0.271	50.0

Table 6 Stormwater Laboratory Analysis Summary

Monitoring Location ID	Monitoring Location Name	Discharge (cfs)	Stream Stage (ft)
JB-1	Jim Blue Creek	22.89	17.08
LDB-1	Lower Dave Blue Creek	60.84	17.53
LRC-1	Lower Rock Creek	115.10	22.89
URC-2	Upper Rock Creek	135.30	16.48
WC-1	Woodcrest Creek	183.00	12.37

Table 7 Stormwater Station Discharge Summary

Discharge Measurement Summary Date Generated: Thu Mar 25 2021

							Date Gene			
File Information					Site De					
File Name			323.WAD		Site Nam				JB	
Start Date and Tin	ne	2021/03	3/23 11:2	3:58	Operator	r(s)			SCD	
System Informa				Units	(English U	Jnits)	Discharge	Uncert	ainty	
Sensor Type		FlowTra	cker I	Distance	ft		Categor	v	ISO S	tats
Serial #		P4713		Velocity	ft/s	; [[Accuracy	<u> </u>	1.0%	1.0%
CPU Firmware Vers	sion	3.9		Area	ft^2	- 16	Depth		0.2%	0.9%
Software Ver		2.30		Discharge	cfs		Velocity		0.9%	2.8%
Mounting Correction	n	0.0%		Procenting of						
riouncing contraction			<u> </u>				Width		0.1%	0.1%
Summary							Method		2.2%	
Averaging Int.	40) ‡	# Station	s	27		# Stations		1.9%	
Start Edge	LEV		Total Wid	-	14.00	o IL	Overall		3.2%	3.1%
Mean SNR	48.8		Total Area		15.75					
Mean Temp	54.29		Mean Dep		1.125					
Disch. Equation	Mid-Se		Mean Vel		1.453					
Disch, Equation	Mid-Se		Total Dis		22.888					
0	- 1 -									
Supplemental D # Time		Locatio	Gauge	Height	Rated Flow	1	Com	ments		
1 Tue Mar 23 11:54				17.130	utcu now		Com	menes		
1 Tue Mai 20 11.04	.00 CD1 202	1 15.5	00	17.150						
Measurement R	lesults									
St Clock Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact		Area	Flow	%Q
0 11:23 0.00	None	0.000	0.0	0.0	0.0000	1.0	0.0000	0.000	0.0000	0.0
1 11,22 1.00										
1 11:23 1.00		0.700	0.6	0.280	0.0062	1.0	0 0.0062	0.525	0.0033	0.0
2 11:26 1.50		0.950		0.280 0.380			0 0.0062	0.525 0.475		0.0
2 11:26 1.50 3 11:27 2.00	0.6 0.6	0.950 1.500	0.6 0.6 0.6	0.280 0.380 0.600	0.0062 0.0095 -0.0092	1.0	0 0.0062 0 0.0095	0.525 0.475 0.750	0.0033	0.0 0.0 0.0
2 11:26 1.50 3 11:27 2.00 4 11:28 2.50	0.6 0.6 0.6	0.950 1.500 1.700	0.6 0.6 0.6 0.6	0.280 0.380 0.600 0.680	0.0062 0.0095 -0.0092 0.0994	1.0 1.0 1.0 1.0	0 0.0062 0 0.0095 0 -0.0092 0 0.0994	0.525 0.475 0.750 0.850	0.0033 0.0045 -0.0069 0.0845	0.0 0.0 0.0
2 11:26 1.50 3 11:27 2.00	0.6 0.6 0.6	0.950 1.500	0.6 0.6 0.6 0.6	0.280 0.380 0.600	0.0062 0.0095 -0.0092	1.0 1.0 1.0	0 0.0062 0 0.0095 0 -0.0092 0 0.0994	0.525 0.475 0.750	0.0033 0.0045 -0.0069	0.0 0.0 0.0
2 11:26 1.50 3 11:27 2.00 4 11:28 2.50	0.6 0.6 0.6 0.6	0.950 1.500 1.700	0.6 0.6 0.6 0.6 0.6	0.280 0.380 0.600 0.680	0.0062 0.0095 -0.0092 0.0994	1.0 1.0 1.0 1.0	0 0.0062 0 0.0095 0 -0.0092 0 0.0994 0 0.5843	0.525 0.475 0.750 0.850	0.0033 0.0045 -0.0069 0.0845	0.0 0.0 0.0 0.4 2.1
2 11:26 1.50 3 11:27 2.00 4 11:28 2.50 5 11:29 3.00 6 11:30 3.50	0.6 0.6 0.6 0.6 0.6	0.950 1.500 1.700 1.800 1.900	0.6 0.6 0.6 0.6 0.6	0.280 0.380 0.600 0.680 0.720	0.0062 0.0095 -0.0092 0.0994 0.5843 0.7270	1.0 1.0 1.0 1.0 1.0	0 0.0062 0 0.0095 0 -0.0092 0 0.0994 0 0.5843 0 0.7270	0.525 0.475 0.750 0.850 0.900 0.950	0.0033 0.0045 -0.0069 0.0845 0.5258 0.6907	0.0 0.0 0.0 0.4 2.3 3.0
2 11:26 1.50 3 11:27 2.00 4 11:28 2.50 5 11:29 3.00 6 11:30 3.50 7 11:32 4.00	0.6 0.6 0.6 0.6 0.6 0.6	0.950 1.500 1.700 1.800	0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.280 0.380 0.600 0.680 0.720 0.760	0.0062 0.0095 -0.0092 0.0994 0.5843 0.7270 1.4452	1.0 1.0 1.0 1.0 1.0 1.0	0 0.0062 0 0.0095 0 -0.0092 0 0.0994 0 0.5843 0 0.7270 0 1.4452	0.525 0.475 0.750 0.850 0.900 0.950 1.050	0.0033 0.0045 -0.0069 0.0845 0.5258 0.6907 1.5175	0.0 0.0 0.0 0.0 2.0 3.0 6.6
2 11:26 1.50 3 11:27 2.00 4 11:28 2.50 5 11:29 3.00 6 11:30 3.50 7 11:32 4.00 8 11:33 4.50	0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.950 1.500 1.700 1.800 1.900 2.100 2.100	0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.280 0.380 0.600 0.680 0.720 0.760 0.760 0.840 0.840	0.0062 0.0095 -0.0092 0.0994 0.5843 0.7270 1.4452 1.6434	1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	0 0.0062 0 0.0095 0 -0.0092 0 0.0994 0 0.5843 0 0.7270 0 1.4452 0 1.6434	0.525 0.475 0.750 0.850 0.900 0.950 1.050 1.050	0.0033 0.0045 -0.0069 0.0845 0.5258 0.6907 1.5175 1.7256	0.0 0.0 0.0 2.0 3.0 6.6
2 11:26 1.50 3 11:27 2.00 4 11:28 2.50 5 11:29 3.00 6 11:30 3.50 7 11:32 4.00 8 11:33 4.50 9 11:34 5.00	0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.950 1.500 1.700 1.800 1.900 2.100 2.100 2.100	0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.280 0.380 0.600 0.680 0.720 0.760 0.760 0.840 0.840 0.840	0.0062 0.0095 -0.0092 0.0994 0.5843 0.7270 1.4452 1.6434 2.2995	1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	0 0.0062 0 0.0095 0 -0.0092 0 0.0994 0 0.5843 0 0.7270 0 1.4452 0 1.6434 0 2.2995	0.525 0.475 0.750 0.850 0.900 0.950 1.050 1.050 1.050	0.0033 0.0045 -0.0069 0.0845 0.5258 0.6907 1.5175 1.7256 2.4146	0.0 0.0 0.0 2.0 3.0 6.6 7.9 10.5
2 11:26 1.50 3 11:27 2.00 4 11:28 2.50 5 11:29 3.00 6 11:30 3.50 7 11:32 4.00 8 11:33 4.50 9 11:34 5.00 10 11:35 5.50	0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.950 1.500 1.700 1.800 1.900 2.100 2.100 2.100 2.000	0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.280 0.380 0.600 0.680 0.720 0.760 0.840 0.840 0.840 0.800	0.0062 0.0095 -0.0092 0.5843 0.7270 1.4452 1.6434 2.2995 2.4774	1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	0 0.0062 0 0.0095 0 -0.0092 0 0.0994 0 0.5843 0 0.7270 0 1.4452 0 1.6434 0 2.2995 0 2.4774	0.525 0.475 0.750 0.850 0.900 0.950 1.050 1.050 1.050 1.000	0.0033 0.0045 -0.0069 0.0845 0.5258 0.6907 1.5175 1.7256 2.4146 2.4774	0.0 0.0 0.0 2.0 3.0 6.6 7.1 10.5
