
***Lake Thunderbird TMDL Monitoring Plan Implementation:
Sample Year (SY) 2017- July Report***



SY2017 Monthly Report

Lake Thunderbird TMDL Monitoring Plan Implementation:

July 2017 Monitoring Report

Oklahoma Water Resources Board
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SUMMARY OF JULY WATER QUALITY SAMPLING

Sampling for July 2017 occurred on the fifth and was considered a base flow collection. Water samples were collected at all ten locations, in addition to discharge measurements being conducted, with the exception of LDB-1, LT-1, URC-2, WC-1 and JB-1. Discharge was not measured at these locations as a result of low water levels. Mesonet data for Norman shows 0.95 inches of precipitation occurring in the 72 hours prior to sampling, no precipitation occurring on the fifth, and 0.03 inches of precipitation in the 72 hours after the sampling event. The total rainfall amount in Norman for the month of July was 2.43 inches. All water level gages were operational for the month.

RESULTS

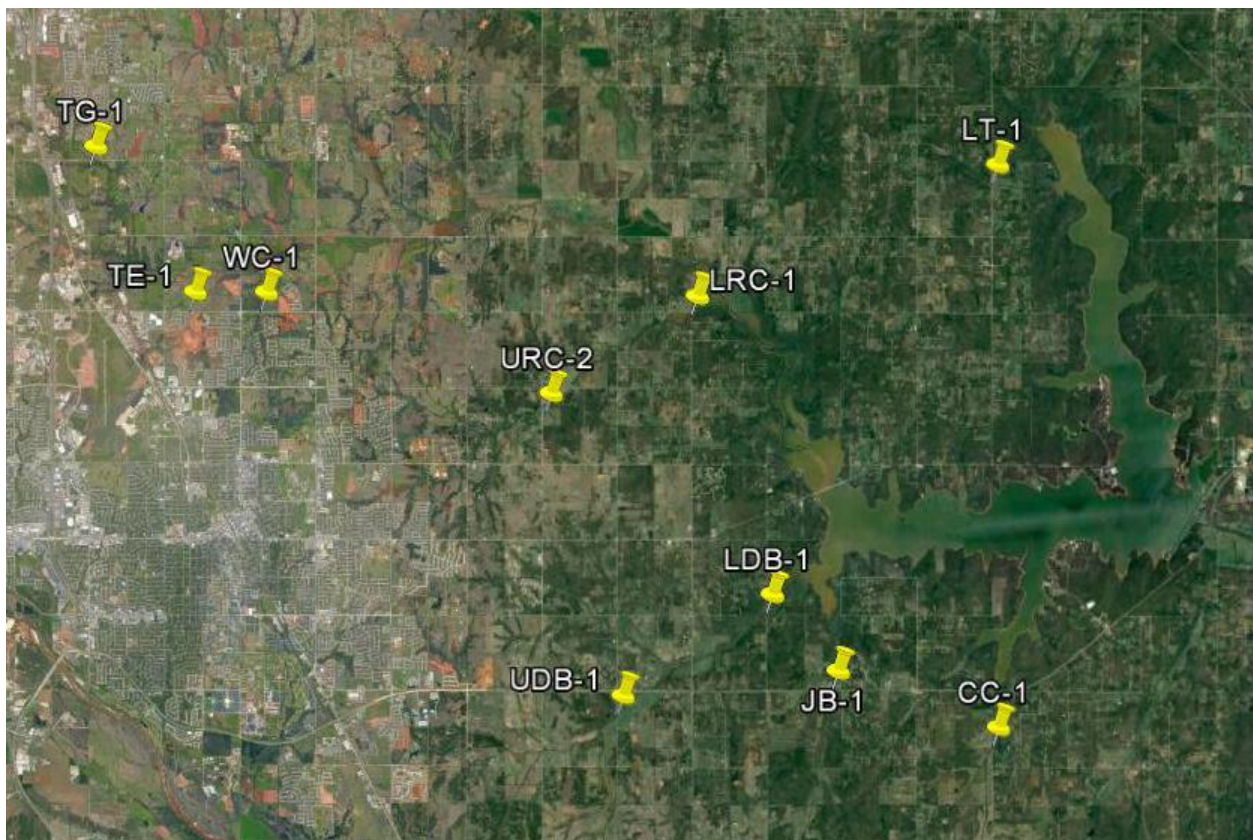


Figure 1 Monitoring Station Map

Field Data Form

Field Measurement Record

Reviewed By: _____ **SD** _____

Station	Date	Time	Field Crew	Temp C°	DO mg/L	SpC µS	pH	Turb (NTU)	Notes
tg-1	7/5/2017	16:45	jw	N/A	N/A	N/A	N/A	0.0	Field blank
cc-1	7/5/2017	11:10	jw	23.4	7.7	563.0	7.9	61.0	
lt-1	7/5/2017	10:15	jw	23.4	3.7	770.0	7.4	75.0	no flow taken. Disconnected at culverts. Small pool on us/ds side. Staff gage/orifice not in water
ldb-1	7/5/2017	10:45	jw	24.5	3.2	606.0	7.8	39.0	no visible flow /flow ing backw ards. No flow taken, 1 ft low er than last visit
jb-1	7/5/2017	11:55	jw	23.4	1.4	549.0	7.4	34.0	used RP2, RP1 not over w ater. No flow taken, too shallow , may not be connected us
udb-1	7/5/2017	12:15	jw	24.3	4.6	459.0	7.6	51.0	
lrc-1	7/5/2017	13:10	jw	25.8	4.7	661.0	7.7	13.0	
urc-2	7/5/2017	14:00	jw	26.5	4.1	491.0	7.4	51.0	neither RP over w ater, no flow taken.
wc-1	7/5/2017	14:45	jw	27.7	7.1	326.0	7.8	87.0	barely connected under bridge, no flow taken. RP2 used. DCP changed from 8.56
te-1	7/5/2017	15:45	jw	29.9	7.2	353.0	7.9	154.0	
tg-1	7/5/2017	16:10	jw	29.2	8.5	479.0	8.0	25.0	

