

APPENDIX A. FLOW MONITORING SITES: DATA, GRAPHS, INFORMATION



City of Lincoln

Sanitary Sewer Flow Monitoring

Temporary Monitoring: January 23 to April 3, 2016

Monitoring Site: Site 1

Location: On Nicolaus Road, 1100 ft west of Tea Hollow Dr S, right lane, nearest address 2821-3099 Nicolaus Road

Data Summary Report



Vicinity Map: Site 1

SITE 1

Site Information

Location: On Nicolaus Road, 1100 ft west of Tea Hollow Dr S, right lane, nearest address 2821-3099 Nicolaus Road

Coordinates: 121.3322° W, 38.8973° N

Rim Elevation (Earth): 118 feet

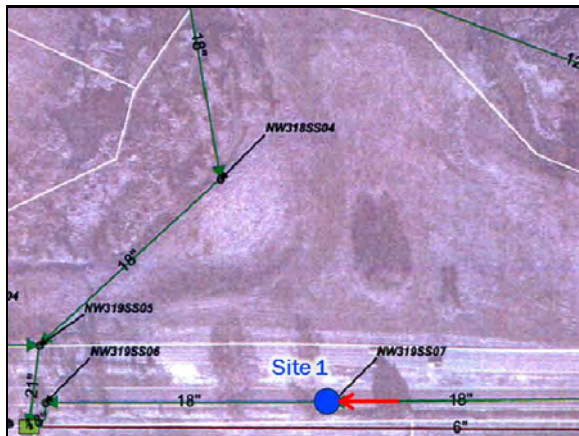
Pipe Diameter: 18 inches

ADWF: 0.044 mgd

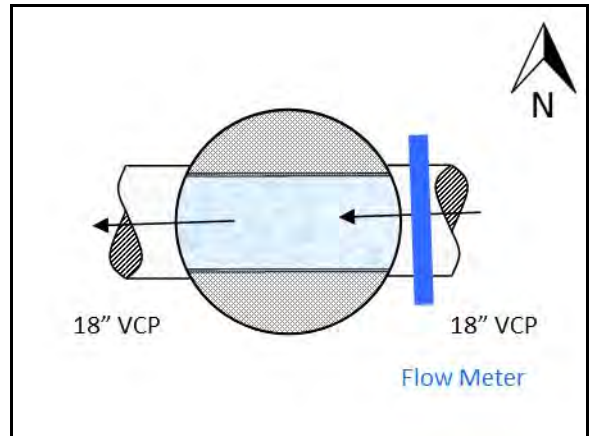
Peak Measured Flow: 0.255 mgd



Satellite Map



Sanitary Map



Flow Sketch



Street View



Plan View

SITE 1

Additional Site Photos

Influent Pipe



Effluent Pipe

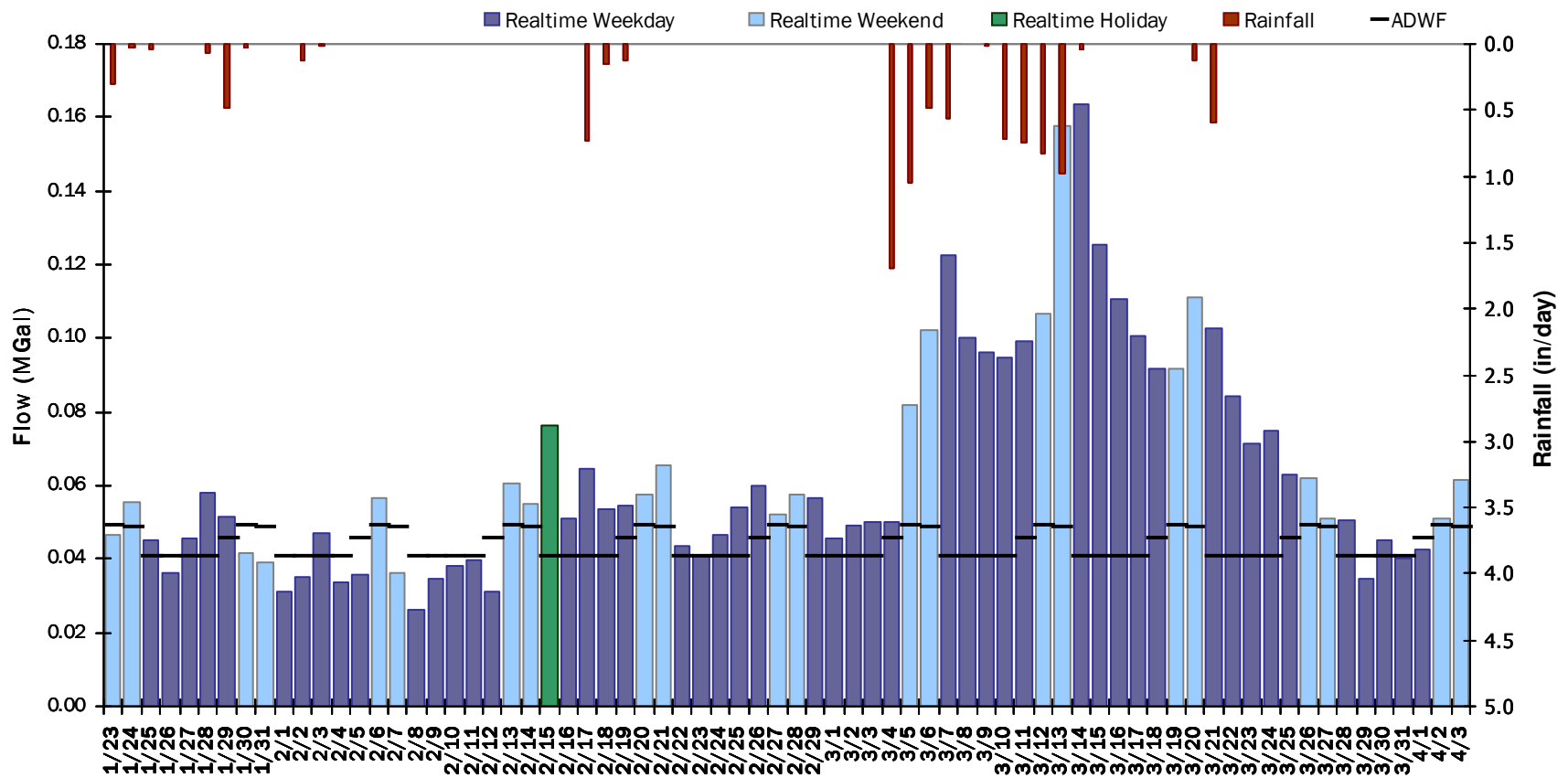


SITE 1

Period Flow Summary: Daily Flow Totals

Avg Period Flow: 0.064 MGal Peak Daily Flow: 0.163 MGal Min Daily Flow: 0.026 MGal

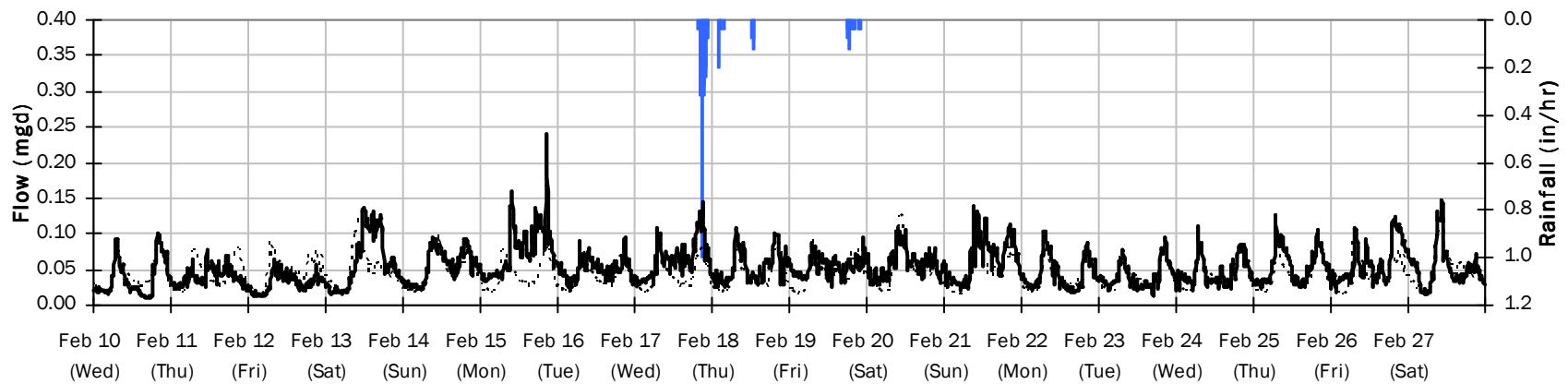
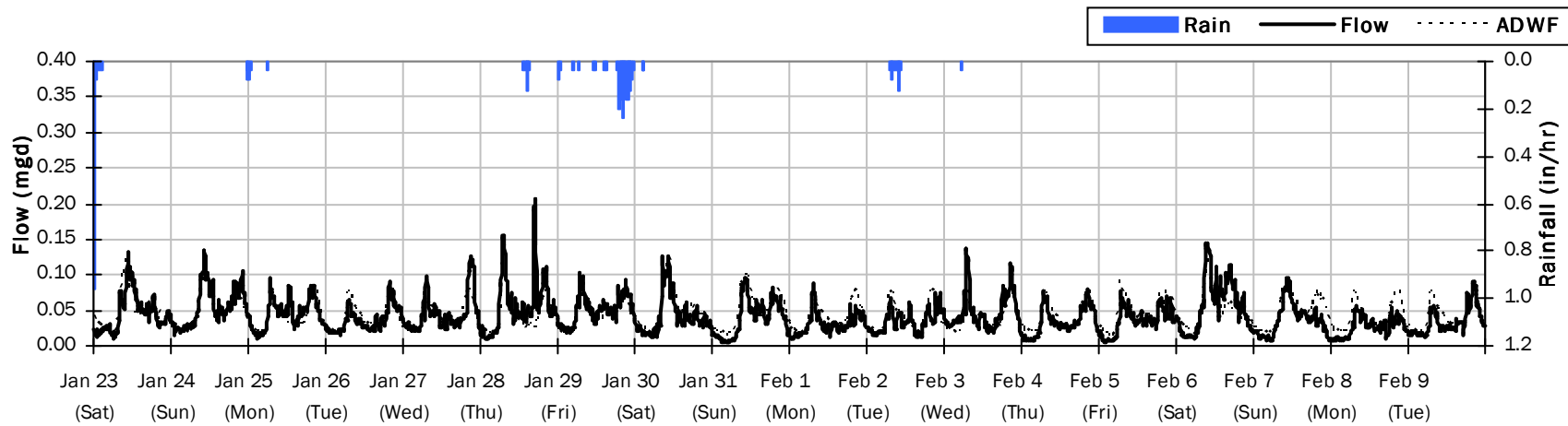
Total Period Rainfall: 9.91 inches



SITE 1

Flow Summary: 1/23/2016 to 2/27/2016

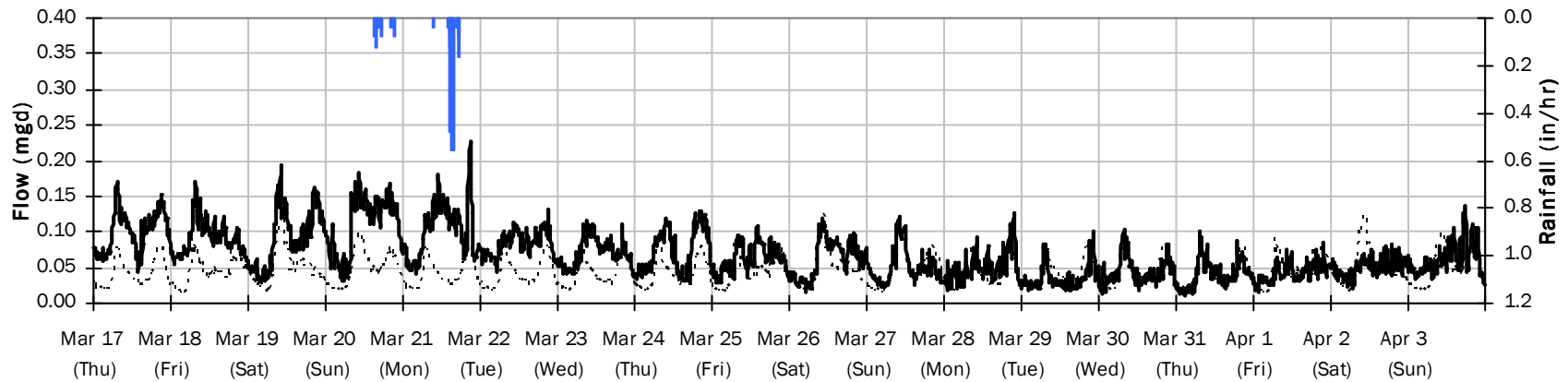
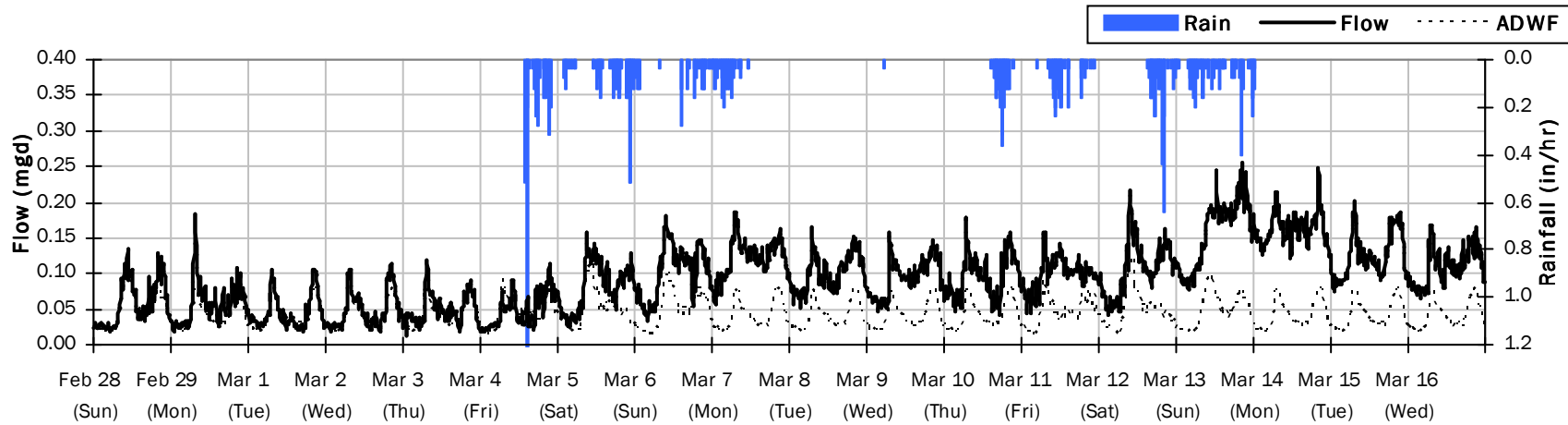
Total Period Rainfall: 2.08 inches Avg Flow: 0.047 mgd Peak Flow: 0.241 mgd Min Flow: 0.006 mgd



SITE 1

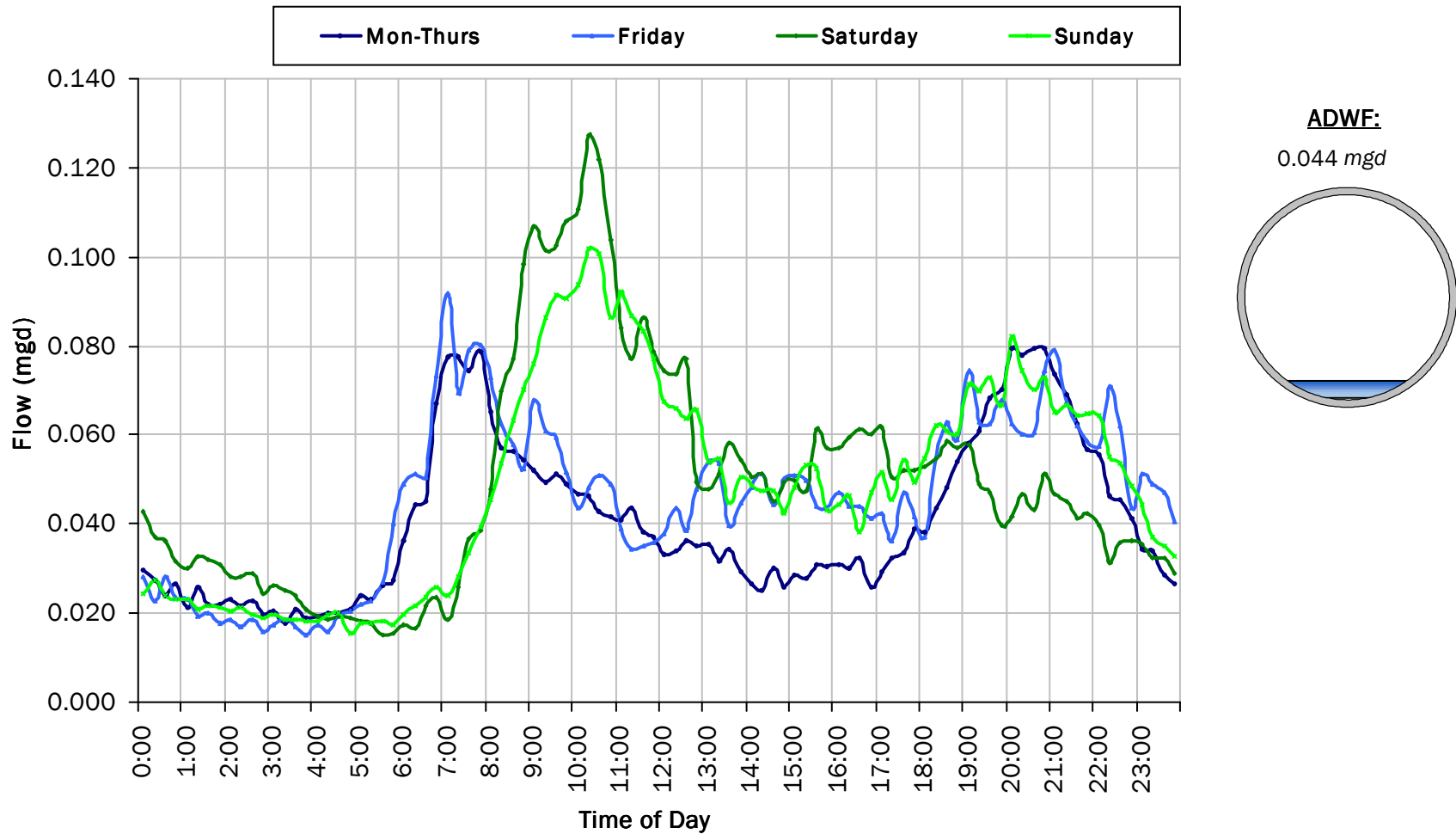
Flow Summary: 2/28/2016 to 4/3/2016

Total Period Rainfall: 7.83 inches Avg Flow: 0.081 mgd Peak Flow: 0.255 mgd Min Flow: 0.011 mgd



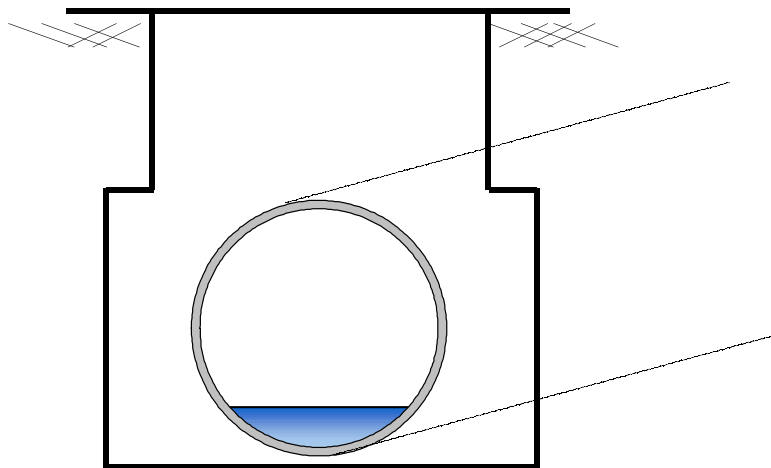
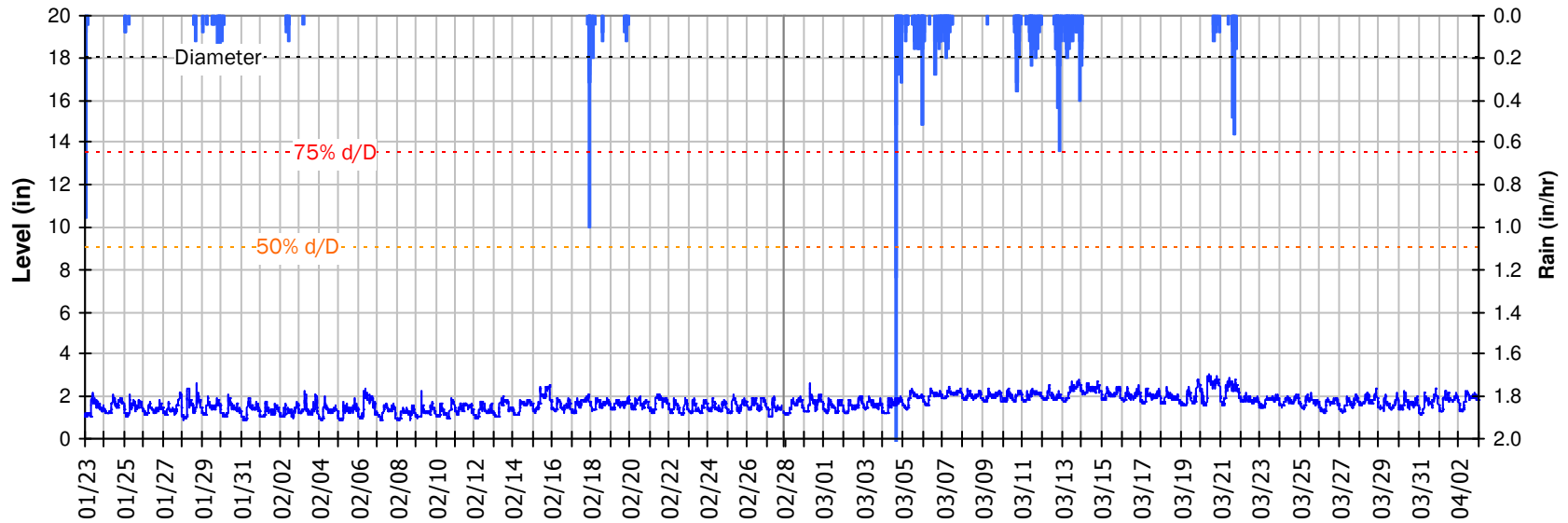
SITE 1

Average Dry Weather Flow Hydrographs



SITE 1
Site Capacity and Surge Summary

Realtime Flow Levels with Rainfall Data over Monitoring Period

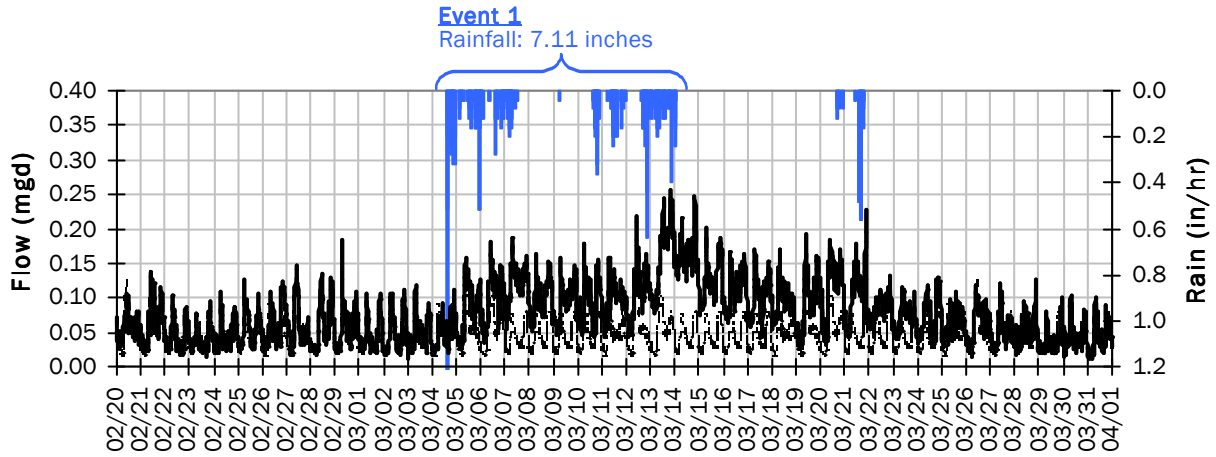


Pipe Diameter:	18	inches
Peak Measured Level:	3.04	inches
Peak d/D Ratio:	0.17	

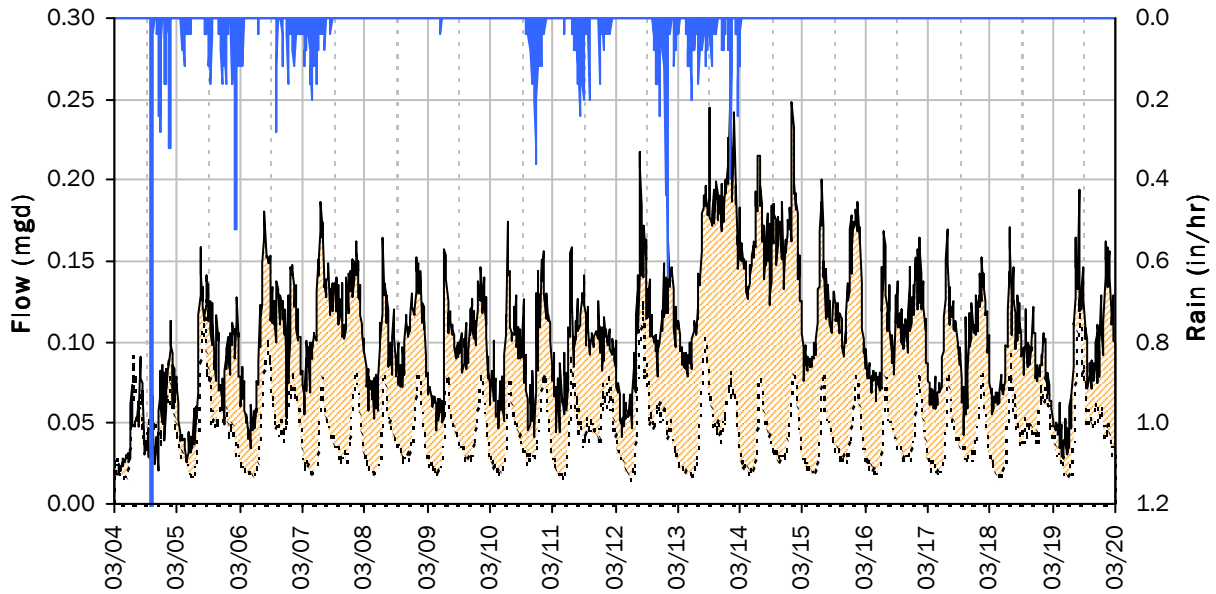
SITE 1

I/I Summary: Event 1

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



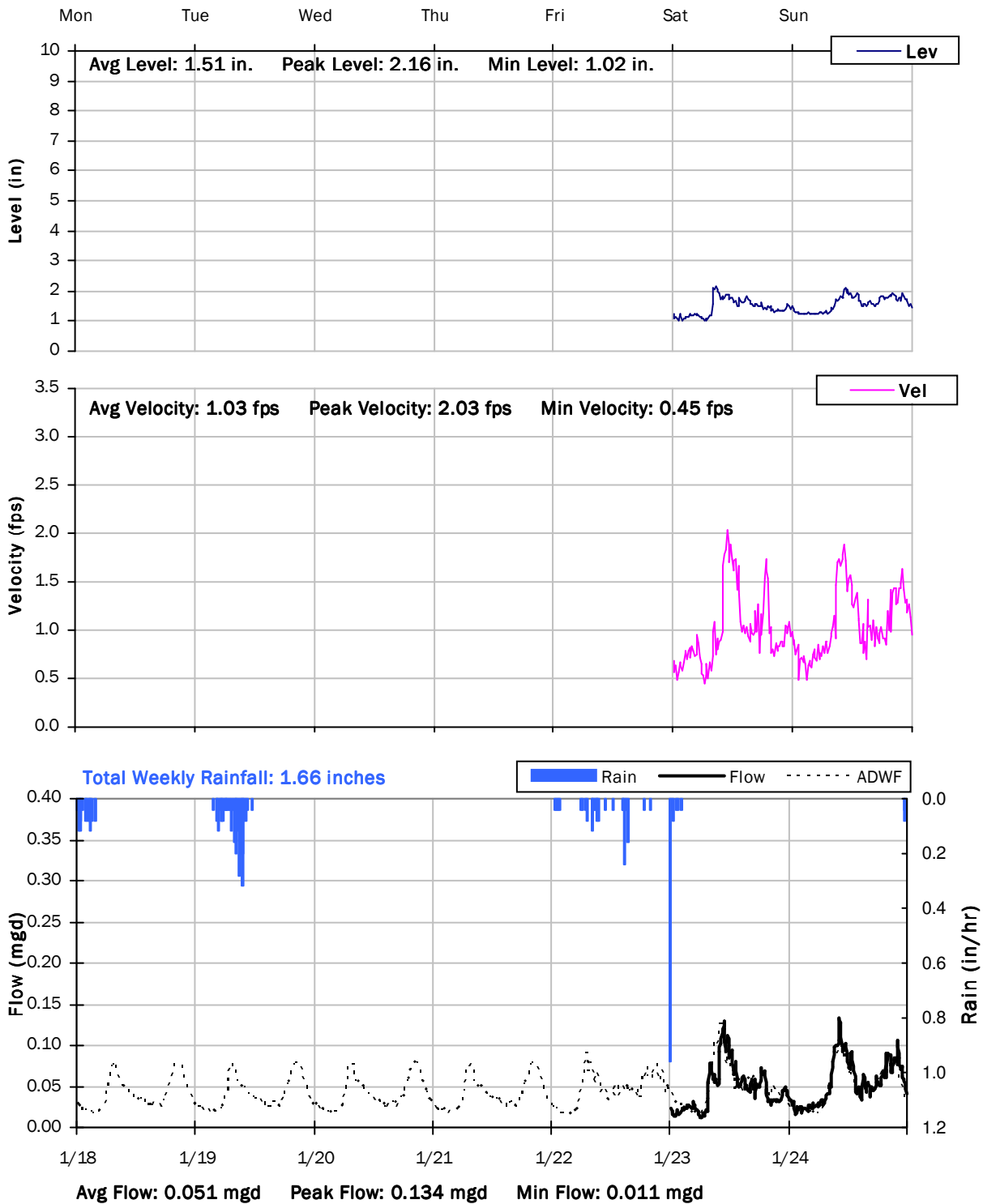
Event 1 Detail Graph



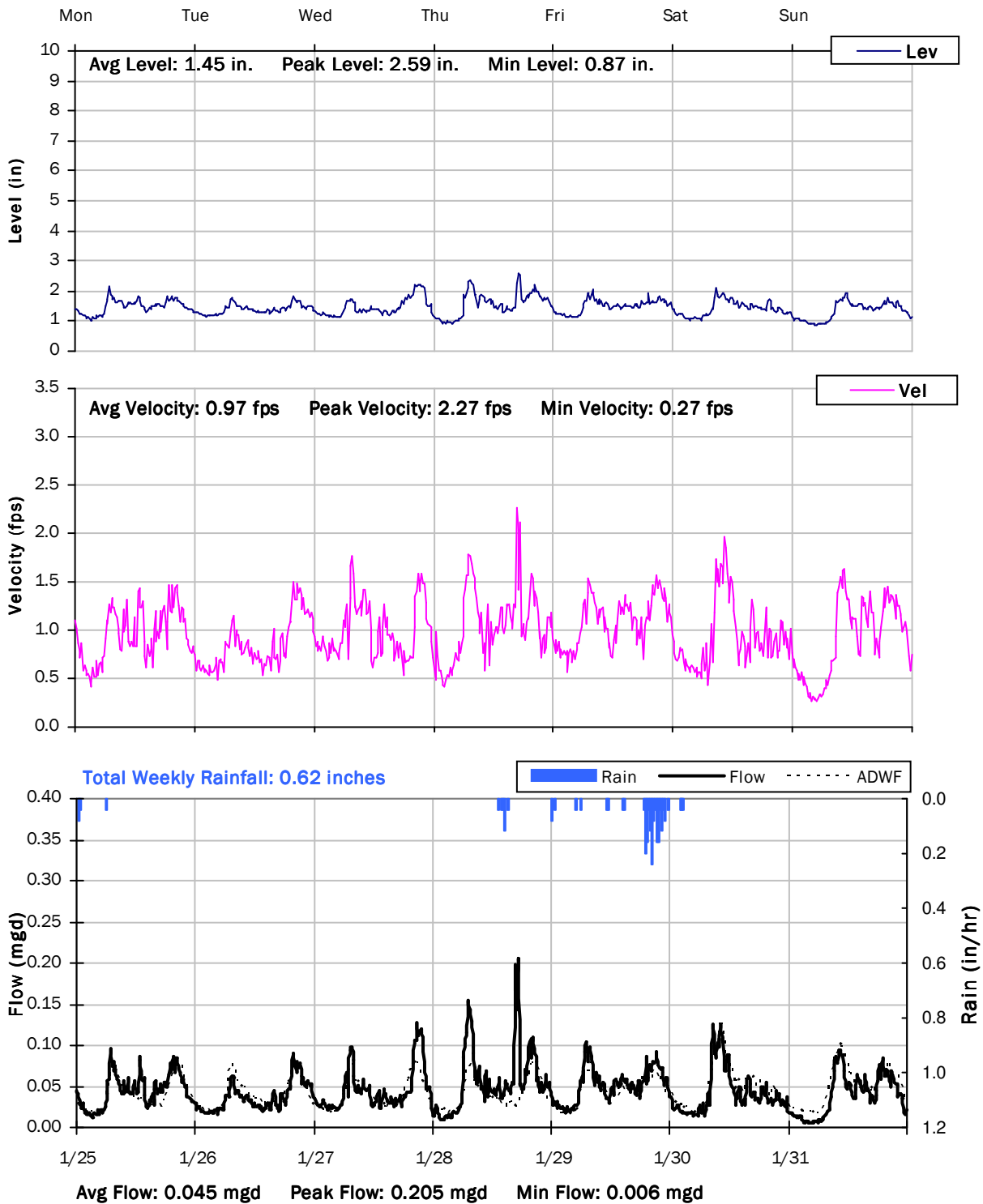
Storm Event I/I Analysis (Rain = 7.11 inches)

<u>Capacity</u>		<u>Inflow / Infiltration</u>	
Peak Flow:	0.26 <i>mgd</i>	Peak I/I Rate:	0.18 <i>mgd</i>
PF:	5.84	Total I/I:	987,000 <i>gallons</i>
Peak Level:	2.83 <i>in</i>		
d/D Ratio:	0.16		

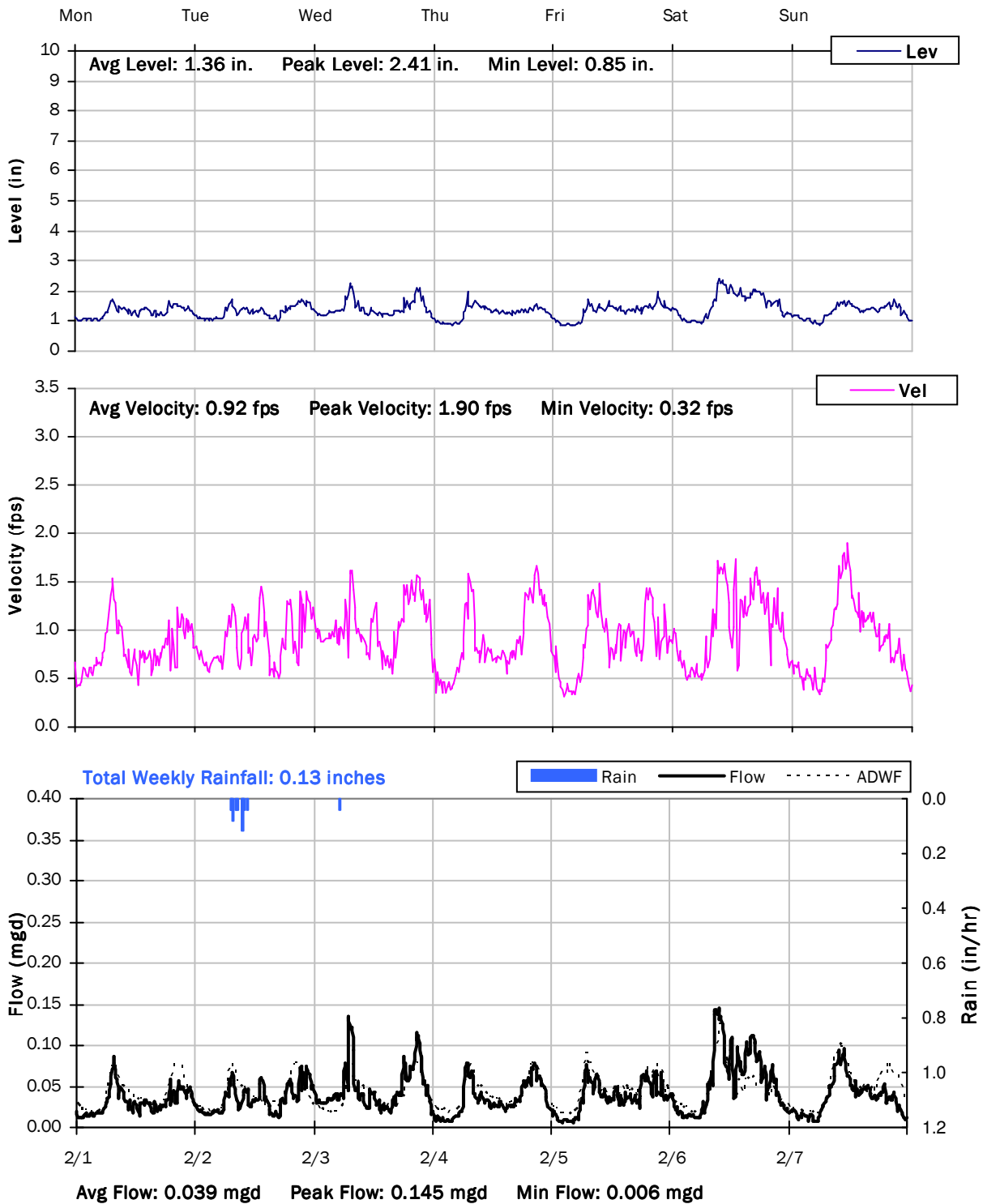
SITE 1
Weekly Level, Velocity and Flow Hydrographs
1/18/2016 to 1/25/2016



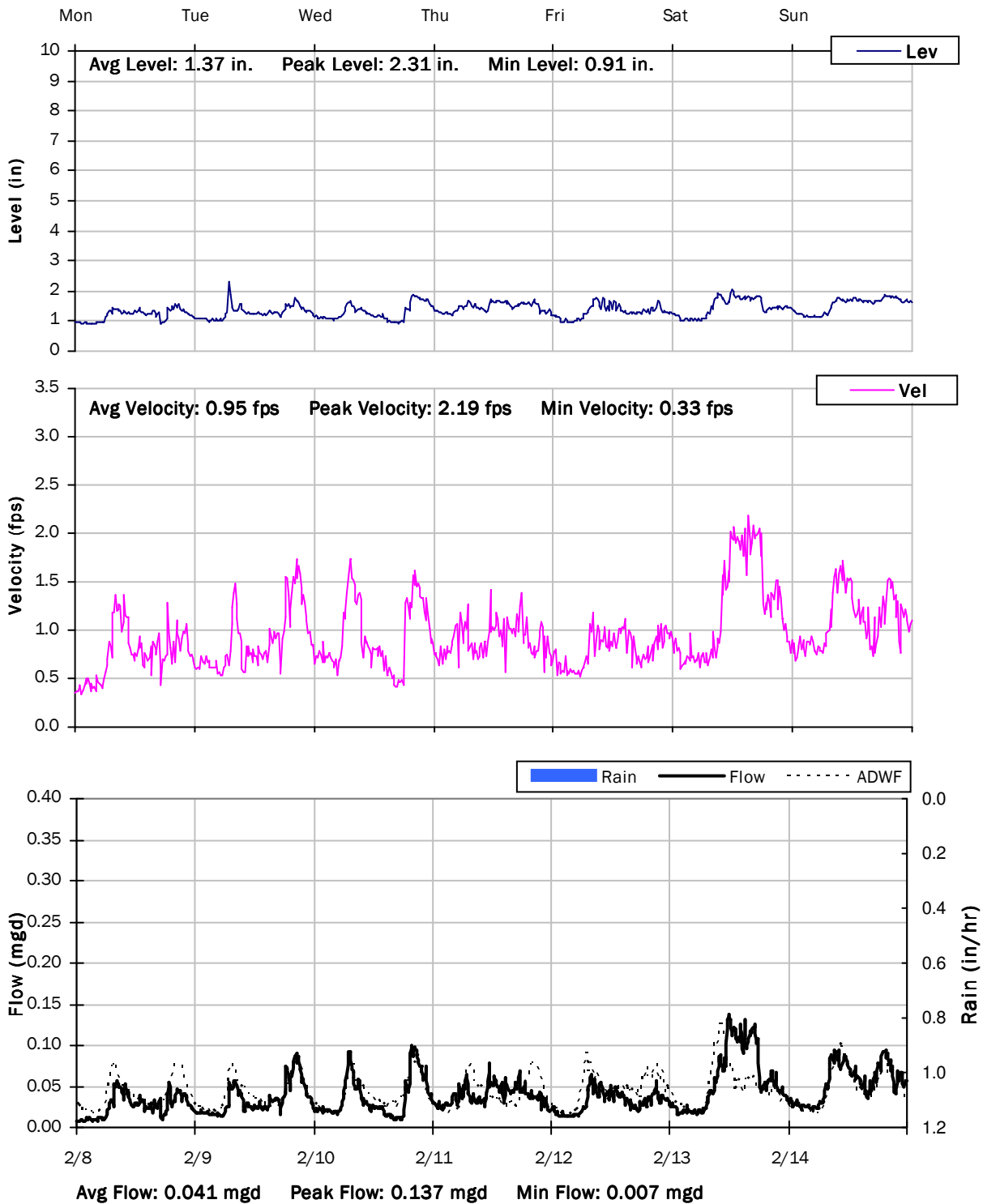
SITE 1
Weekly Level, Velocity and Flow Hydrographs
1/25/2016 to 2/1/2016