2 11:26 1.50 3 11:27 2.00 4 11:28 2.50 5 11:29 3.00 6 11:30 3.50 7 11:32 4.00 8 11:33 4.50 9 11:34 5.00 10 11:35 5.50 11 11:36 6.00	0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.950 1.500 1.700 1.800 1.900 2.100 2.100 2.100 2.000 1.950	0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.280 0.380 0.600 0.720 0.760 0.840 0.840 0.840 0.800 0.780	0.0062 0.0095 -0.0092 0.5843 0.7270 1.4452 1.6434 2.2995 2.4774 2.5358	1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	0 0.0062 0 0.0095 0 -0.0092 0 0.5843 0 0.7270 0 1.6434 0 2.2995 0 2.4774 0 2.5358	0.525 0.475 0.750 0.850 0.900 0.950 1.050 1.050 1.000 0.975	0.0033 0.0045 -0.0069 0.0845 0.5258 0.6907 1.5175 1.7256 2.4146 2.4774 2.4725	0.0 0.0 0.0 2.0 3.0 6.0 7.0 10.3 10.3
2 11:26 1.50 3 11:27 2.00 4 11:28 2.50 5 11:29 3.00 6 11:30 3.50 7 11:32 4.00 8 11:33 4.50 9 11:34 5.00 10 11:35 5.50 11 11:36 6.00 12 11:37 6.50	0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.950 1.500 1.700 1.800 1.900 2.100 2.100 2.000 1.950 1.800	0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.280 0.380 0.600 0.720 0.760 0.840 0.840 0.840 0.800 0.780 0.720	0.0062 0.0095 -0.0092 0.5843 0.7270 1.4452 1.6434 2.2995 2.4774 2.5358 2.7070	1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	0 0.0062 0 0.0095 0 -0.0092 0 0.5843 0 0.7270 0 1.6434 0 2.2995 0 2.4774 0 2.5358 0 2.7070	0.525 0.475 0.750 0.850 0.900 0.950 1.050 1.050 1.000 0.975 0.900	0.0033 0.0045 -0.0069 0.0845 0.5258 0.6907 1.5175 1.7256 2.4146 2.4774 2.4725 2.4361	0.0 0.0 0.0 2.1 3.0 6.0 7.1 10.3 10.3 10.3 10.4
2 11:26 1.50 3 11:27 2.00 4 11:28 2.50 5 11:29 3.00 6 11:30 3.50 7 11:32 4.00 8 11:33 4.50 9 11:34 5.00 10 11:35 5.50 11 11:36 6.00 12 11:37 6.50 13 11:39 7.00	0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.950 1.500 1.700 1.800 1.900 2.100 2.100 2.000 1.950 1.800 1.700	0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.280 0.380 0.600 0.720 0.760 0.840 0.840 0.840 0.800 0.780 0.720 0.680	0.0062 0.0095 -0.0092 0.5843 0.7270 1.4452 1.6434 2.2995 2.4774 2.5358 2.7070 2.9203	1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	0 0.0062 0 0.0095 0 -0.0092 0 0.5843 0 0.7270 0 1.6434 0 2.2995 0 2.4774 0 2.5358 0 2.7070 0 2.9203	0.525 0.475 0.750 0.850 0.900 0.950 1.050 1.050 1.050 1.000 0.975 0.900 0.850	0.0033 0.0045 -0.0069 0.0845 0.5258 0.6907 1.5175 1.7256 2.4146 2.4774 2.4725 2.4361 2.4824	0.0 0.0 0.0 2.0 3.0 6.0 7.0 10.3 10.3 10.3 10.4 10.4
2 11:26 1.50 3 11:27 2.00 4 11:28 2.50 5 11:29 3.00 6 11:30 3.50 7 11:32 4.00 8 11:33 4.50 9 11:34 5.00 10 11:35 5.50 11 11:36 6.00 12 11:37 6.50 13 11:39 7.00 14 11:40 7.50	0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.950 1.500 1.700 1.800 1.900 2.100 2.100 2.000 1.950 1.800 1.700 1.500	0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.280 0.380 0.600 0.720 0.760 0.840 0.840 0.840 0.800 0.780 0.720 0.680 0.600	0.0062 0.0095 -0.0092 0.5843 0.7270 1.4452 1.6434 2.2995 2.4774 2.5358 2.7070 2.9203 2.9462	1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	0 0.0062 0 0.0095 0 -0.0092 0 0.5843 0 0.7270 0 1.6434 0 2.2995 0 2.4774 0 2.5358 0 2.7070 0 2.9462	0.525 0.475 0.750 0.850 0.900 0.950 1.050 1.050 1.050 1.000 0.975 0.900 0.850 0.750	0.0033 0.0045 -0.0069 0.0845 0.5258 0.6907 1.5175 1.7256 2.4146 2.4774 2.4725 2.4361 2.4824 2.2096	0.0 0.0 0.0 2.0 3.0 6.0 7. 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.
2 11:26 1.50 3 11:27 2.00 4 11:28 2.50 5 11:29 3.00 6 11:30 3.50 7 11:32 4.00 8 11:33 4.50 9 11:34 5.00 10 11:35 5.50 11 11:36 6.00 12 11:37 6.50 13 11:39 7.00 14 11:40 7.50 15 11:41 8.00	0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.950 1.500 1.700 1.800 1.900 2.100 2.100 2.000 1.950 1.800 1.700 1.500 1.400	0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.280 0.380 0.600 0.720 0.760 0.840 0.840 0.840 0.800 0.780 0.720 0.680 0.600 0.560	0.0062 0.0095 -0.0092 0.5843 0.7270 1.4452 1.6434 2.2995 2.4774 2.5358 2.7070 2.9203 2.9462 2.3743	1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	0 0.0062 0 0.0095 0 -0.0092 0 0.5843 0 0.7270 0 1.6434 0 2.2995 0 2.4774 0 2.5358 0 2.9462 0 2.9462 0 2.9462	0.525 0.475 0.750 0.850 0.900 0.950 1.050 1.050 1.050 1.000 0.975 0.900 0.850 0.750 0.700	0.0033 0.0045 -0.0069 0.0845 0.5258 0.6907 1.5175 1.7256 2.4146 2.4774 2.4725 2.4361 2.4824 2.2096 1.6620	0.0 0.0 0.0 2. 3.0 6.0 7. 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.
2 11:26 1.50 3 11:27 2.00 4 11:28 2.50 5 11:29 3.00 6 11:30 3.50 7 11:32 4.00 8 11:33 4.50 9 11:34 5.00 10 11:35 5.50 11 11:36 6.00 12 11:37 6.50 13 11:39 7.00 14 11:40 7.50 15 11:41 8.00 16 11:42 8.50	0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.950 1.500 1.700 1.800 1.900 2.100 2.100 2.000 1.950 1.800 1.700 1.500 1.400 1.200	0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.280 0.380 0.600 0.720 0.760 0.840 0.840 0.840 0.800 0.780 0.720 0.680 0.600 0.600 0.480	0.0062 0.0095 -0.0092 0.5843 0.7270 1.4452 1.6434 2.2995 2.4774 2.5358 2.7070 2.9203 2.9462 2.3743 2.1854	1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	0 0.0062 0 0.0095 0 0.0994 0 0.5843 0 0.7270 0 1.6434 0 2.2995 0 2.4774 0 2.5358 0 2.7070 0 2.9462 0 2.9462 0 2.1854	0.525 0.475 0.750 0.850 0.900 0.950 1.050 1.050 1.050 1.000 0.975 0.900 0.850 0.750 0.700 0.600	0.0033 0.0045 0.0069 0.0845 0.5258 0.6907 1.5175 1.7256 2.4146 2.4774 2.4725 2.4361 2.4824 2.2096 1.6620 1.3114	0.0 0.0 0.0 2. 3.0 6.0 7. 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.