Table 1 Field Data Form

Site Name	TKN (mg/L)	Nitrate/Nitrite (mg/L)	TP (mg/L)	TSS (mg/L)
TG-1	0.76	0.20	0.101	21.0
CC-1	0.62	0.25	0.094	65.0
JB-1	1.85	0.06	0.282	38.0
UDB-1	0.70	0.13	0.078	38.0
LDB-1	0.69	0.30	0.118	32.0
LRC-1	0.71	<0.05	0.060	16.3
URC-2	1.05	0.19	0.115	40.0
WC-1	1.09	0.31	0.136	82.0
TE-1	0.92	0.16	0.127	72.0
LT-1	2.89	<0.05	0.215	88.0

Table 2 Laboratory Analysis Summary

Site Name	TKN	Nitrate/Nitrite	TP	TSS
Field Blank	<0.10 mg/L	<0.05 mg/L	<0.010 mg/L	<10.0 mg/L
Duplicate	0.70 mg/L	0.25 mg/L	0.090 mg/L	45.0 mg/L
Duplicate RPD	12.12%	0%	4.35%	36.36%* ₁

Table 3 QA/QC Data Where Subscript 1 Denotes a Level 3 RPD

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.

SITE	TG-1	CC-1	JB-1	UDB-1	LDB-1	LRC-1	URC-2	WC-1	TE-1	LT-1
STAGE (ft)	9.19	0.30	15.58	17.38	16.46	17.62	12.15	9.14	11.59	N/A
DISCHARGE (ft ³ /s)	1.125	0.244	N/A	0.152	N/A	0.279	N/A	N/A	0.028	N/A

Table 4 Station Discharge Summary

Discharge Measurement Summary

Date Generated: Thu Jul 27 2017

File Information

File Name TE0705.WAD
 Start Date and Time 2017/07/05 13:13:57

Site Details

Site Name TE
 Operator(s) SD

System Information

Sensor Type FlowTracker
 Serial # P4713
 CPU Firmware Version 3.9
 Software Ver 2.30
 Mounting Correction 0.0%

Units (English Units)

Distance ft
 Velocity ft/s
 Area ft²
 Discharge cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.7%	6.1%
Velocity	7.2%	28.5%
Width	0.3%	0.3%
Method	4.9%	-
# Stations	2.6%	-
Overall	9.2%	29.1%

Summary

Averaging Int. 40 # Stations 19
 Start Edge LEW Total Width 9.000
 Mean SNR 40.6 dB Total Area 6.175
 Mean Temp 82.70 °F Mean Depth 0.686
 Disch. Equation Mid-Section Mean Velocity 0.0046
Total Discharge 0.0282

Supplemental Data

#	Time	Location	Gauge Height	Rated Flow	Comments
1	Wed Jul 5 13:12:19 CDT 2017	0.000	11.590		

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	13:13	0.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
<i>1</i>	<i>13:13</i>	<i>0.50</i>	<i>0.6</i>	<i>0.250</i>	<i>0.6</i>	<i>0.100</i>	<i>-0.0115</i>	<i>1.00</i>	<i>-0.0115</i>	<i>0.125</i>	<i>-0.0014</i>	<i>-5.1</i>
<i>2</i>	<i>13:14</i>	<i>1.00</i>	<i>0.6</i>	<i>0.300</i>	<i>0.6</i>	<i>0.120</i>	<i>0.0043</i>	<i>1.00</i>	<i>0.0043</i>	<i>0.150</i>	<i>0.0006</i>	<i>2.3</i>
3	13:16	1.50	0.6	0.500	0.6	0.200	0.0121	1.00	0.0121	0.250	0.0030	10.8
4	13:17	2.00	0.6	1.000	0.6	0.400	0.0095	1.00	0.0095	0.500	0.0048	16.9
5	13:18	2.50	0.6	1.100	0.6	0.440	-0.0039	1.00	-0.0039	0.550	-0.0022	-7.7
6	13:19	3.00	0.6	1.200	0.6	0.480	0.0046	1.00	0.0046	0.600	0.0028	9.8
7	13:20	3.50	0.6	1.200	0.6	0.480	0.0213	1.00	0.0213	0.600	0.0128	45.4
8	13:22	4.00	0.6	0.900	0.6	0.360	0.0161	1.00	0.0161	0.450	0.0072	25.7
<i>9</i>	<i>13:23</i>	<i>4.50</i>	<i>0.6</i>	<i>0.900</i>	<i>0.6</i>	<i>0.360</i>	<i>0.0092</i>	<i>1.00</i>	<i>0.0092</i>	<i>0.450</i>	<i>0.0041</i>	<i>14.7</i>
10	13:24	5.00	0.6	0.800	0.6	0.320	-0.0026	1.00	-0.0026	0.400	-0.0010	-3.7
11	13:25	5.50	0.6	0.800	0.6	0.320	-0.0089	1.00	-0.0089	0.400	-0.0035	-12.6
12	13:26	6.00	0.6	0.700	0.6	0.280	-0.0030	1.00	-0.0030	0.350	-0.0010	-3.7
13	13:27	6.50	0.6	0.700	0.6	0.280	0.0141	1.00	0.0141	0.350	0.0049	17.5
14	13:28	7.00	0.6	0.500	0.6	0.200	0.0102	1.00	0.0102	0.250	0.0025	9.0
15	13:29	7.50	0.6	0.500	0.6	0.200	-0.0026	1.00	-0.0026	0.250	-0.0007	-2.3
16	13:30	8.00	0.6	0.500	0.6	0.200	-0.0075	1.00	-0.0075	0.250	-0.0019	-6.7
17	13:32	8.50	0.6	0.500	0.6	0.200	-0.0115	1.00	-0.0115	0.250	-0.0029	-10.2
18	13:32	9.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

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

Figure 2 Discharge Summary TE-1

Discharge Measurement Summary

Date Generated: Thu Jul 27 2017

File Information

File Name TG0705.WAD
Start Date and Time 2017/07/05 14:11:59

Site Details

Site Name TG
Operator(s) SD

System Information

Sensor Type FlowTracker
Serial # P4713
CPU Firmware Version
Software Ver 2.30
Mounting Correction 0.0%

Units (English Units)