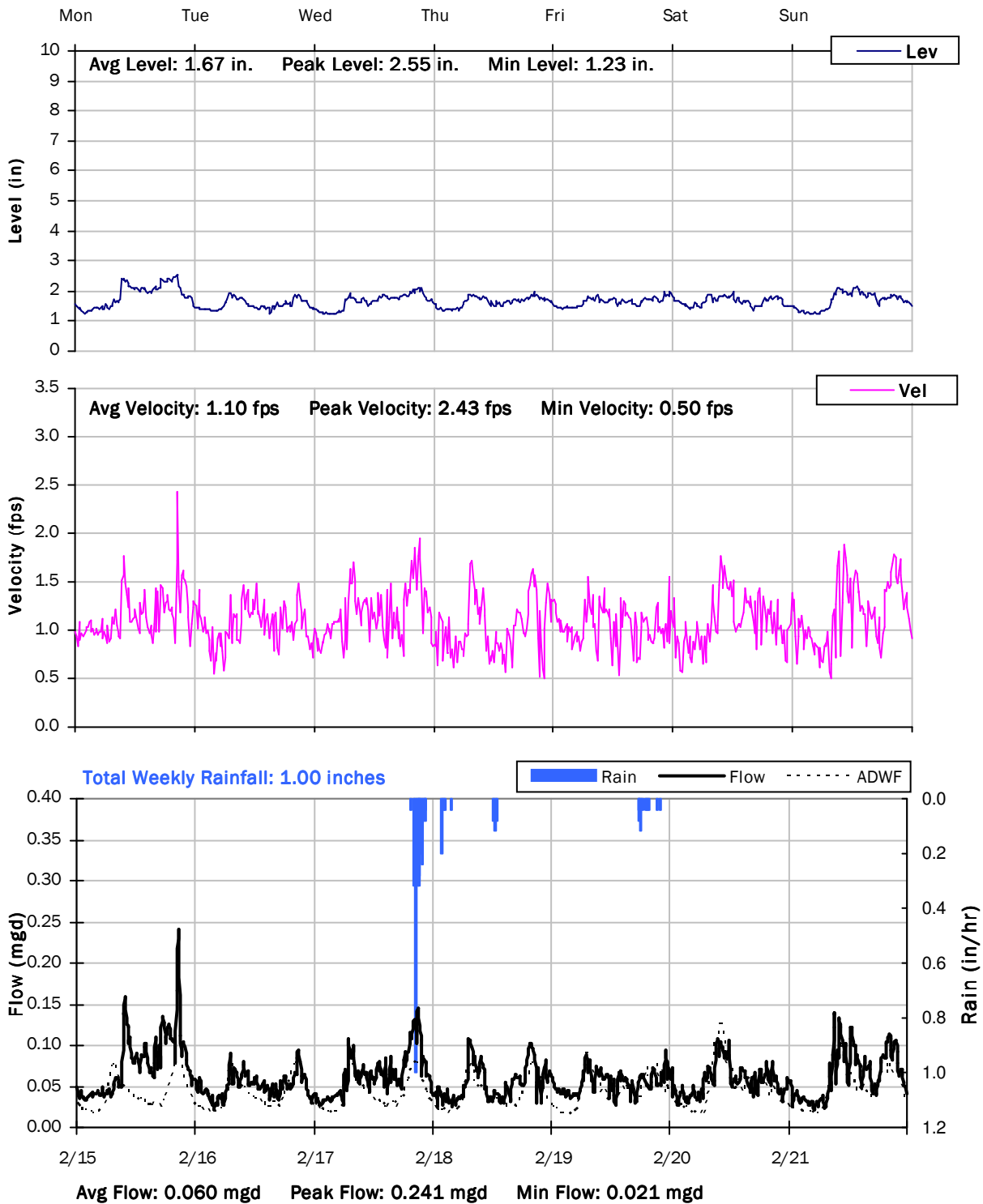
SITE 1
Weekly Level, Velocity and Flow Hydrographs
2/1/2016 to 2/8/2016



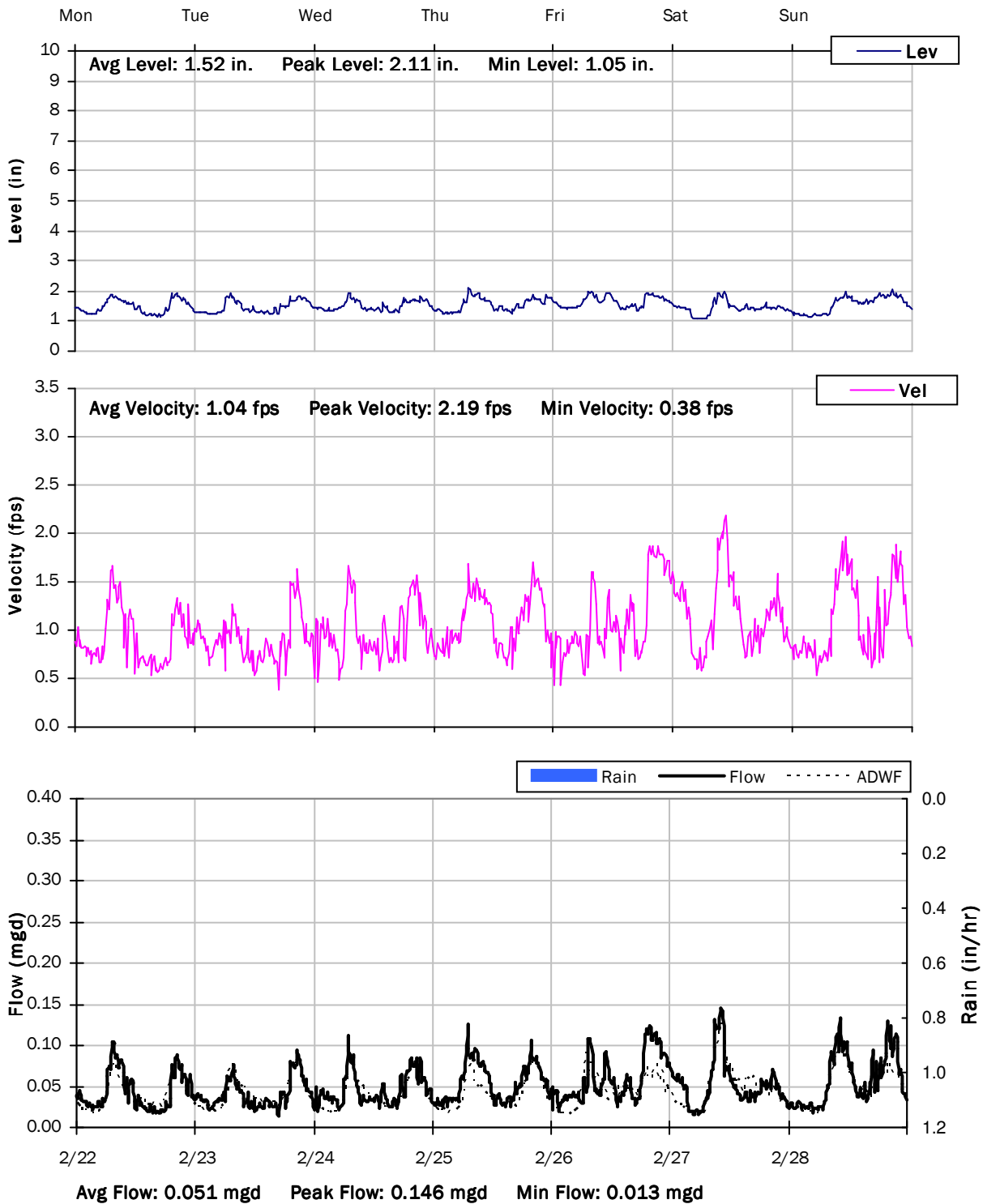
SITE 1
Weekly Level, Velocity and Flow Hydrographs
2/8/2016 to 2/15/2016



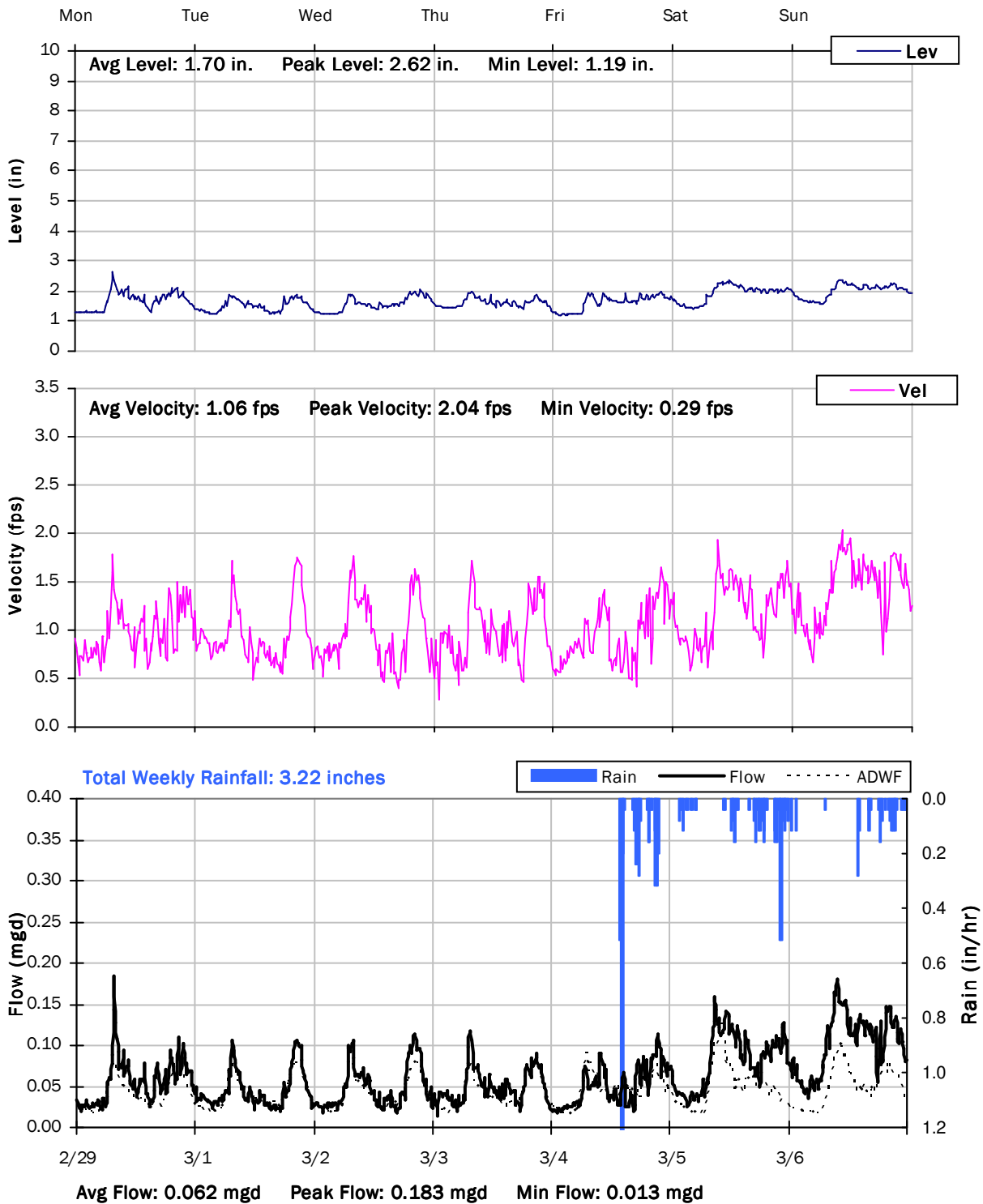
SITE 1
Weekly Level, Velocity and Flow Hydrographs
2/15/2016 to 2/22/2016



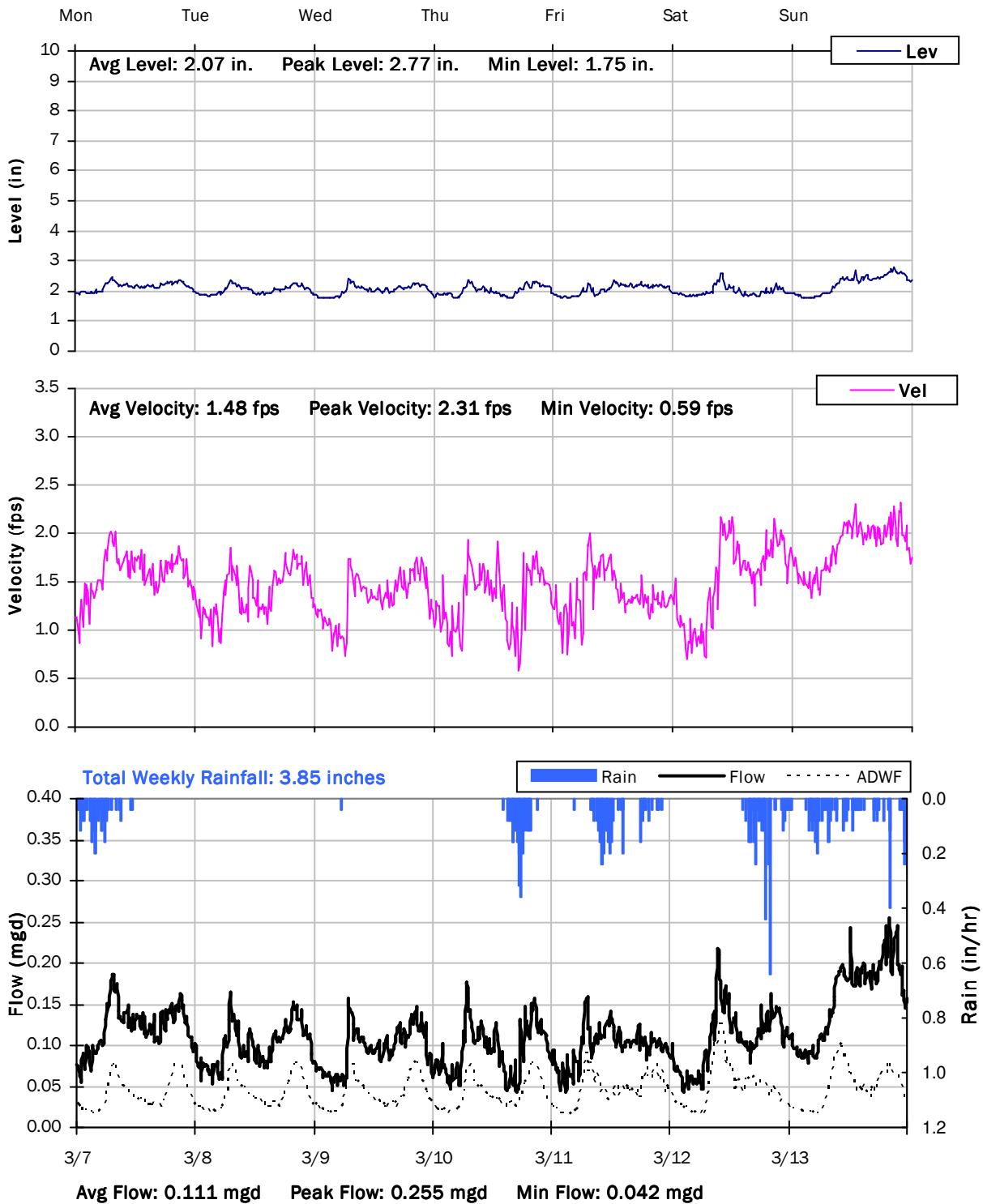
SITE 1
Weekly Level, Velocity and Flow Hydrographs
2/22/2016 to 2/29/2016



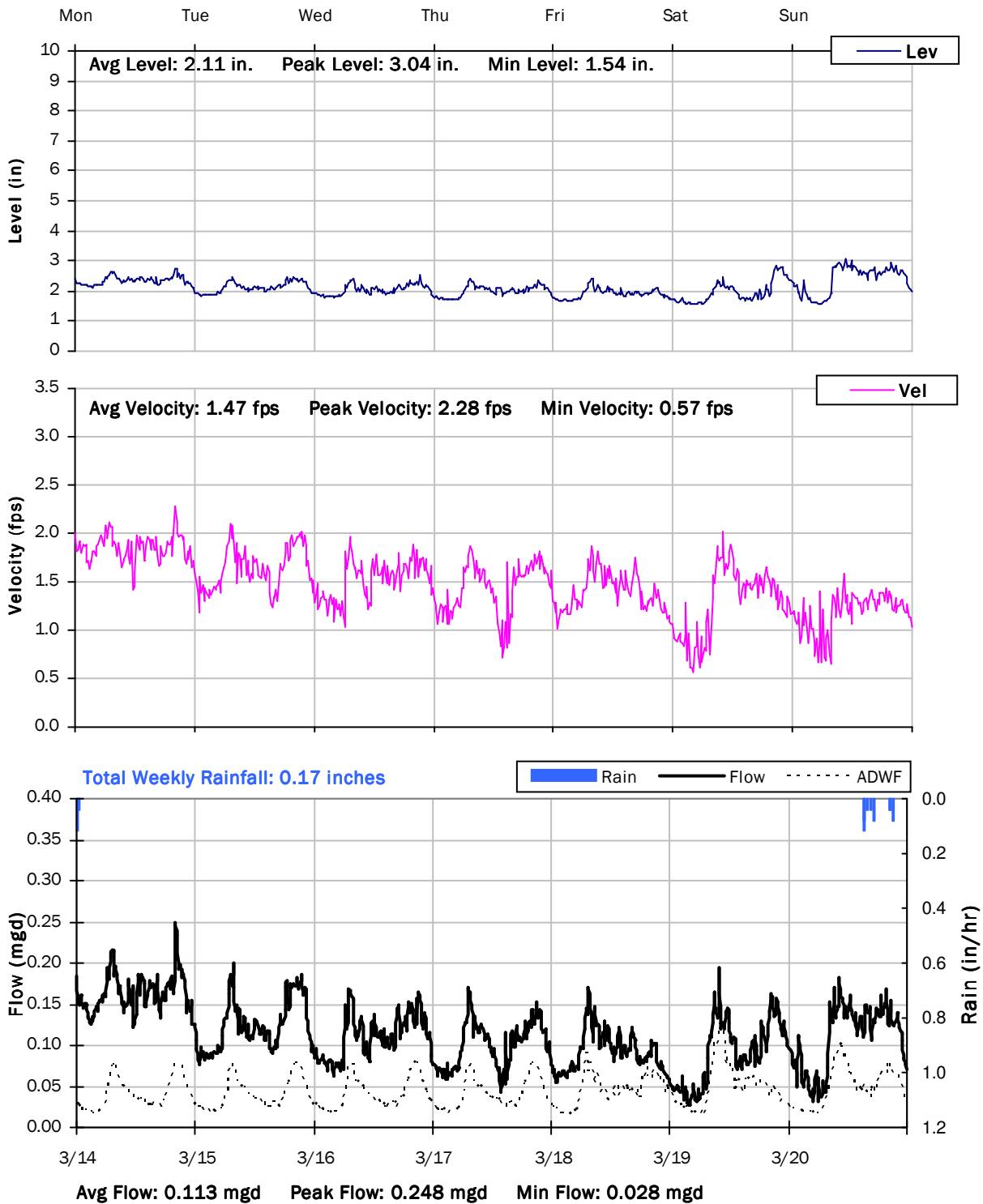
SITE 1
Weekly Level, Velocity and Flow Hydrographs
2/29/2016 to 3/7/2016



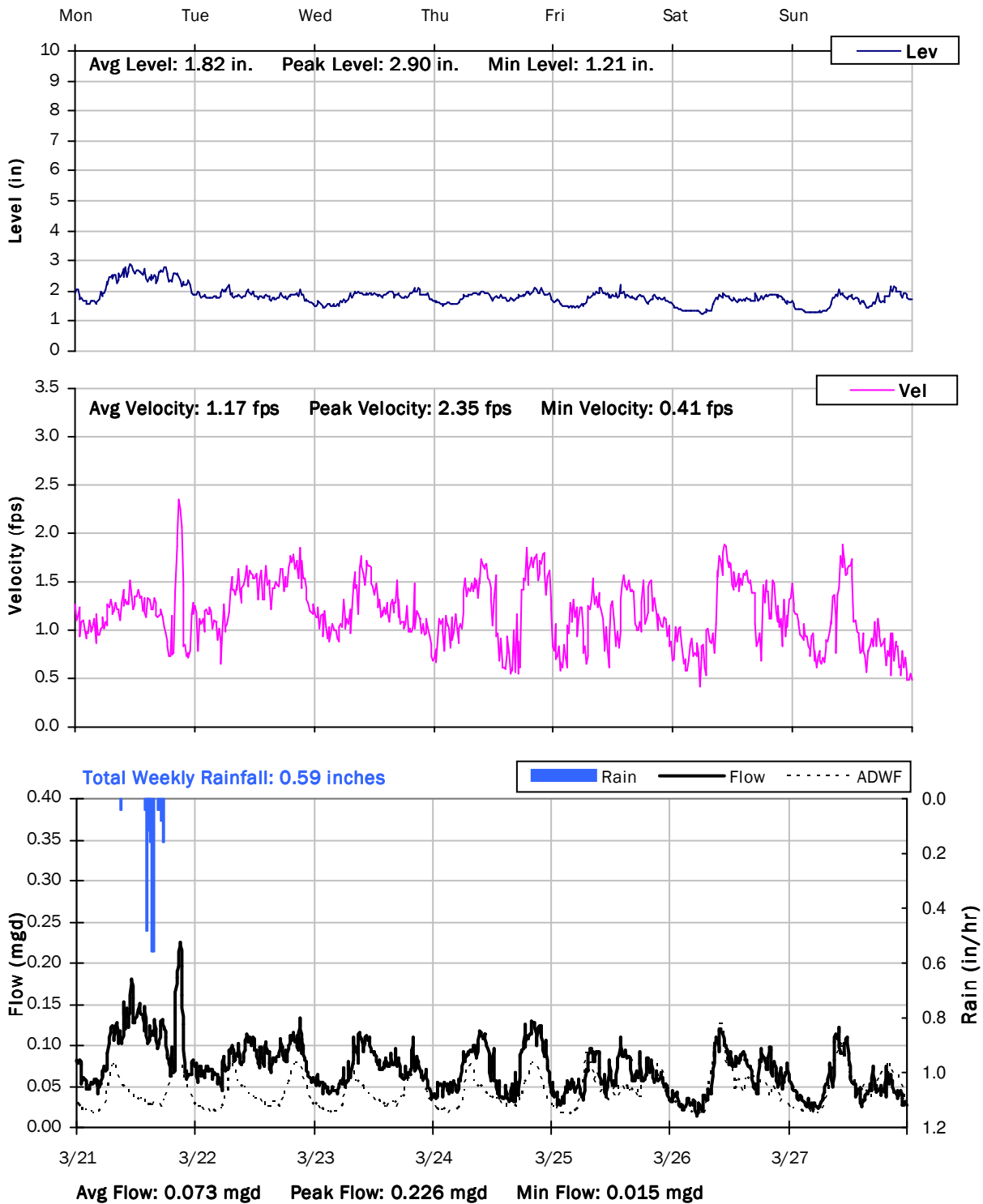
SITE 1
Weekly Level, Velocity and Flow Hydrographs
3/7/2016 to 3/14/2016



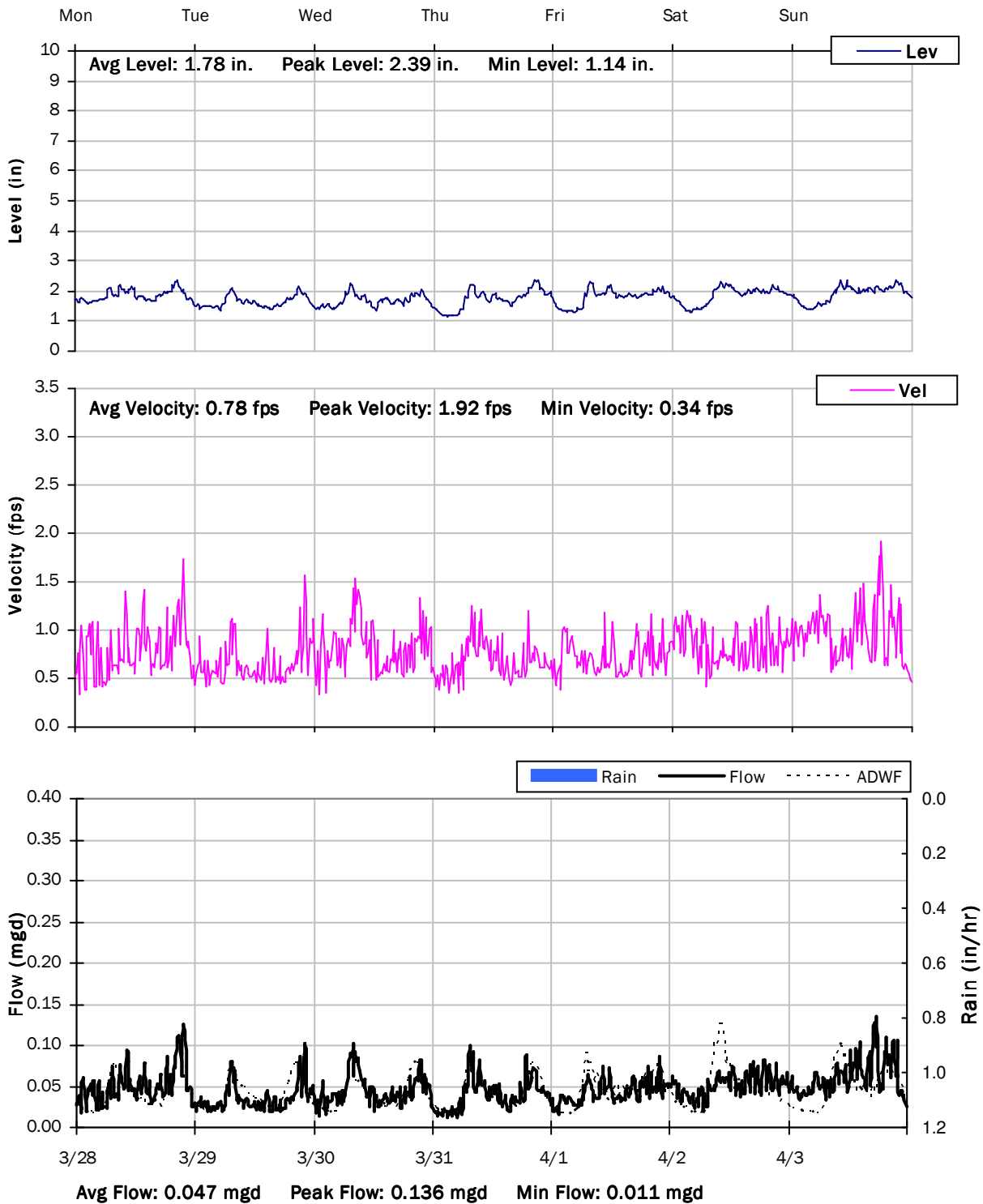
SITE 1
Weekly Level, Velocity and Flow Hydrographs
3/14/2016 to 3/21/2016



SITE 1
Weekly Level, Velocity and Flow Hydrographs
3/21/2016 to 3/28/2016



SITE 1
Weekly Level, Velocity and Flow Hydrographs
3/28/2016 to 4/4/2016



City of Lincoln

Sanitary Sewer Flow Monitoring

Temporary Monitoring: January 23 to April 3, 2016

Monitoring Site: Site 2

Location: On Nicolaus Road, 1600 ft east of Aviation Blvd,
middle lane, nearest address 2858-3004 Nicolaus

Data Summary Report



Vicinity Map: Site 2

SITE 2

Site Information

Location: On Nicolaus Road, 1600 ft east of Aviation Blvd, middle lane, nearest address 2858-3004 Nicolaus Road

Coordinates: 121.3343° W, 38.8975° N

Rim Elevation (Earth): 113 feet

Pipe Diameter: 10 inches

ADWF: 0.008 mgd

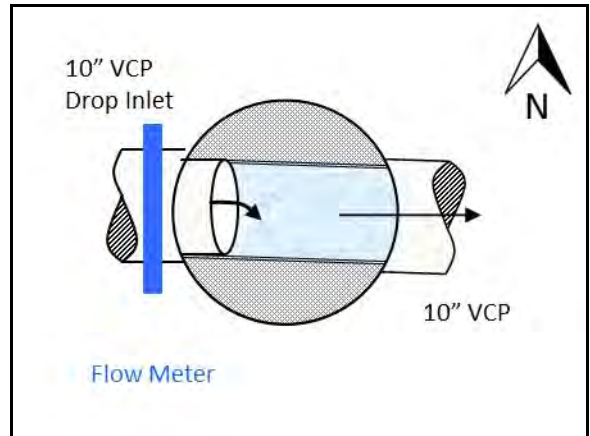
Peak Measured Flow: 0.183 mgd



Satellite Map



Sanitary Map



Flow Sketch



Street View



Plan View

SITE 2

Additional Site Photos

Influent Pipe



Effluent Pipe



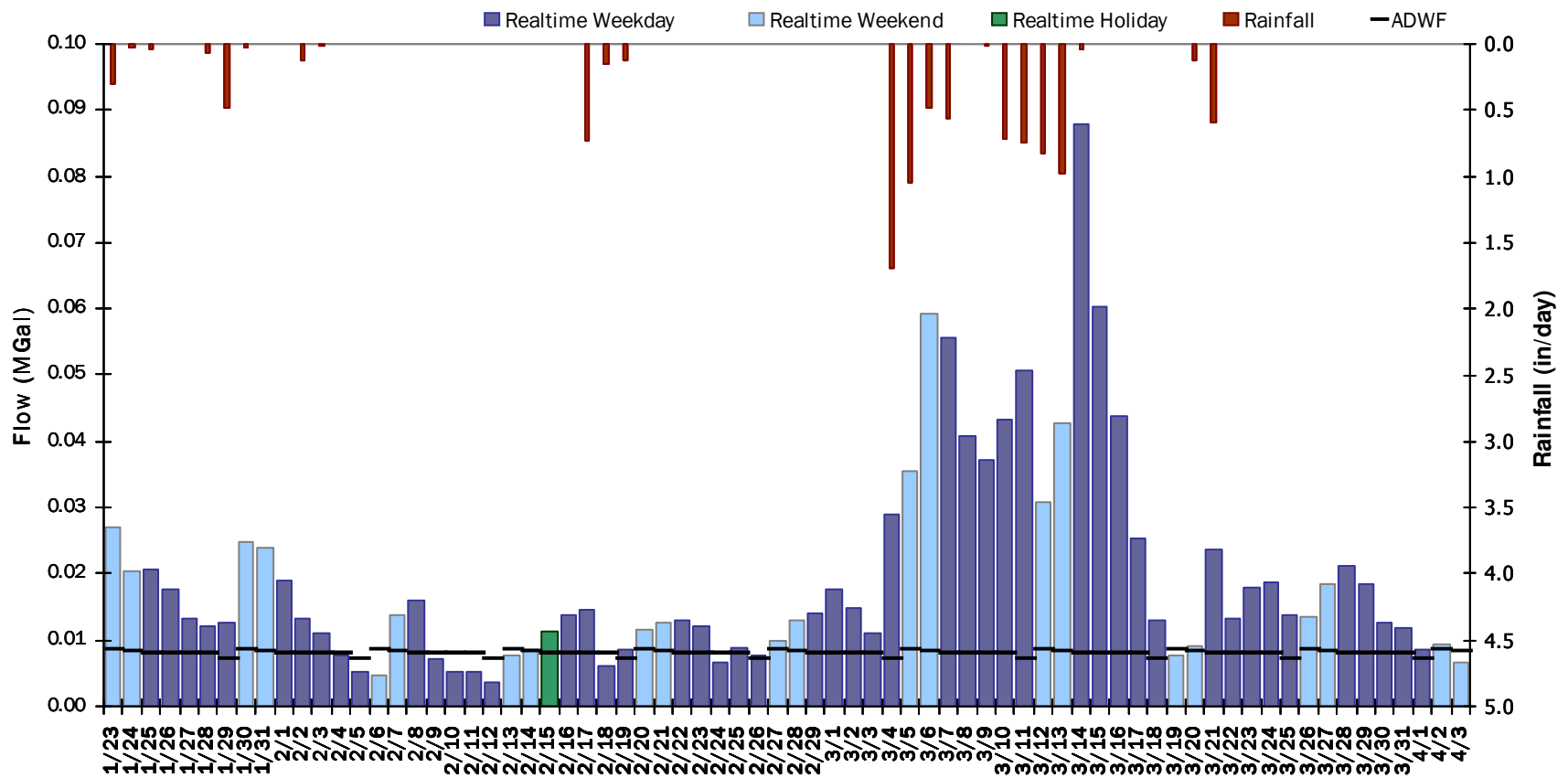


SITE 2

Period Flow Summary: Daily Flow Totals

Avg Period Flow: 0.019 MGal Peak Daily Flow: 0.088 MGal Min Daily Flow: 0.004 MGal

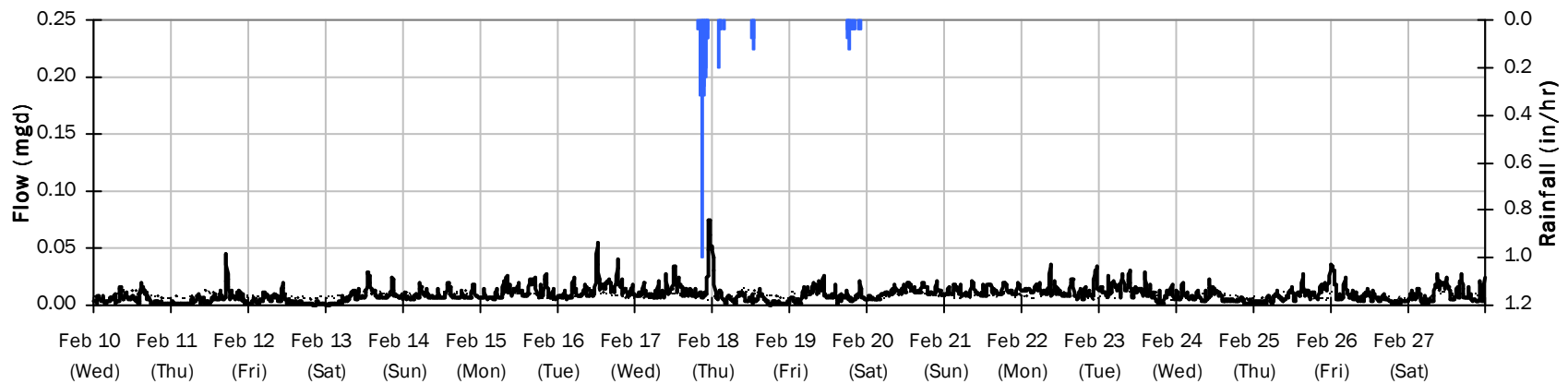
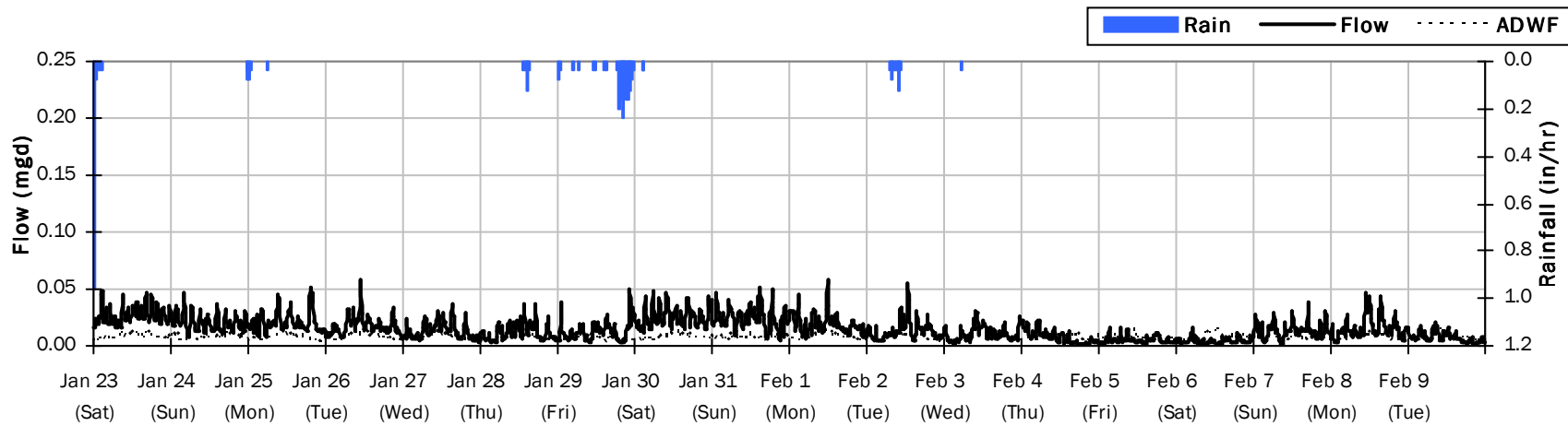
Total Period Rainfall: 9.91 inches



SITE 2

Flow Summary: 1/23/2016 to 2/27/2016

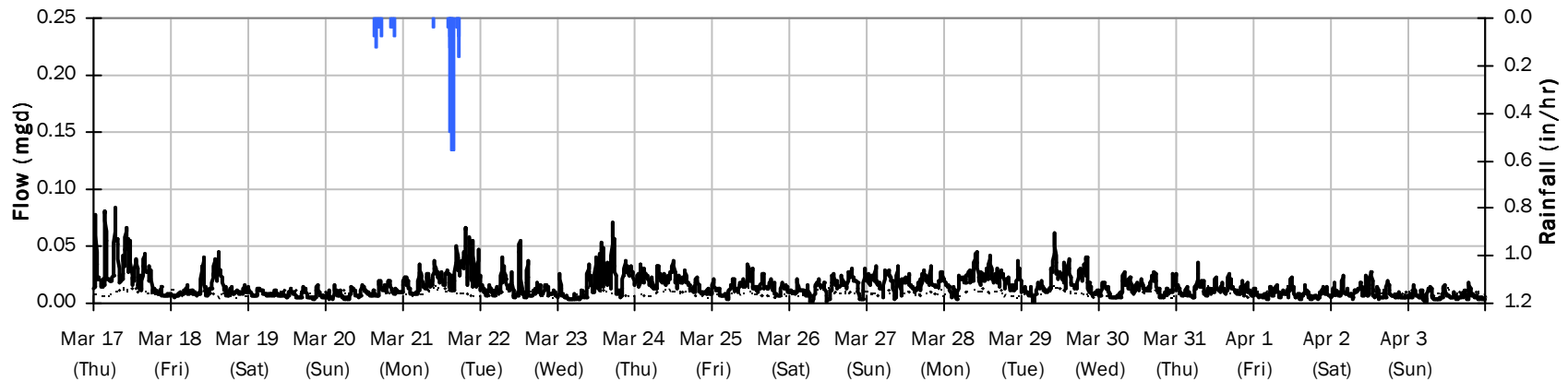
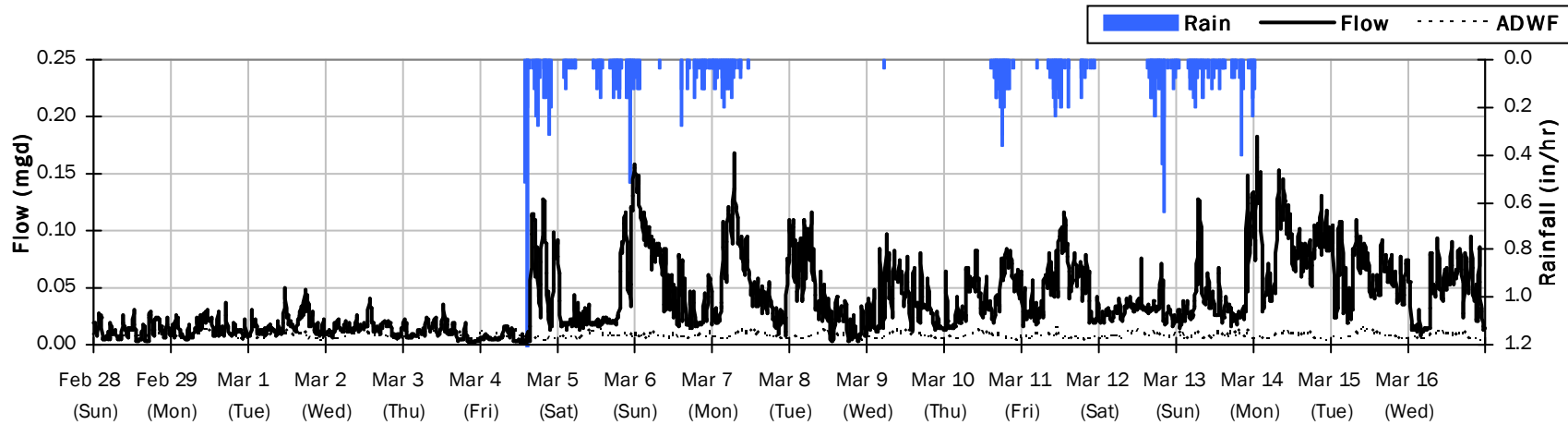
Total Period Rainfall: 2.08 inches Avg Flow: 0.012 mgd Peak Flow: 0.075 mgd Min Flow: 0.001 mgd



SITE 2

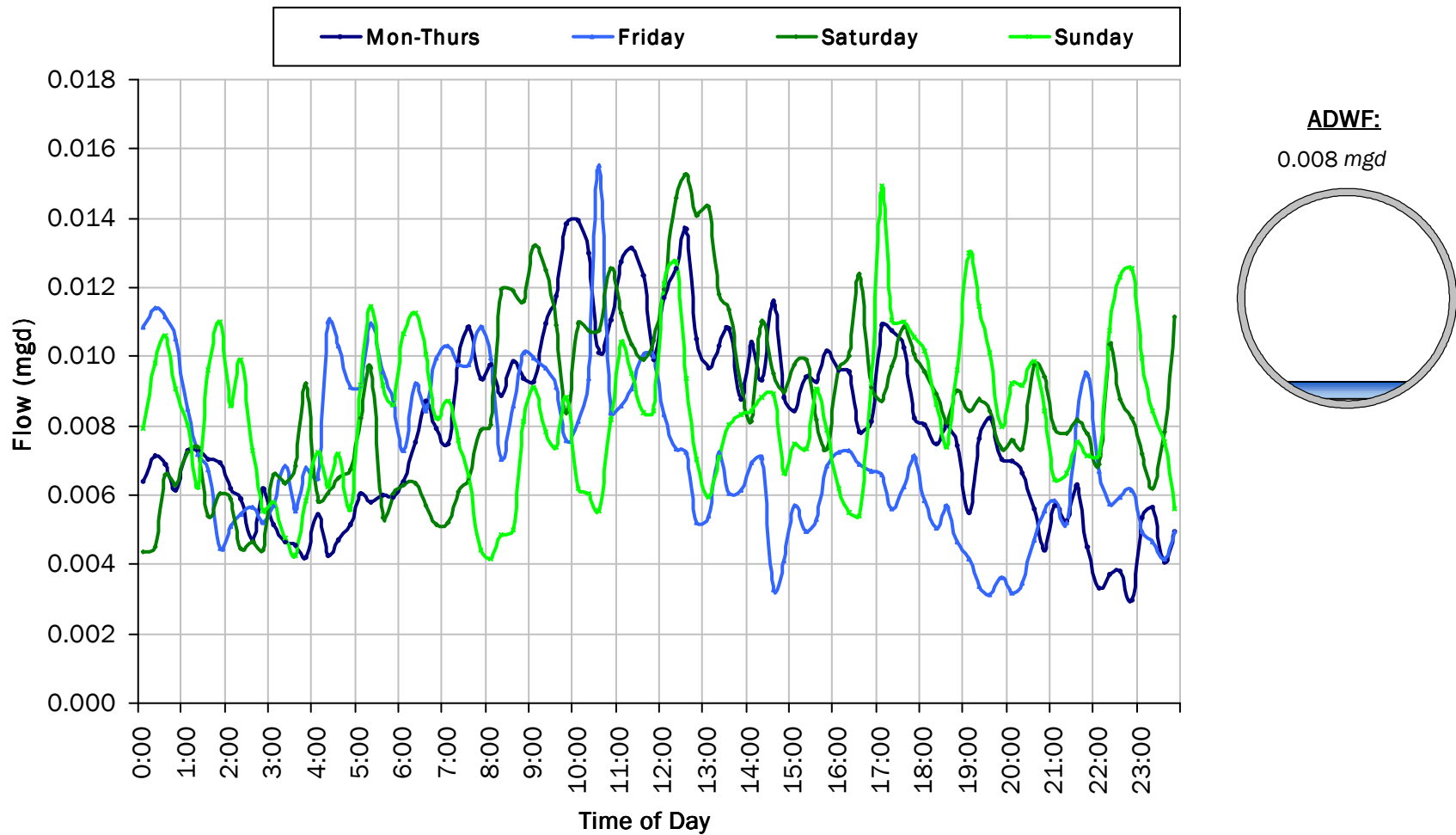
Flow Summary: 2/28/2016 to 4/3/2016

Total Period Rainfall: 7.83 inches **Avg Flow: 0.026 mgd** **Peak Flow: 0.183 mgd** **Min Flow: 0.001 mgd**