2 11:26 1.50 3 11:27 2.00 4 11:28 2.50 5 11:29 3.00 6 11:30 3.50 7 11:32 4.00 8 11:33 4.50 9 11:34 5.00 10 11:35 5.50 11 11:36 6.00 12 11:37 6.50 13 11:39 7.00 14 11:40 7.50 15 11:41 8.00 16 11:42 8.50 17 11:43 9.00	0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.950 1.500 1.700 1.800 1.900 2.100 2.100 2.000 1.950 1.800 1.700 1.500 1.400 1.200 0.900	0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.280 0.380 0.600 0.720 0.760 0.840 0.840 0.840 0.800 0.780 0.720 0.680 0.600 0.560 0.480 0.360	0.0062 0.0095 -0.0092 0.5843 0.7270 1.4452 1.6434 2.2995 2.4774 2.5358 2.7070 2.9203 2.9462 2.3743 2.1854 1.3005	1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	0 0.0062 0 0.0095 0 -0.0092 0 0.5843 0 0.7270 0 1.6434 0 2.2995 0 2.4774 0 2.5358 0 2.9462 0 2.9462 0 2.1854 0 2.1854	0.525 0.475 0.750 0.850 0.900 0.950 1.050 1.050 1.050 1.000 0.975 0.900 0.850 0.750 0.700 0.600 0.450	0.0033 0.0045 0.0069 0.0845 0.5258 0.6907 1.5175 1.7256 2.4146 2.4774 2.4725 2.4361 2.4824 2.2096 1.6620 1.3114 0.5852	0.0 0.0 0.0 2.1 3.0 6.6 7.1 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10
2 11:26 1.50 3 11:27 2.00 4 11:28 2.50 5 11:29 3.00 6 11:30 3.50 7 11:32 4.00 8 11:33 4.50 9 11:34 5.00 10 11:35 5.50 11 11:36 6.00 12 11:37 6.50 13 11:39 7.00 14 11:40 7.50 15 11:41 8.00 16 11:42 8.50 17 11:43 9.00 18 11:44 9.50	0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.950 1.500 1.700 1.800 1.900 2.100 2.100 2.000 1.950 1.800 1.700 1.500 1.400 1.200 0.900 0.600	0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.280 0.380 0.600 0.720 0.760 0.840 0.840 0.840 0.840 0.800 0.780 0.720 0.680 0.720 0.680 0.560 0.480 0.360 0.240	0.0062 0.0095 -0.0092 0.5843 0.7270 1.4452 1.6434 2.2995 2.4774 2.5358 2.7070 2.9203 2.9462 2.3743 2.1854 1.3005 0.3963	1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	0 0.0062 0 0.0095 0 0.0994 0 0.5843 0 0.7270 0 1.6434 0 2.2995 0 2.4774 0 2.5358 0 2.7070 0 2.9462 0 2.1854 0 2.1854 0 2.3963	0.525 0.475 0.750 0.850 0.900 0.950 1.050 1.050 1.050 1.000 0.975 0.900 0.850 0.750 0.700 0.600 0.450 0.300	0.0033 0.0045 -0.0069 0.0845 0.5258 0.6907 1.5175 1.7256 2.4146 2.4774 2.4725 2.4361 2.4824 2.2096 1.6620 1.3114 0.5852 0.1189	0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6
2 11:26 1.50 3 11:27 2.00 4 11:28 2.50 5 11:29 3.00 6 11:30 3.50 7 11:32 4.00 8 11:33 4.50 9 11:34 5.00 10 11:35 5.50 11 11:36 6.00 12 11:37 6.50 13 11:39 7.00 14 11:40 7.50 15 11:41 8.00 16 11:42 8.50 17 11:43 9.00 18 11:44 9.50 19 11:45 10.00	0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.950 1.500 1.700 1.800 1.900 2.100 2.100 2.000 1.950 1.800 1.700 1.500 1.400 1.200 0.900 0.500	0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.280 0.380 0.600 0.720 0.760 0.840 0.840 0.840 0.840 0.800 0.780 0.720 0.680 0.600 0.560 0.480 0.360 0.240 0.200	0.0062 0.0095 -0.0092 0.5843 0.7270 1.4452 1.6434 2.2995 2.4774 2.5358 2.7070 2.9203 2.9462 2.3743 2.1854 1.3005 0.3963 0.6063	1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	0 0.0062 0 0.0095 0 0.0994 0 0.5843 0 0.7270 0 1.6434 0 2.2995 0 2.4774 0 2.5358 0 2.9462 0 2.9462 0 2.1854 0 2.3763 0 2.1854 0 0.3963 0 0.3963 0 0.6063	0.525 0.475 0.750 0.850 0.900 0.950 1.050 1.050 1.050 1.000 0.975 0.900 0.850 0.750 0.700 0.600 0.450 0.300 0.250	0.0033 0.0045 0.0069 0.0845 0.5258 0.6907 1.5175 1.7256 2.4146 2.4774 2.4725 2.4361 2.4824 2.2096 1.6620 1.3114 0.5852 0.1189 0.1516	0.60 0.60 0.60 0.7 0.7 0.7 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4
2 11:26 1.50 3 11:27 2.00 4 11:28 2.50 5 11:29 3.00 6 11:30 3.50 7 11:32 4.00 8 11:33 4.50 9 11:34 5.00 10 11:35 5.50 11 11:36 6.00 12 11:37 6.50 13 11:39 7.00 14 11:40 7.50 15 11:41 8.00 16 11:42 8.50 17 11:43 9.00 18 11:44 9.50 19 11:45 10.00 20 11:46 10.50	0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.950 1.500 1.700 1.800 1.900 2.100 2.100 2.100 2.000 1.950 1.800 1.700 1.500 1.400 1.200 0.900 0.500 0.500	0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.280 0.380 0.600 0.720 0.760 0.840 0.840 0.840 0.840 0.800 0.780 0.720 0.680 0.600 0.560 0.480 0.360 0.240 0.200	0.0062 0.0095 -0.0092 0.5843 0.7270 1.4452 1.6434 2.2995 2.4774 2.5358 2.7070 2.9203 2.9462 2.3743 2.1854 1.3005 0.3963 0.6063 0.0335	1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	0 0.0062 0 0.0095 0 -0.0092 0 0.5843 0 0.7270 0 1.6434 0 2.2995 0 2.4774 0 2.5358 0 2.9462 0 2.9462 0 2.1854 0 2.3763 0 2.1854 0 0.3963 0 0.6063 0 0.6063 0 0.0335	0.525 0.475 0.750 0.850 0.900 0.950 1.050 1.050 1.050 1.050 1.000 0.975 0.900 0.850 0.750 0.700 0.600 0.450 0.250	0.0033 0.0045 -0.0069 0.0845 0.5258 0.6907 1.5175 1.7256 2.4146 2.4774 2.4725 2.4361 2.4824 2.2096 1.6620 1.3114 0.5852 0.1189 0.1516 0.0084	0.60 0.60 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2
2 11:26 1.50 3 11:27 2.00 4 11:28 2.50 5 11:29 3.00 6 11:30 3.50 7 11:32 4.00 8 11:33 4.50 9 11:34 5.00 10 11:35 5.50 11 11:36 6.00 12 11:37 6.50 13 11:39 7.00 14 11:40 7.50 15 11:41 8.00 16 11:42 8.50 17 11:43 9.00 18 11:44 9.50 19 11:45 10.00 20 11:46 10.50 21 11:47 11.00	0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.950 1.500 1.700 1.800 1.900 2.100 2.100 2.000 1.950 1.800 1.700 1.500 1.400 1.200 0.500 0.500 0.500 0.500	0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.280 0.380 0.600 0.720 0.760 0.840 0.840 0.840 0.840 0.800 0.780 0.720 0.680 0.600 0.560 0.480 0.360 0.240 0.200 0.200	0.0062 0.0095 -0.0092 0.5843 0.7270 1.4452 1.6434 2.2995 2.4774 2.5358 2.7070 2.9203 2.9462 2.3743 2.1854 1.3005 0.3963 0.6063 0.0335 0.0148	1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	0 0.0062 0 0.0095 0 0.0994 0 0.5843 0 0.7270 0 1.6434 0 2.2995 0 2.4774 0 2.5358 0 2.7070 0 2.9462 0 2.1854 0 2.3763 0 2.1854 0 0.3963 0 0.6063 0 0.6063 0 0.03355 0 0.0148	0.525 0.475 0.750 0.850 0.900 0.950 1.050 1.050 1.050 1.050 1.000 0.975 0.900 0.850 0.750 0.700 0.600 0.450 0.250 0.250 0.250	0.0033 0.0045 0.0069 0.0845 0.5258 0.6907 1.5175 1.7256 2.4146 2.4774 2.4725 2.4361 2.4824 2.2096 1.6620 1.3114 0.5852 0.1189 0.1516 0.0084 0.0037	0.6.0 0.6.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