Distance ft
Velocity ft/s
Area ft²
Discharge cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	2.1%
Velocity	0.7%	6.3%
Width	0.1%	0.1%
Method	1.8%	-
# Stations	2.0%	-
Overall	2.9%	6.7%

Summary

Averaging Int. 40 # Stations 26
Start Edge LEW Total Width 13.500
Mean SNR 25.9 dB Total Area 4.650
Mean Temp 81.21 °F Mean Depth 0.344
Disch. Equation Mid-Section Mean Velocity 0.2419
Total Discharge 1.1250

Supplemental Data

#	Time	Location	Gauge Height	Rated Flow	Comments
1	Wed Jul 5 14:10:09 CDT 2017	0.000	9.190		

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	14:11	0.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	14:11	0.50	0.6	0.300	0.6	0.120	0.0003	1.00	0.0003	0.150	0.0000	0.0
2	14:12	1.00	0.6	0.300	0.6	0.120	0.0610	1.00	0.0610	0.150	0.0091	0.8
3	14:14	1.50	0.6	0.300	0.6	0.120	0.0627	1.00	0.0627	0.150	0.0094	0.8
4	14:15	2.00	0.6	0.450	0.6	0.180	0.3471	1.00	0.3471	0.225	0.0781	6.9
5	14:16	2.50	0.6	0.400	0.6	0.160	0.4081	1.00	0.4081	0.200	0.0816	7.3
6	14:17	3.00	0.6	0.500	0.6	0.200	0.3688	1.00	0.3688	0.250	0.0922	8.2
7	14:18	3.50	0.6	0.500	0.6	0.200	0.3363	1.00	0.3363	0.250	0.0841	7.5
8	14:19	4.00	0.6	0.500	0.6	0.200	0.2631	1.00	0.2631	0.250	0.0658	5.8
9	14:20	4.50	0.6	0.600	0.6	0.240	0.2037	1.00	0.2037	0.300	0.0611	5.4
10	14:21	5.00	0.6	0.600	0.6	0.240	0.1745	1.00	0.1745	0.300	0.0524	4.7
11	14:22	5.50	0.6	0.550	0.6	0.220	0.2444	1.00	0.2444	0.275	0.0672	6.0
12	14:23	6.00	0.6	0.500	0.6	0.200	0.2812	1.00	0.2812	0.250	0.0703	6.2
13	14:24	6.50	0.6	0.400	0.6	0.160	0.3432	1.00	0.3432	0.200	0.0686	6.1
14	14:25	7.00	0.6	0.400	0.6	0.160	0.3186	1.00	0.3186	0.200	0.0637	5.7
15	14:25	7.50	0.6	0.400	0.6	0.160	0.3740	1.00	0.3740	0.200	0.0748	6.6
16	14:26	8.00	0.6	0.300	0.6	0.120	0.3150	1.00	0.3150	0.150	0.0472	4.2
17	14:27	8.50	0.6	0.300	0.6	0.120	0.1683	1.00	0.1683	0.150	0.0252	2.2
18	14:29	9.00	0.6	0.300	0.6	0.120	0.1529	1.00	0.1529	0.150	0.0229	2.0
19	14:30	9.50	0.6	0.300	0.6	0.120	0.0522	1.00	0.0522	0.150	0.0078	0.7
20	14:30	10.00	0.6	0.300	0.6	0.120	0.2349	1.00	0.2349	0.150	0.0352	3.1
21	14:32	10.50	0.6	0.300	0.6	0.120	0.1650	1.00	0.1650	0.150	0.0247	2.2
22	14:33	11.00	0.6	0.200	0.6	0.080	0.3435	1.00	0.3435	0.100	0.0344	3.1
23	14:34	11.50	0.6	0.200	0.6	0.080	0.1191	1.00	0.1191	0.100	0.0119	1.1
24	14:35	12.00	0.6	0.200	0.6	0.080	0.1850	1.00	0.1850	0.200	0.0370	3.3
25	14:35	13.50	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

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

Figure 3 Discharge Summary TG-1

Discharge Measurement Summary

Date Generated: Thu Jul 27 2017

File Information

File Name CC10705.WAD
Start Date and Time 2017/07/05 09:10:44

Site Details

Site Name CC
Operator(s) SD

System Information

Sensor Type FlowTracker
Serial # P4713
CPU Firmware Version 3.9
Software Ver 2.30
Mounting Correction 0.0%

Units (English Units)

Distance ft
Velocity ft/s
Area ft²
Discharge cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.8%	4.8%
Velocity	1.8%	18.7%
Width	0.3%	0.3%
Method	4.1%	-
# Stations	6.6%	-
Overall	8.1%	19.4%

Summary

Averaging Int.	40	# Stations	8
Start Edge	LEW	Total Width	3.500
Mean SNR	33.7 dB	Total Area	1.275
Mean Temp	70.64 °F	Mean Depth	0.364
Disch. Equation	Mid-Section	Mean Velocity	0.1910
		Total Discharge	0.2435

Supplemental Data

#	Time	Location	Gauge Height	Rated Flow	Comments
1	Wed Jul 5 09:12:56 CDT 2017	1.500	0.300		

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	09:10	0.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	09:10	0.50	0.6	0.200	0.6	0.080	0.0000	1.00	0.0000	0.100	0.0000	0.0
2	09:11	1.00	0.6	0.300	0.6	0.120	0.0020	1.00	0.0020	0.150	0.0003	0.1
3	09:13	1.50	0.6	0.500	0.6	0.200	0.0036	1.00	0.0036	0.250	0.0009	0.4
4	09:14	2.00	0.6	0.550	0.6	0.220	0.3127	1.00	0.3127	0.275	0.0860	35.3
5	09:15	2.50	0.6	0.500	0.6	0.200	0.3136	1.00	0.3136	0.250	0.0784	32.2
6	09:16	3.00	0.6	0.400	0.6	0.160	0.3117	1.00	0.3117	0.200	0.0623	25.6
7	09:16	3.50	None	0.200	0.0	0.0	0.0000	1.00	0.3117	0.050	0.0156	6.4