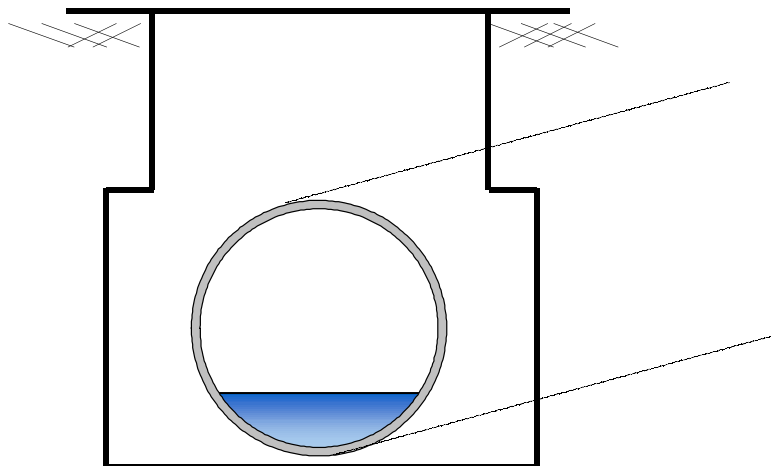
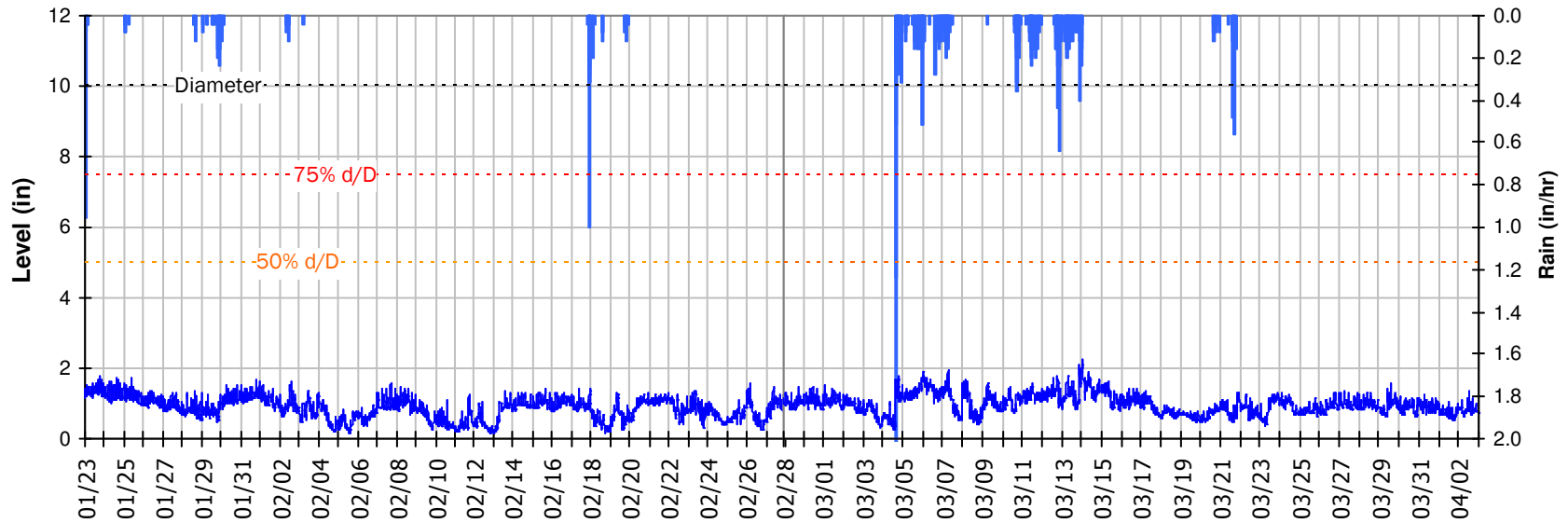
SITE 2

Average Dry Weather Flow Hydrographs



SITE 2
Site Capacity and Surge Summary

Realtime Flow Levels with Rainfall Data over Monitoring Period

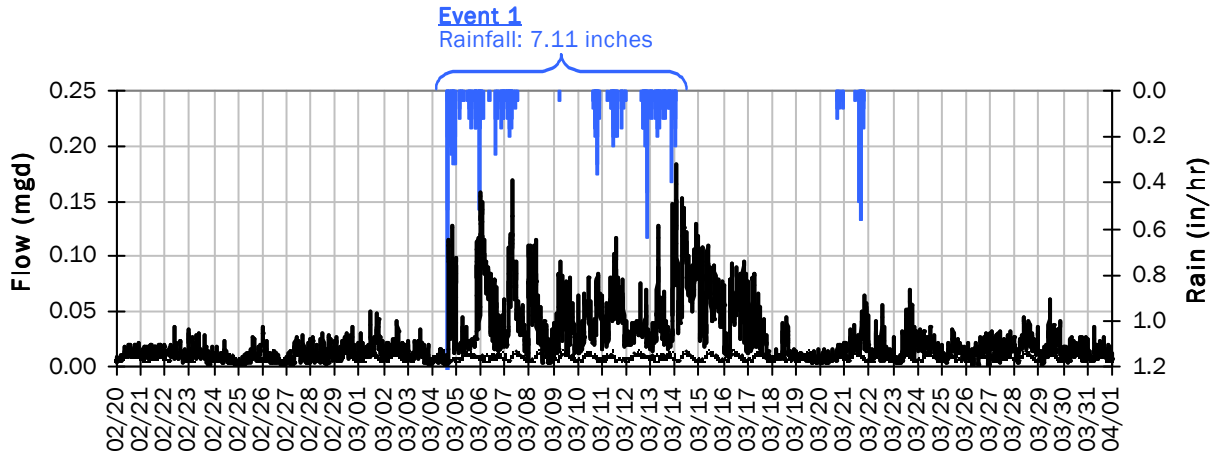


Pipe Diameter: 10 inches
Peak Measured Level: 2.26 inches
Peak d/D Ratio: 0.23

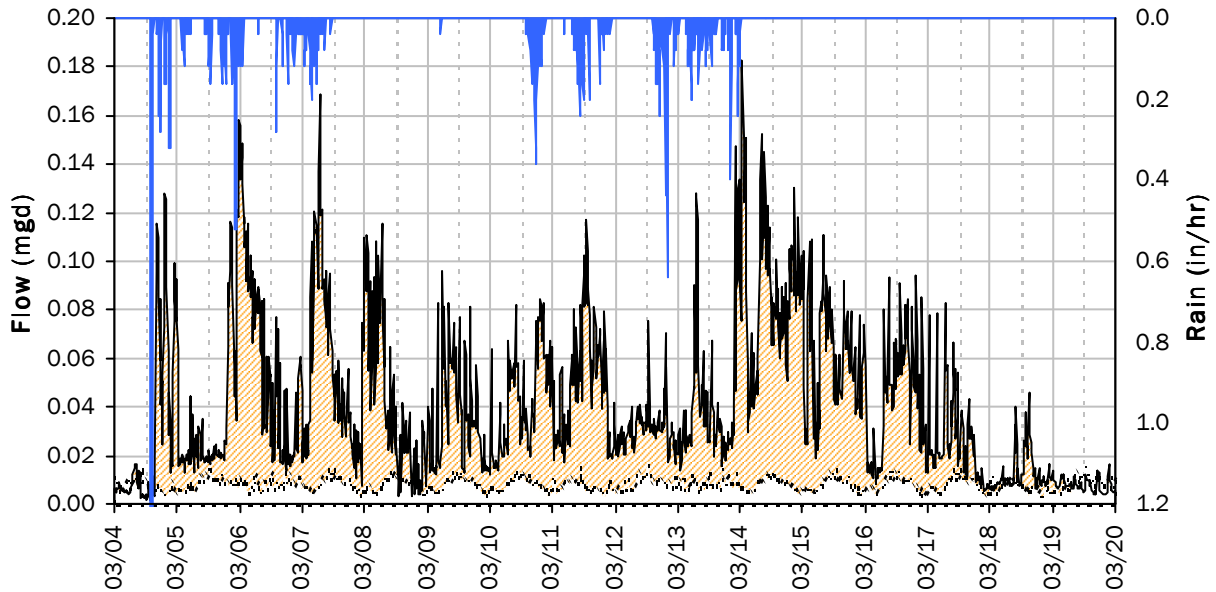
SITE 2

I/I Summary: Event 1

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



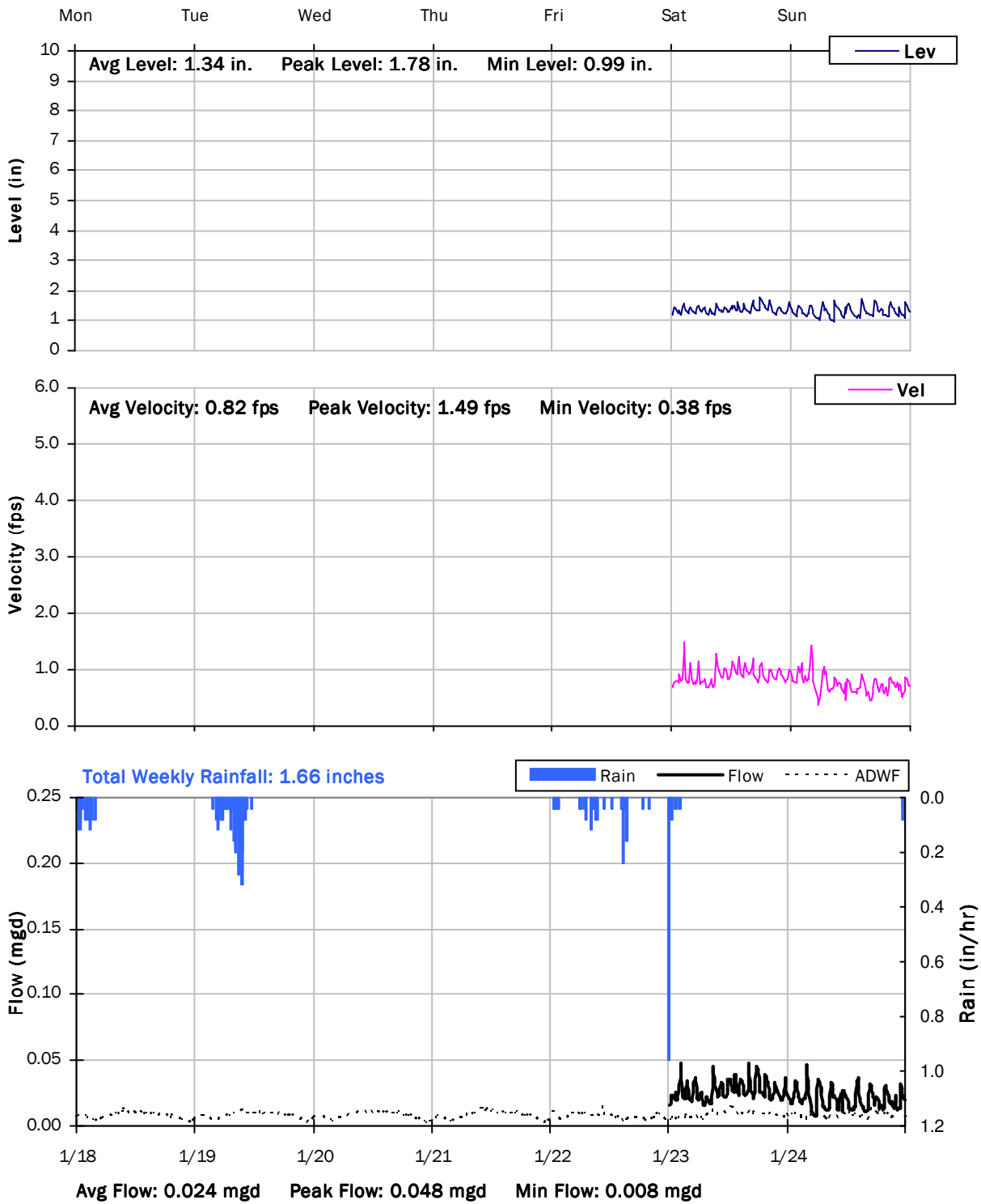
Event 1 Detail Graph



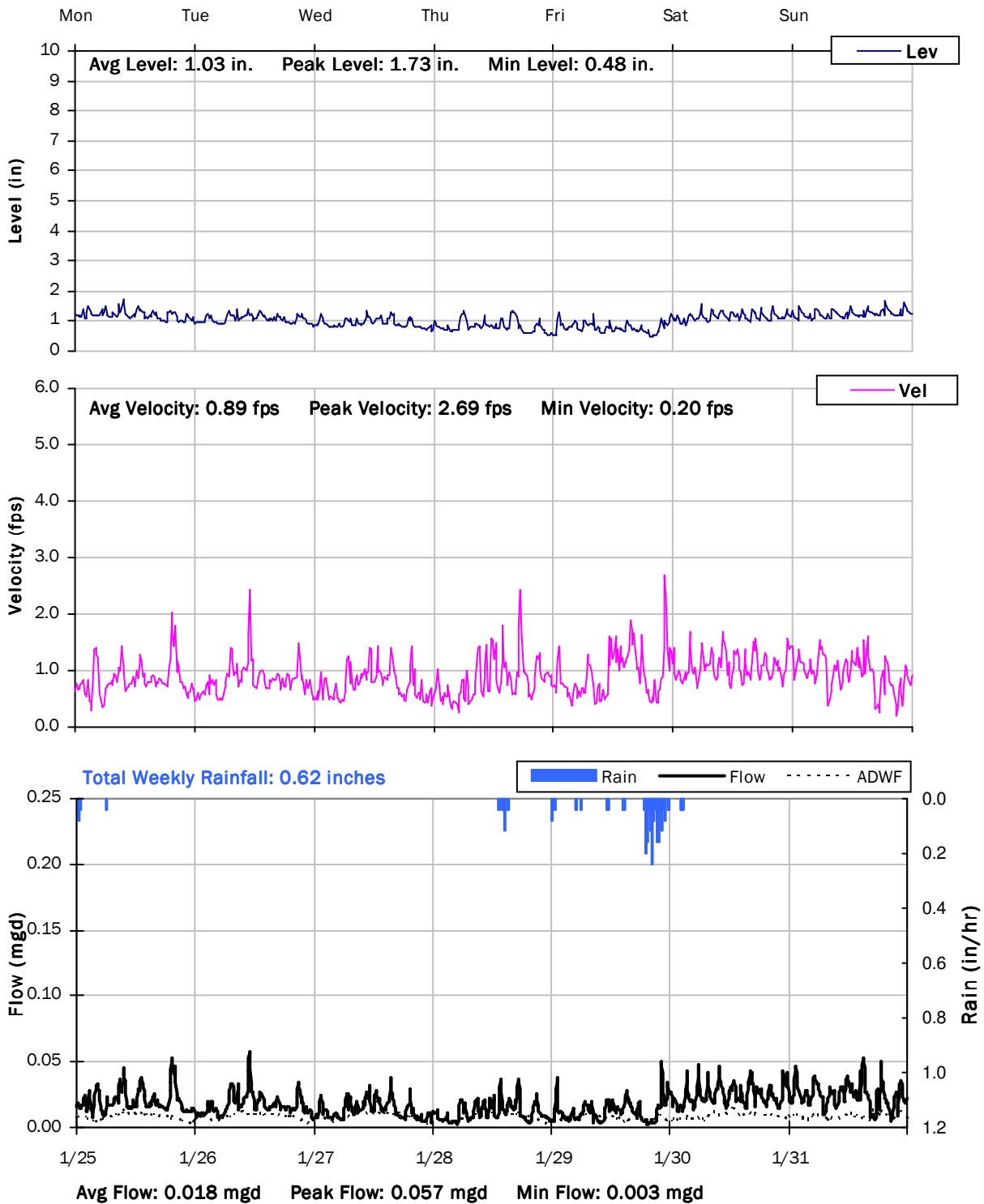
Storm Event I/I Analysis (Rain = 7.11 inches)

<u>Capacity</u>		<u>Inflow / Infiltration</u>	
Peak Flow:	0.18 <i>mgd</i>	Peak I/I Rate:	0.18 <i>mgd</i>
PF:	22.73	Total I/I:	536,000 <i>gallons</i>
Peak Level:	2.26 <i>in</i>		
d/D Ratio:	0.23		

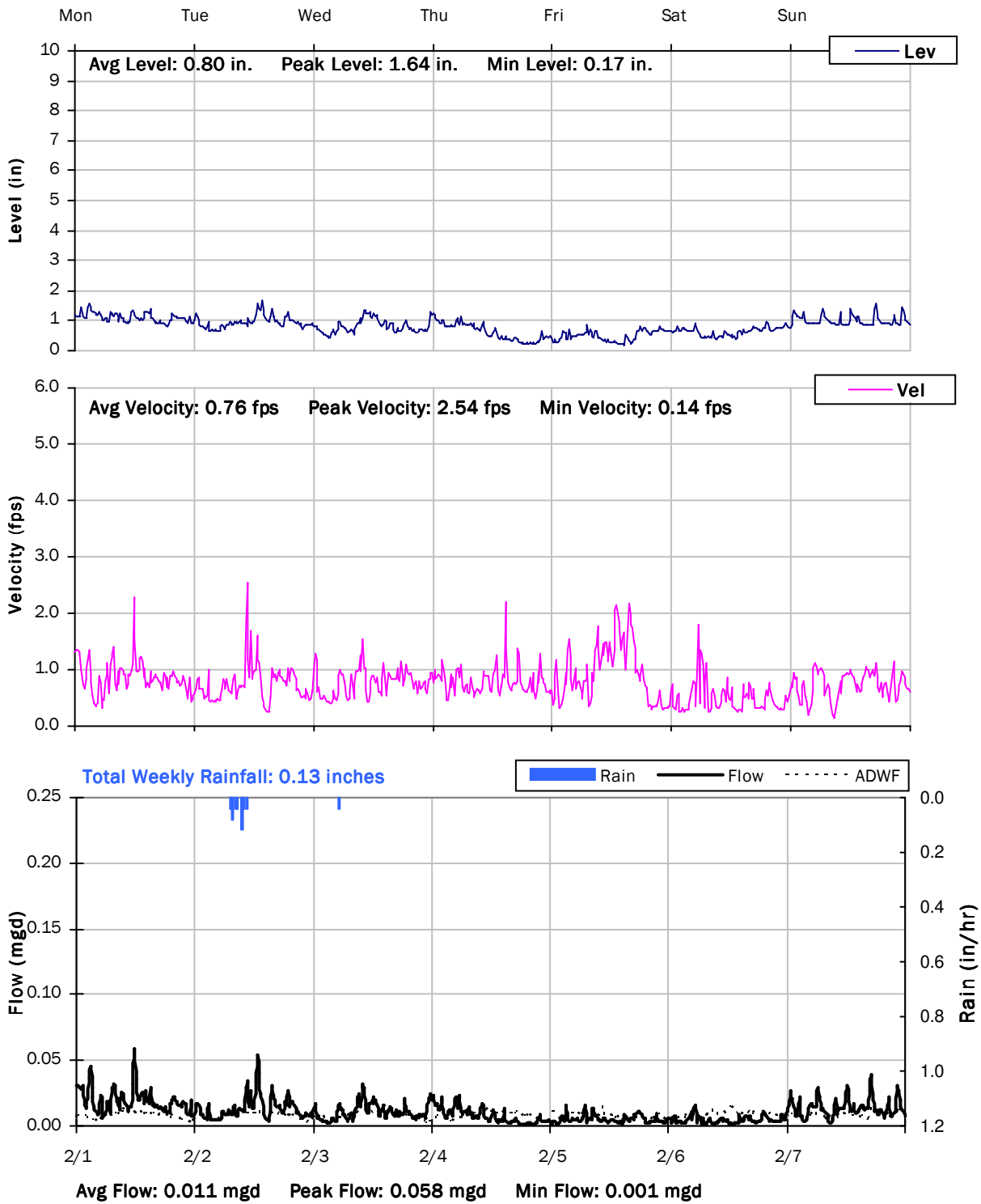
SITE 2
Weekly Level, Velocity and Flow Hydrographs
1/18/2016 to 1/25/2016



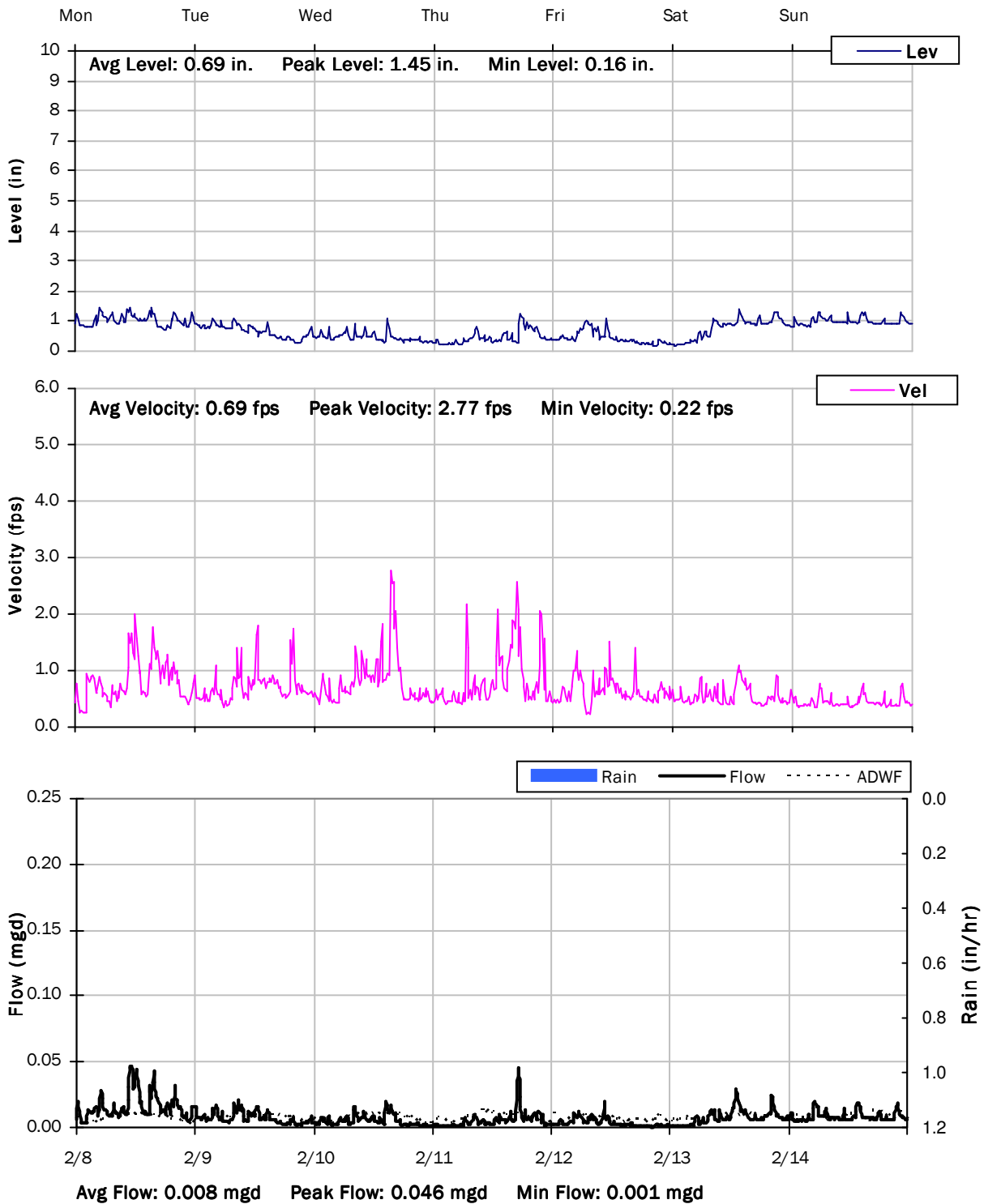
SITE 2
Weekly Level, Velocity and Flow Hydrographs
1/25/2016 to 2/1/2016



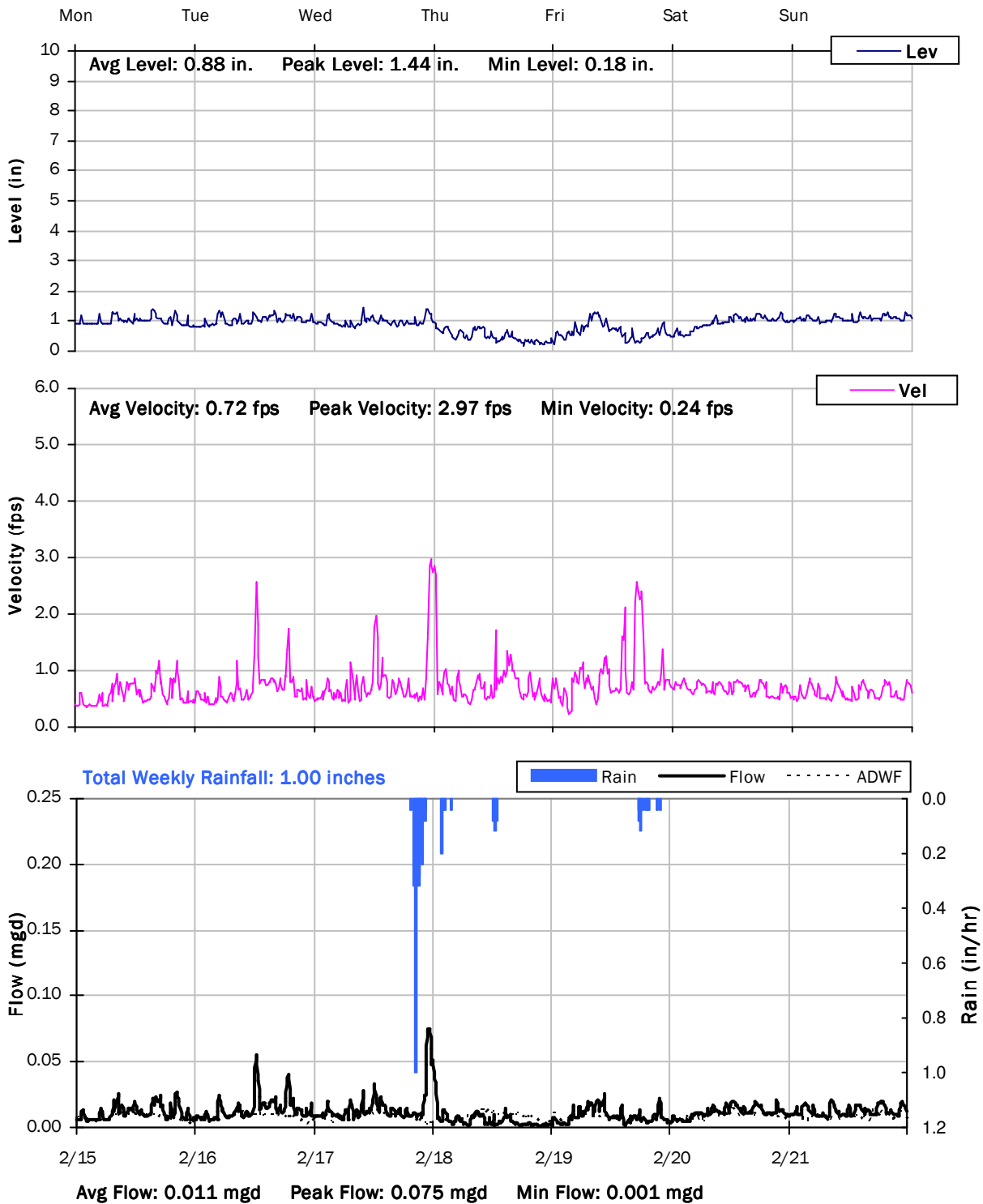
SITE 2
Weekly Level, Velocity and Flow Hydrographs
2/1/2016 to 2/8/2016



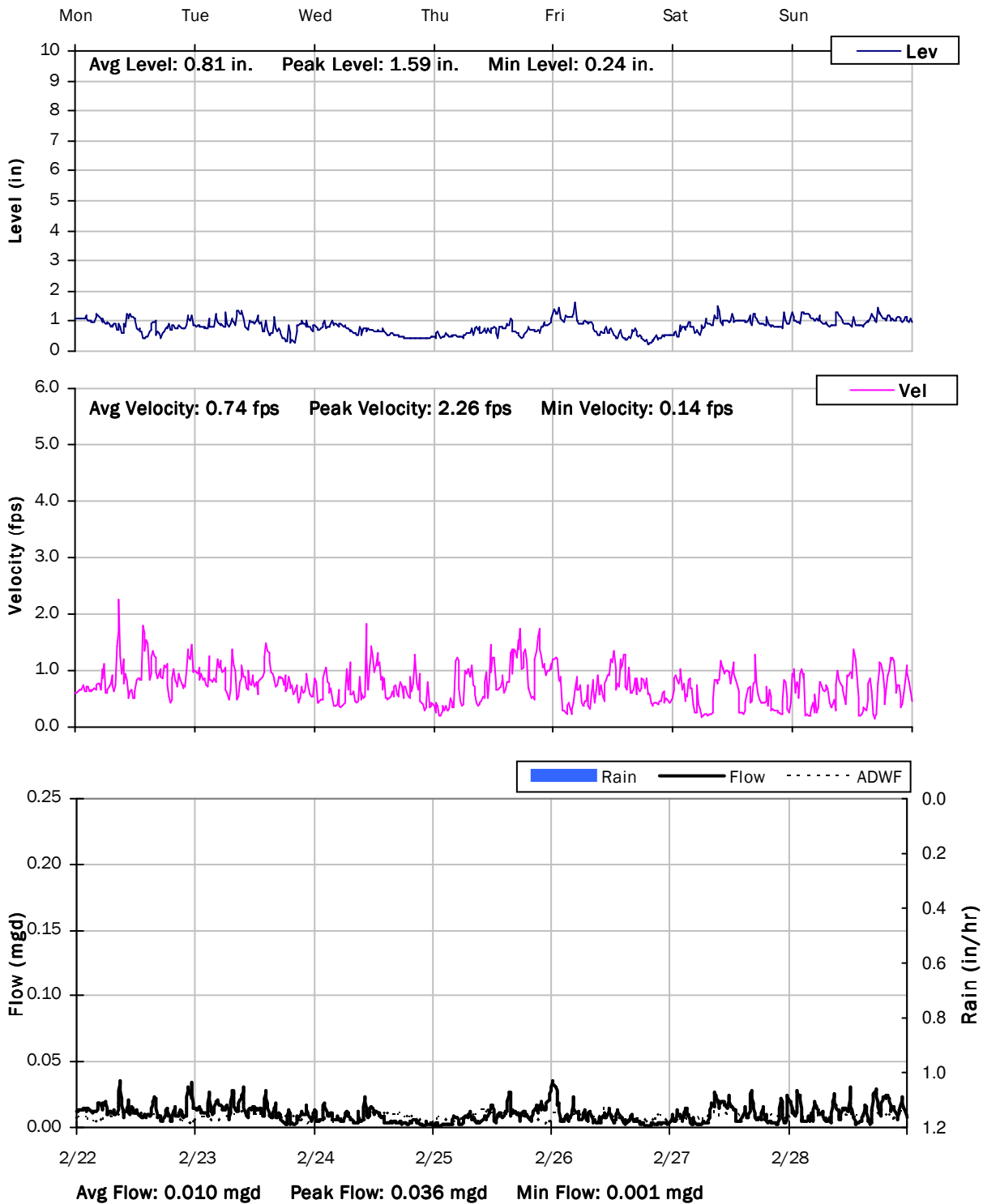
SITE 2
Weekly Level, Velocity and Flow Hydrographs
2/8/2016 to 2/15/2016



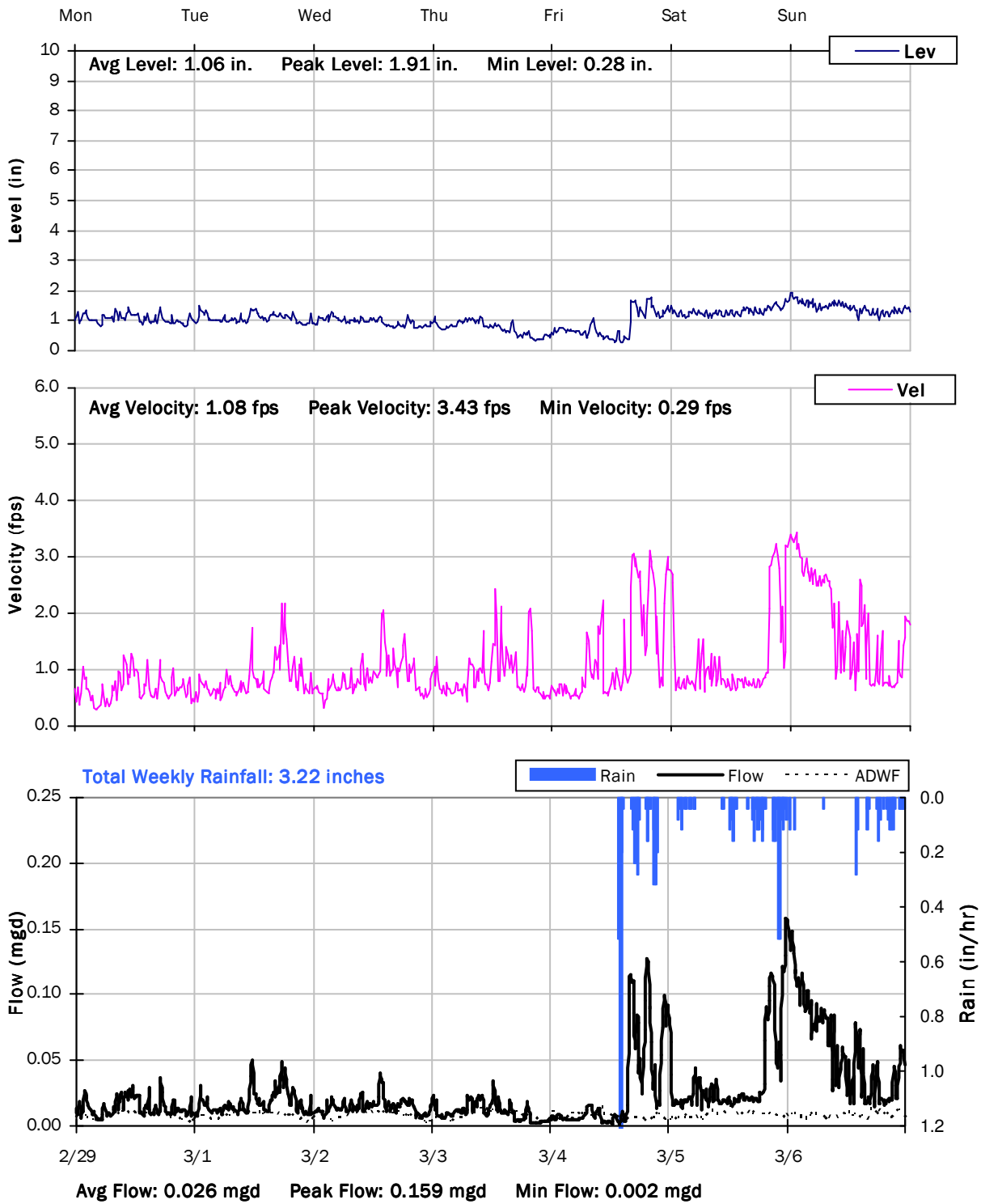
SITE 2
Weekly Level, Velocity and Flow Hydrographs
2/15/2016 to 2/22/2016



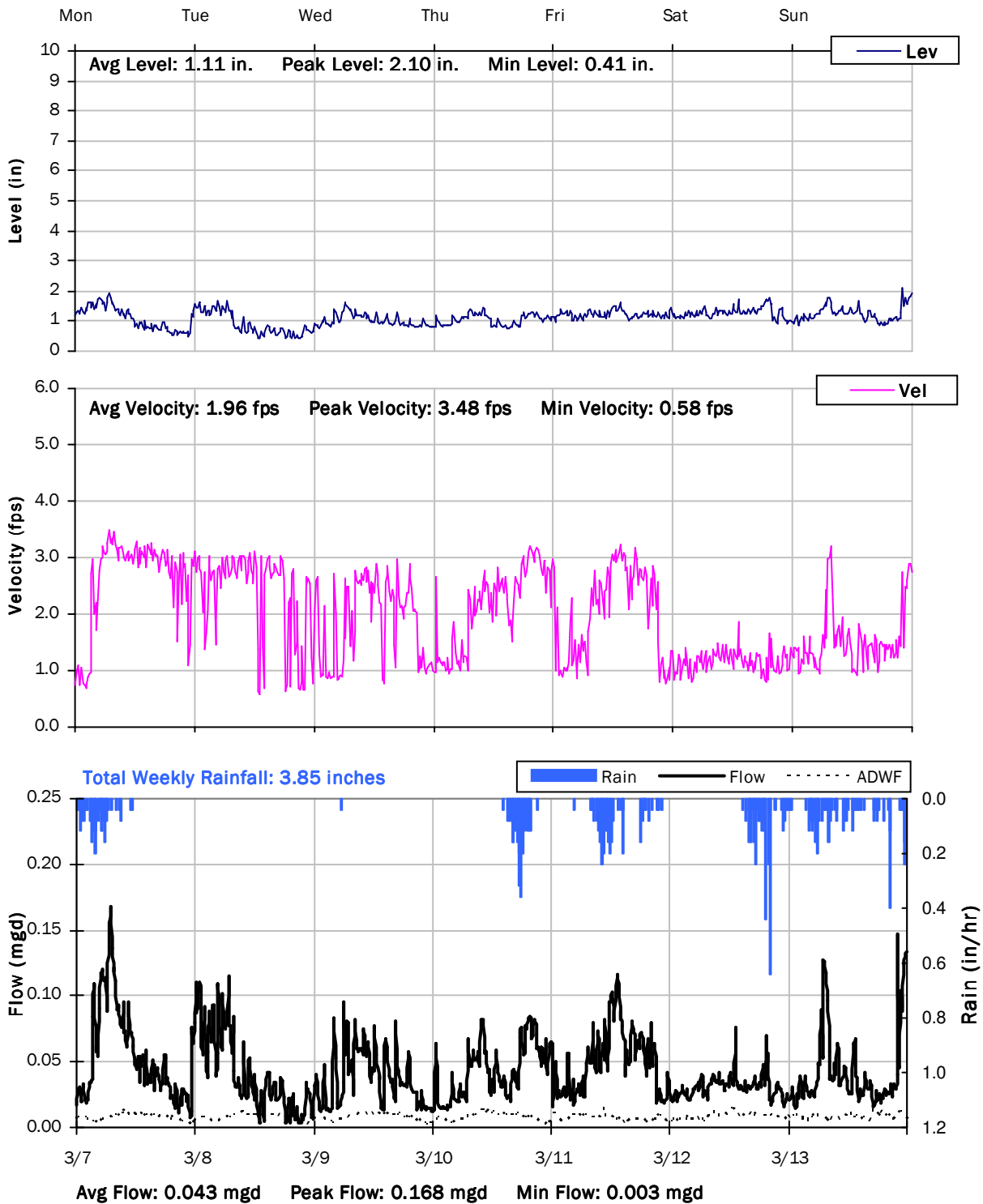
SITE 2
Weekly Level, Velocity and Flow Hydrographs
2/22/2016 to 2/29/2016



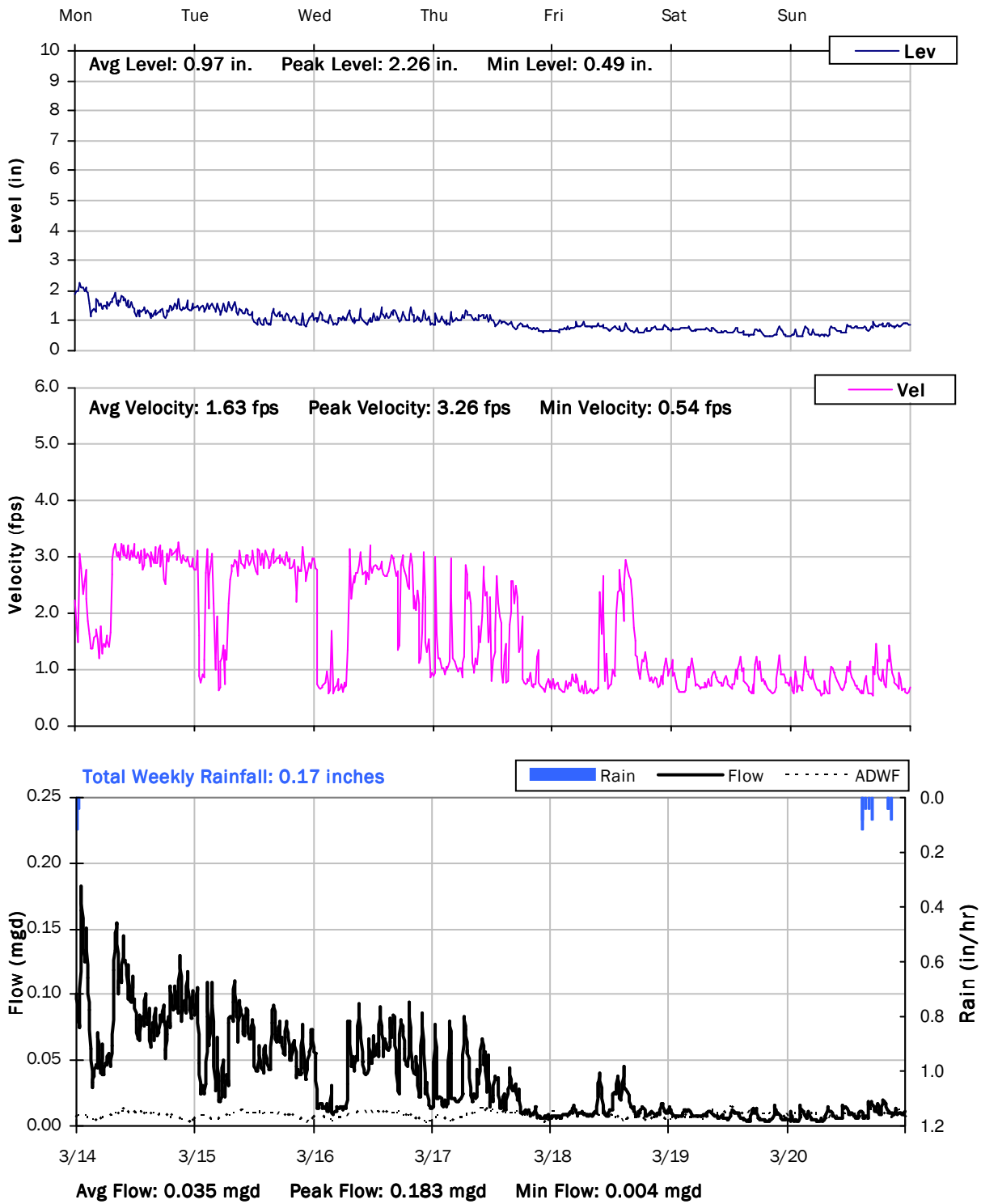
SITE 2
Weekly Level, Velocity and Flow Hydrographs
2/29/2016 to 3/7/2016