2 11:26 1.50 3 11:27 2.00 4 11:28 2.50 5 11:29 3.00 6 11:30 3.50 7 11:32 4.00 8 11:33 4.50 9 11:34 5.00 10 11:35 5.50 11 11:36 6.00 12 11:37 6.50 13 11:39 7.00 14 11:40 7.50 15 11:41 8.00 16 11:42 8.50 17 11:43 9.00 18 11:44 9.50 19 11:45 10.00 20 11:45 10.50 21 11:47 11.00 22 11:48 11.50	0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.950 1.500 1.700 1.800 1.900 2.100 2.100 2.000 1.950 1.800 1.700 1.500 1.400 1.200 0.500 0.500 0.500 0.500 0.500	0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.280 0.380 0.600 0.720 0.760 0.840 0.840 0.840 0.840 0.800 0.780 0.720 0.680 0.600 0.560 0.480 0.360 0.240 0.200 0.200 0.200	0.0062 0.0095 -0.0092 0.0994 0.5843 0.7270 1.4452 1.6434 2.2995 2.4774 2.5358 2.7070 2.9203 2.9462 2.3743 2.1854 1.3005 0.3963 0.6063 0.0335 0.0148 0.0184	1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	0 0.0062 0 0.0095 0 0.0994 0 0.5843 0 0.7270 0 1.6434 0 2.2995 0 2.4774 0 2.5358 0 2.7070 0 2.9462 0 2.1854 0 0.3963 0 0.6063 0 0.03355 0 0.0148 0 0.0184	0.525 0.475 0.750 0.850 0.900 0.950 1.050 1.050 1.050 1.050 1.000 0.975 0.900 0.850 0.750 0.700 0.600 0.450 0.250 0.250 0.250 0.250	0.0033 0.0045 0.0069 0.0845 0.5258 0.6907 1.5175 1.7256 2.4146 2.4774 2.4725 2.4361 2.4824 2.2096 1.6620 1.3114 0.5852 0.1189 0.1516 0.0084 0.0037 0.0046	0.6 0.6 0.6 0.6 0.6 0.6 0.7 10.2 10.3 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4
2 11:26 1.50 3 11:27 2.00 4 11:28 2.50 5 11:29 3.00 6 11:30 3.50 7 11:32 4.00 8 11:33 4.50 9 11:34 5.00 10 11:35 5.50 11 11:36 6.00 12 11:37 6.50 13 11:39 7.00 14 11:40 7.50 15 11:41 8.00 16 11:42 8.50 17 11:43 9.00 18 11:44 9.50 19 11:45 10.00 20 11:45 10.50 21 11:47 11.00 22 11:48 11.50 23 11:50 12.00	0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.950 1.500 1.700 1.800 1.900 2.100 2.100 2.100 2.000 1.950 1.800 1.700 1.500 1.400 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.400	0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.280 0.380 0.600 0.720 0.760 0.840 0.840 0.840 0.840 0.800 0.720 0.680 0.720 0.680 0.720 0.680 0.200 0.200 0.200 0.200 0.200 0.200 0.160	0.0062 0.0095 -0.0092 0.0994 0.5843 0.7270 1.4452 1.6434 2.2995 2.4774 2.5358 2.7070 2.9203 2.9462 2.3743 2.1854 1.3005 0.3963 0.6063 0.0335 0.0148 0.0184 0.0013	1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	0 0.0062 0 0.0095 0 0.0994 0 0.5843 0 0.7270 0 1.6434 0 2.2995 0 2.4774 0 2.5358 0 2.7070 0 2.9462 0 2.1854 0 0.3963 0 0.6063 0 0.0335 0 0.0134 0 0.0134	0.525 0.475 0.750 0.850 0.900 0.950 1.050 1.050 1.050 1.050 1.000 0.975 0.900 0.850 0.750 0.700 0.600 0.450 0.250 0.250 0.250 0.250 0.250 0.200	0.0033 0.0045 0.0069 0.0845 0.5258 0.6907 1.5175 1.7256 2.4146 2.4774 2.4725 2.4361 2.4824 2.2096 1.6620 1.3114 0.5852 0.1189 0.1516 0.0084 0.0037 0.0046 0.0003	0.60 0.60 0.60 0.7 0.7 0.7 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4
2 11:26 1.50 3 11:27 2.00 4 11:28 2.50 5 11:29 3.00 6 11:30 3.50 7 11:32 4.00 8 11:33 4.50 9 11:34 5.00 10 11:35 5.50 11 11:36 6.00 12 11:37 6.50 13 11:39 7.00 14 11:40 7.50 15 11:41 8.00 16 11:42 8.50 17 11:43 9.00 18 11:44 9.50 19 11:45 10.00 20 11:45 10.50 21 11:47 11.00 22 11:48 11.50 23 11:50 12.00 24 11:51 12.50	0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.950 1.500 1.700 1.800 1.900 2.100 2.100 2.100 2.000 1.950 1.800 1.700 1.500 1.400 0.500 0.500 0.500 0.500 0.500 0.500 0.400 0.400 0.400	0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.280 0.380 0.600 0.720 0.760 0.840 0.840 0.840 0.840 0.840 0.780 0.720 0.680 0.720 0.680 0.720 0.680 0.200 0.200 0.200 0.200 0.200 0.200 0.160 0.160	0.0062 0.0095 -0.0092 0.0994 0.5843 0.7270 1.4452 1.6434 2.2995 2.4774 2.5358 2.7070 2.9203 2.9462 2.3743 2.1854 1.3005 0.3963 0.6063 0.0335 0.0148 0.0148 0.013 0.0052	1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	0 0.0062 0 0.0095 0 0.0994 0 0.5843 0 0.7270 0 1.6434 0 2.2995 0 2.4774 0 2.5358 0 2.7070 0 2.9462 0 2.3743 0 2.1854 0 0.3963 0 0.6063 0 0.0335 0 0.0138 0 0.0138 0 0.0013 0 0.0052	0.525 0.475 0.750 0.850 0.900 0.950 1.050 1.050 1.050 1.050 1.000 0.975 0.900 0.850 0.750 0.700 0.600 0.450 0.250 0.250 0.250 0.250 0.200 0.200	0.0033 0.0045 0.0069 0.0845 0.5258 0.6907 1.5175 1.7256 2.4146 2.4774 2.4725 2.4361 2.4824 2.2096 1.6620 1.3114 0.5852 0.1189 0.1516 0.0084 0.0037 0.0046 0.0003 0.0010	0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.60
2 11:26 1.50 3 11:27 2.00 4 11:28 2.50 5 11:29 3.00 6 11:30 3.50 7 11:32 4.00 8 11:33 4.50 9 11:34 5.00 10 11:35 5.50 11 11:36 6.00 12 11:37 6.50 13 11:39 7.00 14 11:40 7.50 15 11:41 8.00 16 11:42 8.50 17 11:43 9.00 18 11:44 9.50 19 11:45 10.00 20 11:45 10.50 21 11:47 11.00 22 11:48 11.50 23 11:50 12.00	0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.950 1.500 1.700 1.800 1.900 2.100 2.100 2.100 2.000 1.950 1.800 1.700 1.500 1.400 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.400 0.400 0.300	0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.280 0.380 0.600 0.720 0.760 0.840 0.840 0.840 0.840 0.800 0.720 0.680 0.720 0.680 0.720 0.680 0.200 0.200 0.200 0.200 0.200 0.200 0.160	0.0062 0.0095 -0.0092 0.0994 0.5843 0.7270 1.4452 1.6434 2.2995 2.4774 2.5358 2.7070 2.9203 2.9462 2.3743 2.1854 1.3005 0.3963 0.6063 0.0335 0.0148 0.0184 0.013 0.0052 0.0151	1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	0 0.0062 0 0.0095 0 0.0994 0 0.5843 0 0.7270 0 1.6434 0 2.2995 0 2.4774 0 2.5358 0 2.7070 0 2.9462 0 2.3743 0 2.1854 0 0.3963 0 0.6063 0 0.0335 0 0.0134 0 0.0134 0 0.0052 0 0.0052 0 0.0131 0 0.0052 0 0.0151	0.525 0.475 0.750 0.850 0.900 0.950 1.050 1.050 1.050 1.050 1.000 0.975 0.900 0.850 0.750 0.700 0.600 0.450 0.250 0.250 0.250 0.250 0.250 0.200	0.0033 0.0045 0.0069 0.0845 0.5258 0.6907 1.5175 1.7256 2.4146 2.4774 2.4725 2.4361 2.4824 2.2096 1.6620 1.3114 0.5852 0.1189 0.1516 0.0084 0.0037 0.0046 0.0003	0.6.0 0.6.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Rows in italics indicate a QC warning. See the Quality Control page of this report for more information.