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

Figure 4 Discharge Summary CC-1

Discharge Measurement Summary

Date Generated: Thu Jul 27 2017

File Information

File Name LRC0705.WAD
Start Date and Time 2017/07/05 10:58:15

Site Details

Site Name LRC
Operator(s) SD

System Information

Sensor Type FlowTracker
Serial # P4713
CPU Firmware Version 3.9
Software Ver 2.30
Mounting Correction 0.0%

Units (English Units)

Distance ft
Velocity ft/s
Area ft²
Discharge cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.4%	1.9%
Velocity	0.8%	5.9%
Width	0.2%	0.2%
Method	2.4%	-
# Stations	3.3%	-
Overall	4.4%	6.3%

Summary

Averaging Int.	40	# Stations	15
Start Edge	LEW	Total Width	7.000
Mean SNR	28.0 dB	Total Area	4.575
Mean Temp	75.61 °F	Mean Depth	0.654
Disch. Equation	Mid-Section	Mean Velocity	0.0609
		Total Discharge	0.2787

Supplemental Data

#	Time	Location	Gauge Height	Rated Flow	Comments
1	Wed Jul 5 10:55:55 CDT 2017	0.000	17.620		

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	10:58	0.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	10:58	0.50	0.6	0.300	0.6	0.120	-0.0066	1.00	-0.0066	0.150	-0.0010	-0.4
2	10:59	1.00	0.6	0.400	0.6	0.160	0.0374	1.00	0.0374	0.200	0.0075	2.7
3	11:00	1.50	0.6	0.500	0.6	0.200	0.0446	1.00	0.0446	0.250	0.0112	4.0
4	11:01	2.00	0.6	0.600	0.6	0.240	0.0262	1.00	0.0262	0.300	0.0079	2.8
5	11:02	2.50	0.6	0.700	0.6	0.280	0.0604	1.00	0.0604	0.350	0.0211	7.6
6	11:03	3.00	0.6	0.750	0.6	0.300	0.0433	1.00	0.0433	0.375	0.0162	5.8
7	11:04	3.50	0.6	0.800	0.6	0.320	0.0600	1.00	0.0600	0.400	0.0240	8.6
8	11:05	4.00	0.6	0.800	0.6	0.320	0.0535	1.00	0.0535	0.400	0.0214	7.7
9	11:06	4.50	0.6	0.900	0.6	0.360	0.0650	1.00	0.0650	0.450	0.0292	10.5
10	11:07	5.00	0.6	1.000	0.6	0.400	0.0725	1.00	0.0725	0.500	0.0363	13.0
11	11:08	5.50	0.6	0.900	0.6	0.360	0.0928	1.00	0.0928	0.450	0.0418	15.0
12	11:09	6.00	0.6	0.900	0.6	0.360	0.0889	1.00	0.0889	0.450	0.0400	14.4
13	11:10	6.50	0.6	0.600	0.6	0.240	0.0771	1.00	0.0771	0.300	0.0231	8.3
14	11:10	7.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

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

Figure 5 Discharge Summary LRC-1

Discharge Measurement Summary

Date Generated: Thu Jul 27 2017

File Information

File Name UDB0705.WAD
Start Date and Time 2017/07/05 10:11:04

Site Details

Site Name UDB
Operator(s) SD

System Information

Sensor Type FlowTracker
Serial # P4713
CPU Firmware Version 3.9
Software Ver 2.30
Mounting Correction 0.0%

Units (English Units)

Distance ft
Velocity ft/s
Area ft²
Discharge cfs

Discharge Uncertainty

Category	ISO	Stats
Accuracy	1.0%	1.0%
Depth	0.7%	7.9%
Velocity	1.5%	20.9%
Width	0.2%	0.2%
Method	3.3%	-
# Stations	3.6%	-
Overall	5.2%	22.4%

Summary

Averaging Int.	40	# Stations	14
Start Edge	LEW	Total Width	13.000
Mean SNR	34.6 dB	Total Area	5.125
Mean Temp	72.89 °F	Mean Depth	0.394
Disch. Equation	Mid-Section	Mean Velocity	0.0296
		Total Discharge	0.1518

Supplemental Data

#	Time	Location	Gauge Height	Rated Flow	Comments
1	Wed Jul 5 10:09:10 CDT 2017	0.000	17.380		

Measurement Results

St	Clock	Loc	Method	Depth	%Dep	MeasD	Vel	CorrFact	MeanV	Area	Flow	%Q
0	10:11	0.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0
1	10:11	1.00	0.6	0.400	0.6	0.160	0.0007	1.00	0.0007	0.400	0.0003	0.2
2	10:12	2.00	0.6	0.600	0.6	0.240	0.0436	1.00	0.0436	0.600	0.0262	17.2
3	10:13	3.00	0.6	0.600	0.6	0.240	0.0761	1.00	0.0761	0.600	0.0457	30.1
4	10:14	4.00	0.6	0.300	0.6	0.120	0.0564	1.00	0.0564	0.300	0.0169	11.1
5	10:15	5.00	0.6	0.400	0.6	0.160	0.0699	1.00	0.0699	0.400	0.0279	18.4
6	10:16	6.00	0.6	0.400	0.6	0.160	0.0003	1.00	0.0003	0.400	0.0001	0.1
7	10:18	7.00	0.6	0.300	0.6	0.120	-0.0020	1.00	-0.0020	0.375	-0.0007	-0.5
8	10:20	8.50	0.6	0.600	0.6	0.240	0.0033	1.00	0.0033	0.600	0.0020	1.3
9	10:21	9.00	0.6	0.600	0.6	0.240	0.0469	1.00	0.0469	0.450	0.0211	13.9
10	10:22	10.00	0.6	0.500	0.6	0.200	0.0230	1.00	0.0230	0.500	0.0115	7.6
11	10:26	11.00	0.6	0.300	0.6	0.120	0.0003	1.00	0.0003	0.300	0.0001	0.1
12	10:24	12.00	0.6	0.200	0.6	0.080	0.0039	1.00	0.0039	0.200	0.0008	0.5
13	10:24	13.00	None	0.000	0.0	0.0	0.0000	1.00	0.0000	0.000	0.0000	0.0