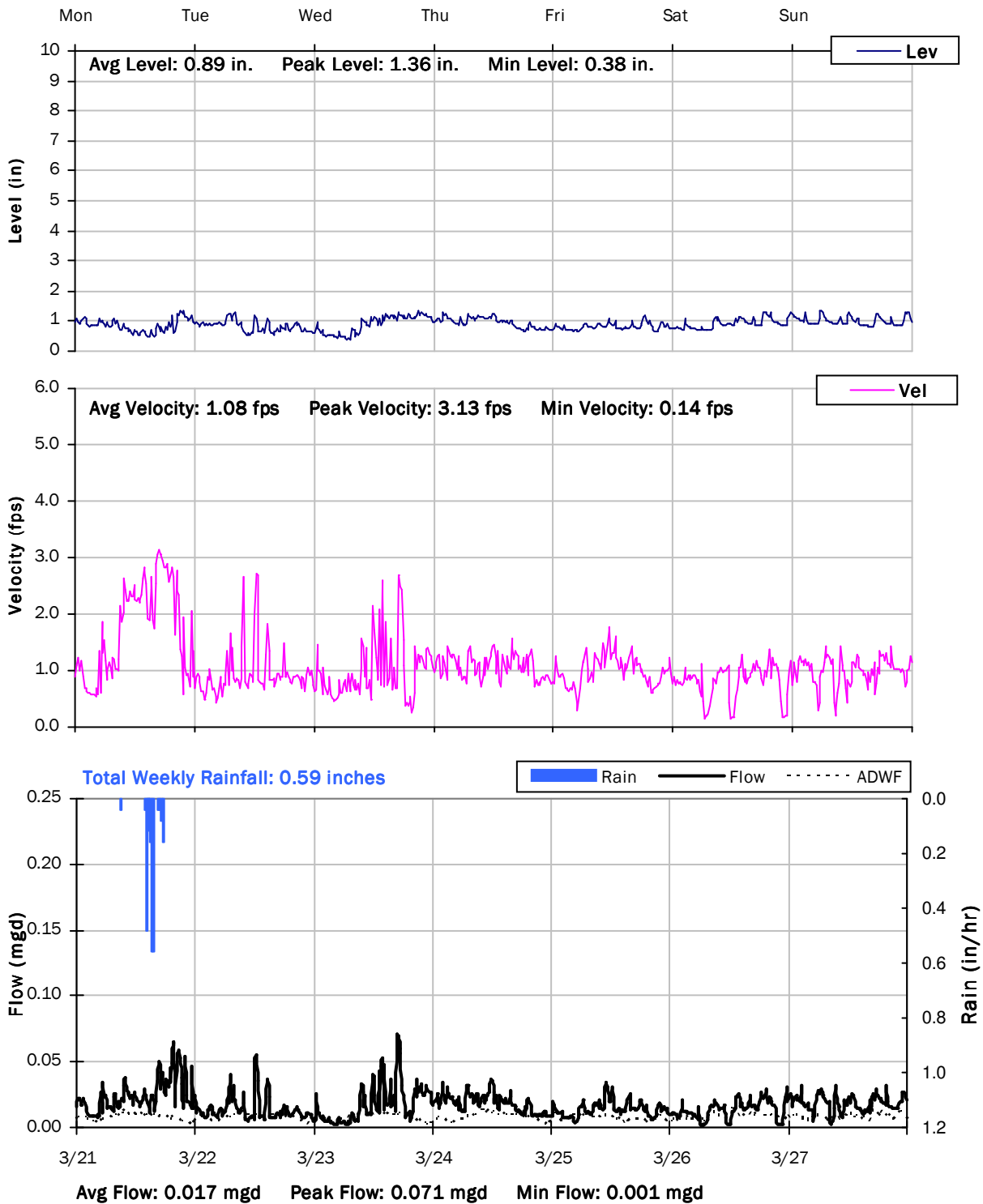
SITE 2
Weekly Level, Velocity and Flow Hydrographs
3/7/2016 to 3/14/2016



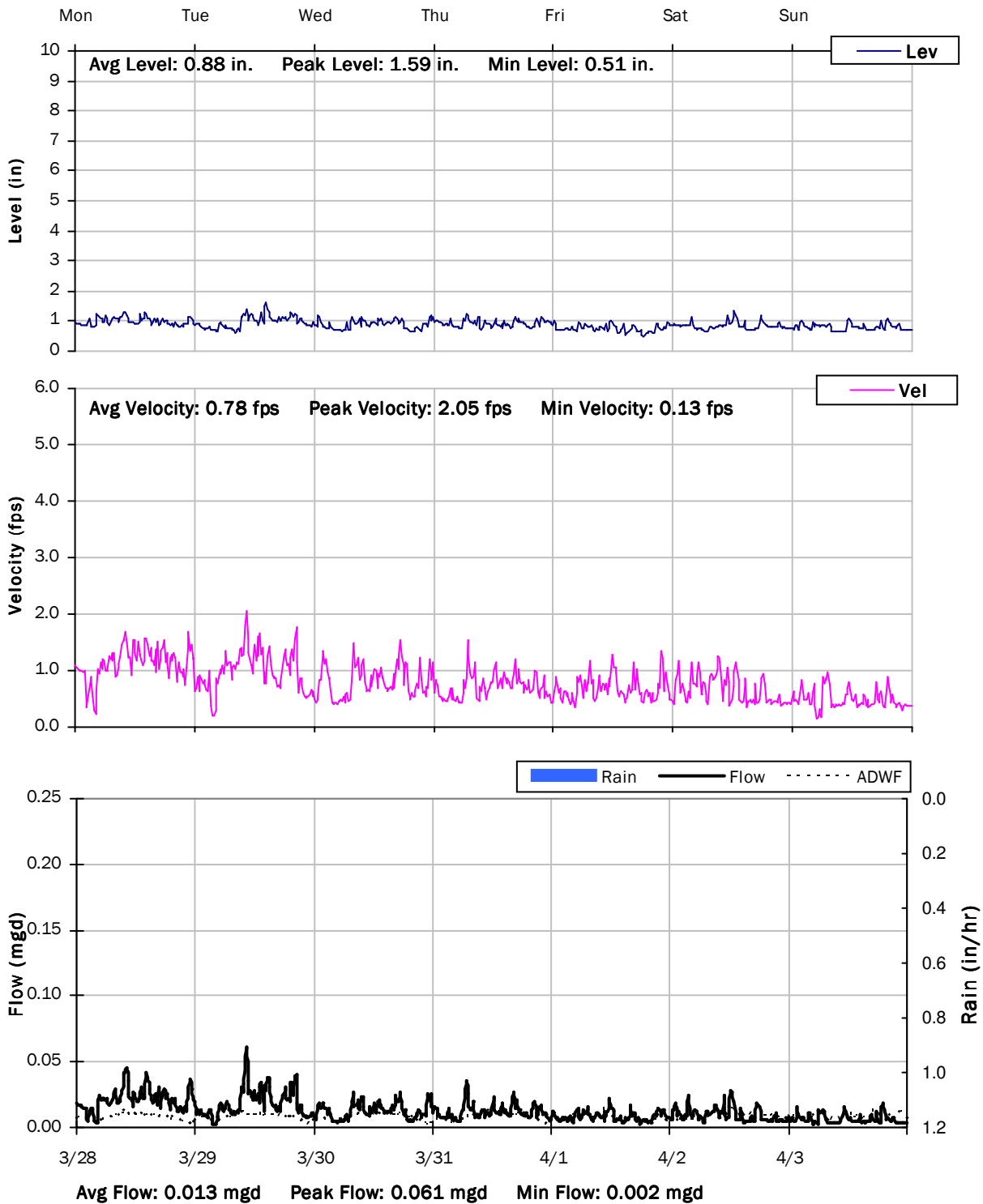
SITE 2
Weekly Level, Velocity and Flow Hydrographs
3/14/2016 to 3/21/2016



SITE 2
Weekly Level, Velocity and Flow Hydrographs
3/21/2016 to 3/28/2016



SITE 2
Weekly Level, Velocity and Flow Hydrographs
3/28/2016 to 4/4/2016



City of Lincoln

Sanitary Sewer Flow Monitoring

Temporary Monitoring: January 23 to April 3, 2016

Monitoring Site: Site 3

Location: Off road, approx. 850 ft NW of 2856 Nicolaus Road parking lot, nearest address 1297 Canvasback Cir.

Data Summary Report



Vicinity Map: Site 3

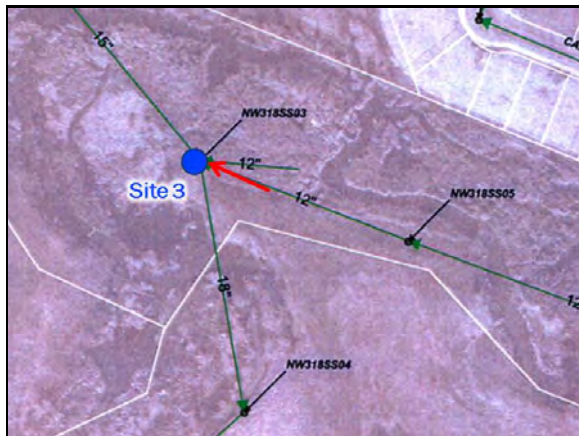
SITE 3

Site Information

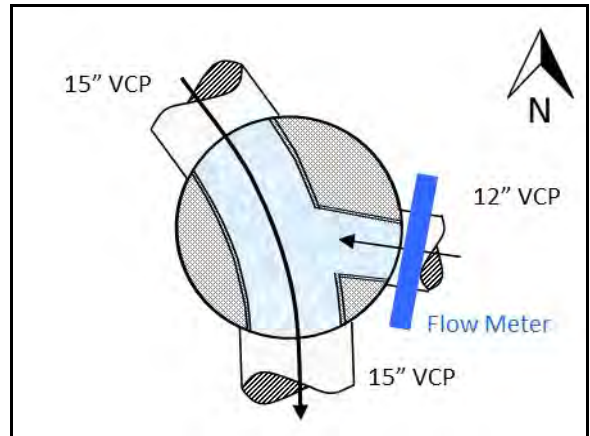
Location:	Off road, approx. 850 ft NW of 2856 Nicolaus Road parking lot, nearest address 1297 Canvasback Cir.
Coordinates:	121.3330° W, 38.8991° N
Rim Elevation (Earth):	116 feet
Pipe Diameter:	12 inches
ADWF:	0.086 mgd
Peak Measured Flow:	0.466 mgd



Satellite Map



Sanitary Map



Flow Sketch



Street View



Plan View

SITE 3

Additional Site Photos

Influent Pipe



Effluent Pipe



SITE 3

Additional Site Photos

Northwest Lateral



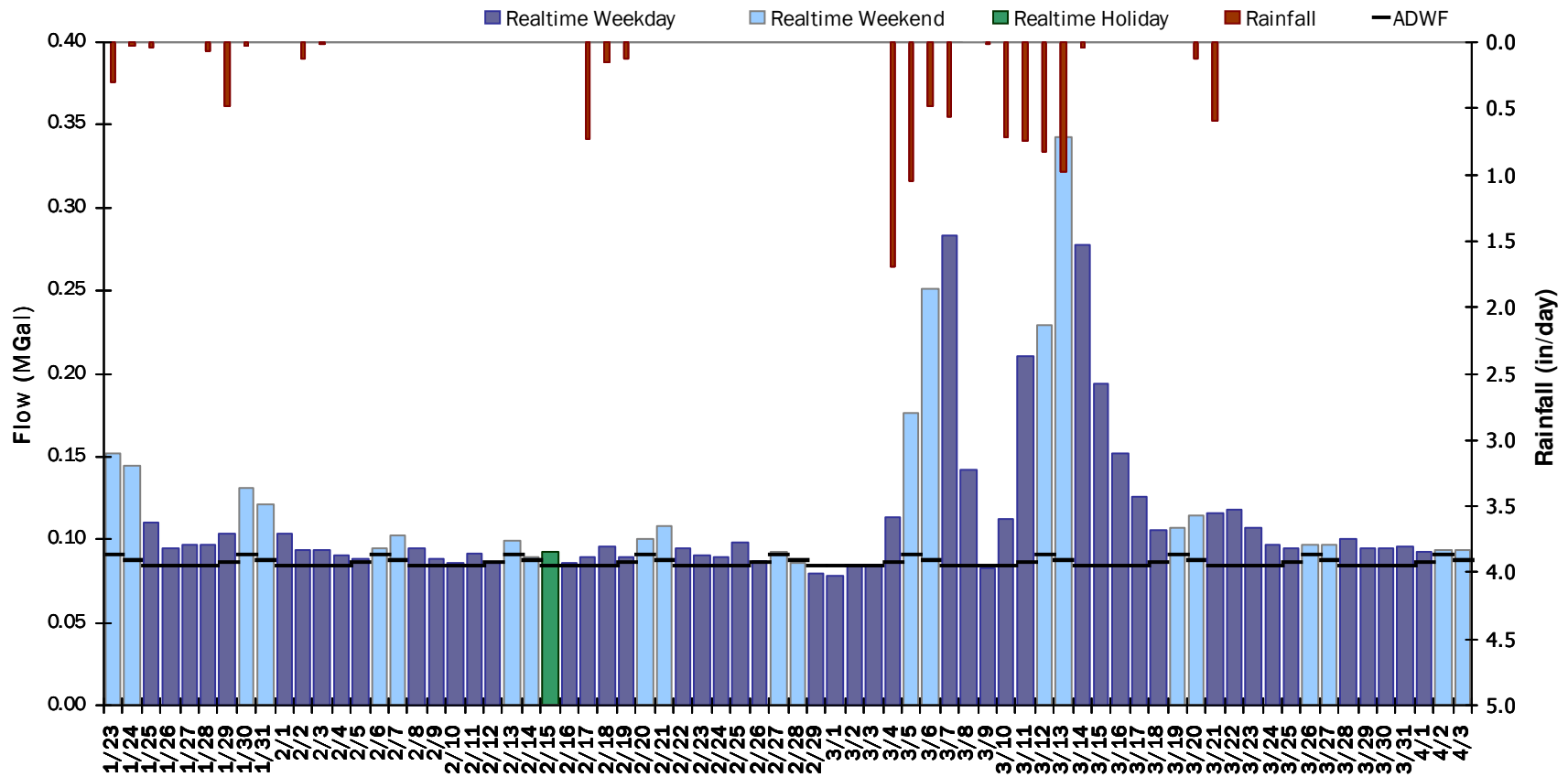


SITE 3

Period Flow Summary: Daily Flow Totals

Avg Period Flow: 0.116 MGal Peak Daily Flow: 0.342 MGal Min Daily Flow: 0.078 MGal

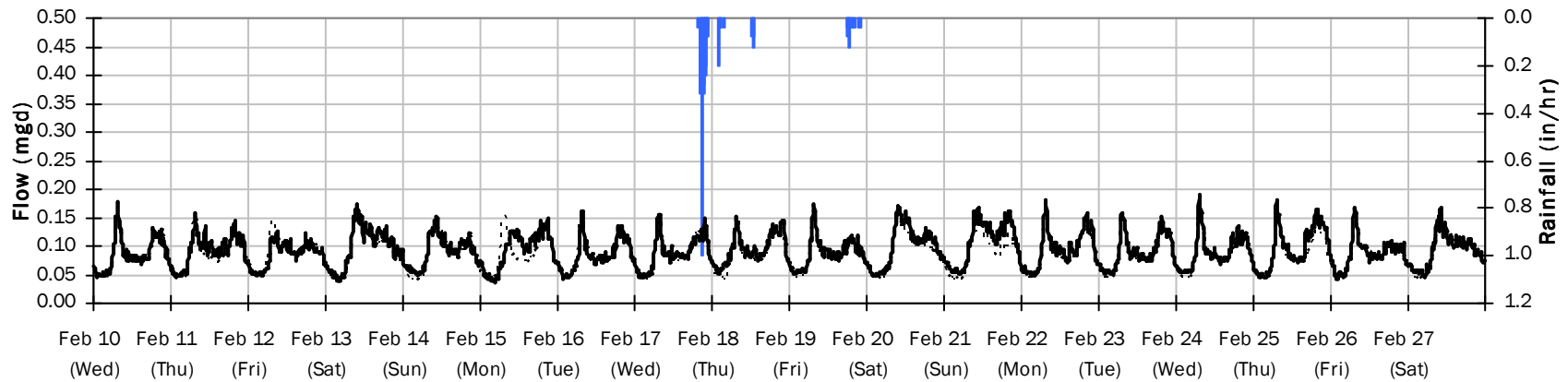
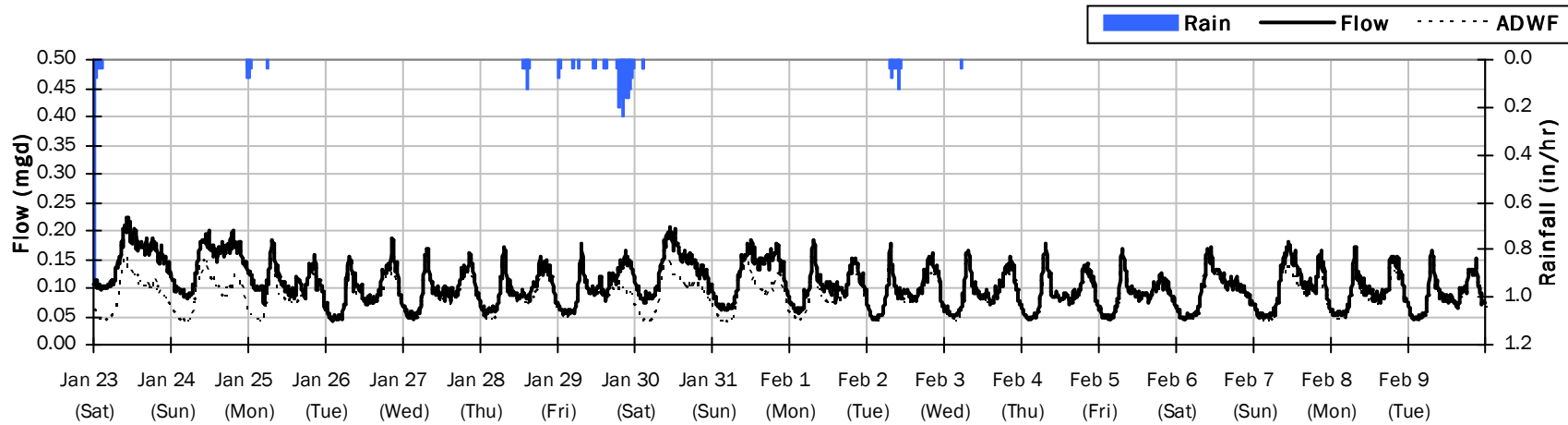
Total Period Rainfall: 9.91 inches



SITE 3

Flow Summary: 1/23/2016 to 2/27/2016

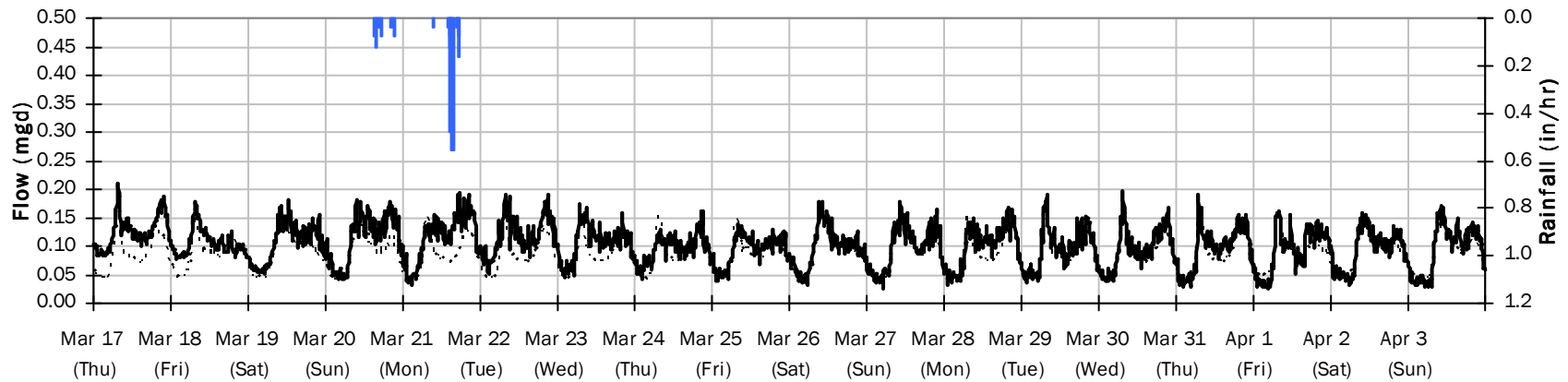
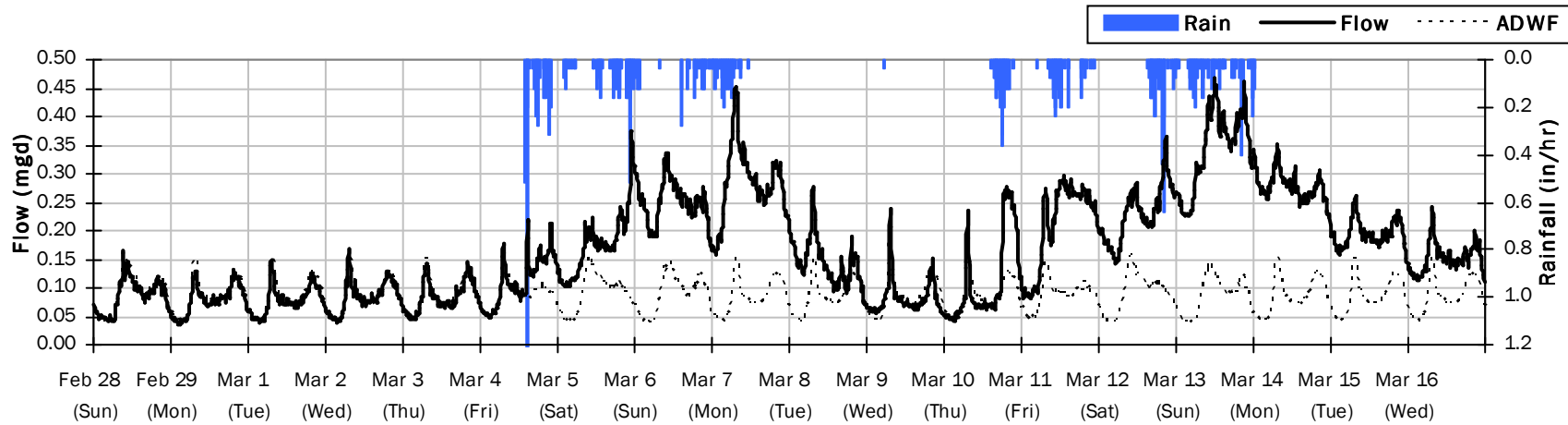
Total Period Rainfall: 2.08 inches Avg Flow: 0.099 mgd Peak Flow: 0.223 mgd Min Flow: 0.037 mgd



SITE 3

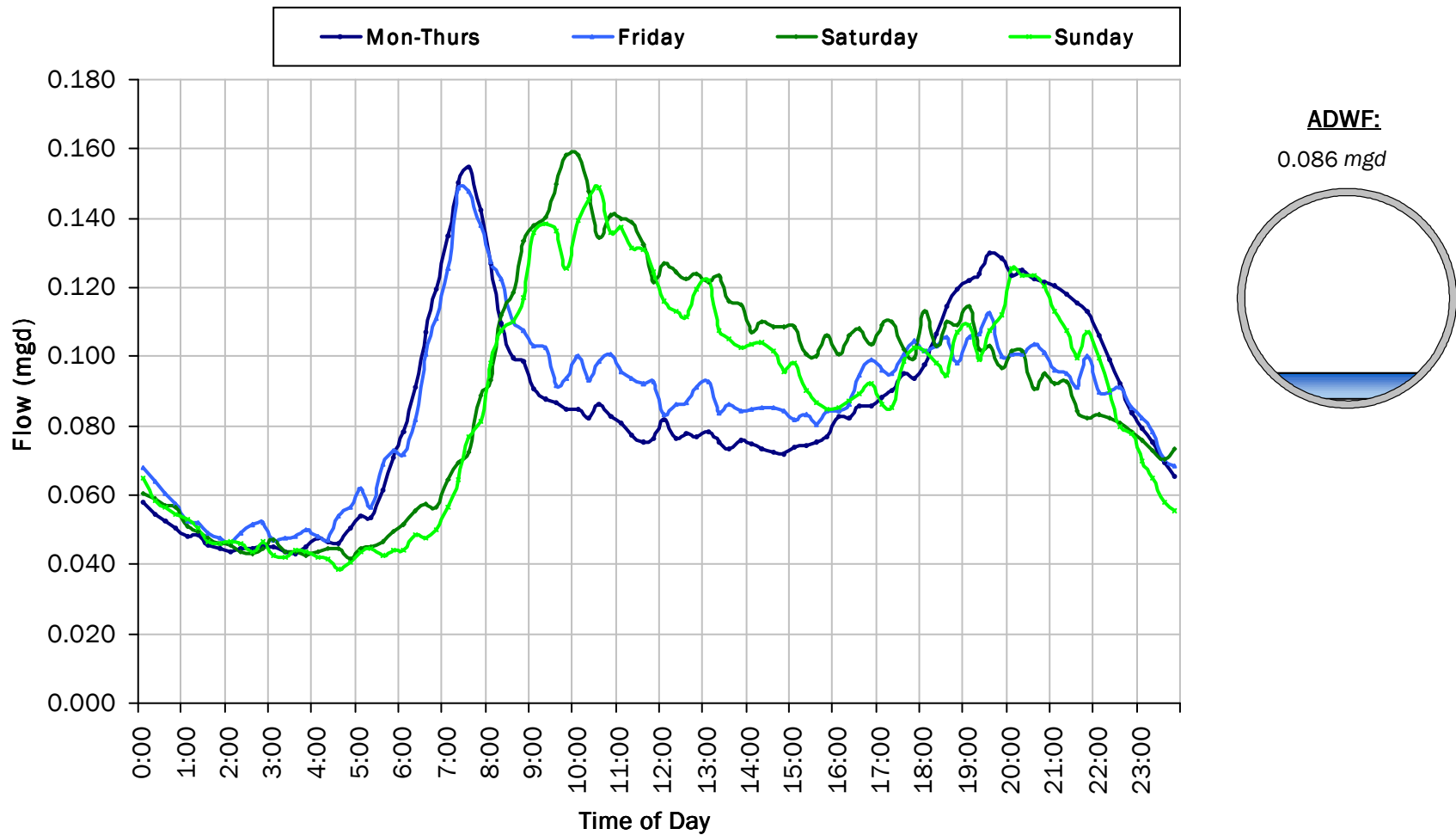
Flow Summary: 2/28/2016 to 4/3/2016

Total Period Rainfall: 7.83 inches Avg Flow: 0.134 mgd Peak Flow: 0.466 mgd Min Flow: 0.026 mgd



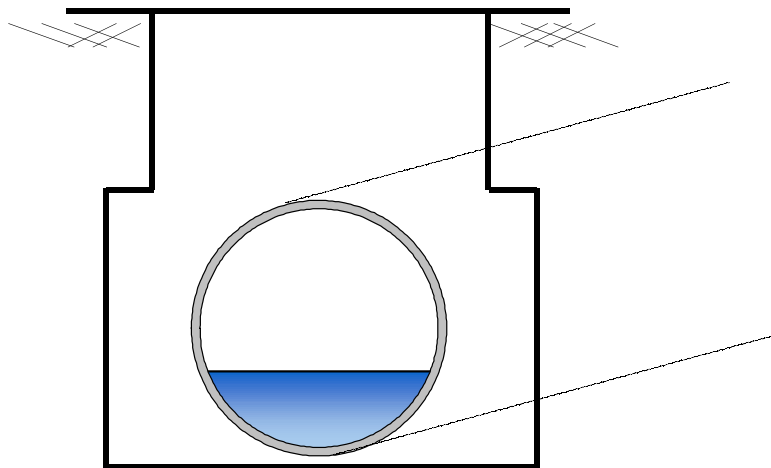
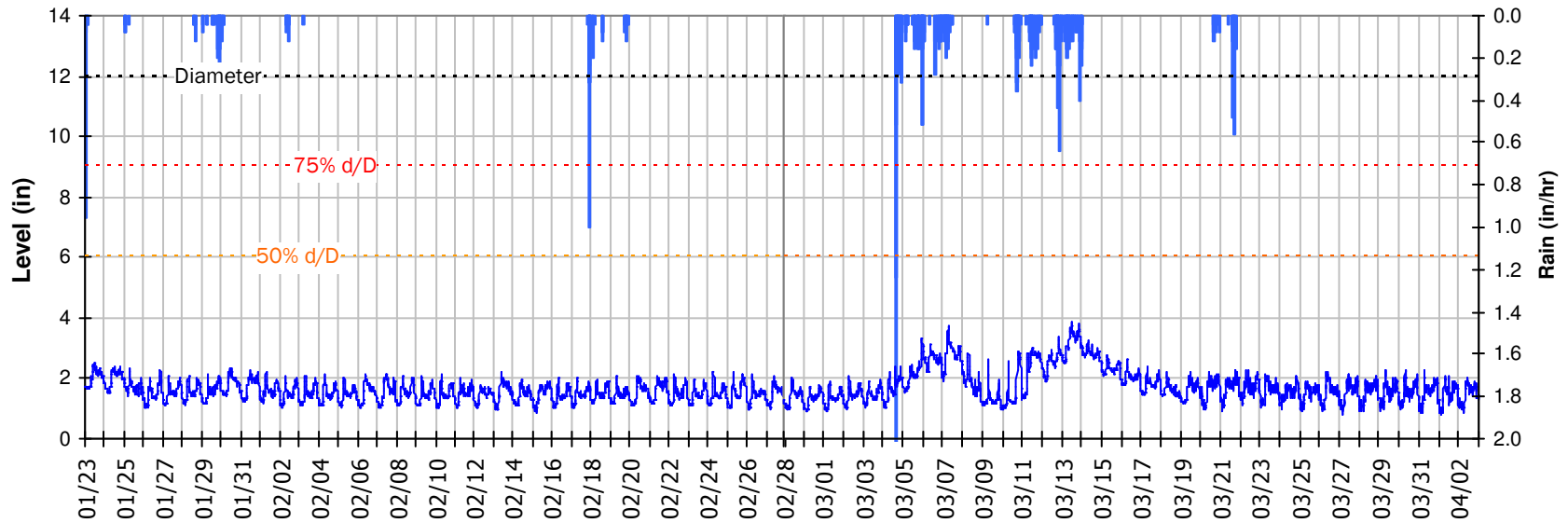
SITE 3

Average Dry Weather Flow Hydrographs



SITE 3
Site Capacity and Surge Summary

Realtime Flow Levels with Rainfall Data over Monitoring Period

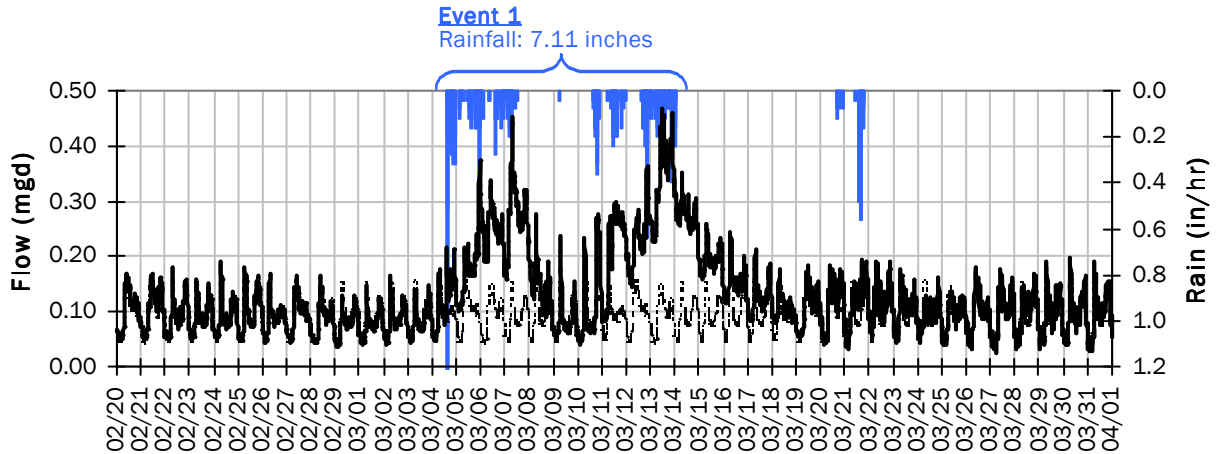


Pipe Diameter: 12 inches
Peak Measured Level: 3.88 inches
Peak d/D Ratio: 0.32

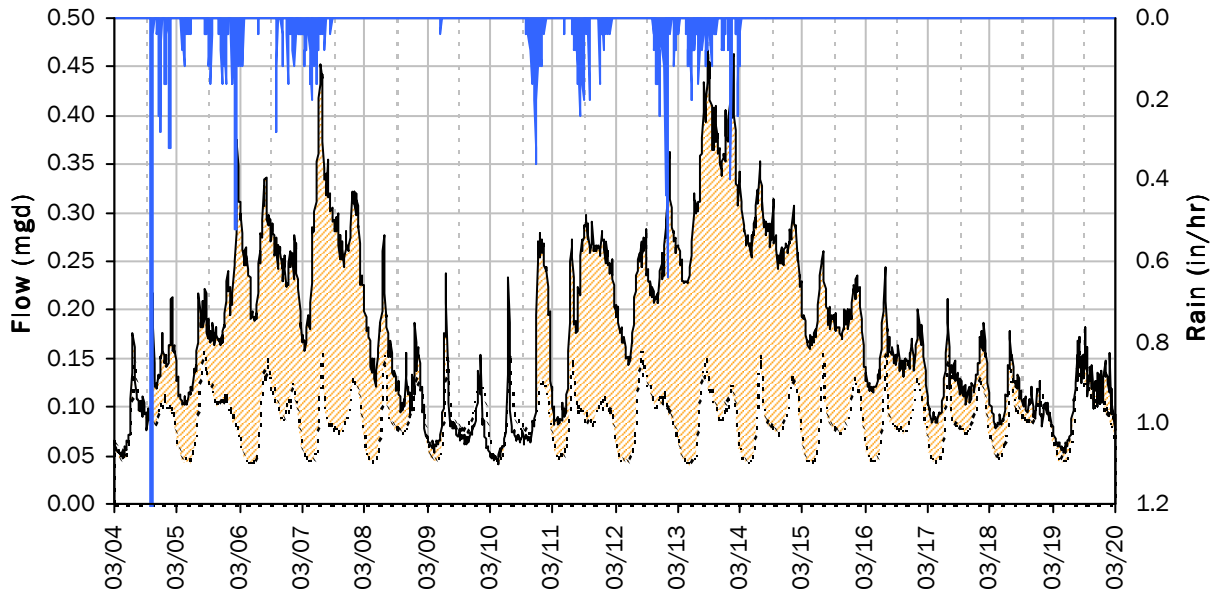
SITE 3

I/I Summary: Event 1

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



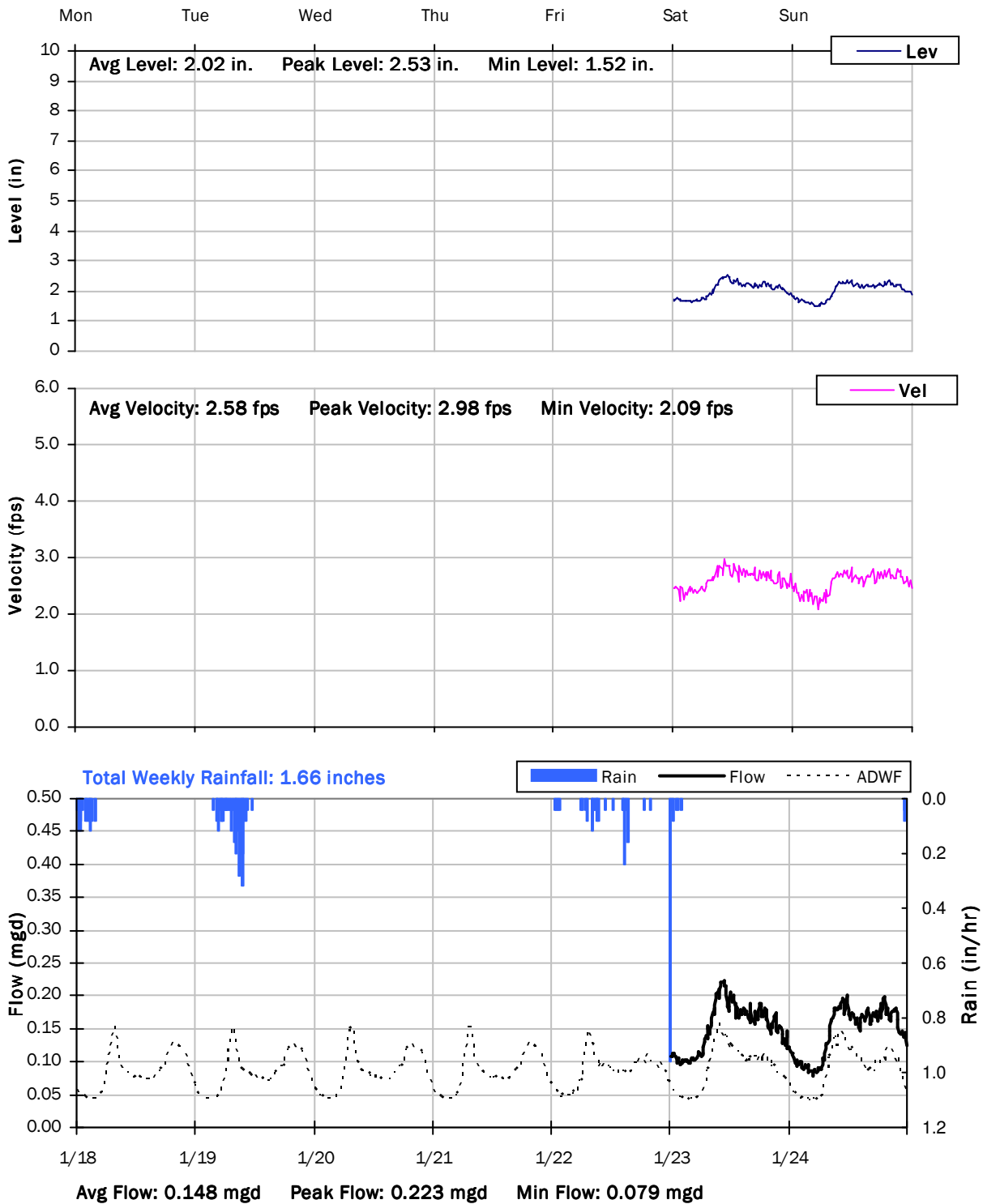
Event 1 Detail Graph



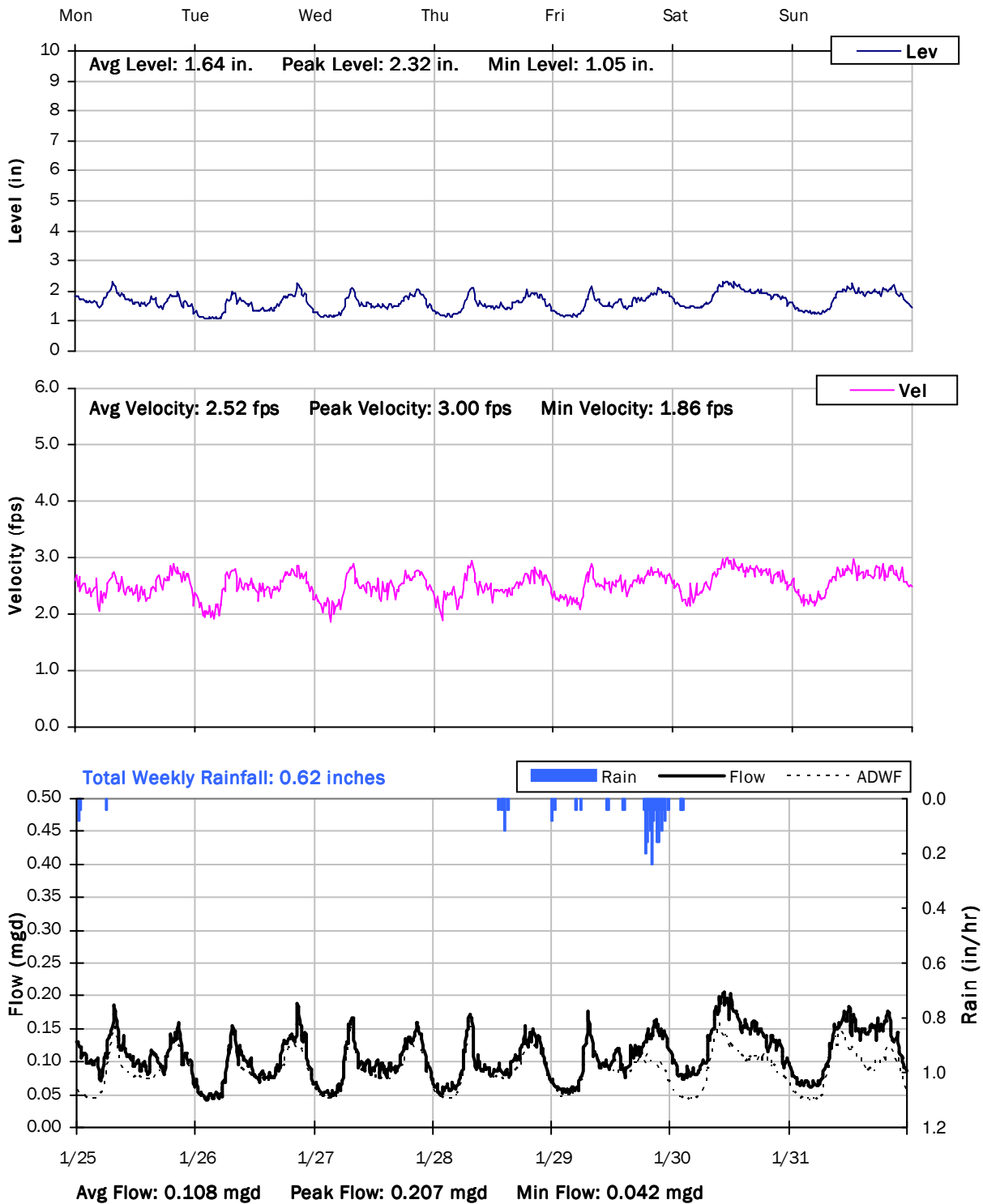
Storm Event I/I Analysis (Rain = 7.11 inches)