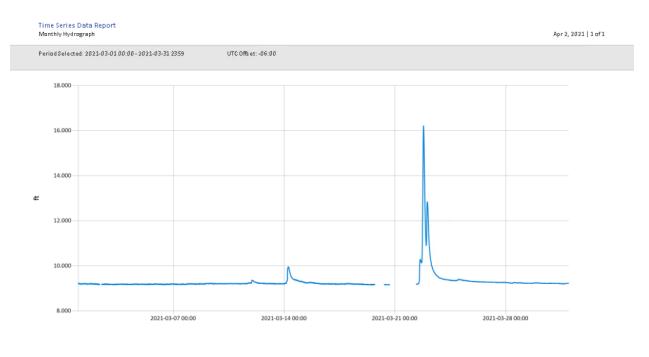
Figure 3 Discharge Measurement Summary JB-1

ile	Infor	mation	1				Site Det	ails							
	Name				323.WAD		Site Nam	_	LRC						
Sta	rt Date	and Tin	ne 2	:06	Operator	(s)	SCD								
SV	stem I	nforma	ation		U	nits (English U	nits)	Discharge Uncertainty						
Ser	nsor Typ			lowTrac		stance	ce ft			Category		ISO Stats			
	ial #		-1	P4713		elocity	ft/s			uracy		1.0%	1.0		
	J Firmw tware V		sion	3.9 2.30		'ea scharge	ft^2 cfs		Dep			0.1%	1.3		
	unting (on	0.0%		scharge	cis			city		0.4% 0.1%	2.4		
_									Width Method			1.5%	0.1		
	mmary		40		Ctations		22			tations		1.6%			
	eraging Irt Edge		40 LEW		Stations otal Widtl		33 23.000		Ove		1	2.4%	2.9		
	an SNR		53.3		otal Area		38.300								
	an Tem		55.86		ean Dept		1.665								
Dis	ch. Equi	ation	Mid-Sec		ean Velo		1.0378								
					otal Disc	narge	39.749	0							
Su	ppleme														
L .		Time				leight Rat	ted Flow			Comm	ients				
	Tue Mar	23 14:17	:42 CDT 2021	23.00	0	19.870									
	201100	mont D	loculto						_				_		
_	Clock	Loc	Results Method	Depth	%Dep	MeasD	Vel	CorrF	act	MeanV	Area	Flow	%		
0	13:45	0.00		0.000	0.0		0.0000	com	1.00	0.0000		0.000			
1	13:45	1.00		1.300	0.6	0.520	0.1102		1.00	0.1102		0.10			
2	13:46	1.50		1.900	0.6	0.760	0.1804		1.00	0.1804		0.17			
3	13:47 13:48	2.00		1.900	0.6	0.760	0.4396		1.00	0.4396	0.950	0.41			
5	13:49	3.00		1.700	0.6	0.680	1.0446		1.00	1.0446	0.850	0.888			
6	13:50	3.50		2.700	0.6	1.080	0.3435		1.00	0.3435	1.350	0.463			
7	13:52	4.00		2.900	0.6	1.160	0.7165		1.00	0.7165	1.450	1.039			
8	13:53	4.50		2.900	0.6	1.160	0.9219		1.00	0.9219		1.336			
9 10	13:54 13:55	5.00 5.50		2.800	0.6	1.120	1.0794		1.00	1.0794 1.3668	1.400	1.51			
11	13:56	6.00		2.800	0.6	1.120	1.4137		1.00	1.4137		1.979			
12	13:57	6.50		2.700	0.6	1.080	1.3891		1.00	1.3891	1.350	1.87	54 4		
13	13:58	7.00		2,700	0.6	1.080	1.3681		1.00	1.3681	1.350	1.84			
14 15	13:59 14:00	7.50		2.600	0.6	1.040	1.3120 1.2510		1.00	1.3120 1.2510	1.300	1.70			
16	14:01	8.50		2.600	0.6		1.2310		1.00	1.2405	1.225	1.519	_		
17	14:02	9.00		2.400	0.6		1.2270		1.00	1.2270	1.200	1.47			
18	14:03	9.50		2.250	0.6		1.2421		1.00	1.2421	1.125	1.397			
19	14:04	10.00		2.200	0.6		1.2274		1.00	1.2274	1.650	2.02			
20 21	14:05 14:06	12.00		2.000	0.6		1.2746		1.00	1.2746	2.000	2.34			
22	14:07	13.00		1.700	0.6		1.1060		1.00	1.1060	1.700	1.880			
23	14:08	14.00	0.6	1.700	0.6	0.680	1.1312		1.00	1.1312	1.700	1.92	32 4		
24	14:09	15.00		1.400	0.6		1.1660		1.00	1.1660	1.400	1.63			
25 26	14:10 14:11	16.00 17.00		1.200	0.6		1.1647 1.0735		1.00	1.1647 1.0735	1.200	1.39			
	14:11	18.00		1.000	0.6		0.7825		1.00	0.7825	1.000	0.78			
2/1	14:13	19.00		0.900	0.6		1.0814		1.00	1.0814	0.900	0.97			
27 28	14:14	20.00		0.800	0.6		0.8189		1.00	0.8189	0.800	0.65	50 :		
28 29						0.000	0.000		1.00	0.6598	0.750	0.40/	18 :		
28	14:15 14:16			0.750	0.6		0.6598		1.00	0.2188	0.400	0.49			