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

Figure 6 Discharge Summary UDB-1

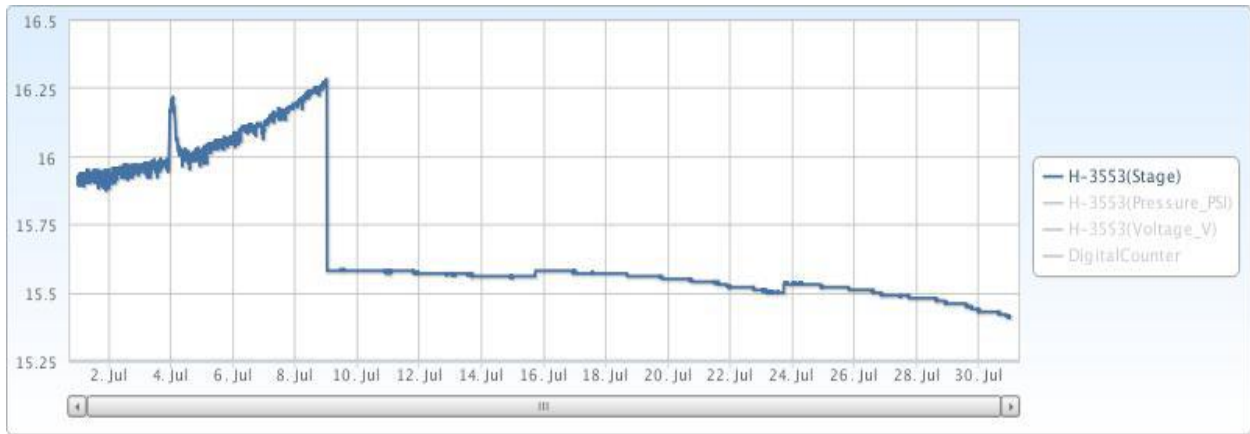


Figure 7 Monthly Hydrograph JB-1

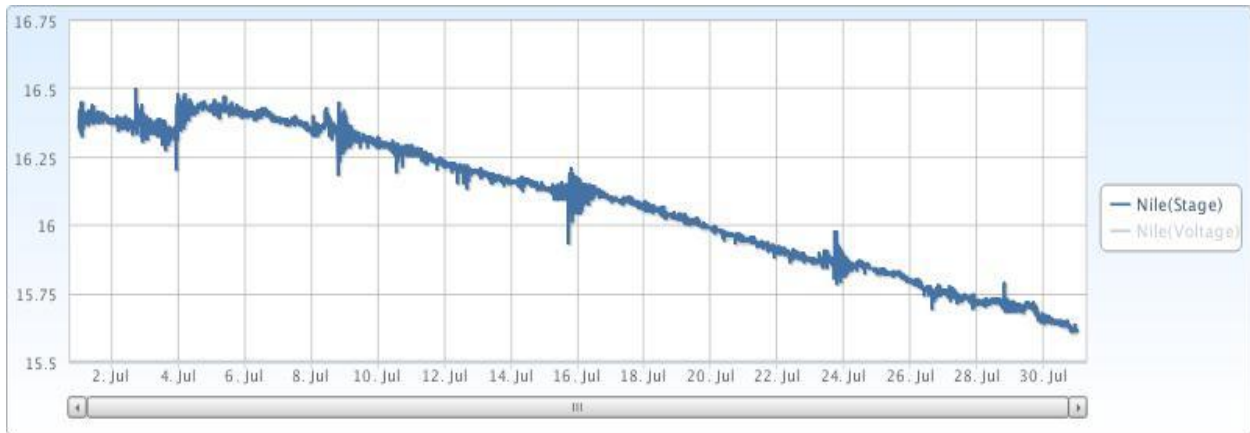


Figure 8 Monthly Hydrograph LDB-1

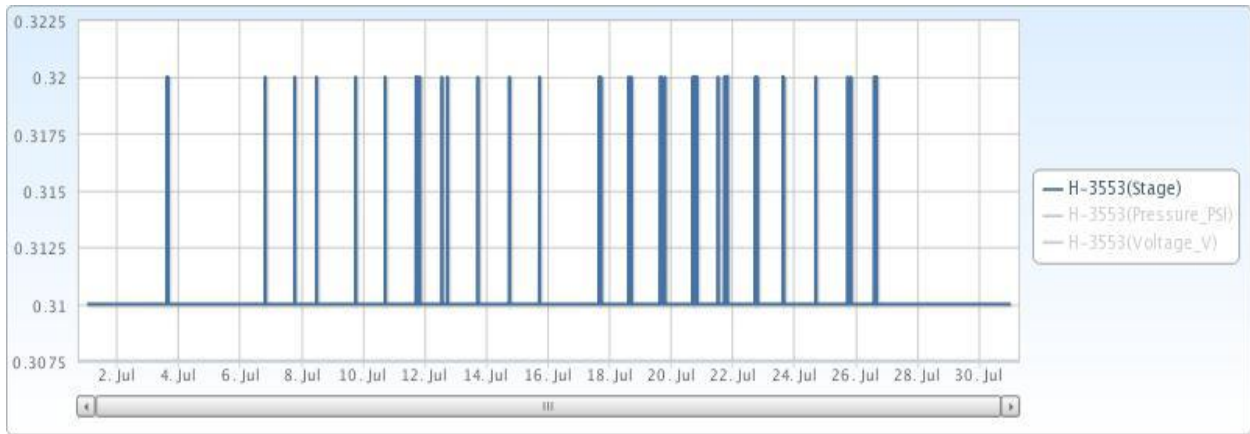


Figure 9 Monthly Hydrograph LT-1

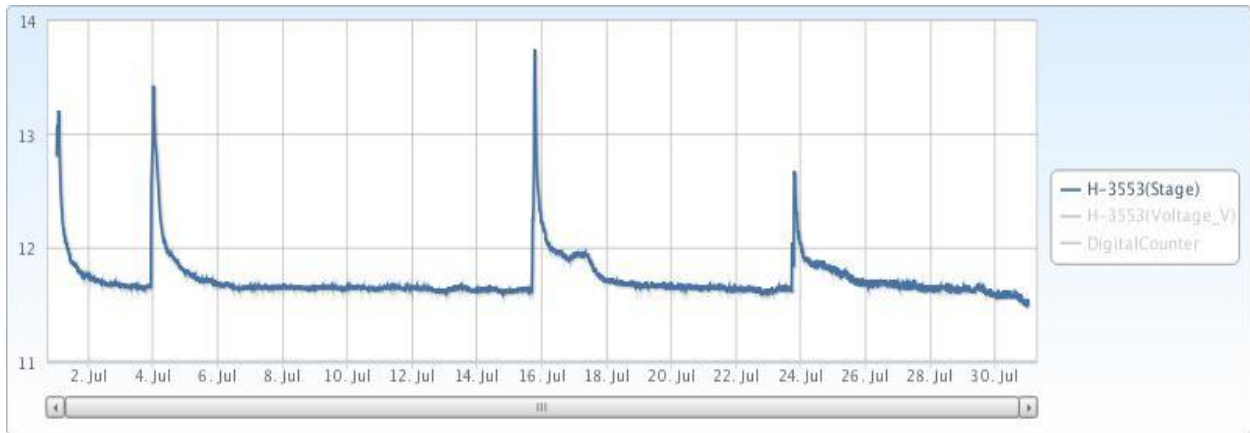


Figure 10 Monthly Hydrograph TE-1

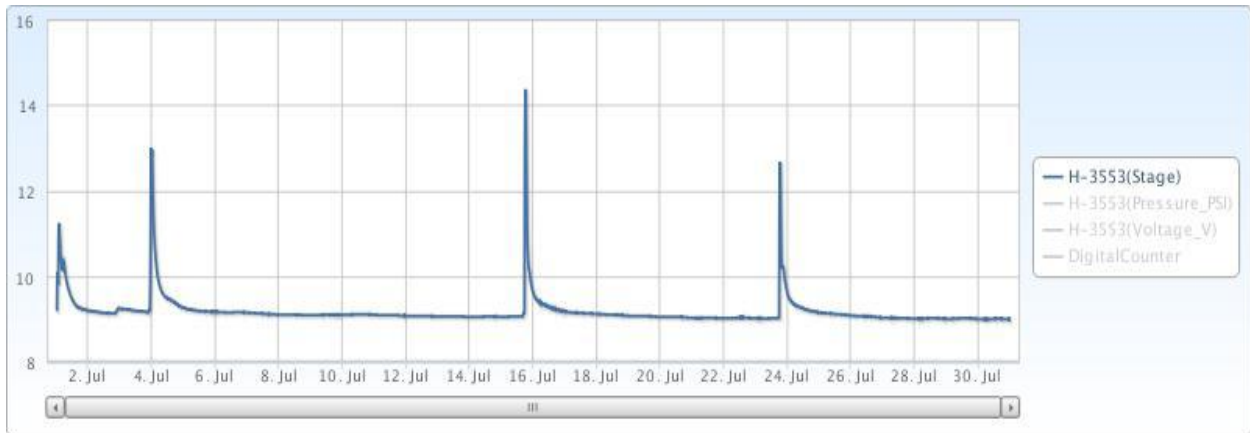


Figure 11 Monthly Hydrograph TG-1

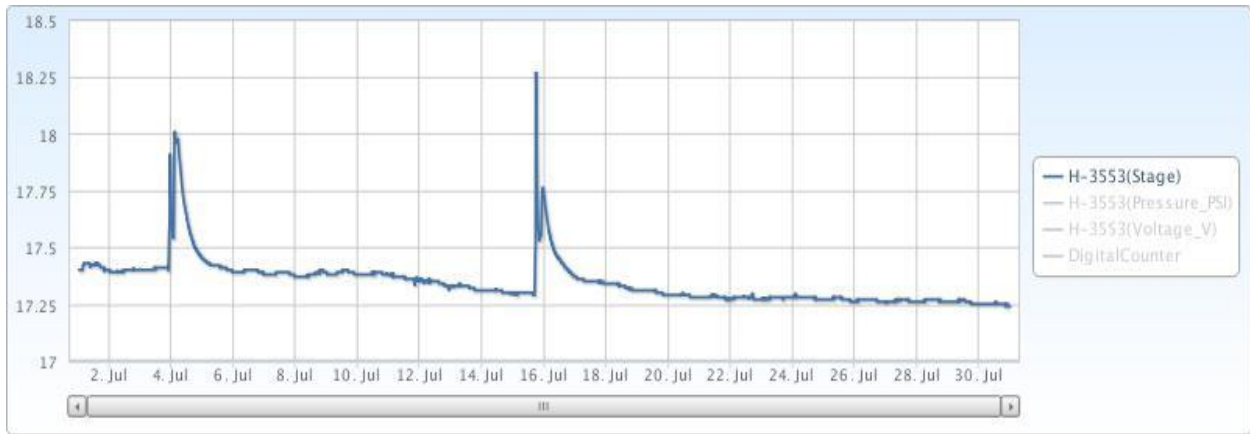


Figure 12 Monthly Hydrograph UDB-1

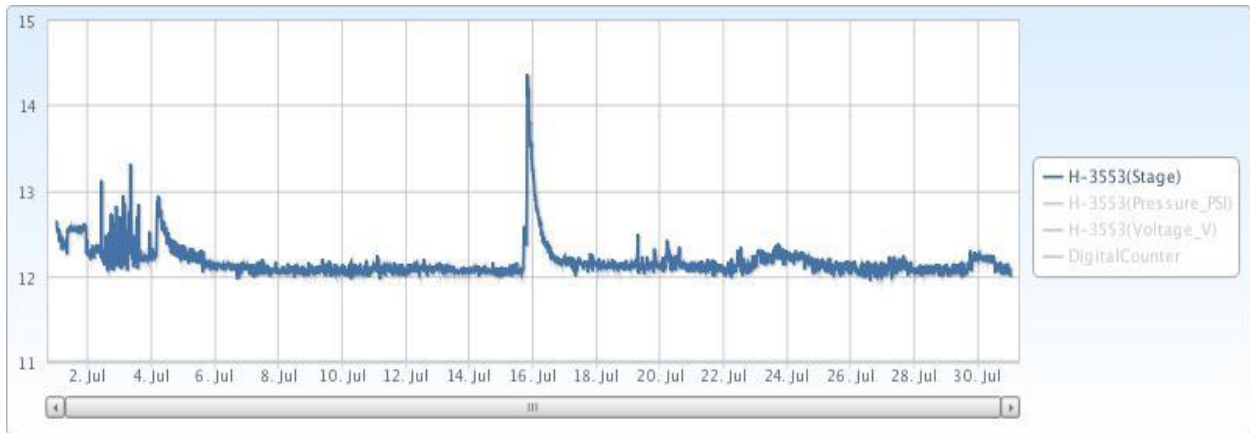


Figure 13 Monthly Hydrograph URC-2

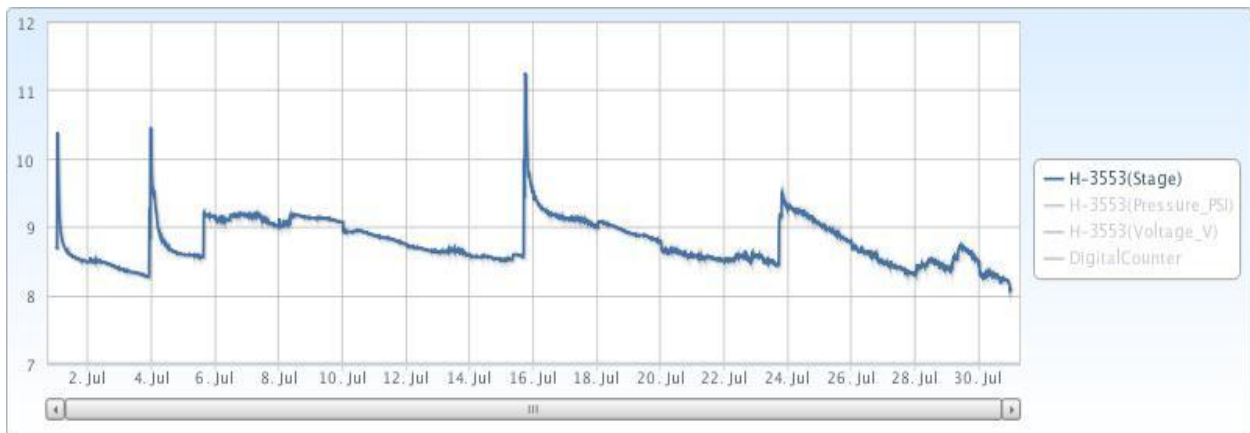


Figure 14 Monthly Hydrograph WC-1

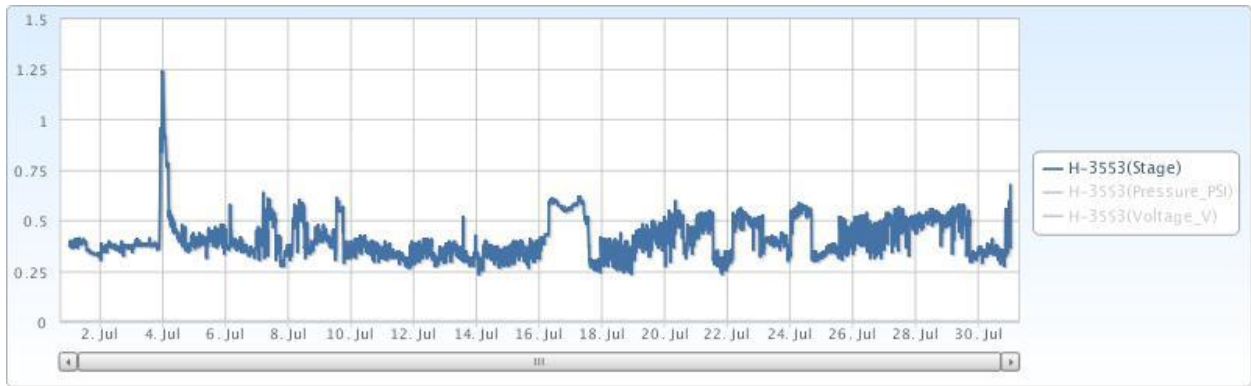


Figure 15 Monthly Hydrograph CC-1

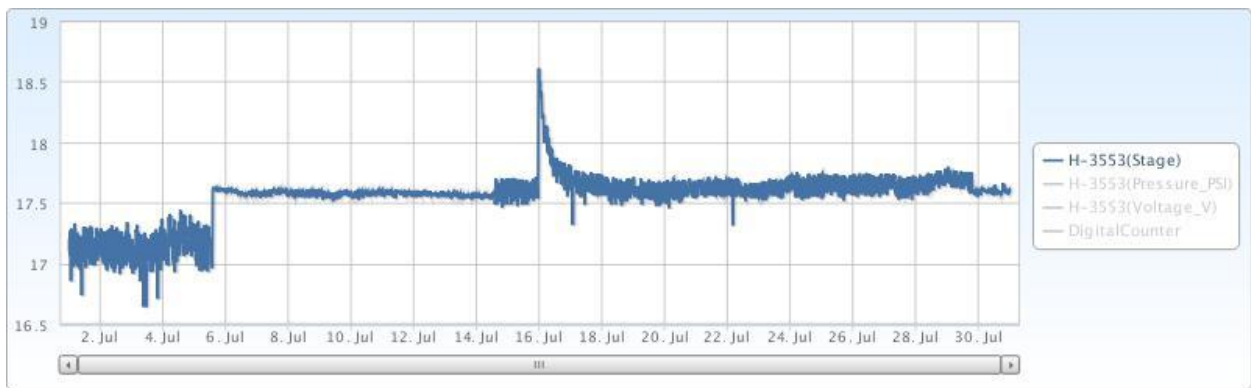


Figure 16 Monthly Hydrograph LRC-1

MESONET CLIMATOLOGICAL DATA SUMMARY				July 2017				Time Zone: Midnight-Midnight CST												
(NRMN) Norman				Nearest City: 2.1 NW Norman				County: Cleveland												
Latitude: 35-14-09				Longitude: 97-27-53				Elevation: 1171 feet												