<u>Capacity</u>		<u>Inflow / Infiltration</u>	
Peak Flow:	0.47 mgd	Peak I/I Rate:	0.35 mgd
PF:	5.43	Total I/I:	1,524,000 gallons
Peak Level:	3.88 in		
d/D Ratio:	0.32		

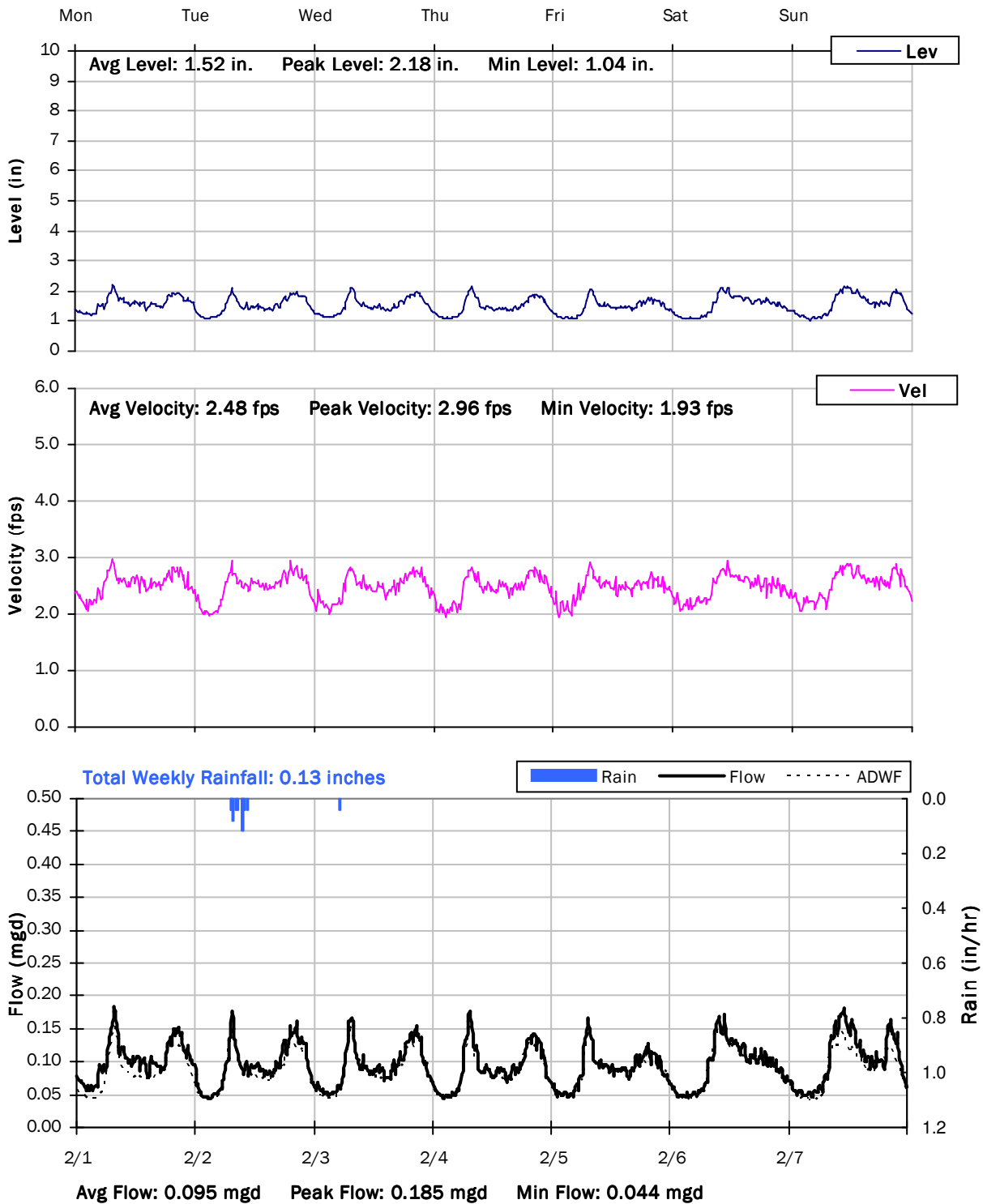
SITE 3
Weekly Level, Velocity and Flow Hydrographs
1/18/2016 to 1/25/2016



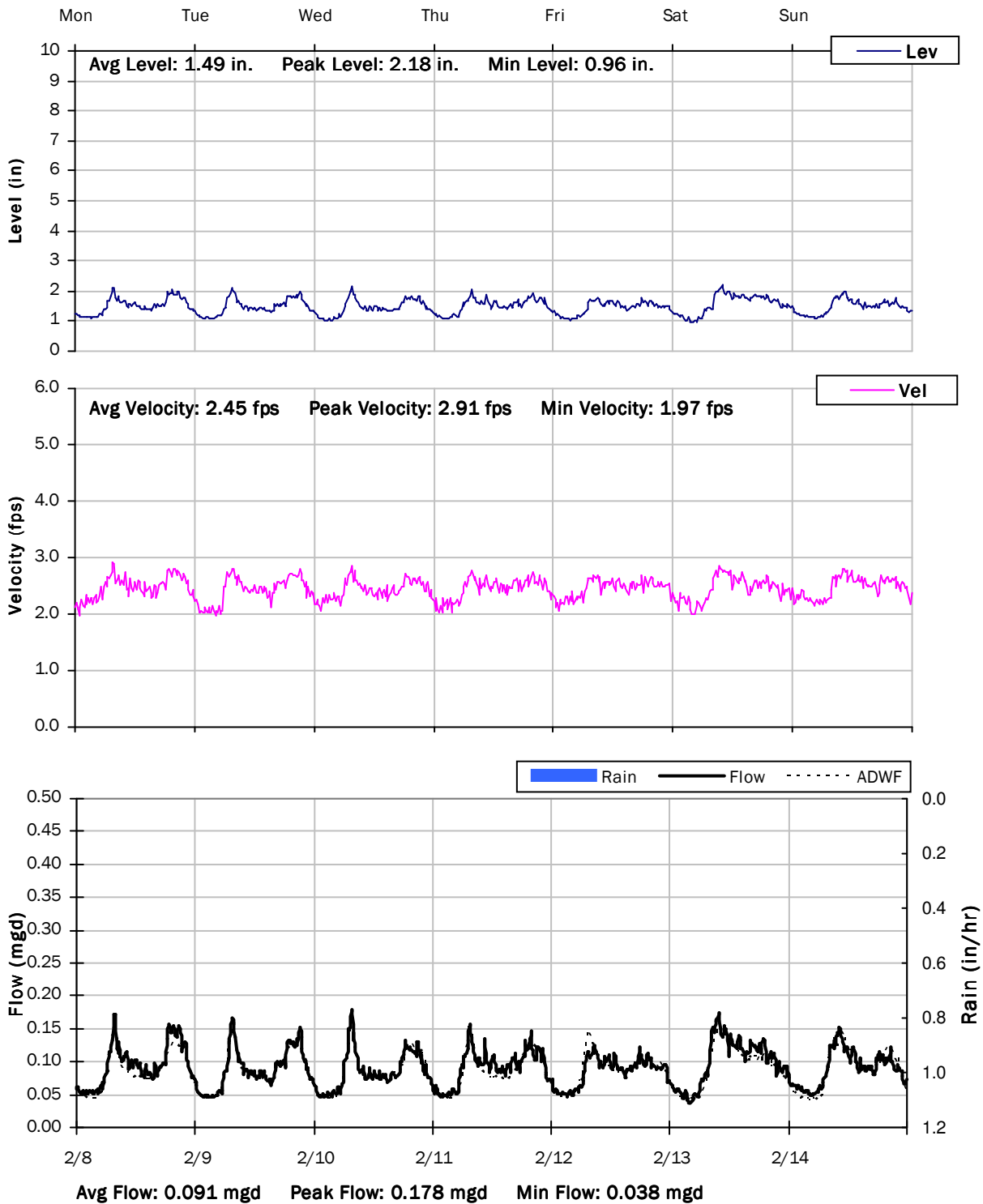
SITE 3
Weekly Level, Velocity and Flow Hydrographs
1/25/2016 to 2/1/2016



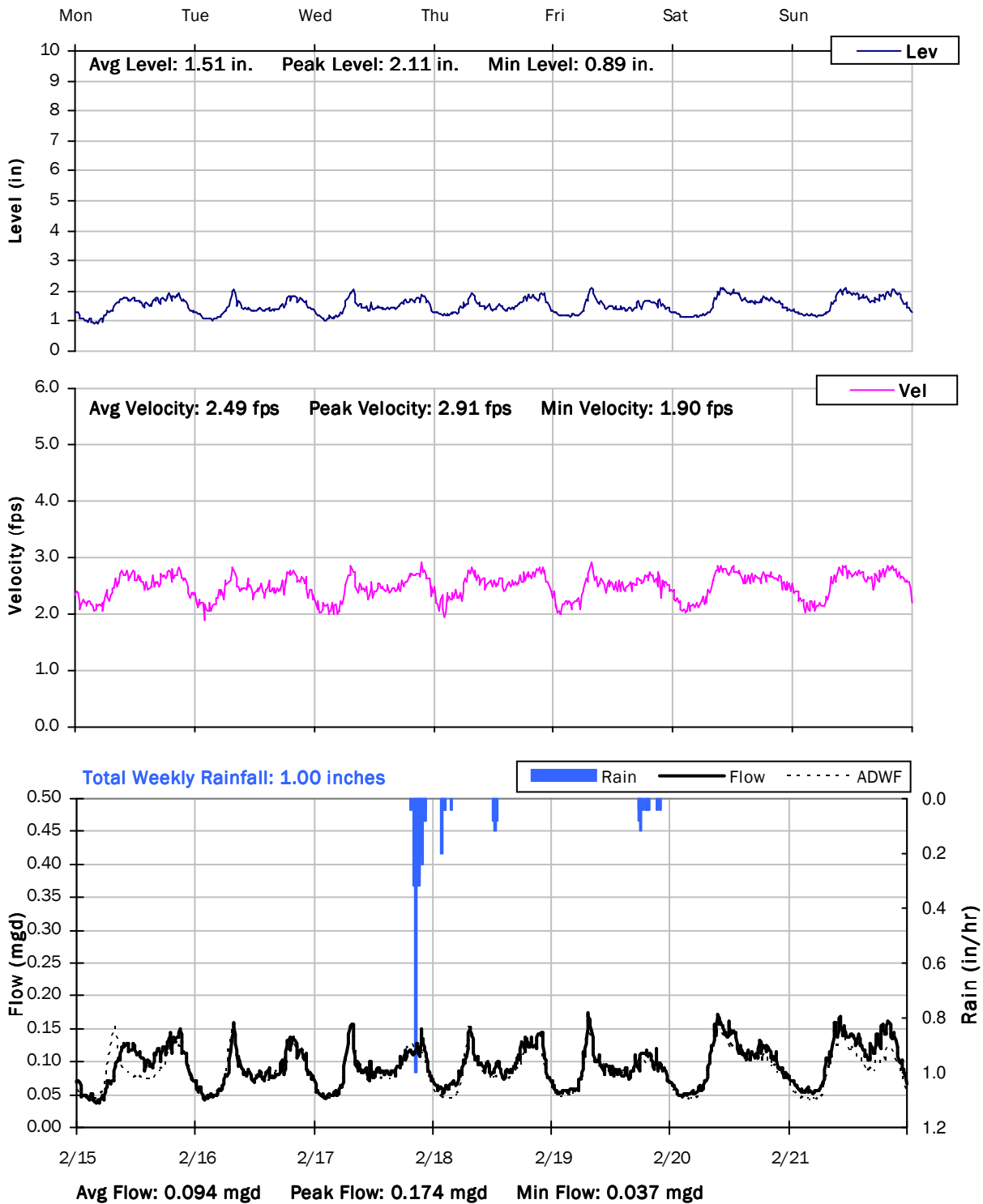
SITE 3
Weekly Level, Velocity and Flow Hydrographs
2/1/2016 to 2/8/2016



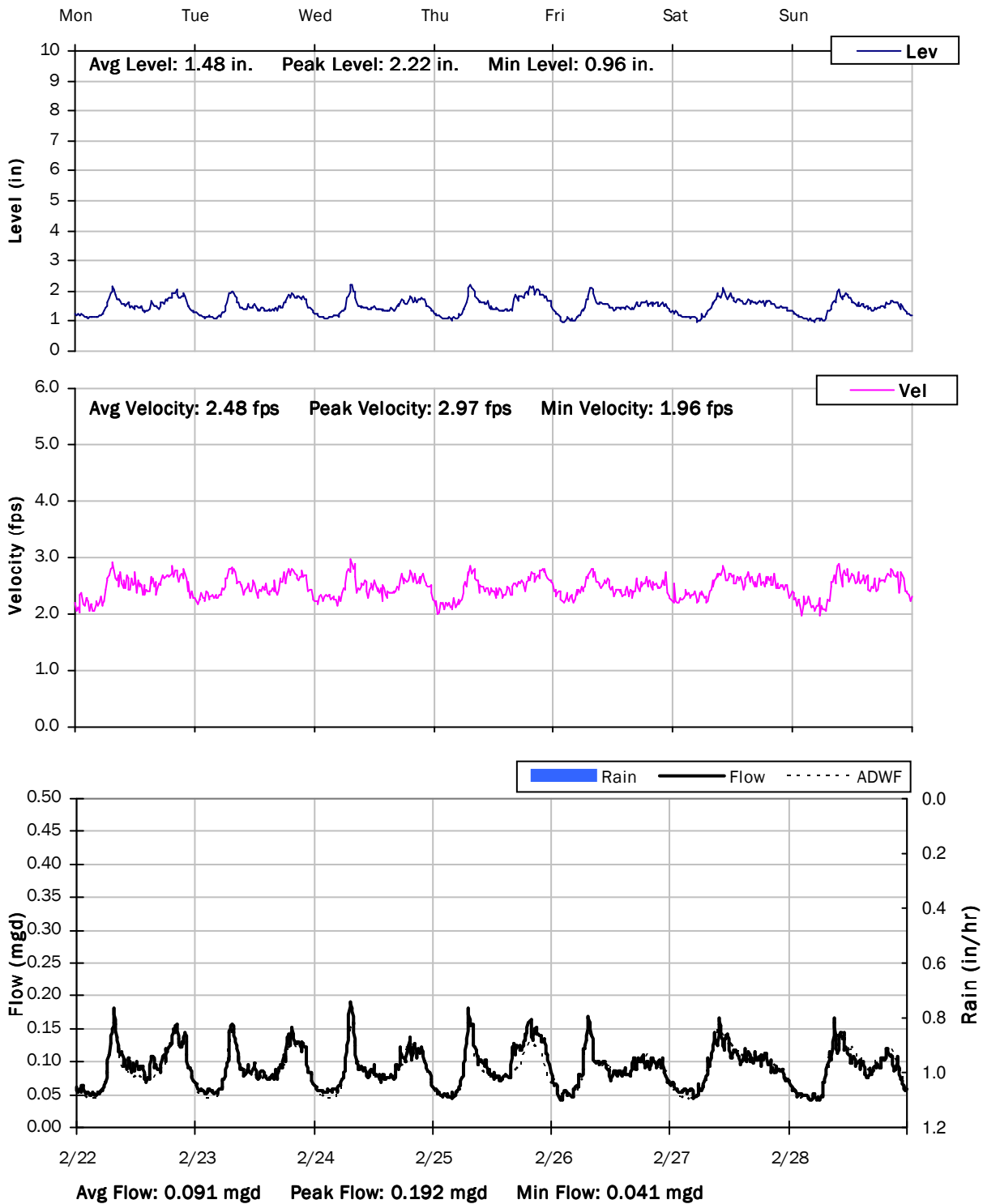
SITE 3
Weekly Level, Velocity and Flow Hydrographs
2/8/2016 to 2/15/2016



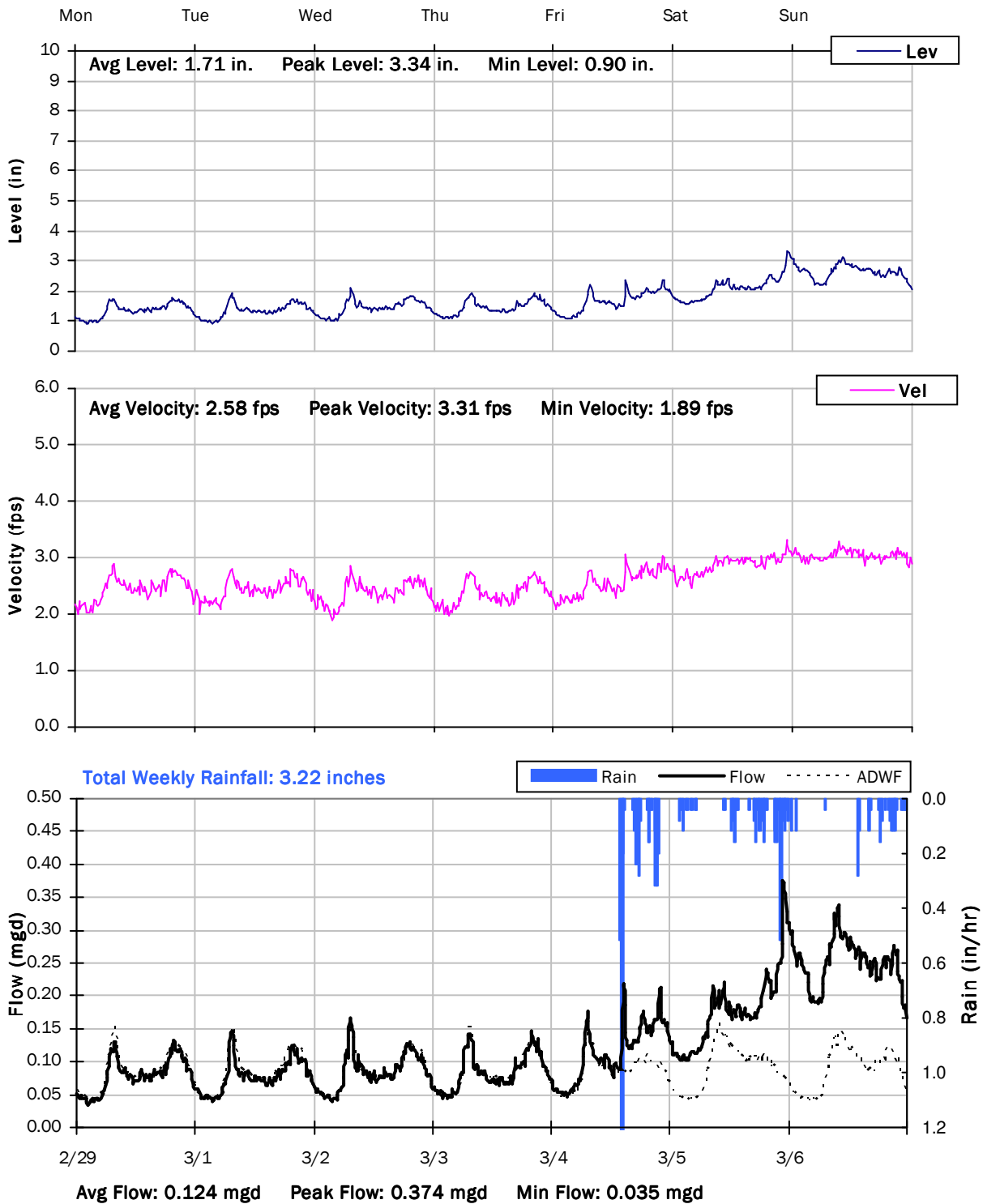
SITE 3
Weekly Level, Velocity and Flow Hydrographs
2/15/2016 to 2/22/2016



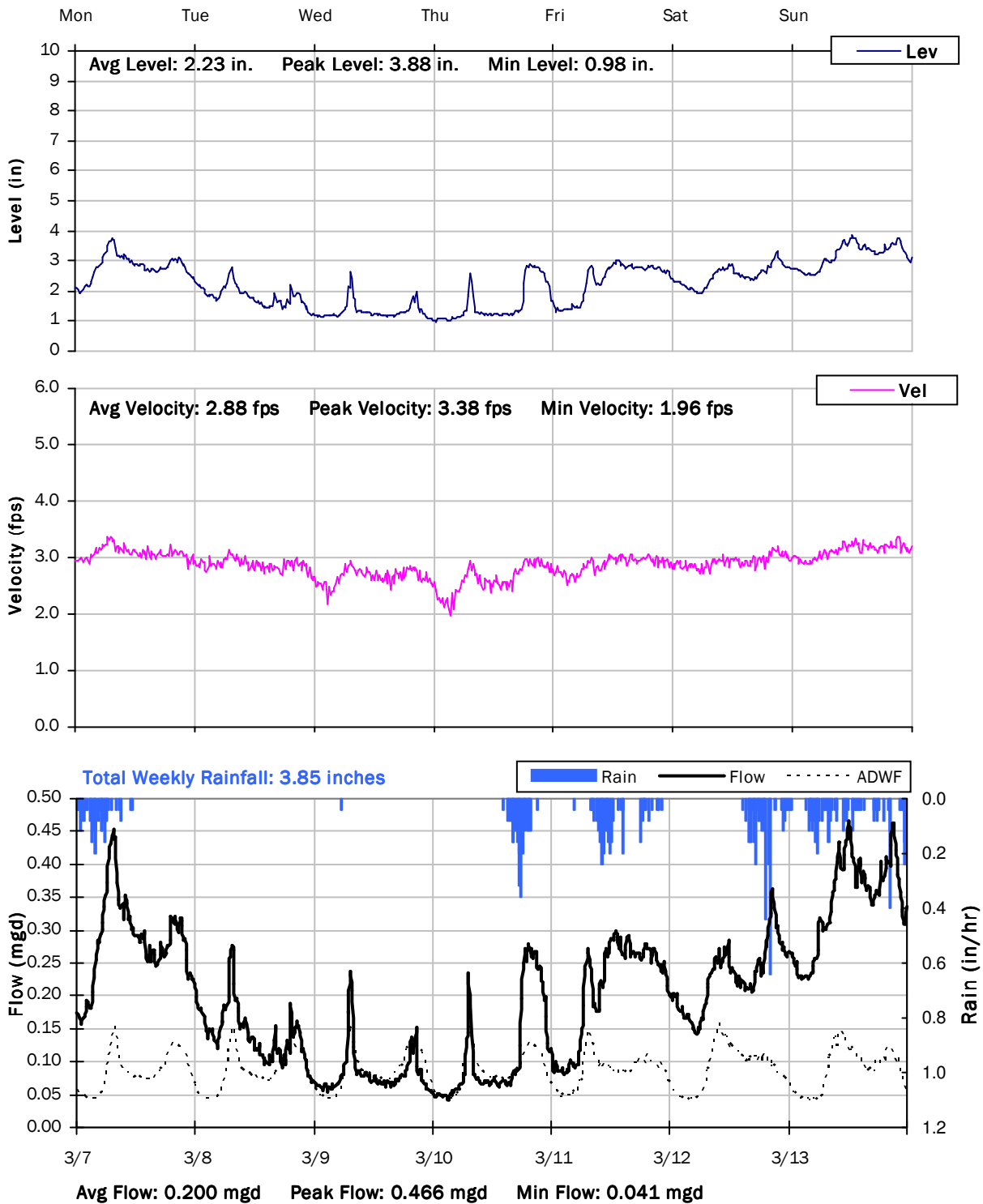
SITE 3
Weekly Level, Velocity and Flow Hydrographs
2/22/2016 to 2/29/2016



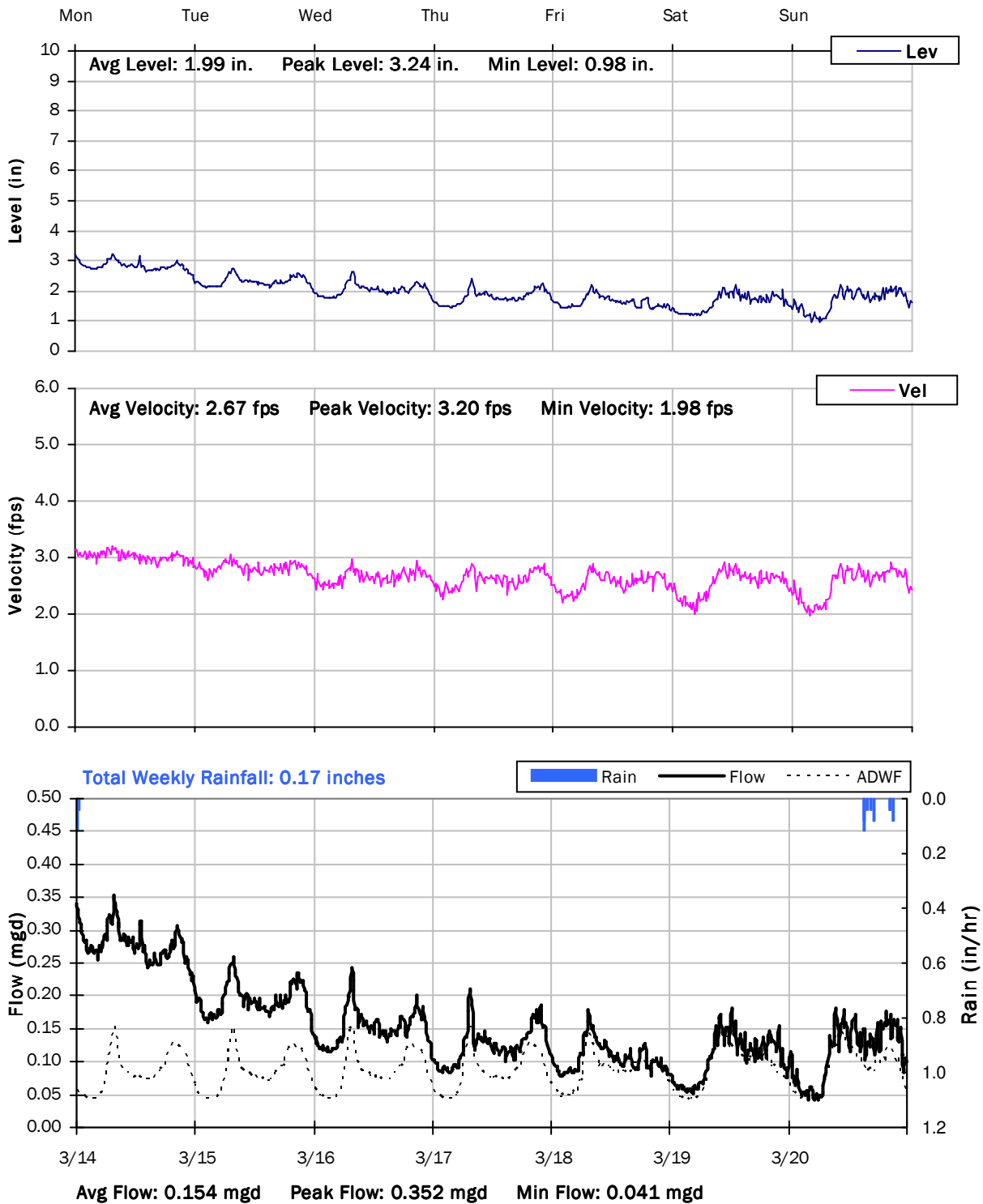
SITE 3
Weekly Level, Velocity and Flow Hydrographs
2/29/2016 to 3/7/2016



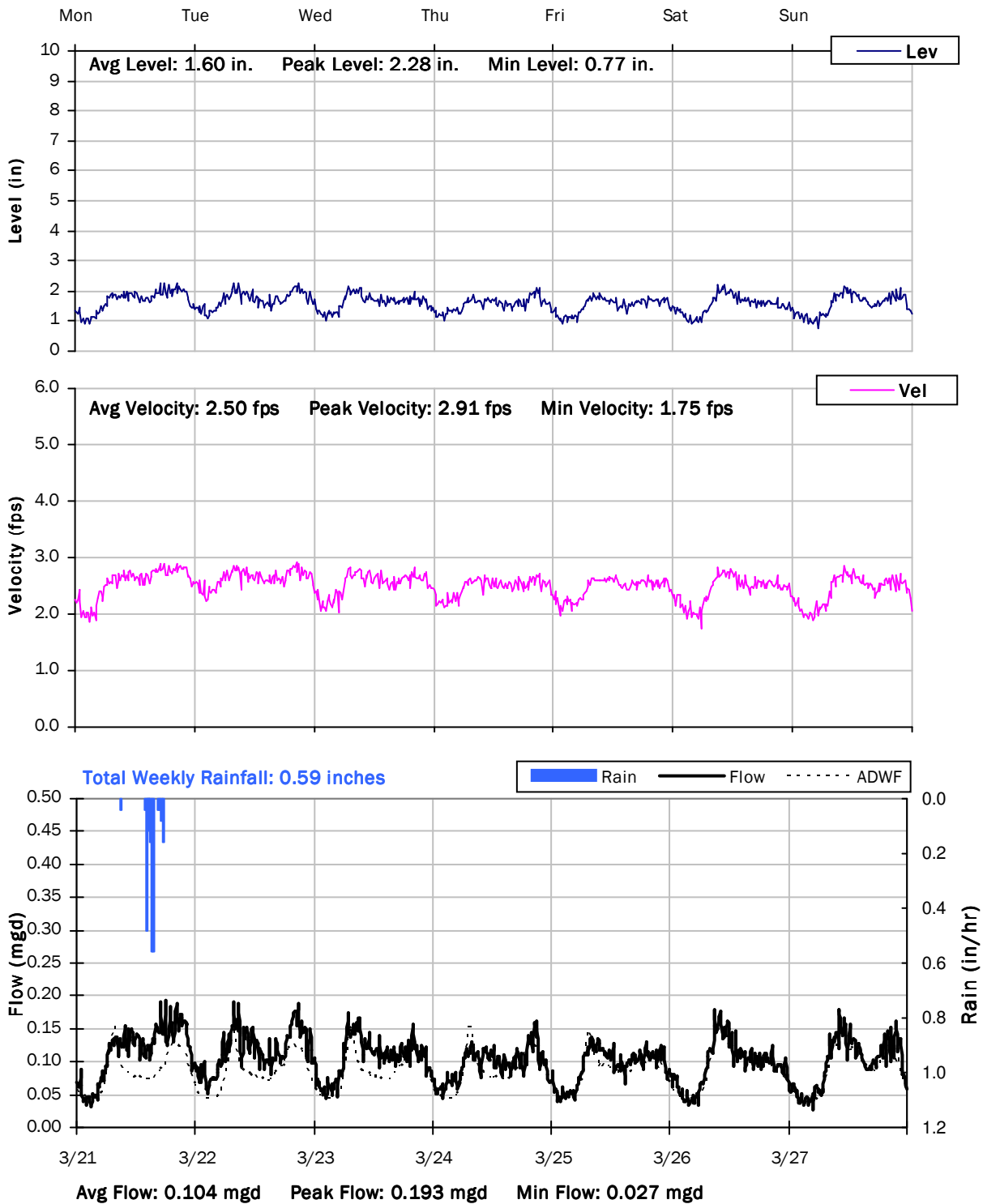
SITE 3
Weekly Level, Velocity and Flow Hydrographs
3/7/2016 to 3/14/2016



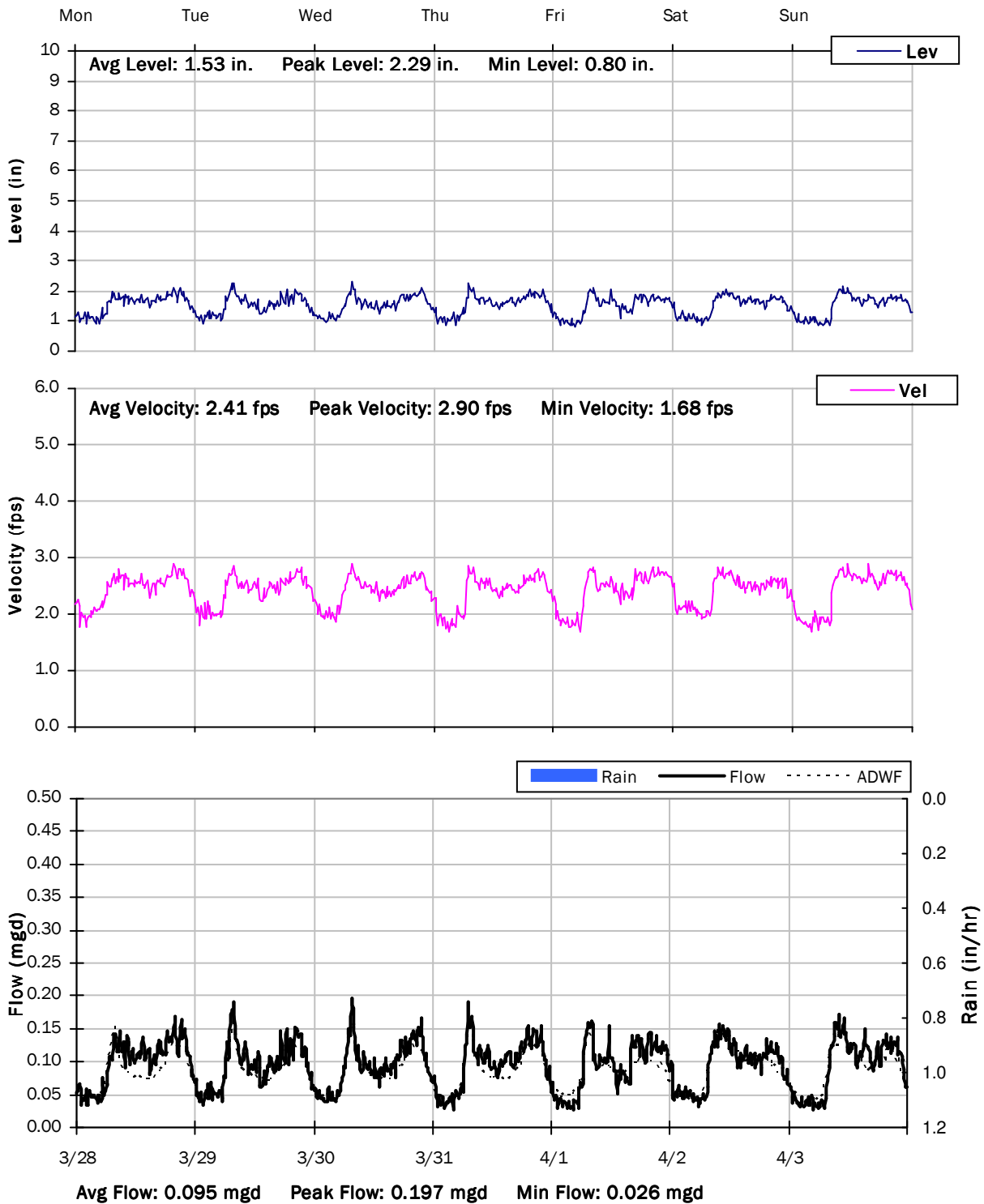
SITE 3
Weekly Level, Velocity and Flow Hydrographs
3/14/2016 to 3/21/2016



SITE 3
Weekly Level, Velocity and Flow Hydrographs
3/21/2016 to 3/28/2016



SITE 3
Weekly Level, Velocity and Flow Hydrographs
3/28/2016 to 4/4/2016



City of Lincoln

Sanitary Sewer Flow Monitoring

Temporary Monitoring: January 23 to April 3, 2016

Monitoring Site: Site 4

Location: Off road, approx. 450 ft east of 305-525 Business Park Dr.

Data Summary Report



Vicinity Map: Site 4

SITE 4

Site Information

Location: Off road, approx. 450 ft east of 305-525 Business Park Dr.

Coordinates: 121.3347° W, 38.9010° N

Rim Elevation (Earth): 122 feet

Pipe Diameter: 10 inches

ADWF: 0.016 mgd

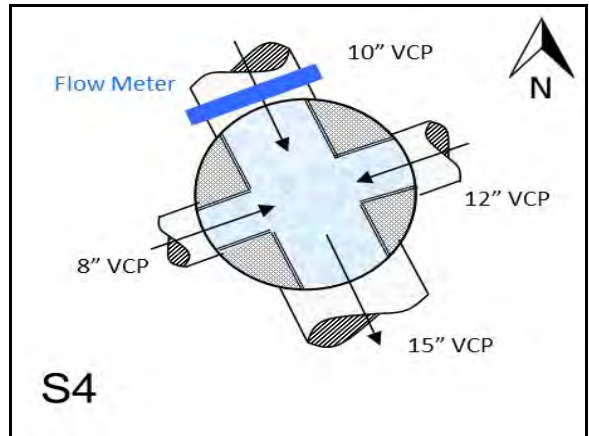
Peak Measured Flow: 0.153 mgd



Satellite Map



Sanitary Map



Flow Sketch



Street View



Plan View

SITE 4

Additional Site Photos

Influent Pipe



Effluent Pipe



SITE 4

Additional Site Photos

West Lateral

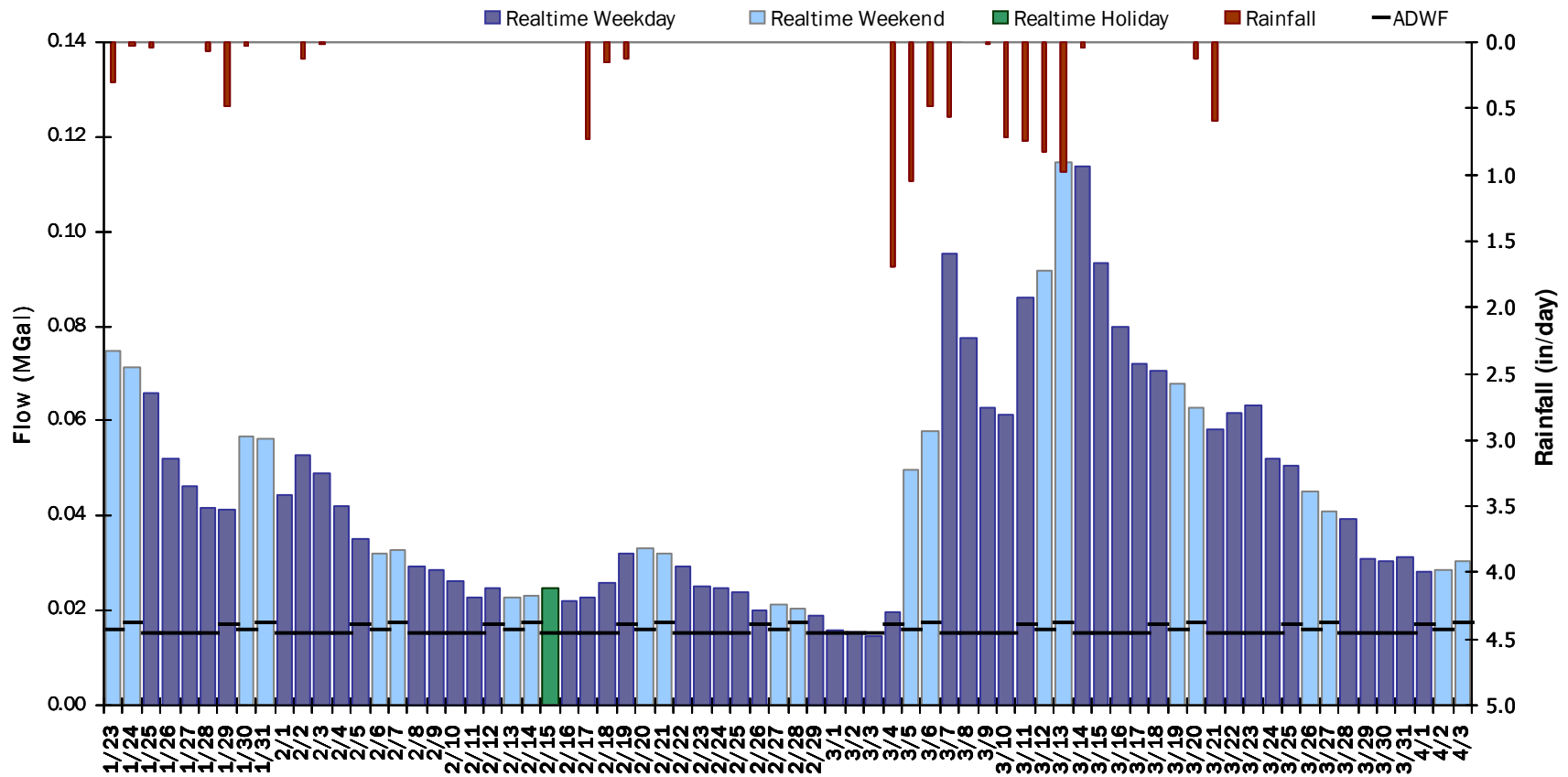


SITE 4

Period Flow Summary: Daily Flow Totals

Avg Period Flow: 0.045 MGal Peak Daily Flow: 0.115 MGal Min Daily Flow: 0.015 MGal

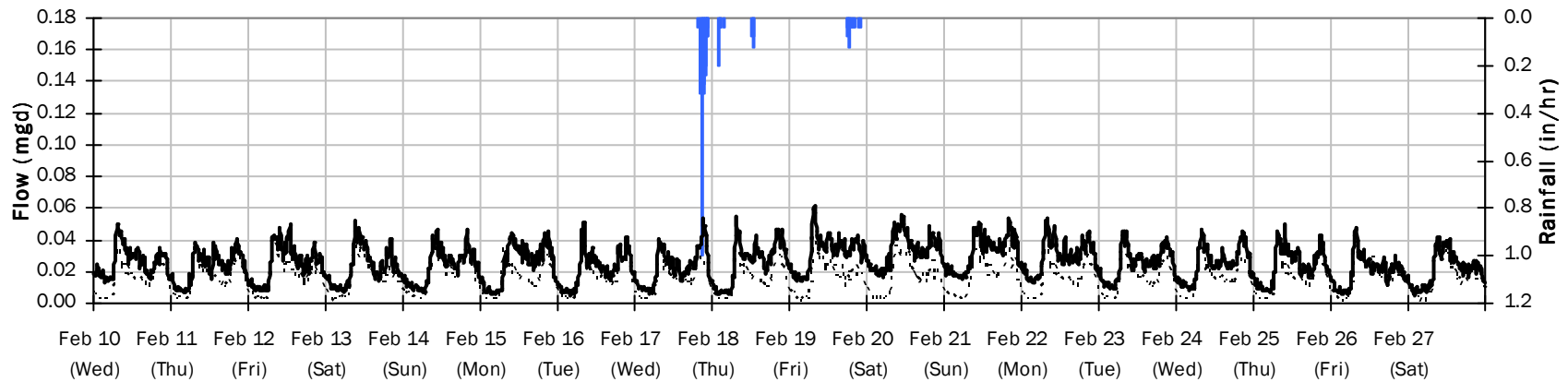
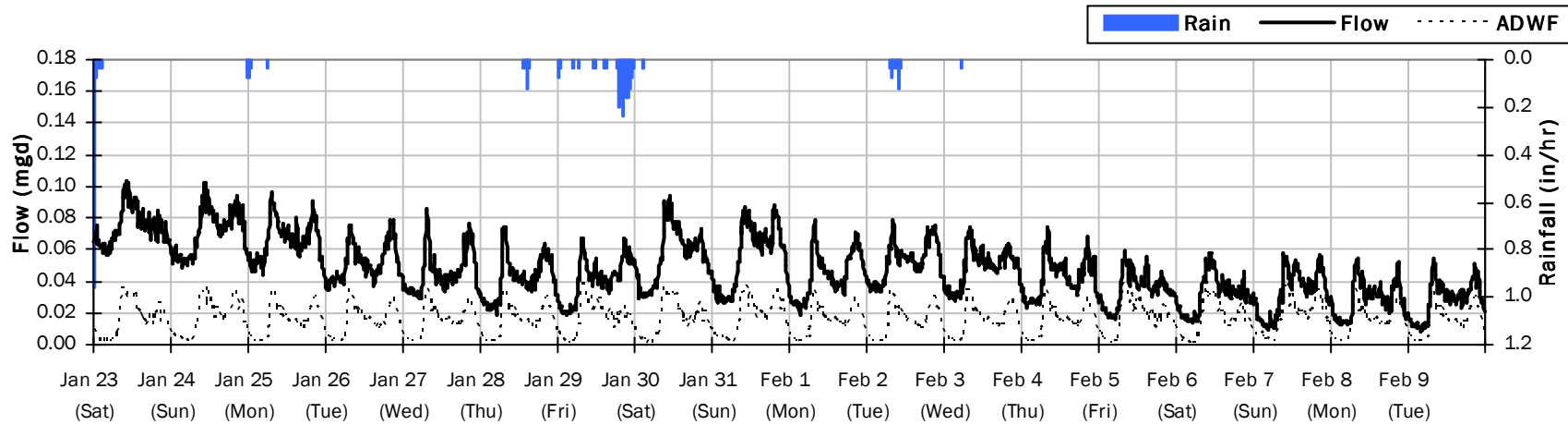
Total Period Rainfall: 9.91 inches