Figure 4 Discharge Measurement Summary LRC-1

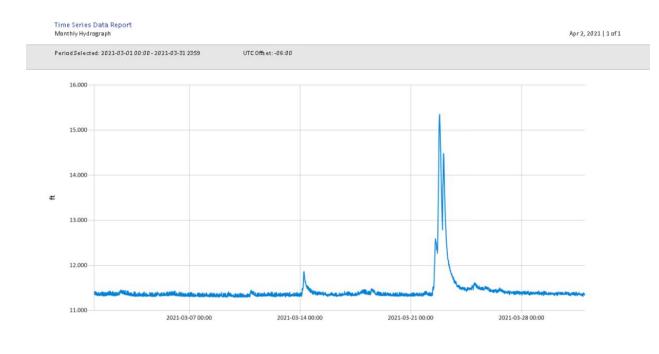
ile Inforn	nation					Site Det	ails							
ile Name			URC03	323.WAD		Site Name				L L	JRC			
tart Date a	and Tim	e 2	2021/03/	23 15:18	:35	Operator((s)	SCD						
System In	format	tion		U	nits	(English U	nits)	Discharge Uncertainty						
ensor Typ	e	F	lowTrac	ker Di	stance	ft			Category	1	50 9	Stats		
Serial #			P4713 3.9	- Ve	elocity	ft/s			uracy		1.0%	1.0		
PU Firmwa		on		rea	ft^2		Depth			0.1%	0.7			
oftware V			2.30		Discharge cfs			Vel	ocity		0.7%	1.5		
lounting C	orrection	n	0.0%					Wid			0.1%	0.1		
								Met	thod		1.8%			
Summary	ot	40		Ctations		25			tations		2.0%			
veraging I Start Edge	nu.	40 LEW		Stations otal Widtl	h	25 21.000			erall		3.0%	1.9		
lean SNR		46.4 (-	otal Area		33.274								
lean Temp		56.93		ean Dept	h	1.584								
isch. Equa		Mid-Sec		ean Veloc		0.8060								
noem equa	cioni	110 000		otal Disc		26.818								
					_									
Suppleme		ita		1										
Tree Mars 2	Time	54 CDT 0004			Height Ra	ited Flow			Comn	nents				
Tue Mar 2	3 15:40:	54 CDT 2021	21.00		13.100									
Measurement Results														
			Death	0/ D ==		1/-1	6				cl	01		
t Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrF		MeanV	Area	Flow	%		
t Clock 0 15:18	Loc 0.00	Method None	0.000	0.0	0.0	0.0000	CorrF	1.00	0.0000	0.000	0.000	0 0		
t Clock 0 15:18 1 15:18	Loc 0.00 <i>1.00</i>	Method None 0.6	0.000 <i>0.400</i>	0.0 <i>0.6</i>	0.0 <i>0.160</i>	0.0000 <i>0.0745</i>	CorrF	1.00 1.00	0.0000 <i>0.0745</i>	0.000 <i>0.400</i>	0.000	0 0 8 0		
t Clock 0 15:18 1 15:18 2 15:19	Loc 0.00 <i>1.00</i> 2.00	Method None	0.000 <i>0.400</i> 0.800	0.0 <i>0.6</i> 0.6	0.0 <i>0.160</i> 0.320	0.0000 0.0745 0.2539	CorrF	1.00	0.0000 0.0745 0.2539	0.000	0.000 0.0298 0.203	0 0 8 0 1 0		
t Clock 0 15:18 1 15:18 2 15:19	Loc 0.00 <i>1.00</i>	Method None 0.6 0.6	0.000 0.400 0.800 1.000	0.0 <i>0.6</i>	0.0 0.160 0.320 0.400	0.0000 0.0745 0.2539 0.3944	CorrF	1.00 <i>1.00</i> 1.00	0.0000 0.0745 0.2539 0.3944	0.000 <i>0.400</i> 0.800	0.000 0.0298 0.203 0.394	0 0 8 0 1 0 4 1		
t Clock 0 15:18 1 15:18 2 15:19 3 15:20	Loc 0.00 <i>1.00</i> 2.00 3.00	Method None 0.6 0.6	0.000 <i>0.400</i> 0.800	0.0 <i>0.6</i> 0.6 0.6	0.0 <i>0.160</i> 0.320	0.0000 0.0745 0.2539 0.3944 0.4485	CorrF	1.00 1.00 1.00 1.00	0.0000 0.0745 0.2539	0.000 <i>0.400</i> 0.800 1.000	0.000 0.0298 0.203	0 0 8 0 1 0 4 1 9 2		
t Clock 0 15:18 1 15:18 2 15:19 3 15:20 4 15:22	Loc 0.00 1.00 2.00 3.00 4.00	Method None 0.6 0.6 0.6 0.6	0.000 0.400 0.800 1.000 1.400	0.0 0.6 0.6 0.6 0.6	0.0 0.160 0.320 0.400 0.560	0.0000 0.0745 0.2539 0.3944 0.4485 0.6201	CorrF	1.00 1.00 1.00 1.00 1.00 1.00	0.0000 0.0745 0.2539 0.3944 0.4485	0.000 0.400 0.800 1.000 1.400	0.000 0.0290 0.203 0.394 0.627	0 0 8 0 1 0 4 1 9 2 1 3		
Clock 0 15:18 1 15:19 3 15:20 4 15:22 5 15:23	Loc 0.00 1.00 2.00 3.00 4.00 5.00	Method None 0.6 0.6 0.6 0.6 0.6	0.000 0.400 0.800 1.000 1.400 1.400	0.0 0.6 0.6 0.6 0.6 0.6	0.0 0.160 0.320 0.400 0.560 0.560 0.600 0.680	0.0000 0.0745 0.2539 0.3944 0.4485 0.6201 0.5755 0.5758	CorrF	1.00 1.00 1.00 1.00 1.00 1.00	0.0000 0.0745 0.2539 0.3944 0.4485 0.6201	0.000 0.400 0.800 1.000 1.400 1.400	0.000 0.299 0.203 0.394 0.627 0.868	0 0 8 0 1 0 4 1 9 2 1 3 2 3 9 3		
Clock 0 15:18 1 15:19 3 15:20 4 15:22 5 15:23 6 15:24 7 15:25 8 15:26	Loc 0.00 2.00 3.00 4.00 5.00 6.00 7.00 8.00	Method None 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.000 0.400 0.800 1.000 1.400 1.400 1.500 1.700 1.800	0.0 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.0 0.320 0.400 0.560 0.560 0.600 0.680 0.720	0.0000 0.0745 0.2539 0.3944 0.4485 0.6201 0.5755 0.5758 0.8455	CorrF	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	0.0000 0.0745 0.2539 0.3944 0.4485 0.6201 0.5755 0.5758 0.8455	0.000 0.400 0.800 1.000 1.400 1.400 1.500 1.700 1.800	0.000 0.203 0.394 0.627 0.868 0.863 0.978 1.521	0 0 8 0 1 0 4 1 9 2 1 3 2 3 9 3 7 5		
Clock 0 15:18 1 15:19 3 15:20 4 15:23 6 15:24 7 15:25 8 15:26 9 15:27	Loc 0.00 2.00 3.00 4.00 5.00 6.00 7.00 8.00 9.00	Method None 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.000 0.400 0.800 1.000 1.400 1.400 1.500 1.700 1.800 2.000	0.0 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.0 0.160 0.320 0.400 0.560 0.560 0.600 0.680 0.720 0.800	0.0000 0.0745 0.2539 0.3944 0.4485 0.6201 0.5755 0.5758 0.8455 0.9199	Corrf	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	0.0000 0.0745 0.2539 0.3944 0.4485 0.6201 0.5755 0.5758 0.8455 0.9199	0.000 0.400 0.800 1.000 1.400 1.400 1.500 1.700 1.800 2.000	0.000 0.0294 0.203 0.394 0.627 0.868 0.863 0.978 1.521 1.839	0 0 8 0 1 0 4 1 9 2 1 3 2 3 9 3 7 5 9 6		
t Clock 0 15:18 I 15:18 2 15:19 3 15:20 4 15:22 5 15:23 6 15:24 7 15:25 8 15:26 9 15:27 10 15:28	Loc 0.00 1.00 2.00 3.00 4.00 5.00 6.00 7.00 8.00 9.00 10.00	Method None 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.000 0.400 0.800 1.000 1.400 1.400 1.500 1.700 1.800 2.000 2.100	0.0 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.0 0.160 0.320 0.400 0.560 0.560 0.600 0.680 0.720 0.800 0.840	0.0000 0.0745 0.2539 0.3944 0.4485 0.6201 0.5755 0.5758 0.8455 0.9199 1.1073	CorrF	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	0.0000 0.0745 0.2539 0.3944 0.4485 0.6201 0.5755 0.5758 0.8455 0.9199 1.1073	0.000 0.400 1.000 1.400 1.400 1.500 1.700 1.800 2.000 1.575	0.000 0.0294 0.394 0.627 0.868 0.863 0.978 1.521 1.839 1.744	0 0 8 0 1 0 4 1 9 2 1 3 9 3 7 5 9 6 0 6		
t Clock 0 15:18 1 15:18 2 15:19 3 15:20 4 15:22 5 15:23 6 15:24 7 15:25 8 15:26 9 15:27 10 15:28 11 15:42	Loc 0.00 1.00 2.00 3.00 4.00 5.00 6.00 7.00 8.00 9.00 10.00 10.50	Method None 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.000 0.400 0.800 1.000 1.400 1.400 1.500 1.700 1.800 2.000 2.100 2.200	0.0 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.0 0.160 0.320 0.400 0.560 0.560 0.600 0.680 0.720 0.800 0.840 0.880	0.0000 0.0745 0.2539 0.3944 0.4485 0.6201 0.5755 0.5758 0.8455 0.9199 1.1073 1.1099	CorrF	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	0.0000 0.0745 0.2539 0.3944 0.4485 0.6201 0.5755 0.5758 0.8455 0.9199 1.1073 1.1099	0.000 0.400 0.800 1.000 1.400 1.400 1.500 1.700 1.800 2.000 1.575 1.100	0.000 0.0292 0.203 0.394 0.627 0.868 0.863 0.978 1.521 1.839 1.744 1.221	0 0 8 0 1 0 4 1 9 2 3 9 2 3 9 3 7 5 9 6 0 6 0 4		
t Clock 0 15:18 1 15:18 2 15:19 3 15:20 4 15:22 5 15:23 6 15:24 7 15:25 8 15:26 9 15:27 10 15:28 11 15:42 12 15:29	Loc 0.00 1.00 2.00 3.00 4.00 5.00 6.00 7.00 8.00 9.00 10.00 10.50 11.00	Method None 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.000 0.400 0.800 1.000 1.400 1.500 1.700 1.800 2.000 2.100 2.200 2.250	0.0 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.0 0.160 0.320 0.400 0.560 0.560 0.680 0.720 0.800 0.840 0.880 0.900	0.0000 0.0745 0.2539 0.3944 0.4485 0.6201 0.5755 0.5758 0.8455 0.9199 1.1073 1.1099 1.1965	CorrF	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	0.0000 0.0745 0.2539 0.3944 0.4485 0.6201 0.5755 0.5758 0.8455 0.9199 1.1073 1.1099 1.1965	0.000 0.400 0.800 1.000 1.400 1.400 1.500 1.700 1.800 2.000 1.575 1.100 1.125	0.000 0.0292 0.203 0.394 0.627 0.868 0.863 0.978 1.521 1.839 1.744 1.221 1.346	0 0 8 0 1 0 4 1 9 2 2 3 9 3 7 5 9 6 0 6 0 4 1 5		