DAY	TEMPERATURE (°F)				DEG DAYS		HUMIDITY (%)			RAIN (in)		PRESSURE (in)		WIND SPEED (mph)		SOLAR (MJ/m ²)	4" SOIL TEMPERATURES			
	MAX	MIN	AVG	DEWPT	HDD	CDD	MAX	MIN	AVG		STN	MSL	DIR	AVG	MAX		SOD	BARE	MAX	MIN
1	88	70	78.6	67.8	0	14	99	47	72	0.00	28.81	30.06	SSE	5.3	16.1	NA	82.1	84.5	93	78
2	91	70	77.3	70.7	0	15	97	54	81	0.00	28.79	30.04	SSE	7.9	26.4	NA	81.3	83.9	89	79
3	92	68	78.3	71.1	0	15	99	45	81	0.94	NA	NA	SE	9.4	37.9	NA	81.1	84.0	92	78
4	85	66	74.1	66.7	0	11	99	51	80	0.01	NA	NA	W	4.4	26.5	15.86	79.3	79.6	83	76
5	90	71	79.7	69.4	0	15	93	46	73	0.00	28.79	30.04	ENE	5.5	15.9	23.95	80.4	81.6	90	75
6	93	70	82.8	68.8	0	16	96	40	66	0.00	28.84	30.10	SE	4.0	14.7	25.59	82.0	86.2	95	77
7	95	70	85.2	68.3	0	18	95	35	60	0.00	28.82	30.07	S	5.2	17.7	28.09	83.1	88.7	98	80
8	89	72	79.0	69.8	0	15	90	56	74	0.03	28.81	30.06	ESE	7.6	37.7	18.35	82.6	87.1	93	83
9	91	69	80.6	71.4	0	15	97	53	75	0.00	28.78	30.03	SSE	7.7	20.1	27.26	82.6	86.3	95	79
10	93	71	82.2	70.9	0	17	93	47	71	0.00	28.71	29.96	S	9.2	23.4	28.11	83.7	88.1	95	81
11	96	74	85.3	70.9	0	20	92	39	65	0.00	28.69	29.93	S	9.7	23.0	28.05	84.4	89.3	96	83