SITE 4

Flow Summary: 1/23/2016 to 2/27/2016

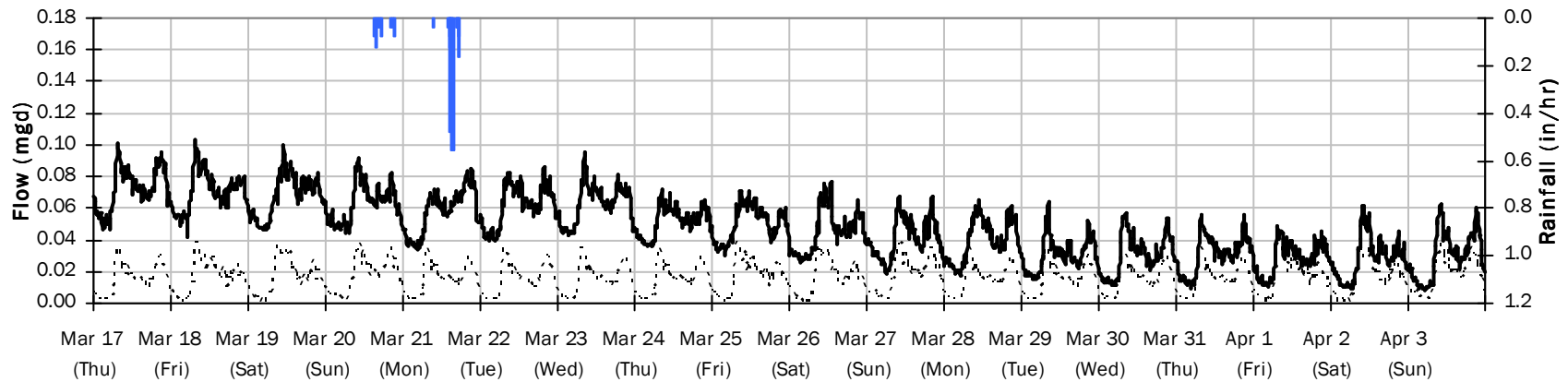
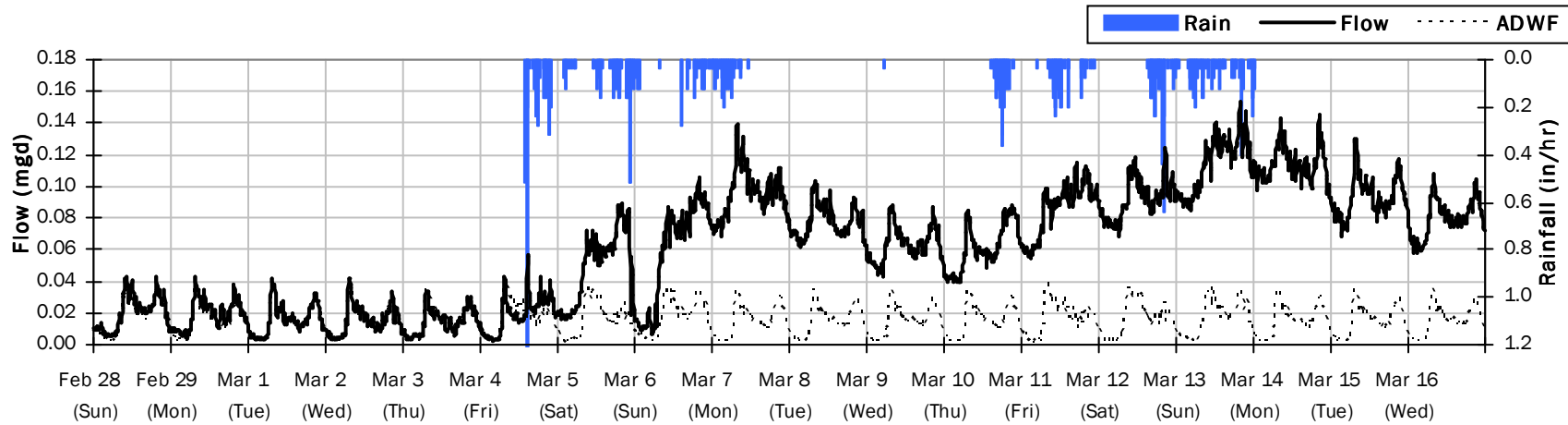
Total Period Rainfall: 2.08 inches Avg Flow: 0.036 mgd Peak Flow: 0.104 mgd Min Flow: 0.005 mgd



SITE 4

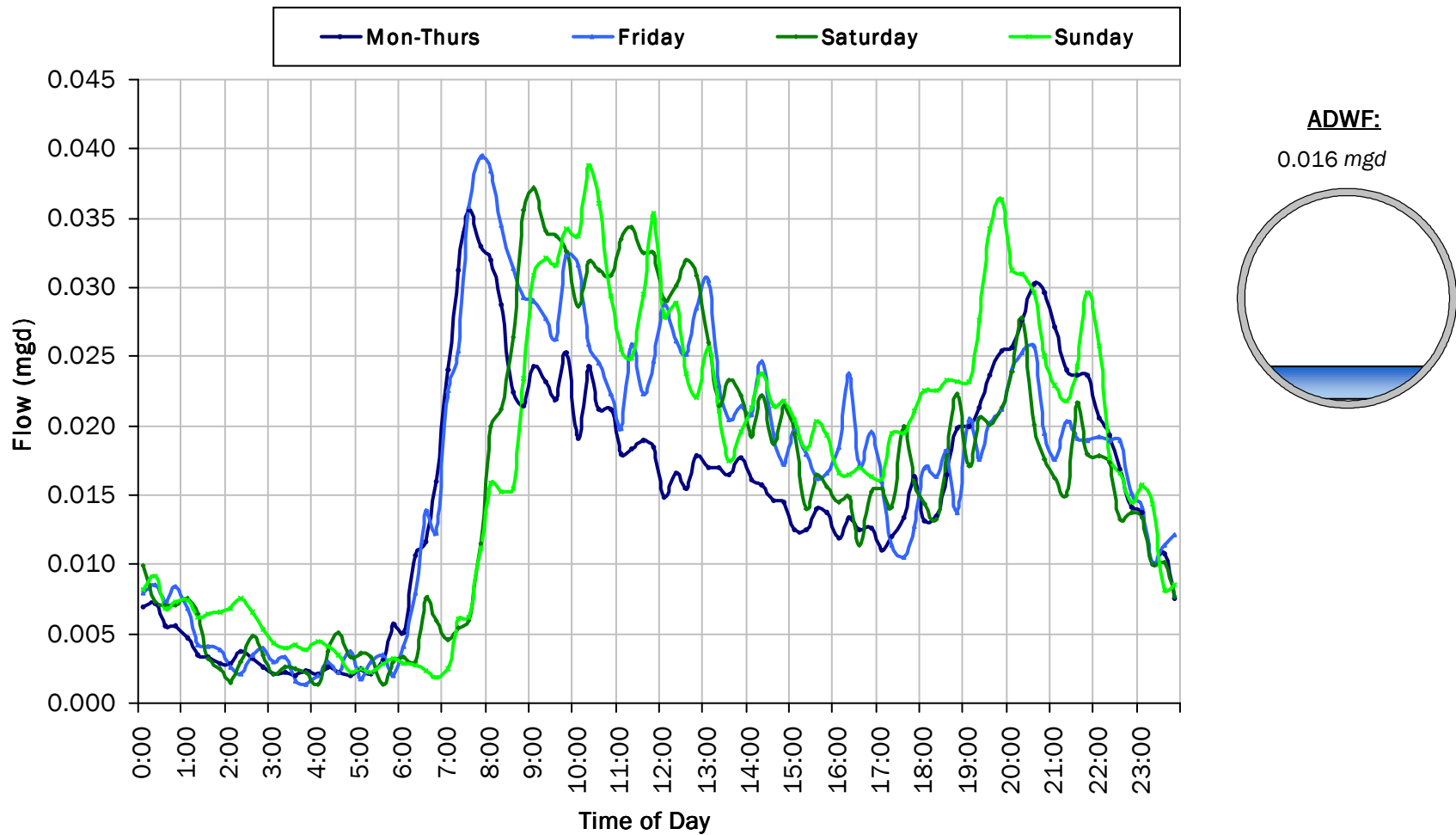
Flow Summary: 2/28/2016 to 4/3/2016

Total Period Rainfall: 7.83 inches Avg Flow: 0.054 mgd Peak Flow: 0.153 mgd Min Flow: 0.002 mgd



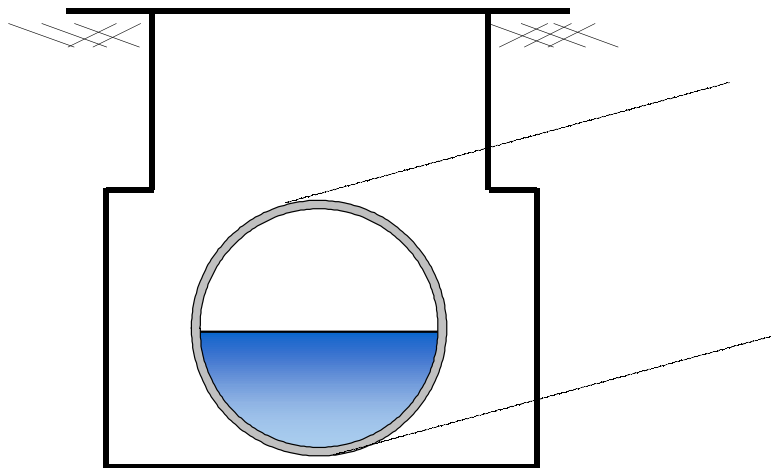
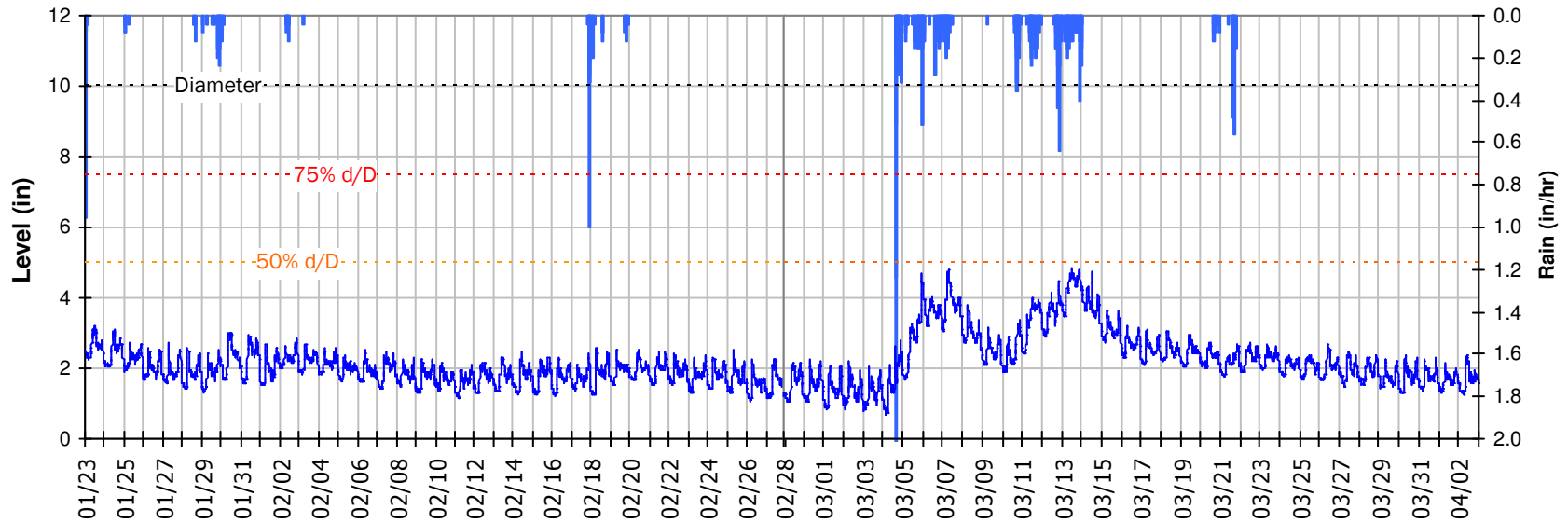
SITE 4

Average Dry Weather Flow Hydrographs



SITE 4
Site Capacity and Surge Summary

Realtime Flow Levels with Rainfall Data over Monitoring Period

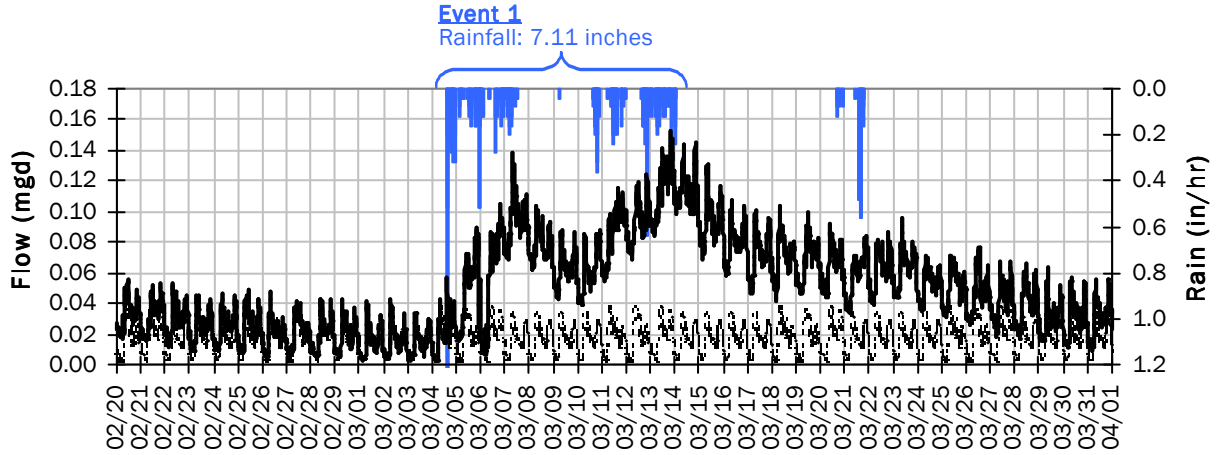


Pipe Diameter: 10 inches
Peak Measured Level: 4.82 inches
Peak d/D Ratio: 0.48

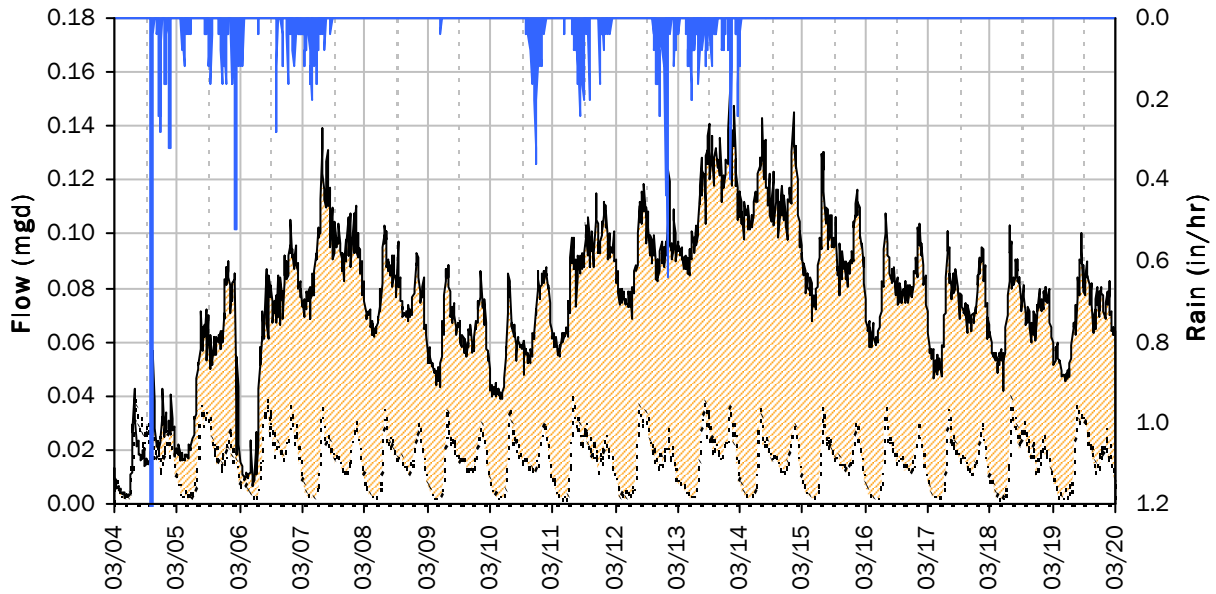
SITE 4

I/I Summary: Event 1

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



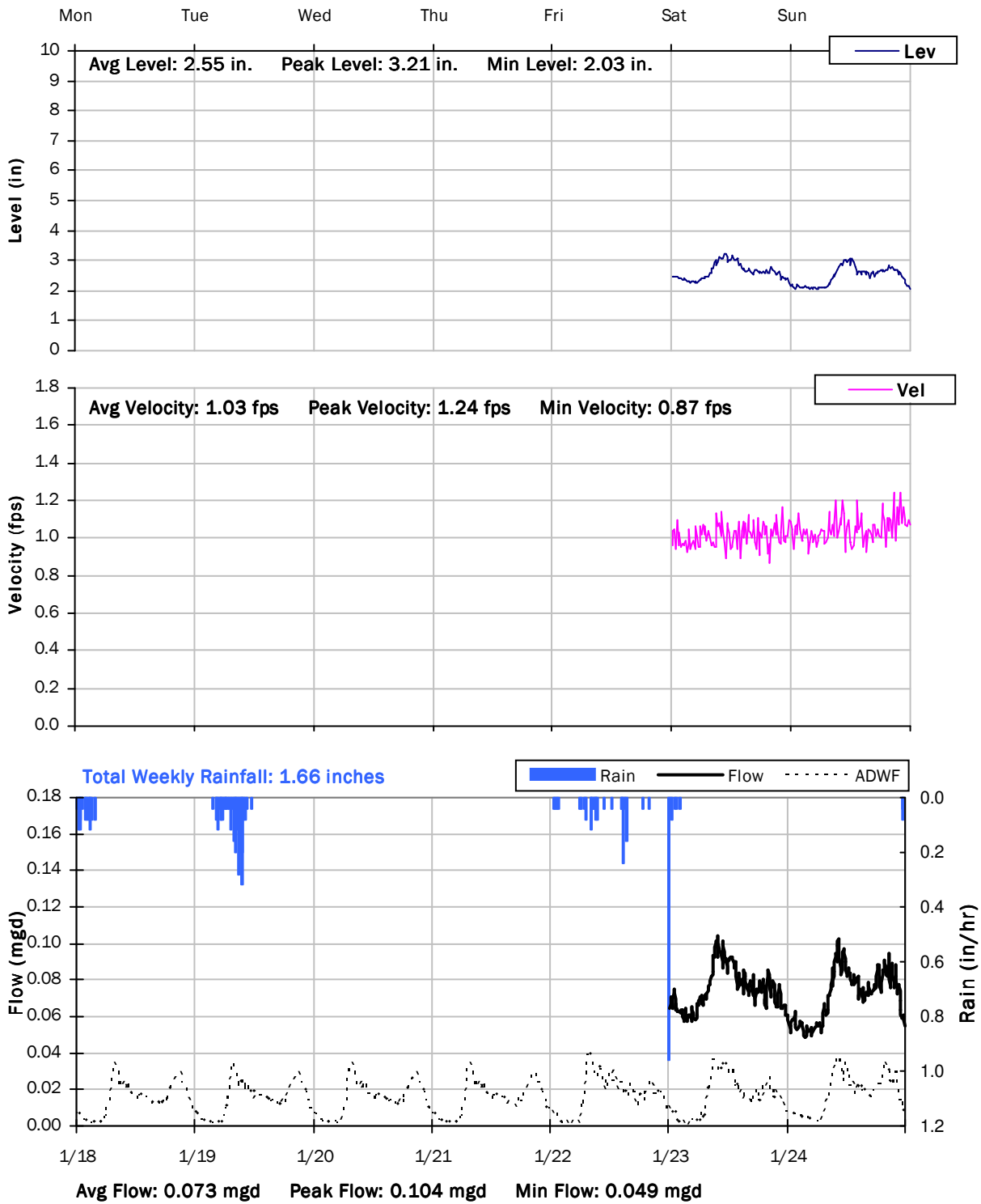
Event 1 Detail Graph



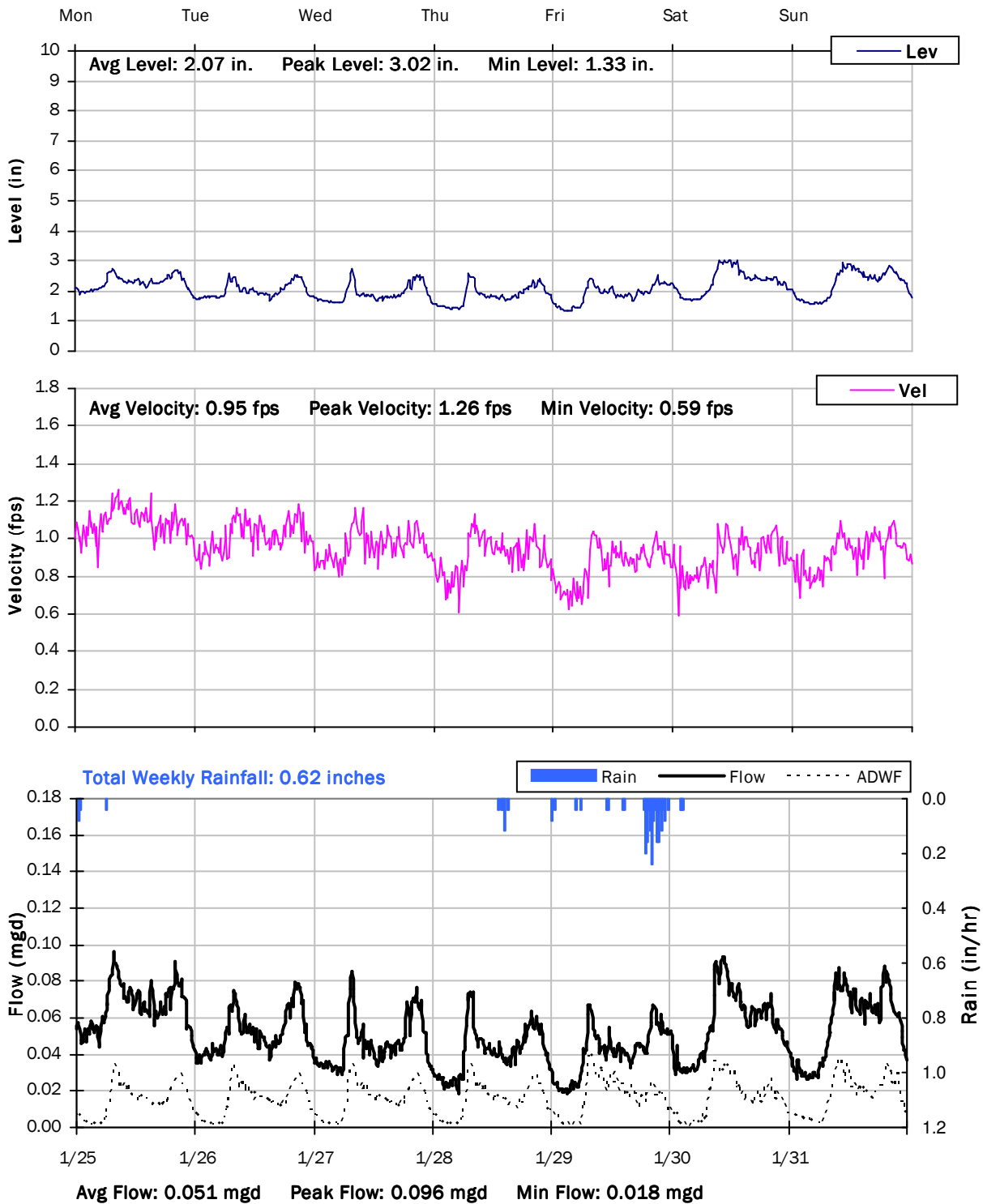
Storm Event I/I Analysis (Rain = 7.11 inches)

<u>Capacity</u>		<u>Inflow / Infiltration</u>	
Peak Flow:	0.15 mgd	Peak I/I Rate:	0.12 mgd
PF:	9.72	Total I/I:	963,000 gallons
Peak Level:	4.82 in		
d/D Ratio:	0.48		

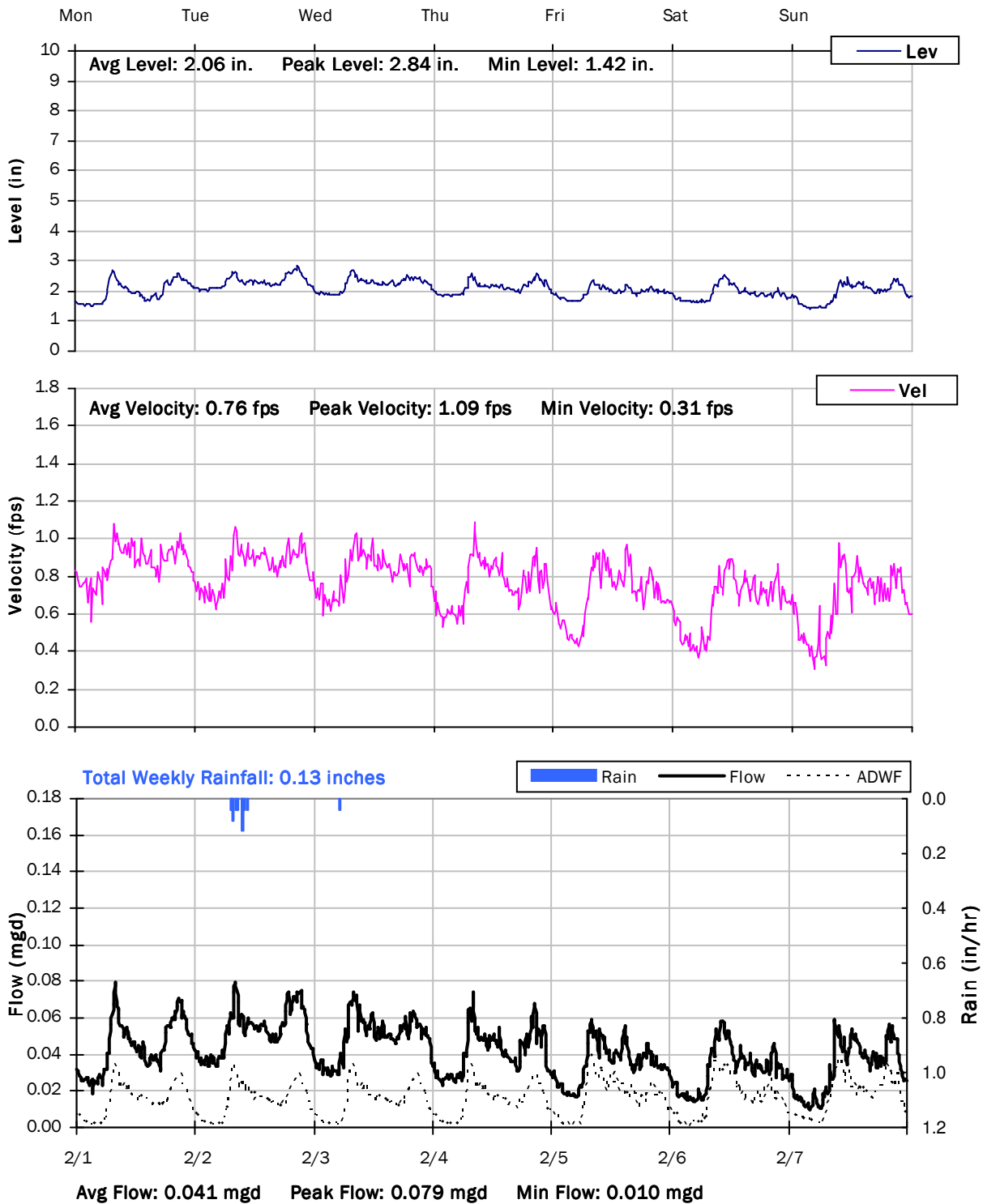
SITE 4
Weekly Level, Velocity and Flow Hydrographs
1/18/2016 to 1/25/2016



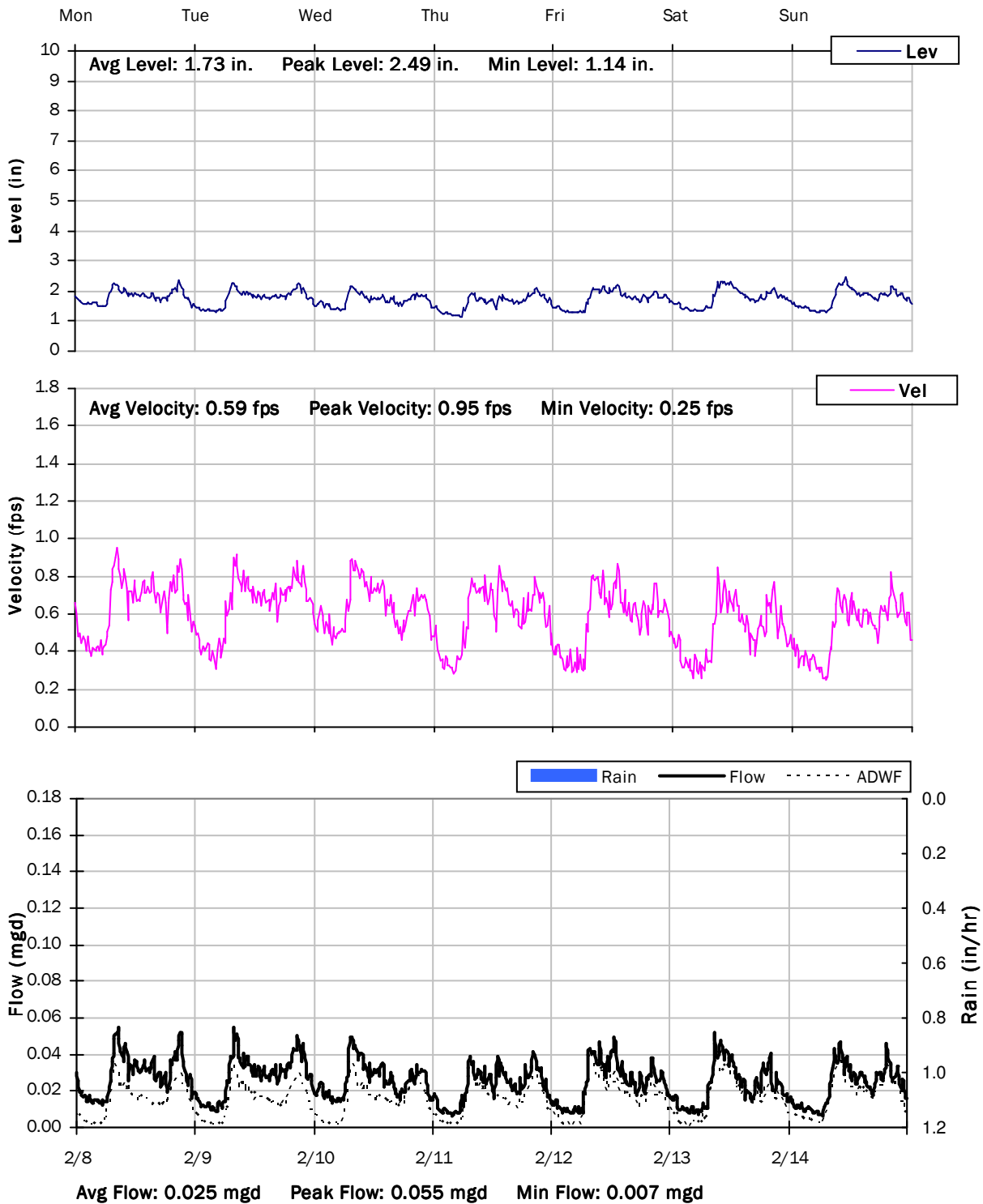
SITE 4
Weekly Level, Velocity and Flow Hydrographs
1/25/2016 to 2/1/2016



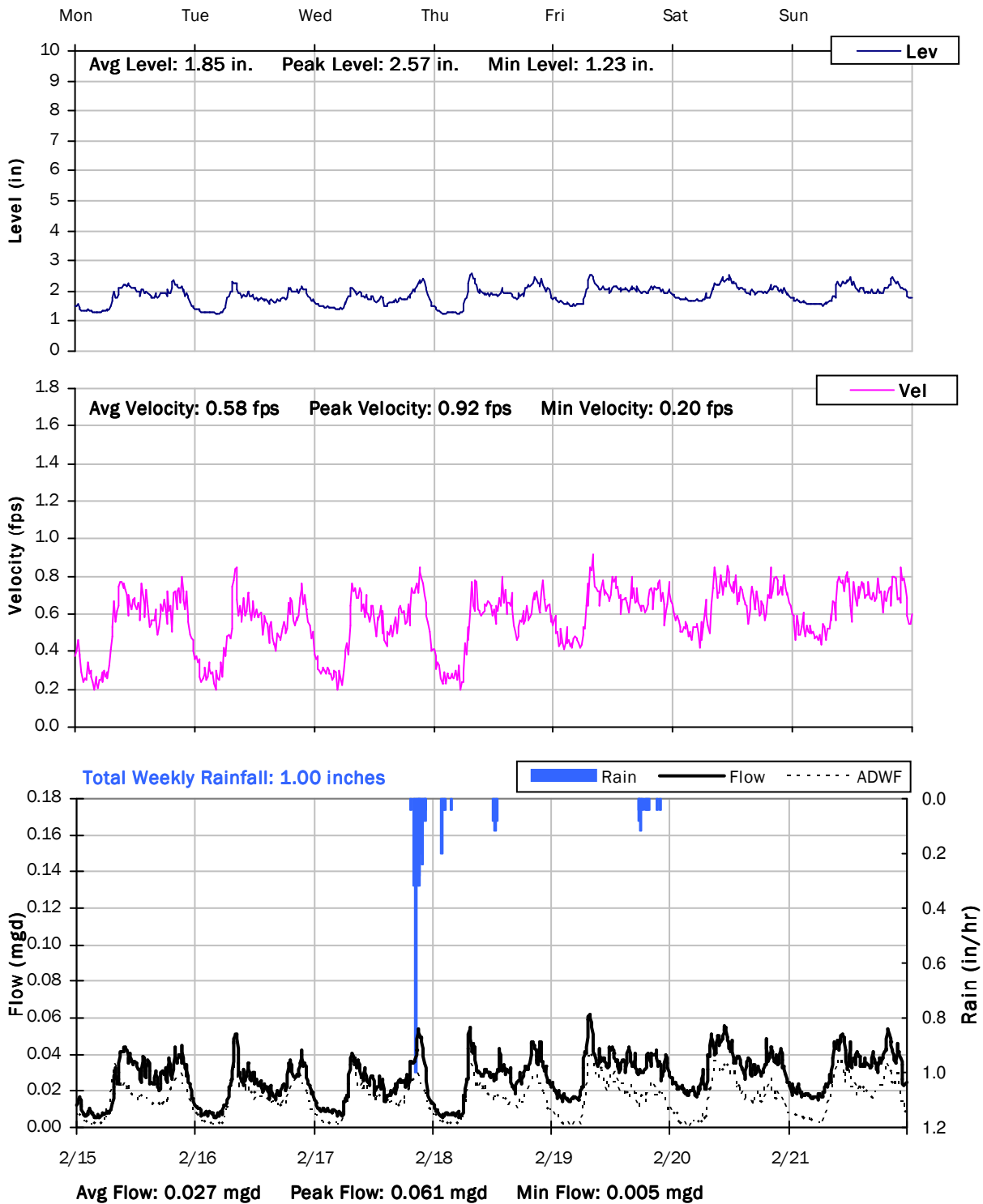
SITE 4
Weekly Level, Velocity and Flow Hydrographs
2/1/2016 to 2/8/2016



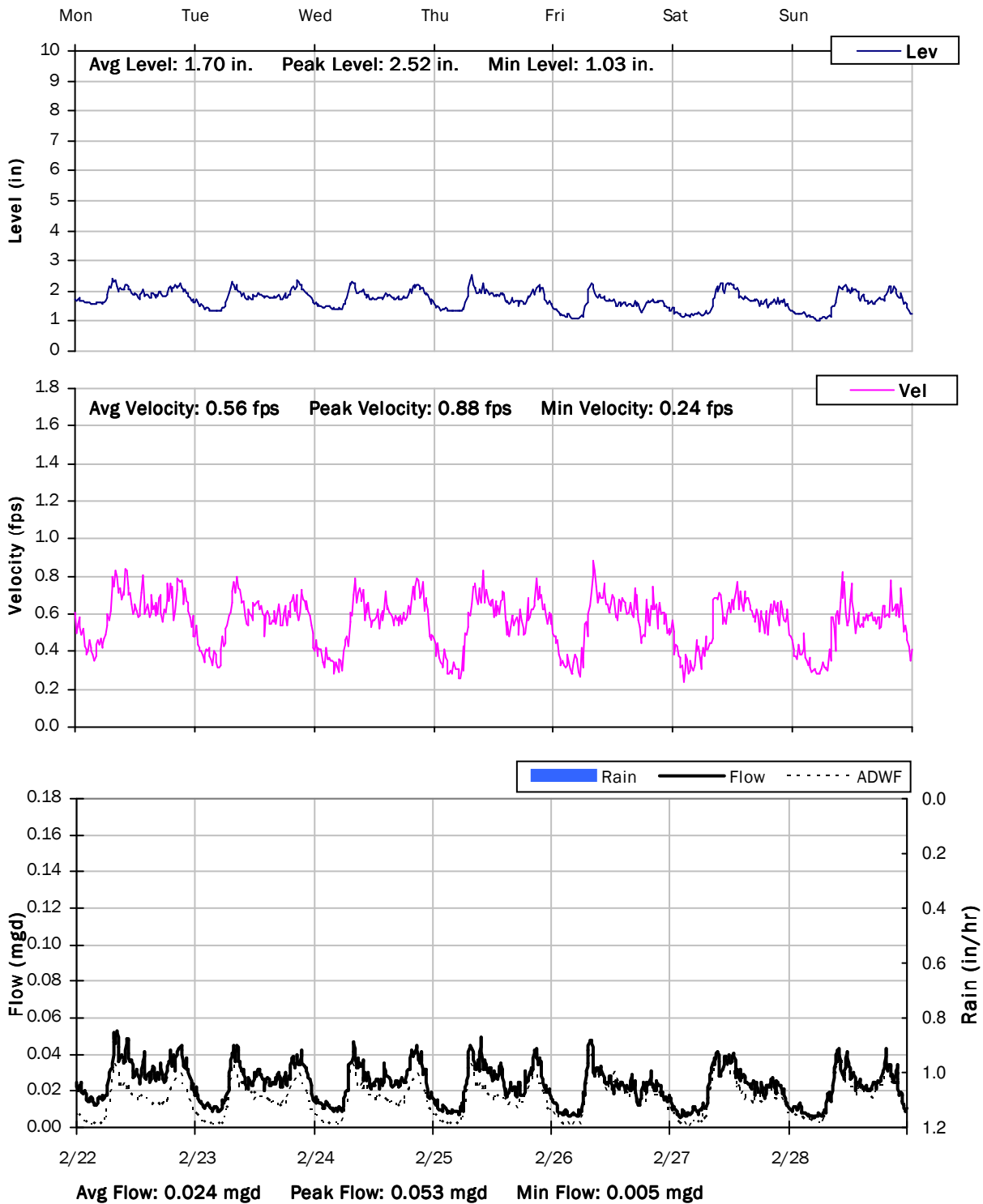
SITE 4
Weekly Level, Velocity and Flow Hydrographs
2/8/2016 to 2/15/2016