t Clock 0 15:18 1 15:18 2 15:19 3 15:20 4 15:22 5 15:23 6 15:24 7 15:25 8 15:26 9 15:27 10 15:28 11 15:42 12 15:29 13 15:44	Loc 0.00 1.00 2.00 3.00 4.00 5.00 6.00 7.00 8.00 9.00 10.00 10.50 11.00 11.50	Method None 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.000 0.400 0.800 1.000 1.400 1.400 1.500 1.700 1.800 2.000 2.100 2.250 2.300	0.0 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.0 0.160 0.320 0.400 0.560 0.660 0.680 0.720 0.800 0.840 0.840 0.880 0.900 0.920	0.0000 0.0745 0.2539 0.3944 0.4485 0.6201 0.5755 0.5758 0.8455 0.9199 1.1073 1.1099 1.3425	CorrF	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	0.0000 0.0745 0.2539 0.3944 0.4485 0.6201 0.5755 0.5758 0.8455 0.9199 1.1073 1.1099 1.3425	0.000 0.400 0.800 1.000 1.400 1.400 1.500 1.700 1.800 2.000 1.575 1.100 1.125 1.150	0.000 0.0292 0.203 0.394 0.627 0.868 0.863 0.978 1.521 1.839 1.744 1.221 1.346 1.543	0 0 8 0 1 0 4 1 9 2 1 3 2 3 9 3 7 5 9 6 0 6 0 4 1 5 8 5		
t Clock 0 15:18 1 15:18 2 15:19 3 15:20 4 15:22 5 15:23 6 15:24 7 15:25 8 15:26 9 15:27 10 15:28 11 15:42 12 15:29 13 15:44 14 15:30	Loc 0.00 1.00 2.00 3.00 4.00 5.00 6.00 7.00 8.00 9.00 10.00 10.50 11.00 11.50 12.00	Method None 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.000 0.400 0.800 1.000 1.400 1.400 1.500 1.700 1.800 2.000 2.100 2.200 2.250 2.300 2.300	0.0 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.0 0.160 0.320 0.400 0.560 0.600 0.680 0.720 0.800 0.840 0.840 0.880 0.900 0.920 0.920	0.0000 0.0745 0.2539 0.3944 0.4485 0.6201 0.5755 0.5758 0.8455 0.9199 1.1073 1.1099 1.3425 1.3038	CorrF	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	0.0000 0.0745 0.2539 0.3944 0.4485 0.6201 0.5755 0.5758 0.8455 0.9199 1.1073 1.1099 1.1965 1.3425 1.3038	0.000 0.400 0.800 1.000 1.400 1.400 1.500 1.700 1.800 2.000 1.575 1.100 1.125 1.150 1.150	0.000 0.0292 0.203 0.394 0.627 0.868 0.863 0.978 1.521 1.839 1.744 1.221 1.346 1.543 1.499	0 0 8 0 1 0 4 1 9 2 1 3 2 3 9 3 9 6 0 6 0 4 1 5 8 5 3 5 3 5 3 5 3 5 3 5 3 5 3 5 3		
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t Clock 0 15:18 1 15:18 2 15:19 3 15:20 4 15:22 5 15:23 6 15:24 7 15:25 8 15:26 9 15:27 10 15:28 11 15:42 12 15:29 13 15:44 14 15:30 15 15:45 16 15:31	Loc 0.00 1.00 2.00 3.00 4.00 5.00 6.00 7.00 8.00 9.00 10.00 10.50 11.00 11.50 12.00 12.50 13.00	Method None 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.000 0.400 0.800 1.000 1.400 1.500 1.700 1.800 2.000 2.100 2.200 2.250 2.300 2.300 2.300 2.300	0.0 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.0 0.160 0.320 0.400 0.560 0.600 0.680 0.720 0.800 0.840 0.840 0.880 0.900 0.920 0.920 0.920 0.920	0.0000 0.0745 0.2539 0.3944 0.4485 0.6201 0.5755 0.5758 0.8455 0.9199 1.1073 1.1099 1.1965 1.3425 1.3038 1.2959 1.2874	CorrF	1.00 1.00	0.0000 0.0745 0.2539 0.3944 0.4485 0.6201 0.5755 0.5758 0.8455 0.9199 1.1073 1.1099 1.1965 1.3425 1.3038 1.2959 1.2874	0.000 0.400 0.800 1.000 1.400 1.400 1.500 1.700 1.800 2.000 1.575 1.100 1.125 1.150 1.150 1.150 1.725	0.000 0.0292 0.203 0.394 0.627 0.868 0.863 0.978 1.521 1.839 1.744 1.221 1.346 1.543 1.499 1.490 2.220	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
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t Clock 0 15:18 1 15:19 3 15:20 4 15:22 5 15:23 6 15:24 7 15:25 8 15:26 9 15:27 10 15:28 11 15:42 12 15:29 13 15:44 14 15:30 15 15:45 16 15:31 17 15:31 18 15:32	Loc 0.00 1.00 2.00 3.00 4.00 5.00 6.00 7.00 8.00 9.00 10.00 10.50 11.00 11.50 12.00 12.50 13.00 14.00 15.00	Method None 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.000 0.400 0.800 1.000 1.400 1.400 1.500 1.700 1.800 2.000 2.200 2.300 2.	0.0 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.0 0.160 0.320 0.400 0.560 0.600 0.680 0.720 0.800 0.840 0.880 0.92	0.0000 0.0745 0.2539 0.3944 0.4485 0.6201 0.5755 0.5758 0.8455 0.9199 1.1073 1.1099 1.1965 1.3425 1.3038 1.2959 1.2874 1.1266 0.9163 0.7503 0.5230	Corrf	1.00 1.00	0.0000 0.0745 0.2539 0.3944 0.4485 0.6201 0.5755 0.5758 0.8455 0.9199 1.1073 1.1099 1.1965 1.3425 1.3038 1.2959 1.2874 1.1266 0.9163 0.7503 0.5230	0.000 0.400 0.800 1.000 1.400 1.400 1.500 1.700 1.800 2.000 1.575 1.100 1.155 1.150 1.150 1.150 1.725 2.300 2.300	0.000 0.0292 0.203 0.394 0.627 0.868 0.863 0.978 1.521 1.839 1.744 1.221 1.346 1.543 1.499 1.490 2.220 2.591 2.107	$\begin{array}{c} 0 & 0 \\ 8 & 0 \\ 1 & 0 \\ 4 & 1 \\ 1 \\ 2 \\ 2 \\ 3 \\ 2 \\ 3 \\ 3 \\ 5 \\ 7 \\ 7 \\ 5 \\ 7 \\ 5 \\ 7 \\ 5 \\ 7 \\ 5 \\ 7 \\ 5 \\ 7 \\ 5 \\ 7 \\ 5 \\ 7 \\ 5 \\ 7 \\ 5 \\ 7 \\ 5 \\ 7 \\ 7$		
t Clock 0 15:18 1 15:19 3 15:20 4 15:22 5 15:23 6 15:24 7 15:25 8 15:26 9 15:27 10 15:28 11 15:42 12 15:29 13 15:44 14 15:30 15 15:45 16 15:31 17 15:31 18 15:32 19 15:34 20 15:36	Loc 0.00 1.00 2.00 3.00 4.00 5.00 6.00 7.00 8.00 9.00 10.00 10.50 11.00 11.50 12.00 12.50 13.00 14.00 15.00 16.00 17.00	Method None 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.000 0.400 0.800 1.000 1.400 1.400 1.500 1.700 1.800 2.000 2.100 2.250 2.300 2.0000 2.0000 2.0000 2.0000 2.0000 2.0000 2.0000 2.0000 2.0000 2.00000 2.00000 2.0000000 2.00000 2.0000000000	0.0 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.0 0.160 0.320 0.400 0.560 0.600 0.680 0.720 0.800 0.840 0.840 0.900 0.92	0.0000 0.0745 0.2539 0.3944 0.4485 0.6201 0.5755 0.5758 0.8455 0.9199 1.1073 1.1099 1.1965 1.3425 1.3038 1.2959 1.2874 1.1266 0.9163 0.7503 0.5230 0.4577	Corrf	1.00 1.00	0.0000 0.0745 0.2539 0.3944 0.4485 0.6201 0.5755 0.5758 0.8455 0.9199 1.1073 1.1099 1.1965 1.3425 1.3038 1.2959 1.2874 1.1266 0.9163 0.7503	0.000 0.400 0.800 1.000 1.400 1.400 1.500 1.700 1.800 2.000 1.575 1.100 1.155 1.150 1.150 1.725 2.300 2.300 2.000 1.800	0.000 0.0292 0.203 0.394 0.627 0.868 0.863 0.978 1.521 1.839 1.744 1.221 1.346 1.543 1.499 1.490 2.220 2.591 2.107 1.500 0.941	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
t Clock 0 15:18 2 15:19 3 15:20 4 15:22 5 15:23 6 15:24 7 15:25 8 15:26 9 15:27 10 15:28 11 15:42 12 15:29 13 15:44 14 15:30 15 15:45 16 15:31 17 15:31 18 15:32 19 15:34 20 15:36 21 15:37	Loc 0.00 1.00 2.00 3.00 4.00 5.00 6.00 7.00 8.00 9.00 10.00 10.50 11.00 11.50 12.00 12.50 13.00 14.00 15.00 16.00 17.00 18.00	Method None 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.000 0.400 0.800 1.000 1.400 1.400 1.500 1.700 2.000 2.100 2.200 2.300 2.300 2.300 2.300 2.300 2.300 2.300 2.300 2.300 1.800 1.800 1.600	0.0 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.0 0.160 0.320 0.400 0.560 0.600 0.680 0.720 0.800 0.840 0.92	0.0000 0.0745 0.2539 0.3944 0.4485 0.6201 0.5755 0.5758 0.8455 0.9199 1.1073 1.1099 1.1965 1.3425 1.3038 1.2959 1.2874 1.1266 0.9163 0.7503 0.5230 0.4577 0.2293	Corrf	1.00 1.00	0.0000 0.0745 0.2539 0.3944 0.4485 0.6201 0.5755 0.5758 0.8455 0.9199 1.1073 1.1099 1.1965 1.3425 1.3038 1.2959 1.2874 1.1266 0.9163 0.7503 0.5230 0.4577	0.000 0.400 0.800 1.000 1.400 1.400 1.500 1.700 1.800 2.000 1.575 1.100 1.155 1.150 1.155 1.150 1.725 2.300 2.300 2.000 1.800 1.600	0.000 0.0292 0.203 0.394 0.627 0.868 0.863 0.978 1.521 1.839 1.744 1.221 1.346 1.543 1.499 1.490 2.220 2.591 2.107 1.500 0.941 0.732	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		