12	95	77	85.7	70.0	0	21	82	41	61	0.00	28.74	29.99	S	9.9	22.8	28.01	84.8	89.9	96	84
13	96	74	85.4	69.6	0	20	90	39	62	0.00	28.82	30.08	S	8.0	20.5	27.45	85.0	90.1	97	84
14	97	75	86.1	69.2	0	21	83	36	60	0.00	28.84	30.09	S	6.6	18.3	25.16	85.4	90.6	97	84
15	96	71	80.9	71.6	0	19	91	48	75	0.93	NA	NA	SSE	7.1	51.6	19.30	84.4	88.6	97	83
16	93	72	82.6	71.3	0	18	96	45	71	0.00	NA	NA	SE	4.6	15.2	24.44	83.5	84.5	90	79
17	93	75	83.8	71.0	0	19	92	42	67	0.00	28.74	29.98	SSE	6.6	19.0	26.96	84.3	87.1	96	79
18	94	75	84.6	69.7	0	19	77	41	62	0.00	28.79	30.04	SSE	8.1	21.1	27.83	84.8	89.3	98	81
19	96	75	86.4	70.7	0	21	90	36	62	0.00	28.84	30.09	SSE	7.8	18.6	28.03	85.4	90.9	99	83
20	98	77	87.7	69.6	0	22	80	34	57	0.00	28.80	30.05	S	8.8	20.0	27.19	85.7	91.5	99	84
21	100	77	88.3	69.7	0	23	79	33	56	0.00	28.71	29.96	S	8.7	19.6	26.95	86.3	92.1	99	85
22	101	77	89.2	69.8	0	24	79	31	55	0.00	28.65	29.90	S	8.4	18.9	26.91	86.8	92.5	100	86
23	97	74	82.4	71.5	0	21	91	42	71	0.52	28.64	29.89	S	6.5	33.6	20.64	86.0	90.7	100	85
24	91	69	81.2	70.0	0	15	99	49	71	0.00	28.72	29.96	SSE	5.5	17.5	27.79	84.7	87.8	97	80