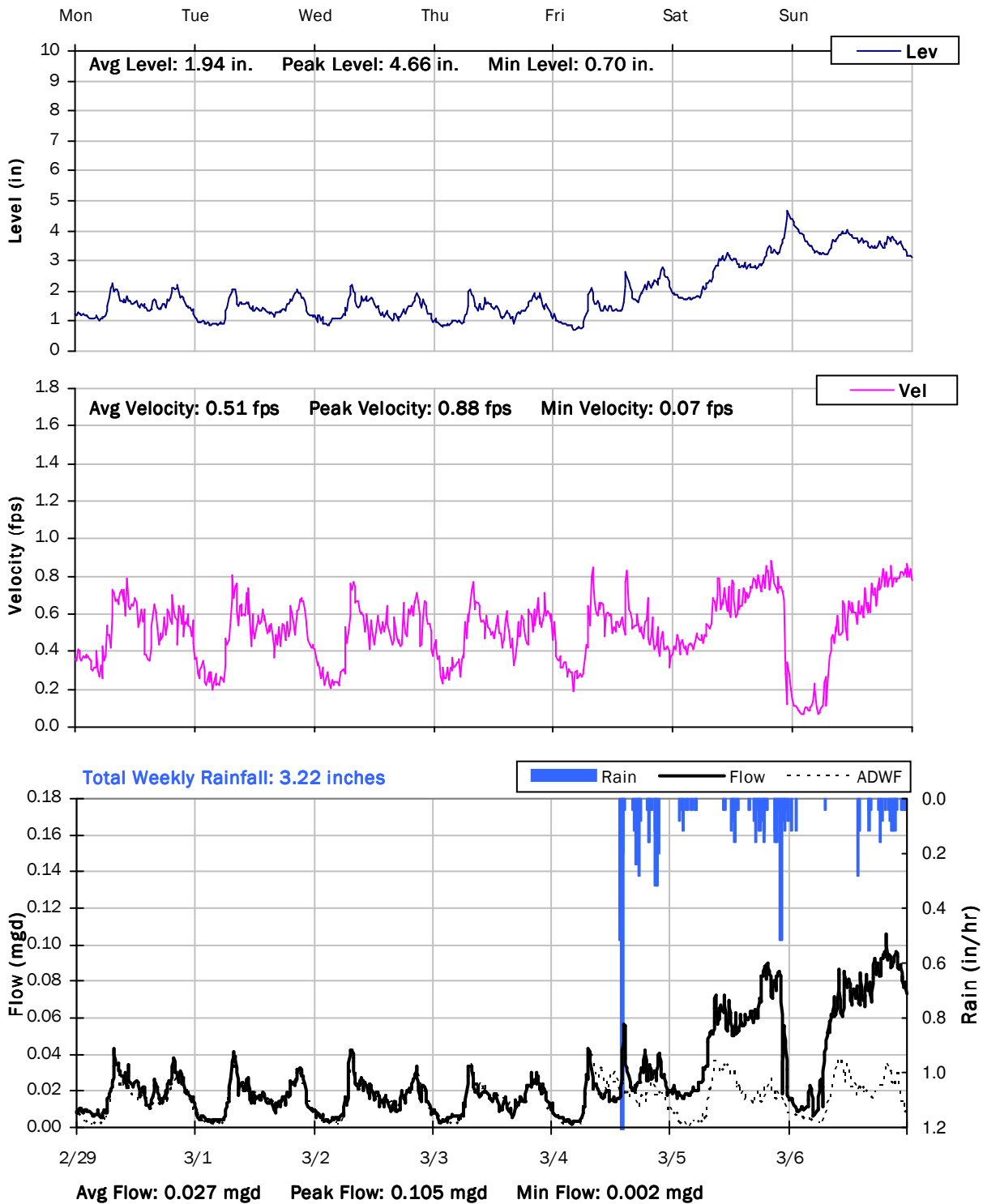
SITE 4
Weekly Level, Velocity and Flow Hydrographs
2/15/2016 to 2/22/2016



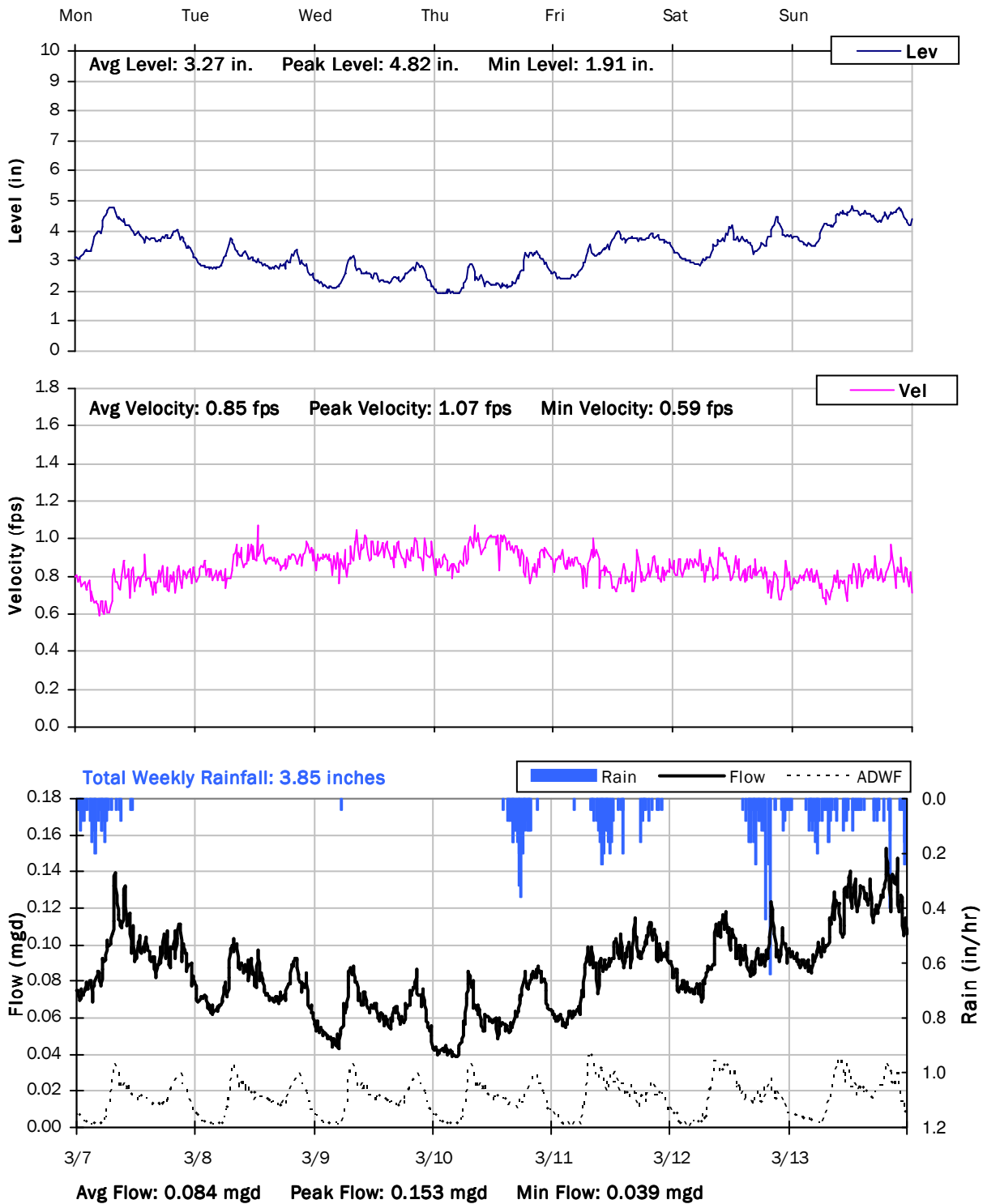
SITE 4
Weekly Level, Velocity and Flow Hydrographs
2/22/2016 to 2/29/2016



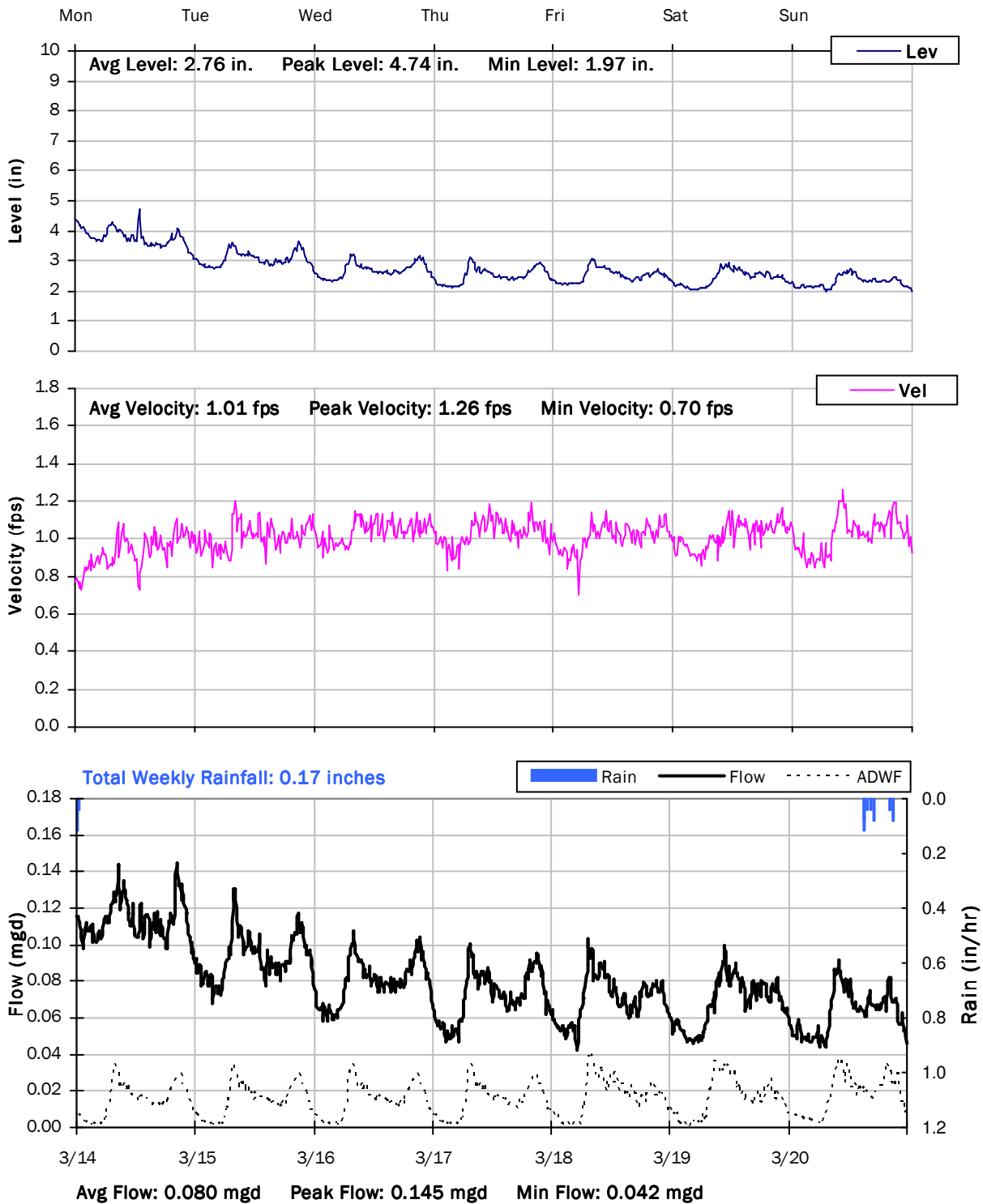
SITE 4
Weekly Level, Velocity and Flow Hydrographs
2/29/2016 to 3/7/2016



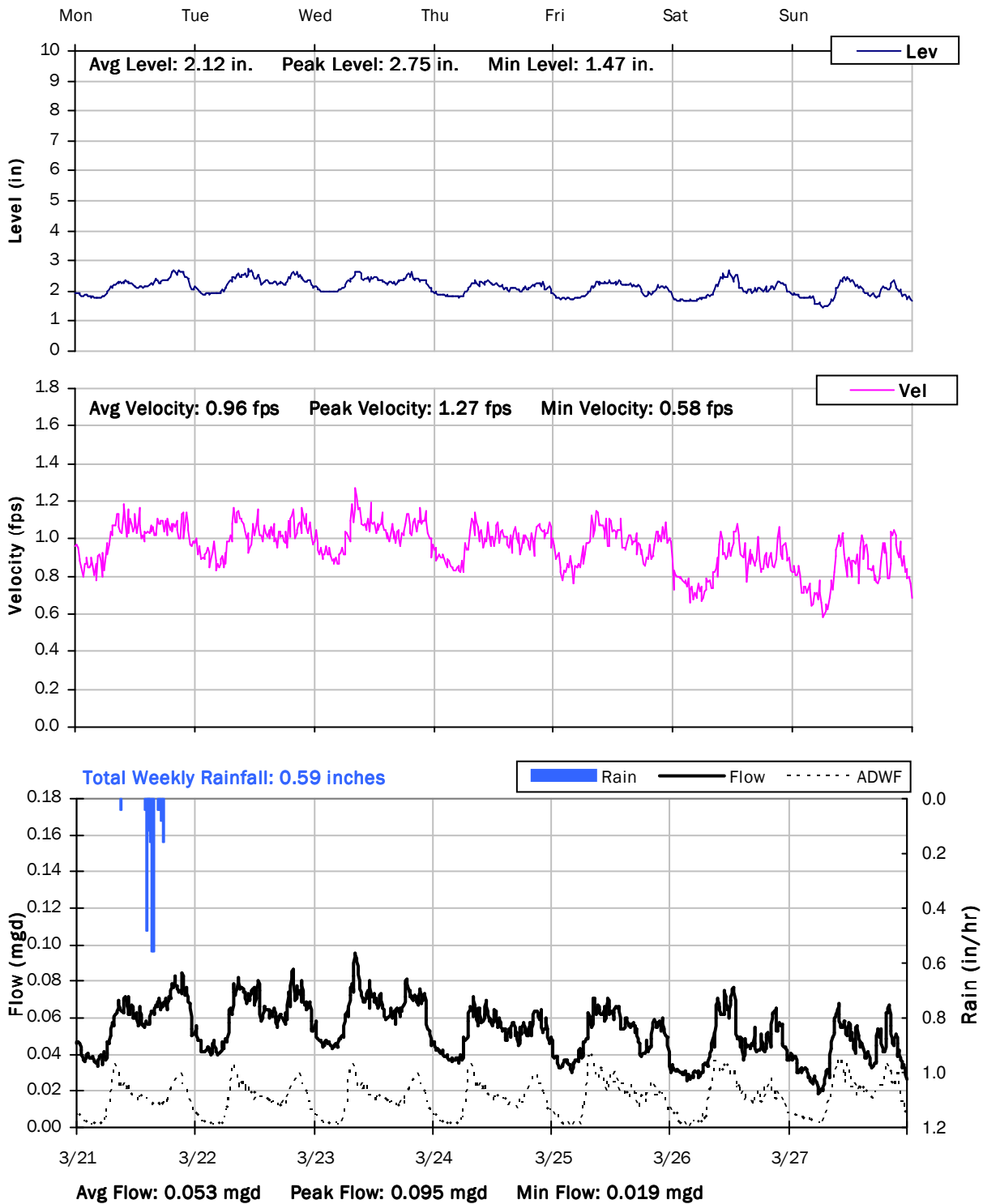
SITE 4
Weekly Level, Velocity and Flow Hydrographs
3/7/2016 to 3/14/2016



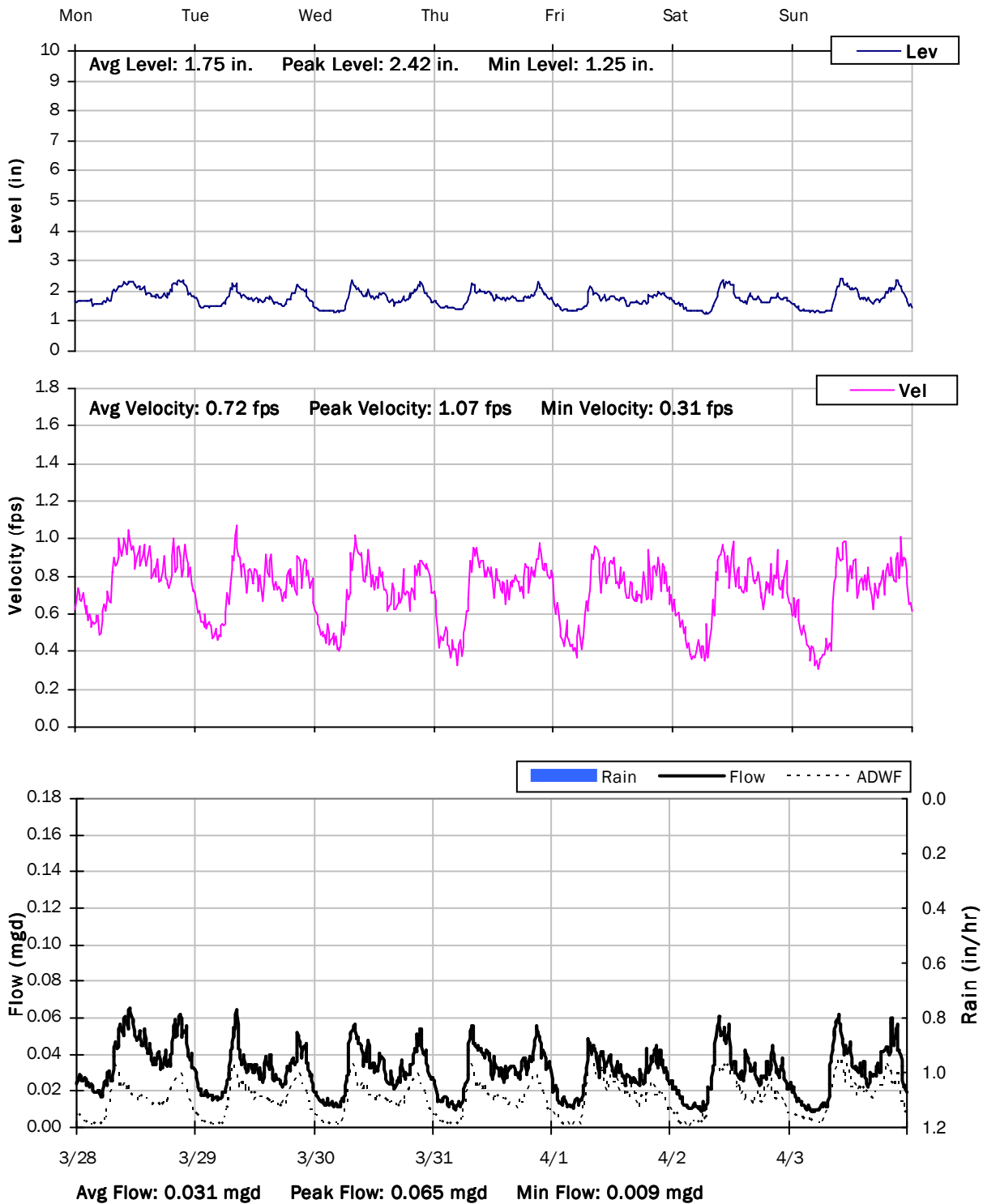
SITE 4
Weekly Level, Velocity and Flow Hydrographs
3/14/2016 to 3/21/2016



SITE 4
Weekly Level, Velocity and Flow Hydrographs
3/21/2016 to 3/28/2016



SITE 4
Weekly Level, Velocity and Flow Hydrographs
3/28/2016 to 4/4/2016



City of Lincoln

Sanitary Sewer Flow Monitoring

Temporary Monitoring: January 23 to April 3, 2016

Monitoring Site: Site 5

Location: Off road, approx. 450 ft east of 305-525 Business Park Dr.

Data Summary Report



Vicinity Map: Site 5

SITE 5

Site Information

Location: Off road, approx. 450 ft east of 305-525 Business Park Dr.

Coordinates: 121.3347° W, 38.9010° N

Rim Elevation (Earth): 122 feet

Pipe Diameter: 12 inches

ADWF: 0.067 mgd

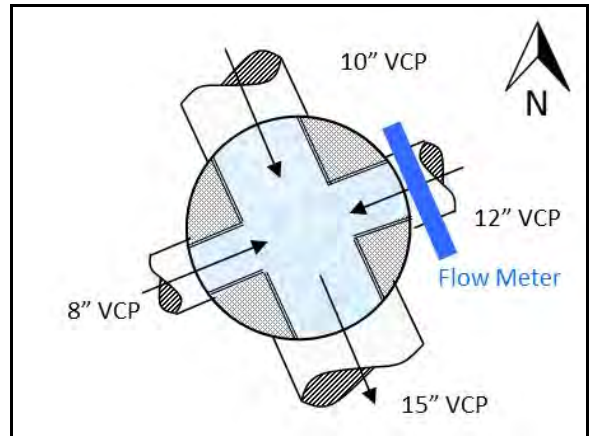
Peak Measured Flow: 0.530 mgd



Satellite Map



Sanitary Map



Flow Sketch



Street View



Plan View

SITE 5

Additional Site Photos

Influent Pipe



Effluent Pipe



SITE 5

Additional Site Photos

West Lateral



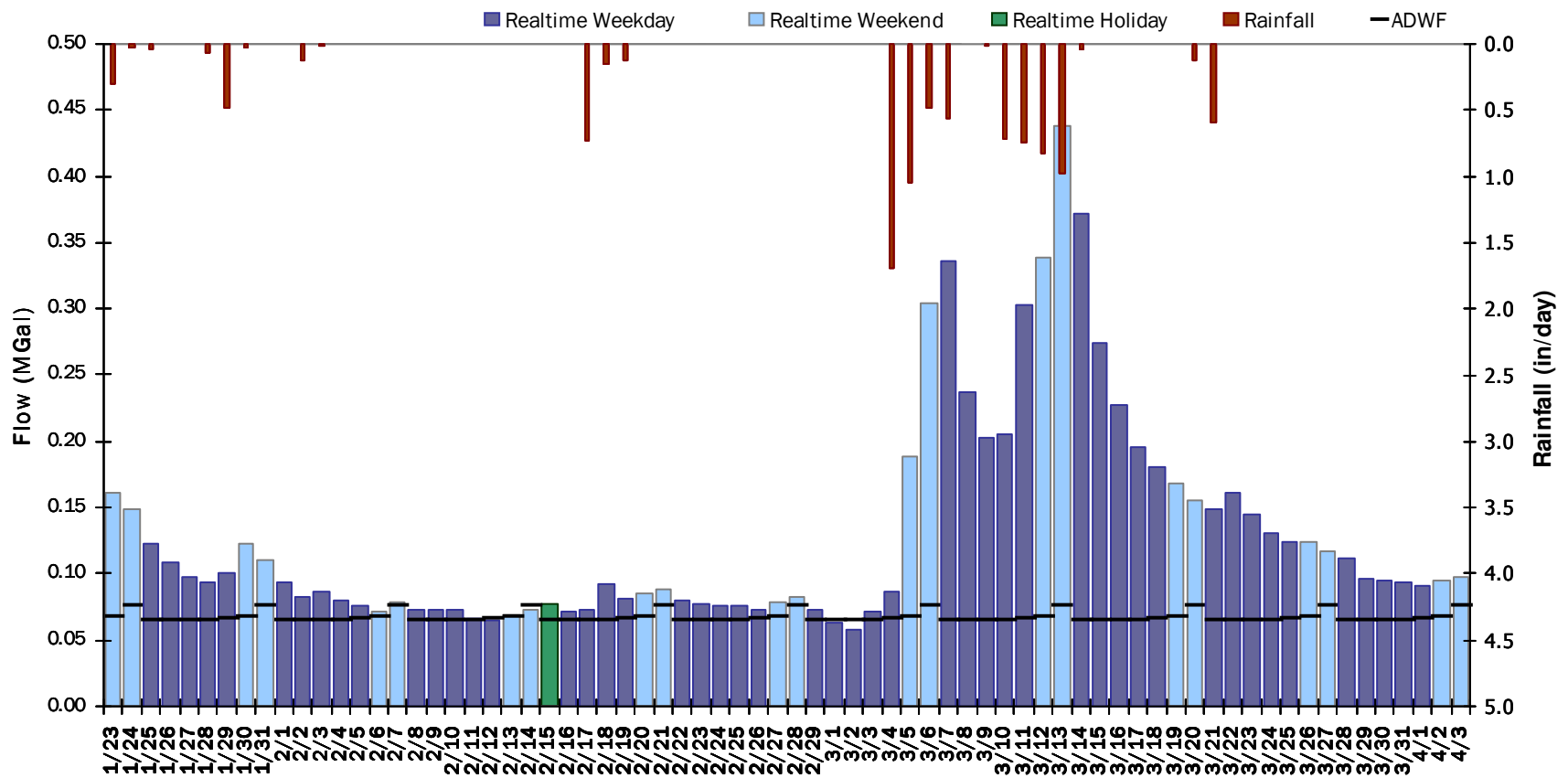


SITE 5

Period Flow Summary: Daily Flow Totals

Avg Period Flow: 0.130 MGal Peak Daily Flow: 0.439 MGal Min Daily Flow: 0.057 MGal

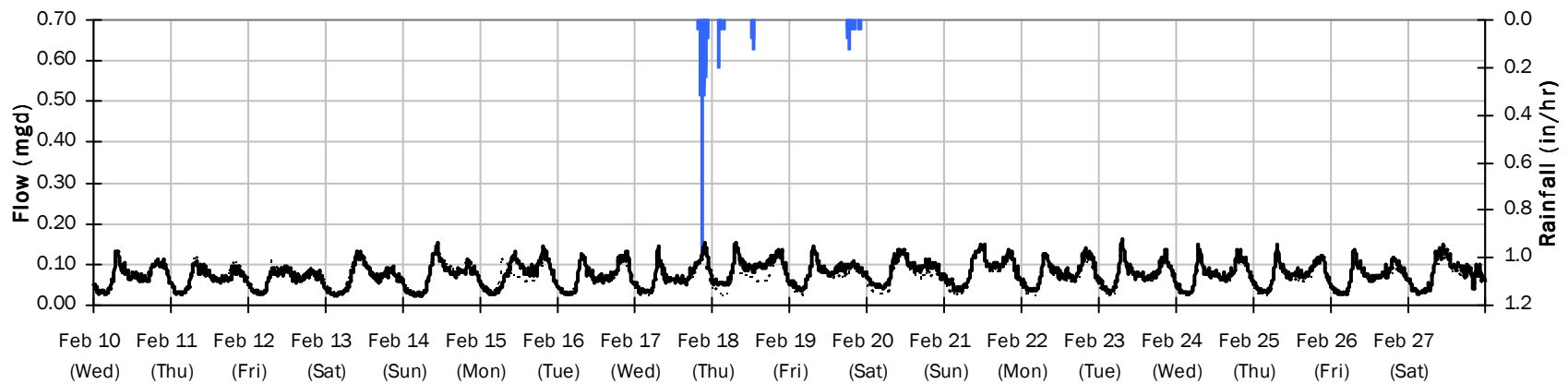
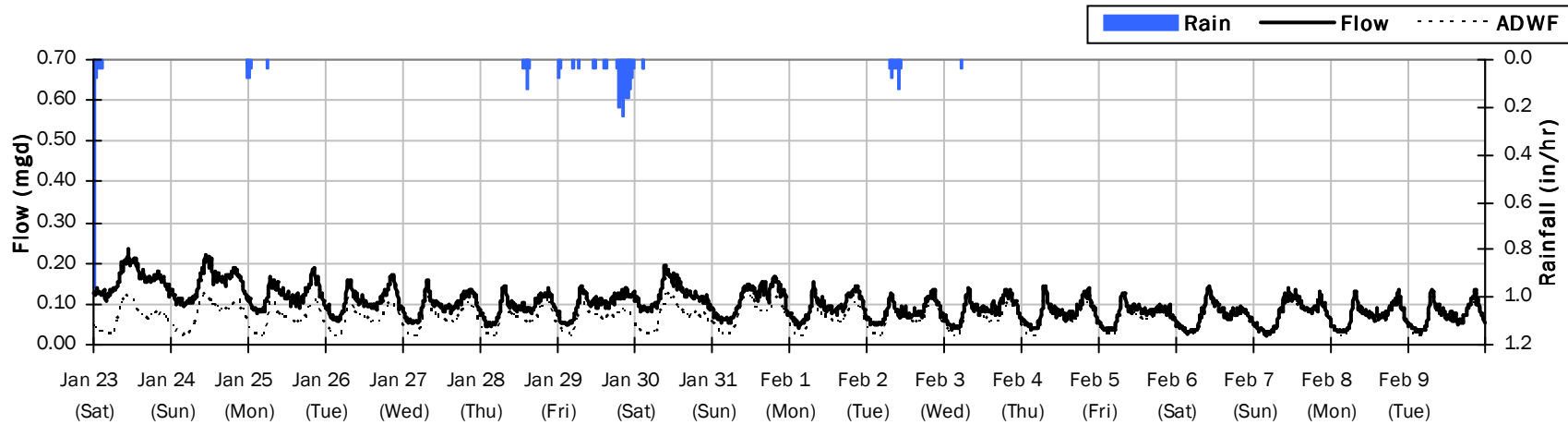
Total Period Rainfall: 9.91 inches



SITE 5

Flow Summary: 1/23/2016 to 2/27/2016

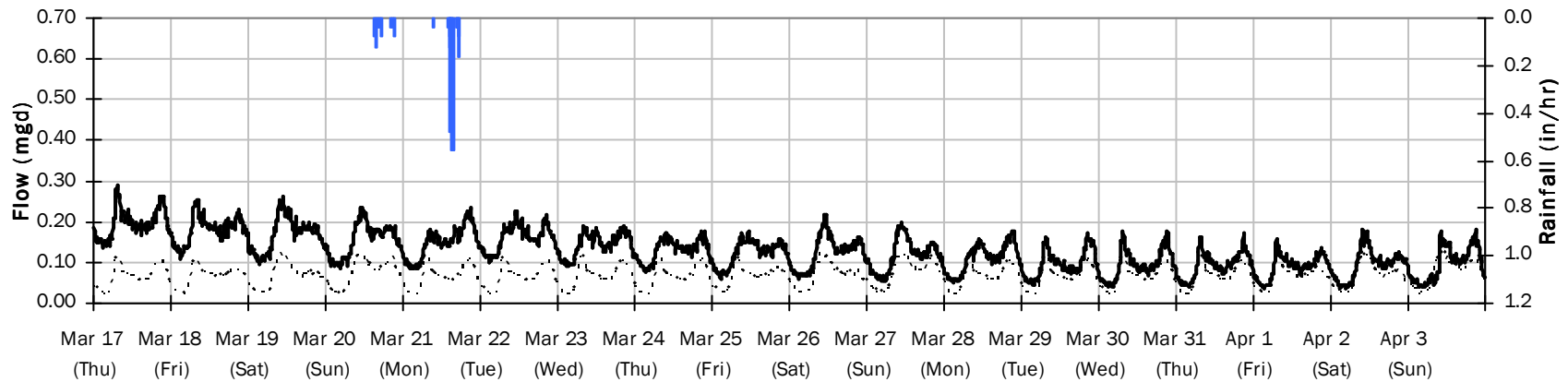
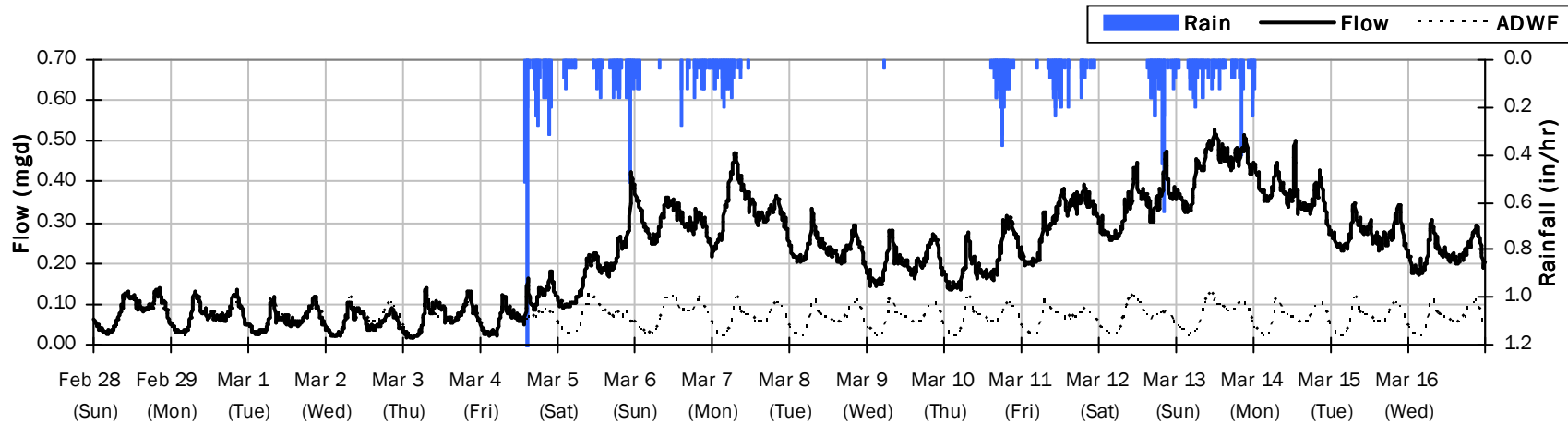
Total Period Rainfall: 2.08 inches Avg Flow: 0.088 mgd Peak Flow: 0.235 mgd Min Flow: 0.023 mgd



SITE 5

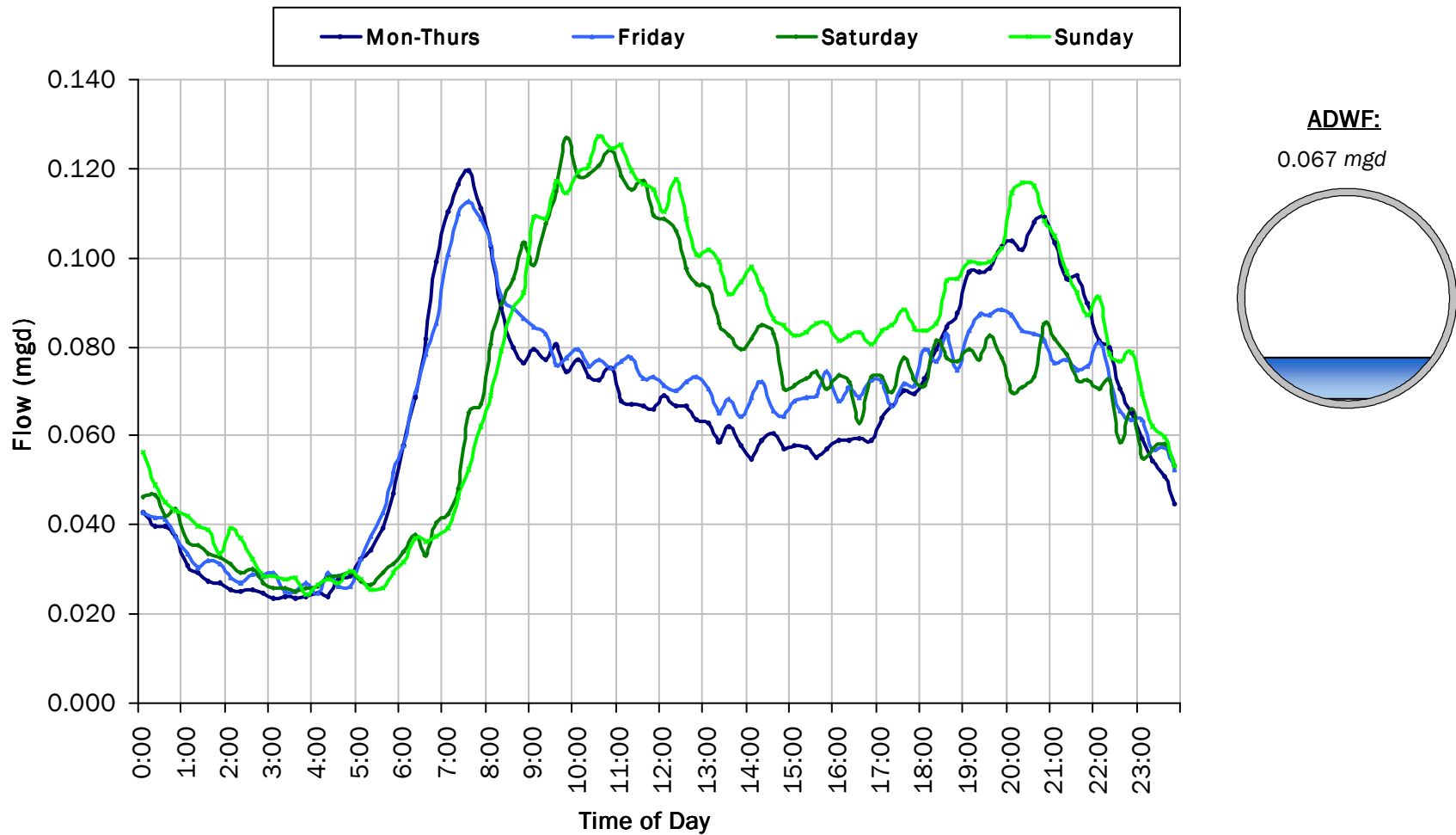
Flow Summary: 2/28/2016 to 4/3/2016

Total Period Rainfall: 7.83 inches **Avg Flow: 0.172 mgd** **Peak Flow: 0.530 mgd** **Min Flow: 0.019 mgd**



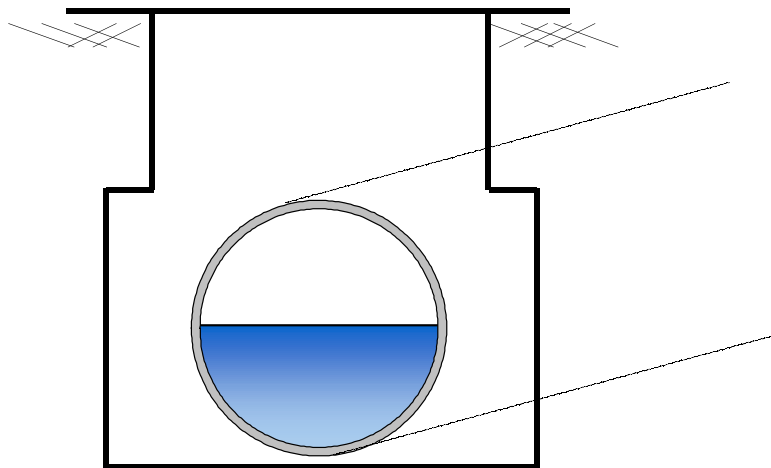
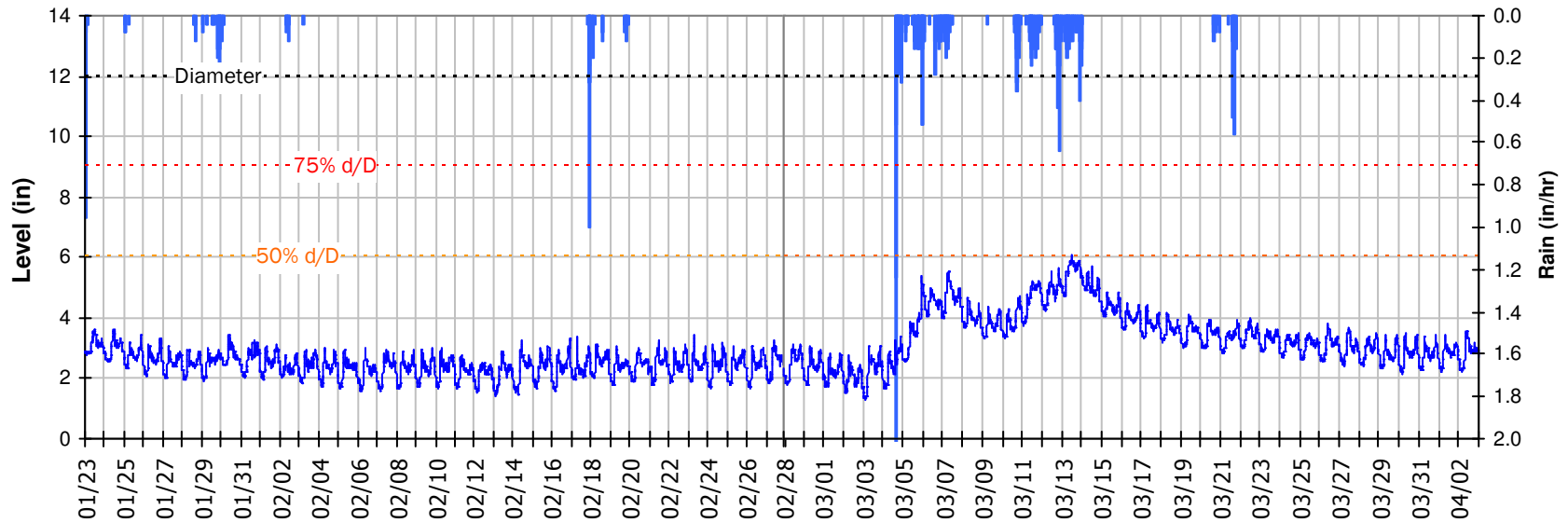
SITE 5