Figure 5 Discharge Measurement Summary URC-2



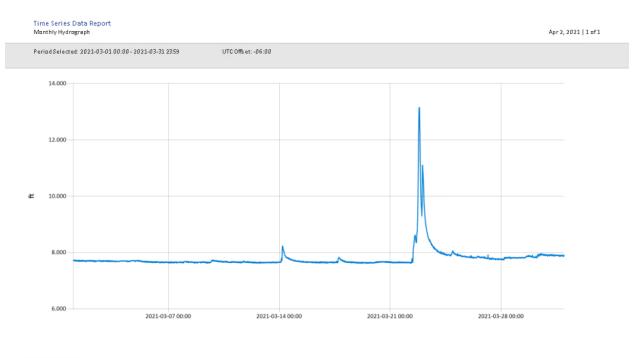
---- Stage@TG



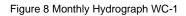


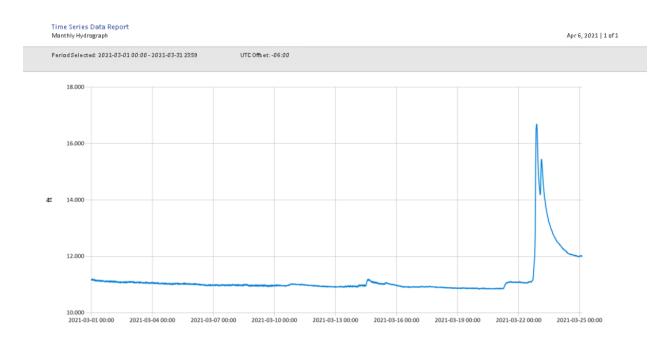
---- Stage@TE

Figure 7 Monthly Hydrograph TE-1



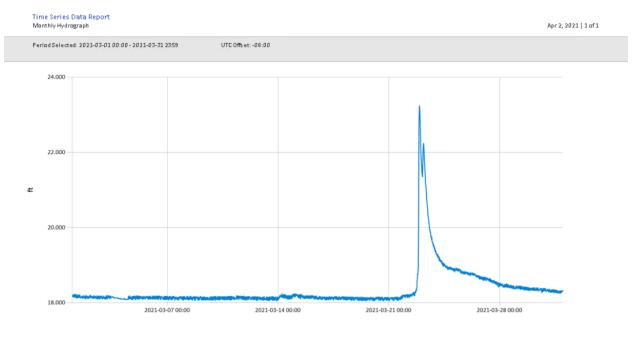
---- Stage@WC



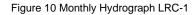


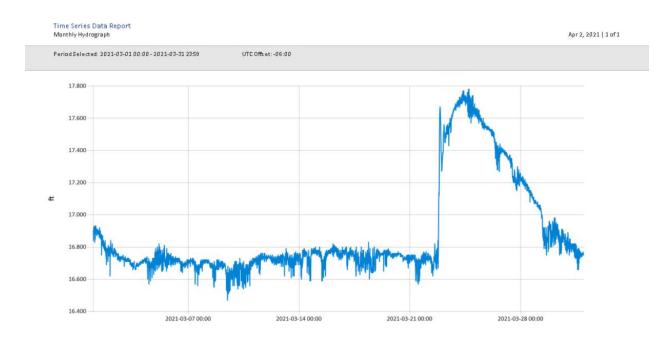
---- Stage@URC

Figure 9 Monthly Hydrograph URC-2



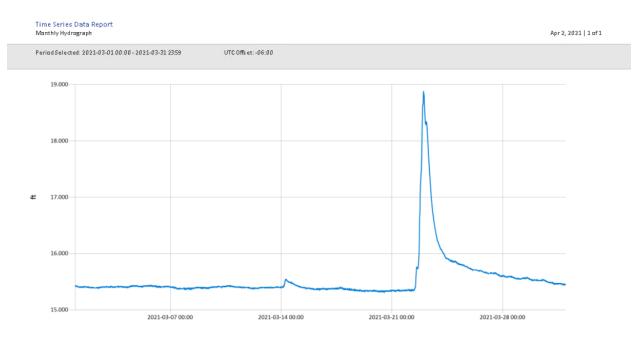
---- Stage@LRC



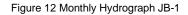


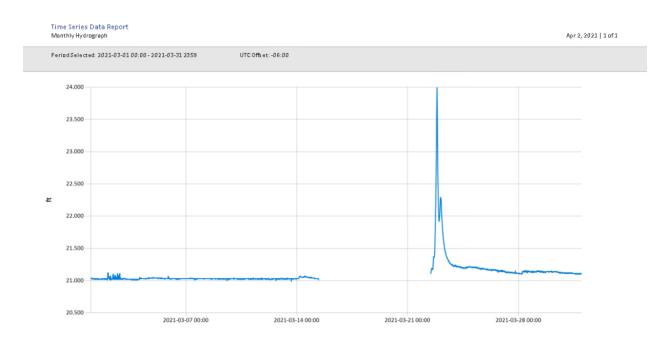
---- Stage@LDB

Figure 11 Monthly Hydrograph LDB-1



---- Stage@JB





---- Stage@CC

Figure 13 Monthly Hydrograph CC-1

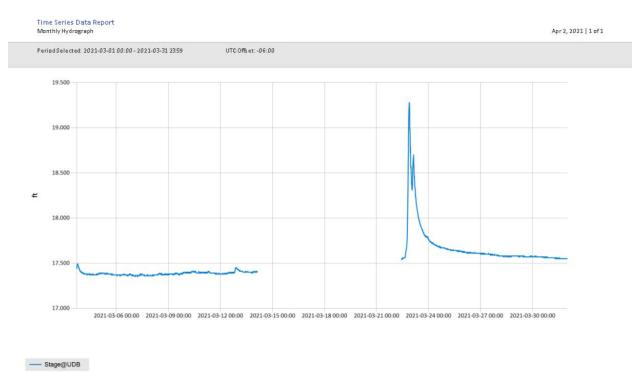


Figure 14 Monthly Hydrograph UDB-1

MESONET CLIMATOLOGICAL DATA SUMMARY (NRMN) Norman							March 2021 Nearest City: 2.1 NW Norman							Time Zone: Midnight-Midnight CST County: Cleveland							
· · · · ·	itude:	14-09				Longitude: 97-27-53							Elevation: 1171 feet								
	TEMPERATURE (°F) DEG DAYS							HUMIDITY (%) RAIN				PRESSURE (in) V			(mph)	h) SOLAR 4" SOIL TEMPER			PERATI	JRES	
DAY	MAX			DEWPT	HDD	CDD		MIN		(in)	STN	MSL	DIR	AVG	MAX	(MJ/m^2)	SOD	BARE	MAX	MIN	
1	58	34	44.6	26.2	19	0	82	21	52	0.00	29.04	30.30	NNE	9.2	23.2	19.11	45.9	45.4	51	41	
2	63	30	47.6	24.0	19	0	87	18	46	0.00	28.95	30.20	SSW	5.6	17.3	20.56	45.3	45.2	52	38	
3	70	39	53.9	29.8	11	0	65	22	42	0.00	28.82	30.07	S	8.6	24.0	20.79	46.6	46.3	54	39	
4	75	47	59.6	39.4	4	0	63	31	48	0.01	28.75	30.00	SSE	11.6	27.2	17.60	48.7	49.2	55	43	
5	59	42	53.6	41.5	15	0	85	52	64	0.00	28.82	30.07	NE	13.1	32.6	10.58	49.8	50.5	53	48	
6	64	31	49.0	34.6	17	0	99	30	63	0.00	29.04	30.30	S	4.6	15.7	20.44	48.6	49.0	57	41	
7	66	40	52.9	28.1	12	0	63	21	41	0.00	29.05	30.31	S	9.8	29.7	21.16	48.8	50.5	58	43	
8	70	44	56.5	33.7	8	0	56	30	43	0.00	29.02	30.28	S	11.7	32.8	18.01	49.4	52.4	60	46	
9	71	53	62.2	48.5	3	0	78	42	62	0.00	28.81	30.06	S	16.5	39.4	17.56	51.6	56.6	63	51	
10	79	61	68.0	55.2	0	5	78	41	65	0.00	28.64	29.89	S	15.7	35.1	16.61	54.8	60.9	67	57	
11	65	50	56.4	51.8	7	0	94	75	85	0.03	28.79	30.04	NE	9.2	21.6	9.03	55.3	59.4	62	56	
12	71	50	61.0	57.8	4	0	96	75	90	0.01	28.88	30.13	ESE	5.9	20.0	5.79	54.6	57.7	61	54	
13	71	54	64.2	58.6	3	0	99	63	83	0.00	28.77	30.02	SE	10.2	30.0	4.67	56.1	59.5	62	57	
14	68	54	61.2	40.4	4	0	93	20	52	0.22	28.55	29.80	SSW	12.3	35.4	19.83	56.7	59.6	63	56	
15	67	45	56.6	34.3	9	0	70	31	44	0.00	28.56	29.80	WSW	11.5	36.2	21.21	54.5	56.9	64	51	
16	79	44	63.3	46.6	4	0	80	35	56	0.00	28.49	29.73	SE	9.9	26.5	16.45	54.3	58.2	66	52	
17	68	39	51.7	46.1	11	0	95	44	82	0.12	28.48	29.72	NW	16.8	39.2	9.47	55.7	58.8	64	52	
18	51	39	43.8	33.0	20	0	86	51	66	0.00	28.94	30.20	NNW	18.0	38.8	14.81	51.2	51.0	55	48	
19	62	35	48.5	34.1	16	0	90	35	60	0.00	29.09	30.35	N	7.6	20.2	22.78	51.0	52.8	62	45	
20	66	33	51.6	33.9	15	0	88	28	54	0.00	29.01	30.26	SSE	7.6	20.5	22.90	51.2	54.8	63	46	
21	66	44	55.7	39.7	10	0	79	41	56	0.00	28.80	30.05	SSE	13.7	33.8	18.80	52.3	56.4	62	51	
22	57	51	54.2	48.9	11	0	97	56	83	1.64	28.51	29.75	SSE	11.8	34.9	2.08	52.7	55.0	57	54	
23	63	45	53.0	43.5	11	0	98	47	72	0.38	28.41	29.65	W	13.4	33.7	20.51	52.8	55.3	60	52	
24	58*			* 41.0*	15*	0*	92*		74*	0.10*		29.84*	NNW*		21.1*	10.97*	51.9*	53.3*		49*	
25	61	44	50.9	42.3	12	0	95	46	74	0.00	28.56	29.80	NW	7.3	23.0	16.07	52.2	54.1	59	50	
26	77	44	61.1	42.5	5	0	83	29	53	0.00	28.62	29.87	SSE	11.2	31.1	23.56	52.8	55.0	61	49	
27	74	49	61.8	45.3	4	0	85	35	56	0.00	28.69	29.93	N	11.1	28.2	21.48	55.2	56.8	63	51	
28	68	40	55.1	33.8	11	0	87	20	50	0.00	29.00	30.26	NW	5.1	16.7	24.72	54.6	55.4	62	48	
29	77	48	62.8	35.9	3	0	59	23	39	0.00	28.71	29.96	S	14.8	38.7	24.77	54.6	54.6	60	49	
30	67	52	59.7	35.7	6	0	66	25	42	0.00	28.65	29.89	S	13.3	35.4	21.19	55.5	56.0	61	52	
31	64	41	52.7	19.0	13	0	64	17	28	0.00	29.11	30.37	NNE	10.8	29.1	24.75	54.0	56.9	65	51	
	6/*	44*	55.6	* 39.5*		<- Mo	onthly					30.03*	S *		39.4*	17.36*	52.2*	54.3*	60*	49*	
Temp	peratu	re -					Degre	e Da	ys -	Total H				Number of Days With:							
			Lowes	it: 30)*			Total CDD: 5*							Tmax ≥ 90: 0* Rainfall ≥ 0.01 inch: 8*						
Rai	nfall:	Mon	thlv 1	otal:	2.51	* in.	Humid	Humidity - Highest: 99*						Tmax ≤ 32: 0* Rainfall ≥ 0.10 inch: 5*							
							Lowest: 17*						Tmin ≤ 32: 2* Avg Wind Speed ≥ 10 mph: 18* Tmin ≤ 0: 0* Max Wind Speed ≥ 30 mph: 15*								
	Greatest 24 Hr: 1.64* in. Lowest: 17*											Imin	≥ Ø:	0*	max wind	speed 2	50 mph	: 15*			

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* Denotes incomplete record

Figure 15 March Mesonet Data