25	95	75	85.2	71.4	0	20	92	40	66	0.00	28.79	30.04	SSE	7.8	20.7	26.45	85.4	90.1	98	83
26	98	76	86.4	71.1	0	22	82	41	62	0.00	28.75	30.00	S	9.6	23.9	24.13	85.3	90.4	97	84
27	99	78	86.4	68.9	0	23	76	35	58	0.00	28.70	29.94	S	7.0	20.1	17.92	84.7	89.7	95	85
28	95	79	84.8	73.9	0	22	90	48	71	0.00	28.68	29.92	NNE	6.3	18.1	20.67	85.4	90.2	96	85
29	92	73	82.7	65.2	0	18	86	33	59	0.00	28.74	29.99	ENE	7.9	22.4	25.37	84.9	89.8	96	84
30	90	71	79.9	63.6	0	15	74	37	59	0.00	28.83	30.09	ENE	5.4	16.7	18.52	83.6	88.0	93	83
31	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
94* 73* 83.1* 69.8*				←- Monthly Averages →-				28.76* 30.01*		S * 7.2* 51.6*		24.63*		84.0* 88.1* 95* 82*						
Temperature - Highest: 101* Lowest: 66*							Degree Days - Total HDD: 0* Total CDD: 555*					Number of Days With: Tmax ≥ 90: 27* Rainfall ≥ 0.01 inch: 5* Tmax ≤ 32: 0* Rainfall ≥ 0.10 inch: 3* Tmin ≤ 32: 0* Avg Wind Speed ≥ 10 mph: 0* Tmin ≤ 0: 0* Max Wind Speed ≥ 30 mph: 4*								
Rainfall: Monthly Total: 2.43* in. Greatest 24 Hr: 0.94* in.							Humidity - Highest: 99* Lowest: 31*													

Figure 17 July Mesonet Data