Average Dry Weather Flow Hydrographs



SITE 5
Site Capacity and Surge Summary

Realtime Flow Levels with Rainfall Data over Monitoring Period

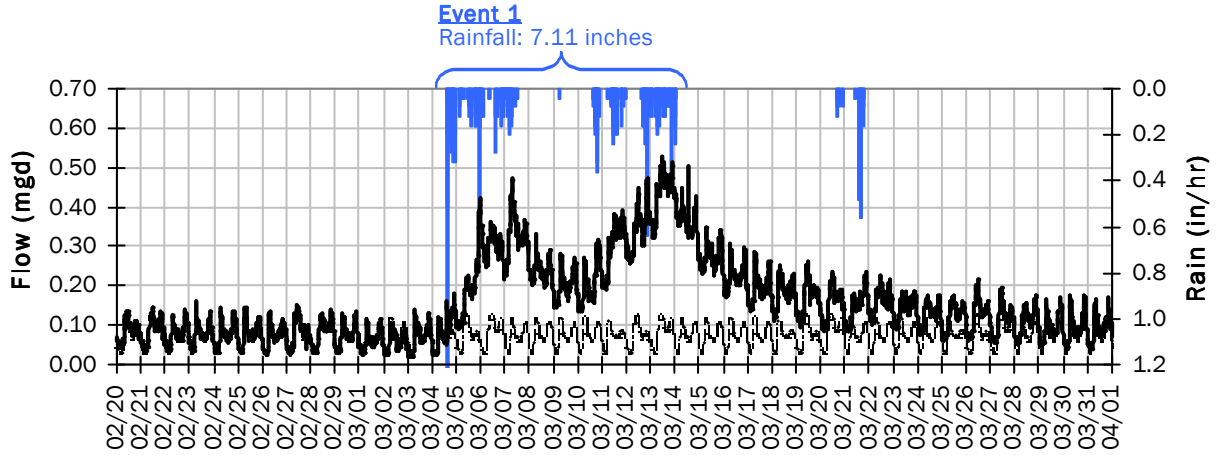


Pipe Diameter: 12 inches
Peak Measured Level: 6.06 inches
Peak d/D Ratio: 0.51

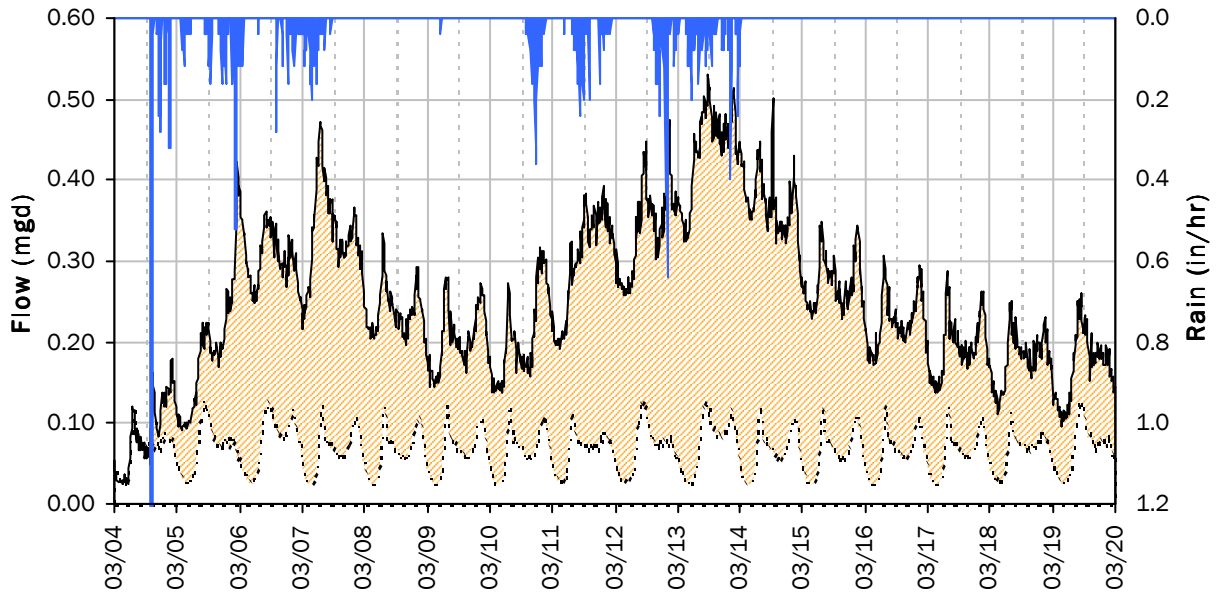
SITE 5

I/I Summary: Event 1

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



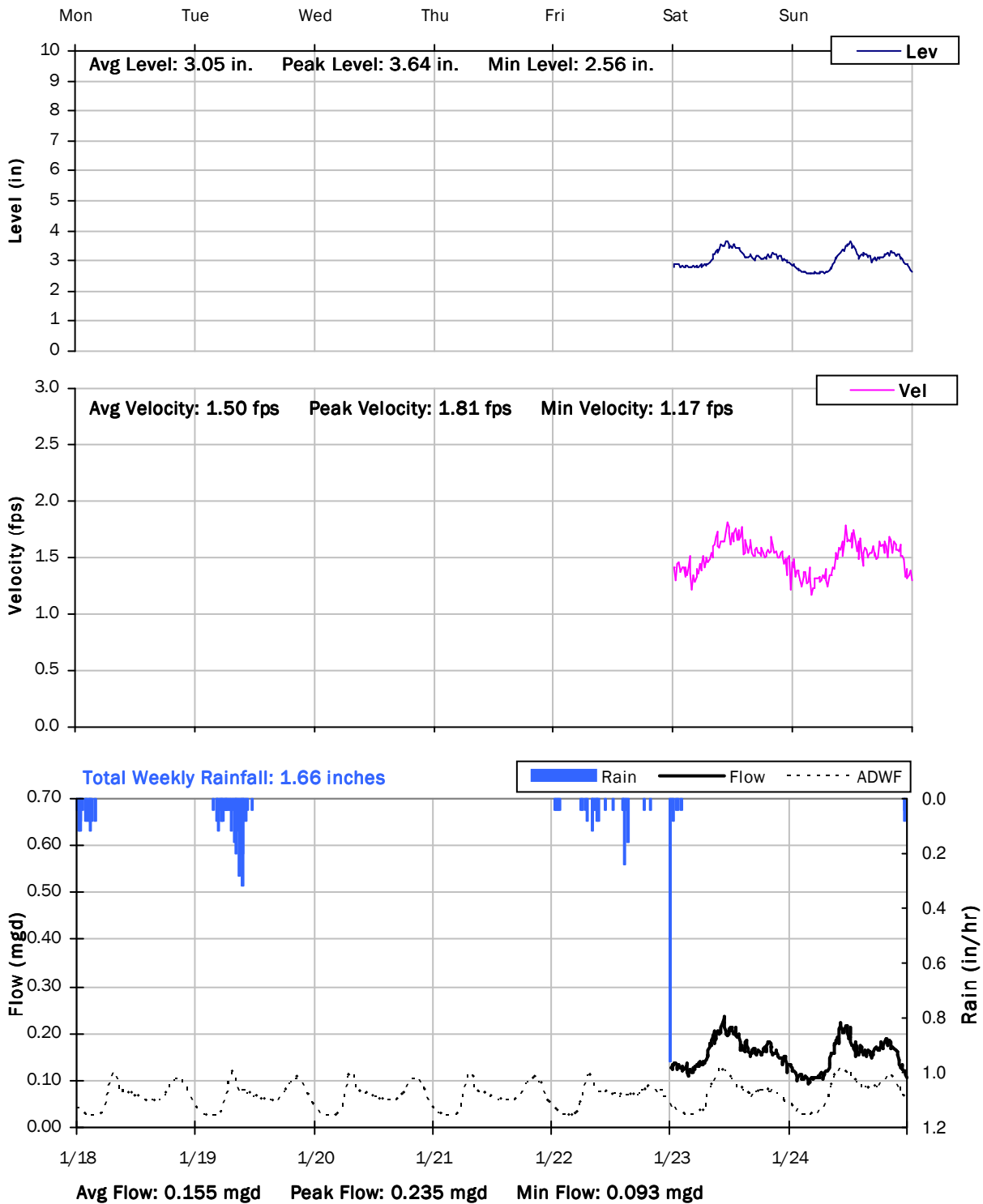
Event 1 Detail Graph



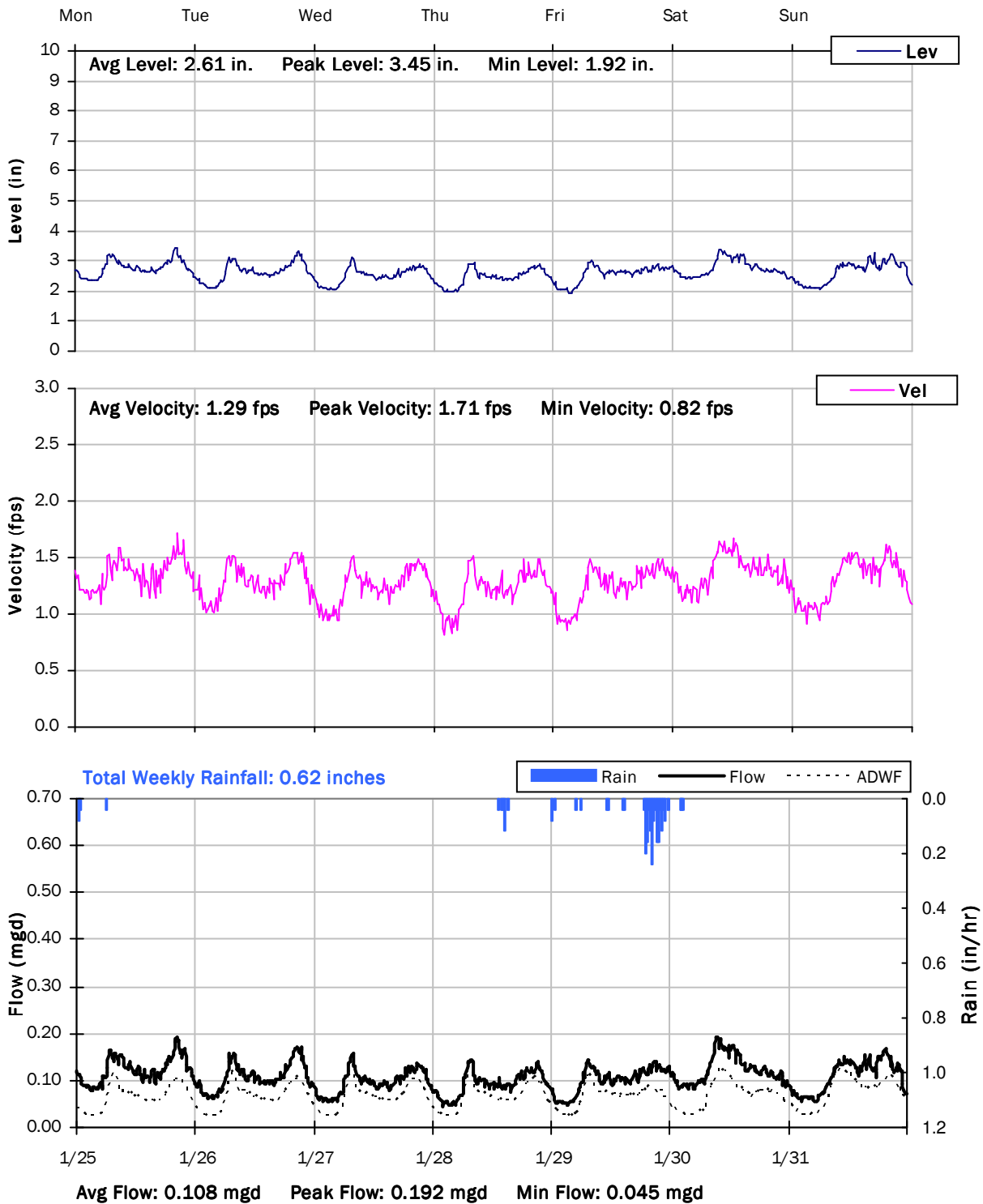
Storm Event I/I Analysis (Rain = 7.11 inches)

<u>Capacity</u>		<u>Inflow / Infiltration</u>	
Peak Flow:	0.53 <i>mgd</i>	Peak I/I Rate:	0.44 <i>mgd</i>
PF:	7.92	Total I/I:	2,990,000 <i>gallons</i>
Peak Level:	6.06 <i>in</i>		
d/D Ratio:	0.51		

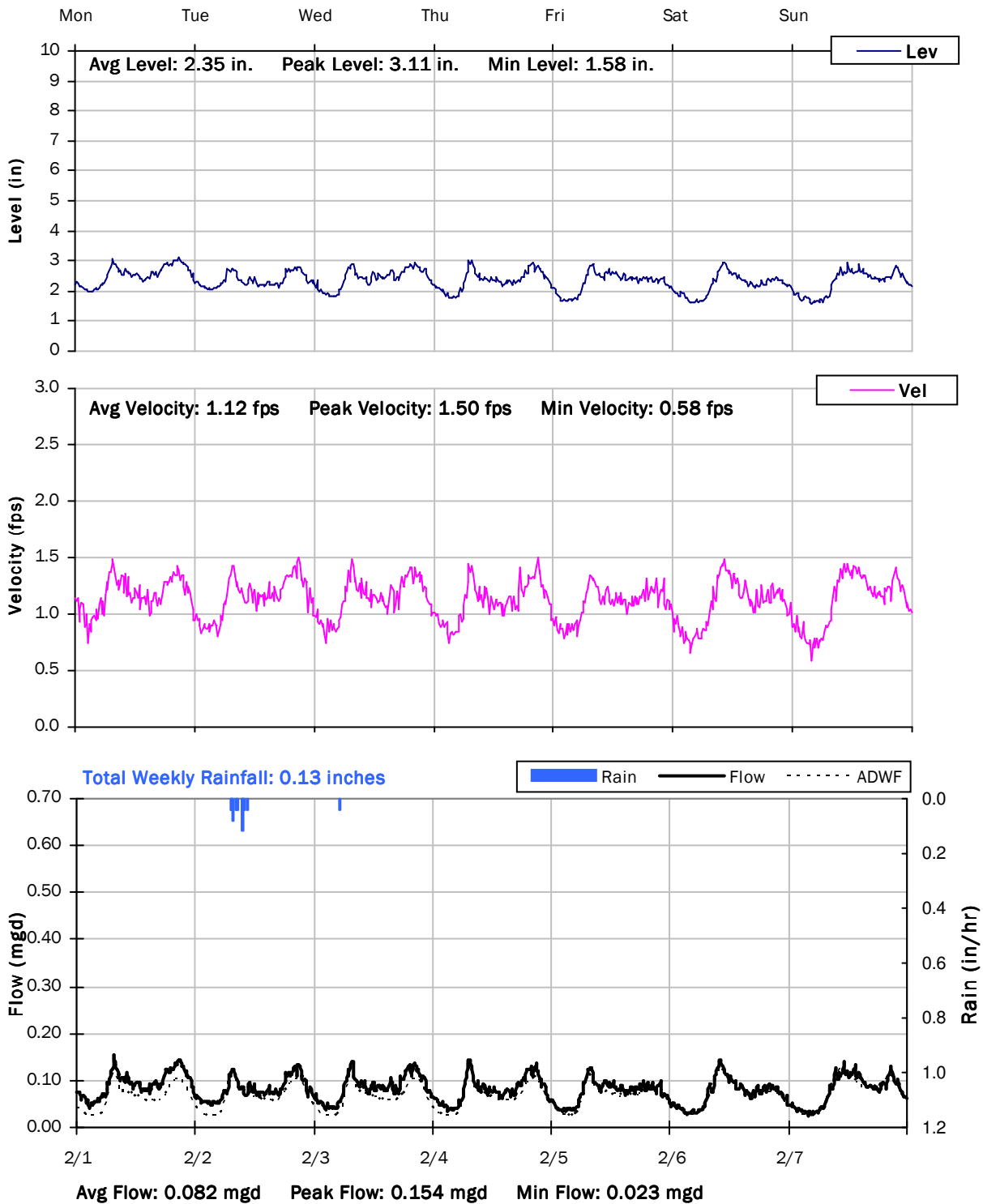
SITE 5
Weekly Level, Velocity and Flow Hydrographs
1/18/2016 to 1/25/2016



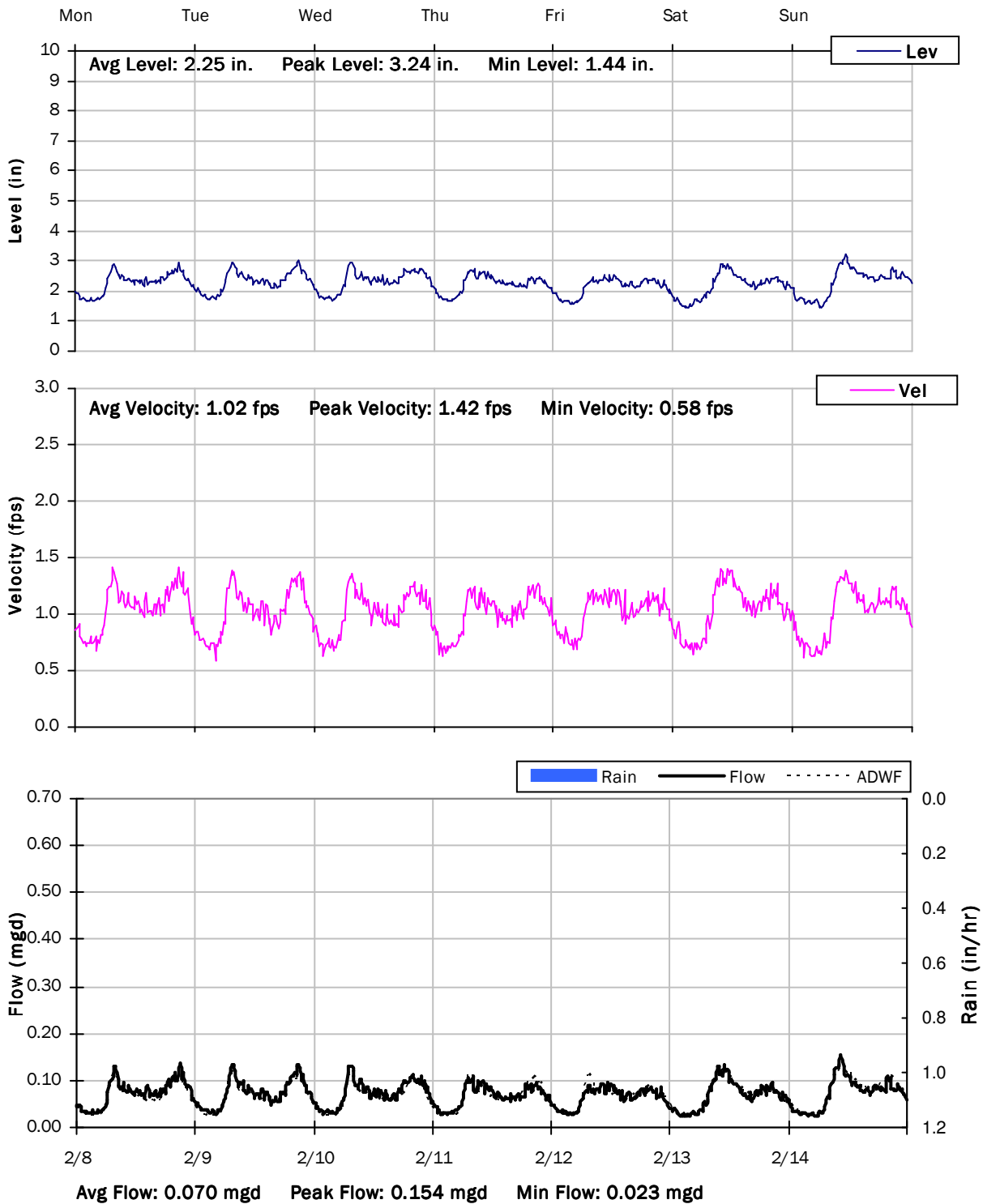
SITE 5
Weekly Level, Velocity and Flow Hydrographs
1/25/2016 to 2/1/2016



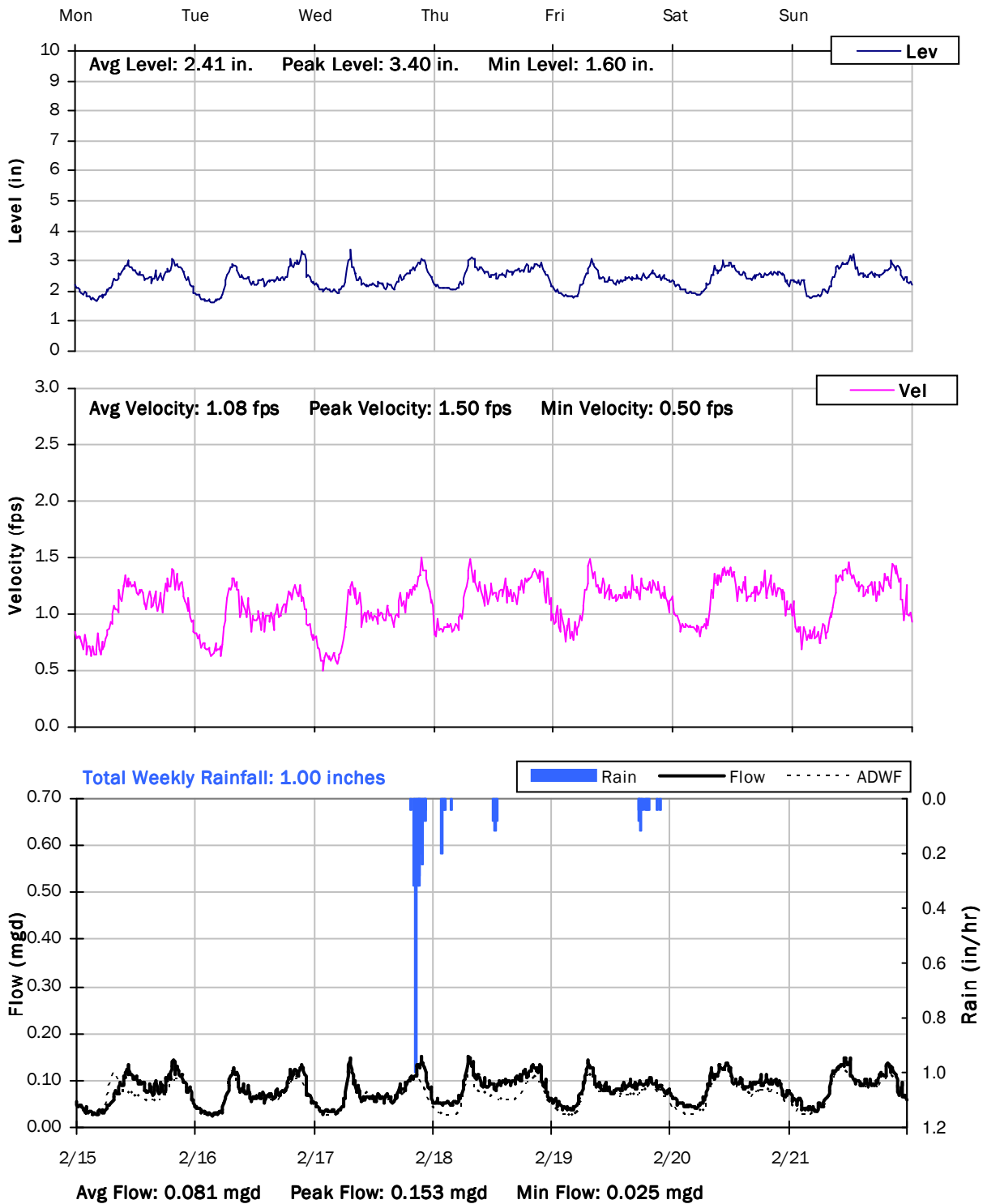
SITE 5
Weekly Level, Velocity and Flow Hydrographs
2/1/2016 to 2/8/2016



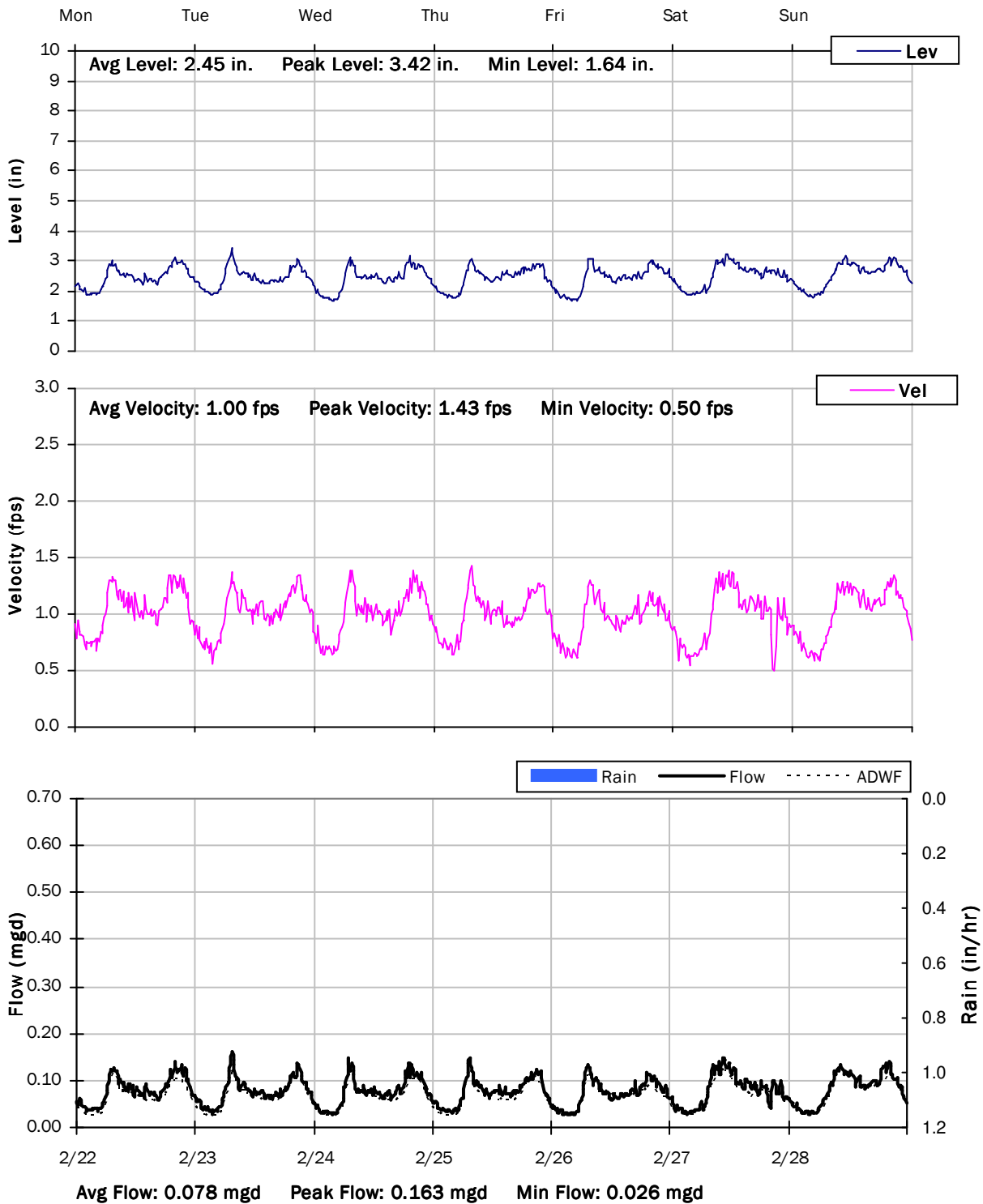
SITE 5
Weekly Level, Velocity and Flow Hydrographs
2/8/2016 to 2/15/2016



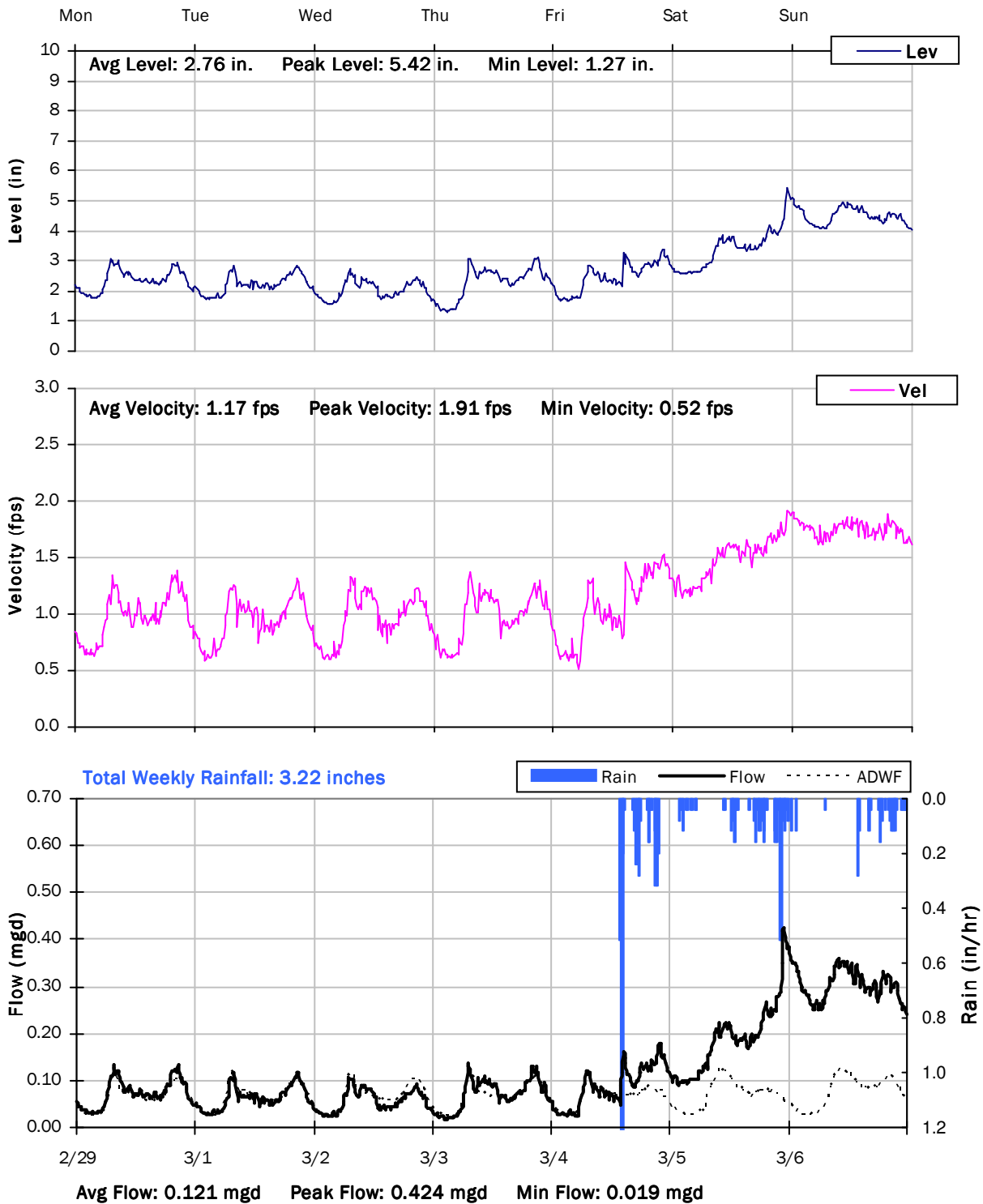
SITE 5
Weekly Level, Velocity and Flow Hydrographs
2/15/2016 to 2/22/2016



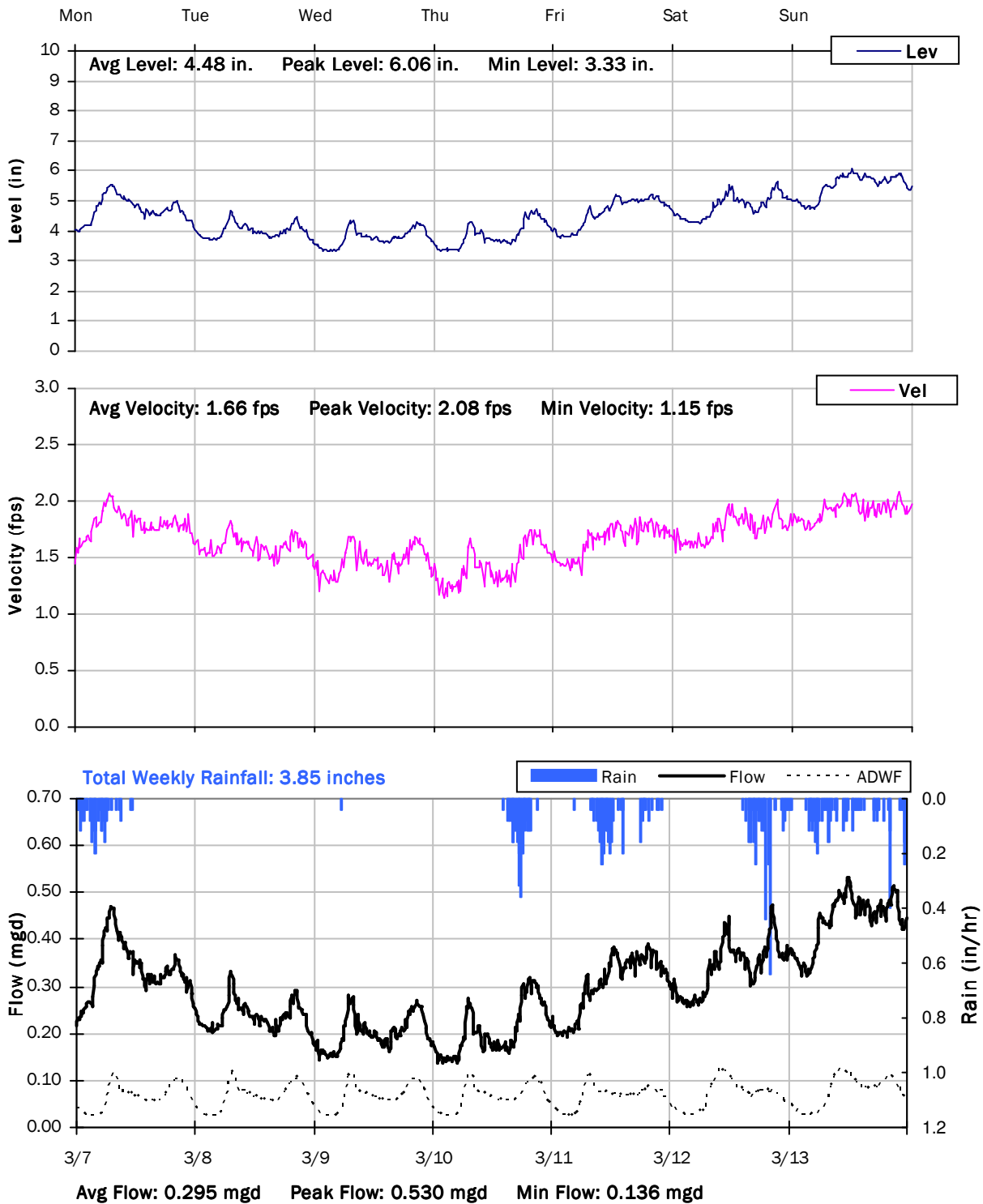
SITE 5
Weekly Level, Velocity and Flow Hydrographs
2/22/2016 to 2/29/2016



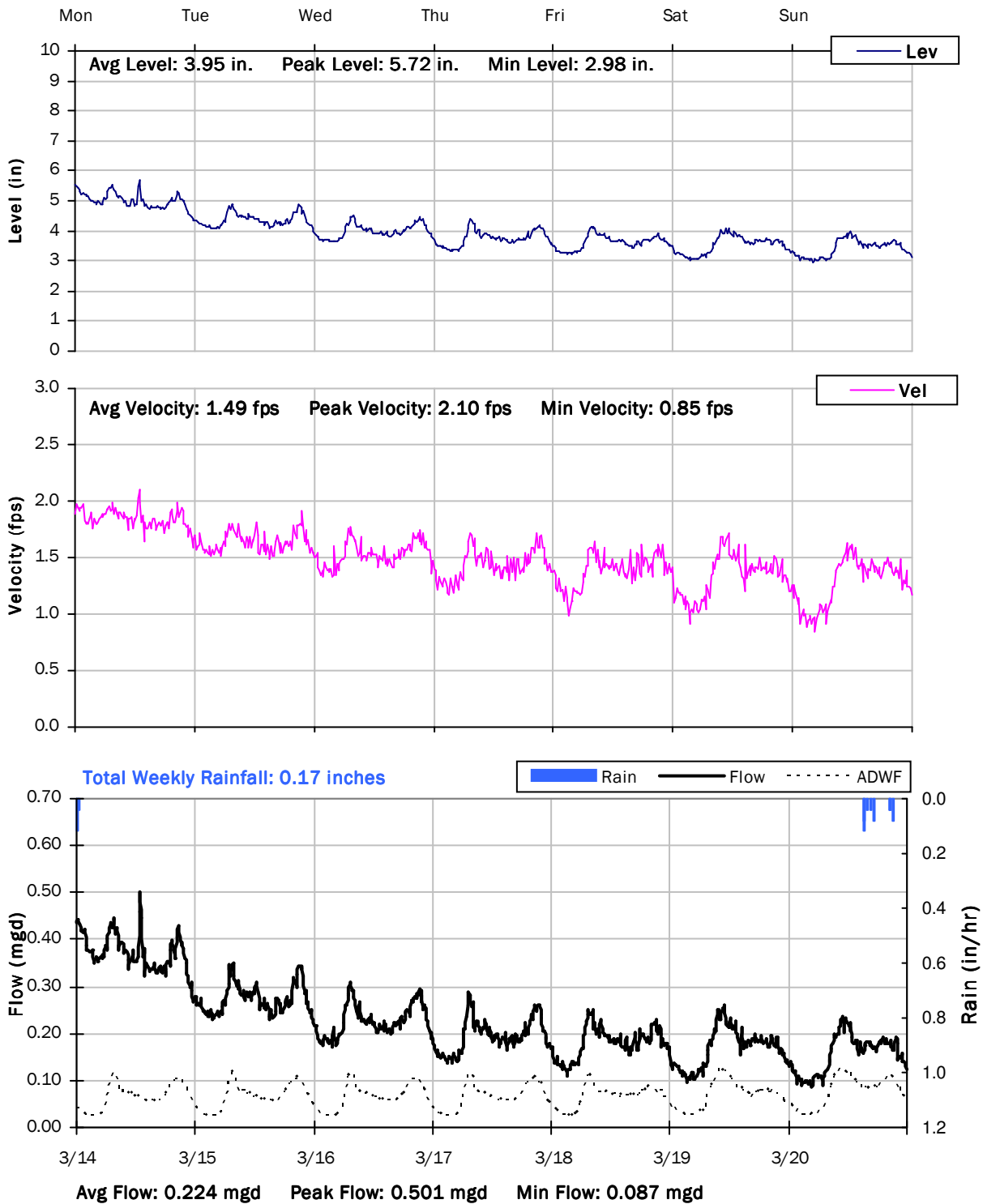
SITE 5
Weekly Level, Velocity and Flow Hydrographs
2/29/2016 to 3/7/2016



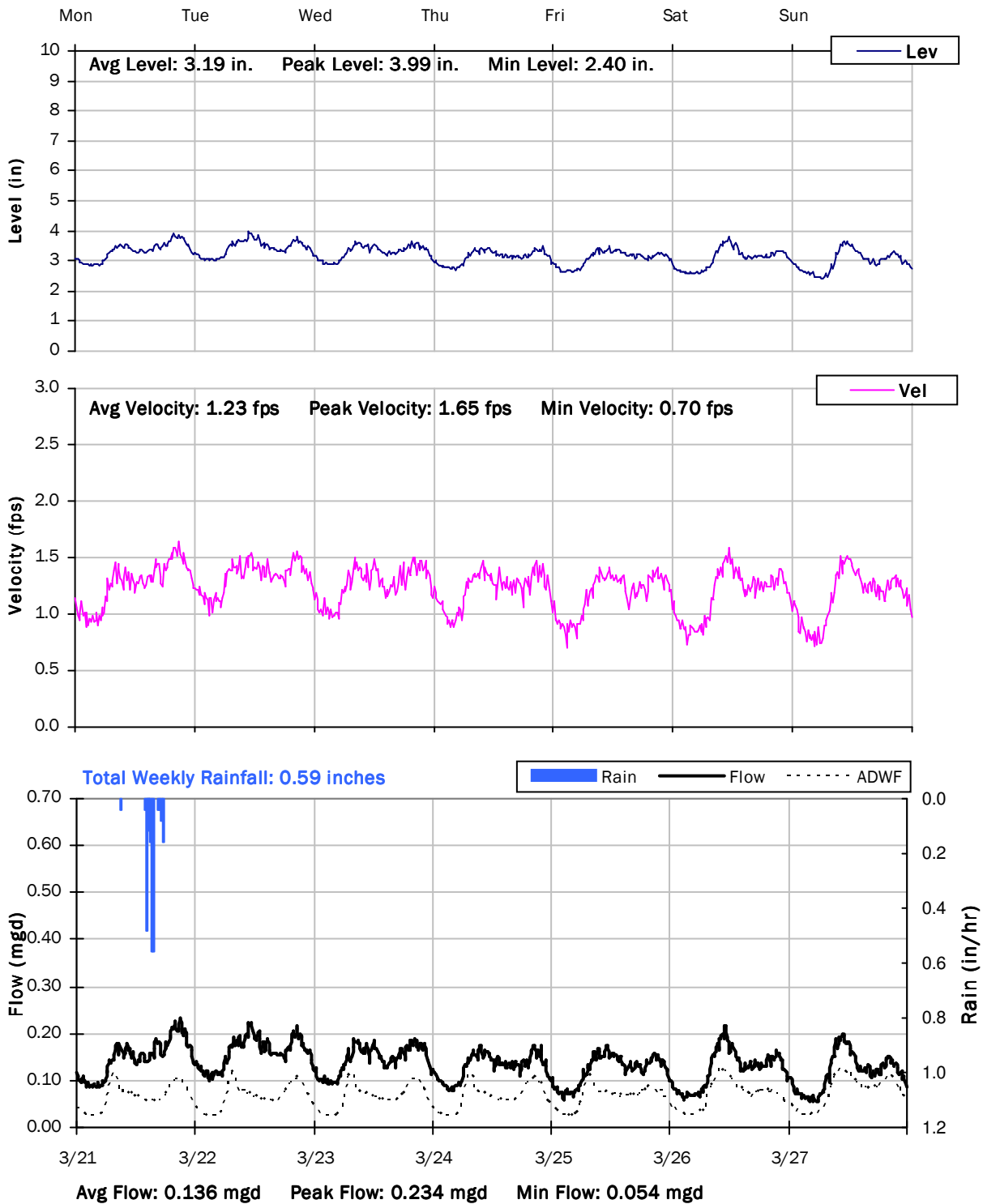
SITE 5
Weekly Level, Velocity and Flow Hydrographs
3/7/2016 to 3/14/2016



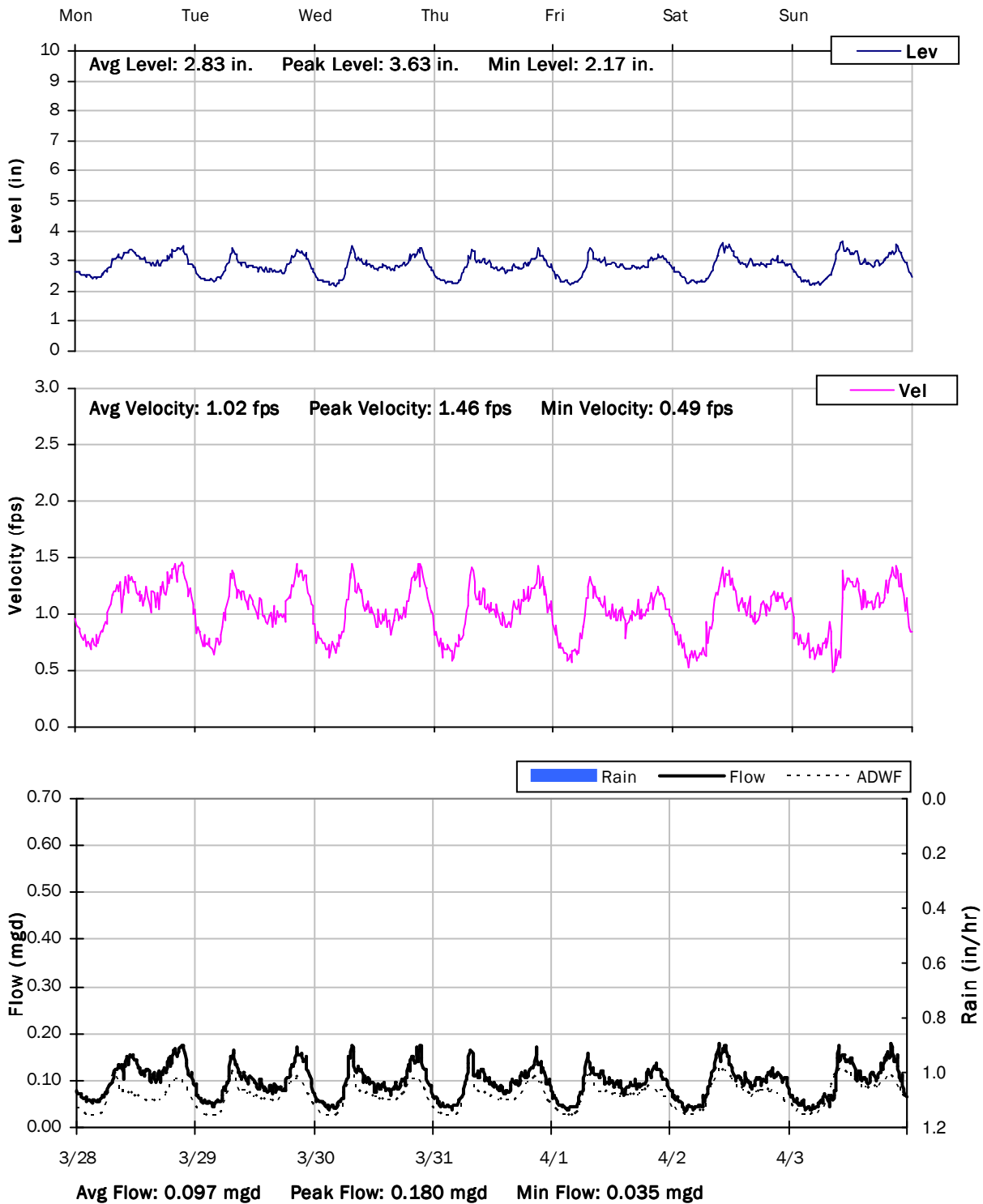
SITE 5
Weekly Level, Velocity and Flow Hydrographs
3/14/2016 to 3/21/2016



SITE 5
Weekly Level, Velocity and Flow Hydrographs
3/21/2016 to 3/28/2016



SITE 5
Weekly Level, Velocity and Flow Hydrographs
3/28/2016 to 4/4/2016



City of Lincoln

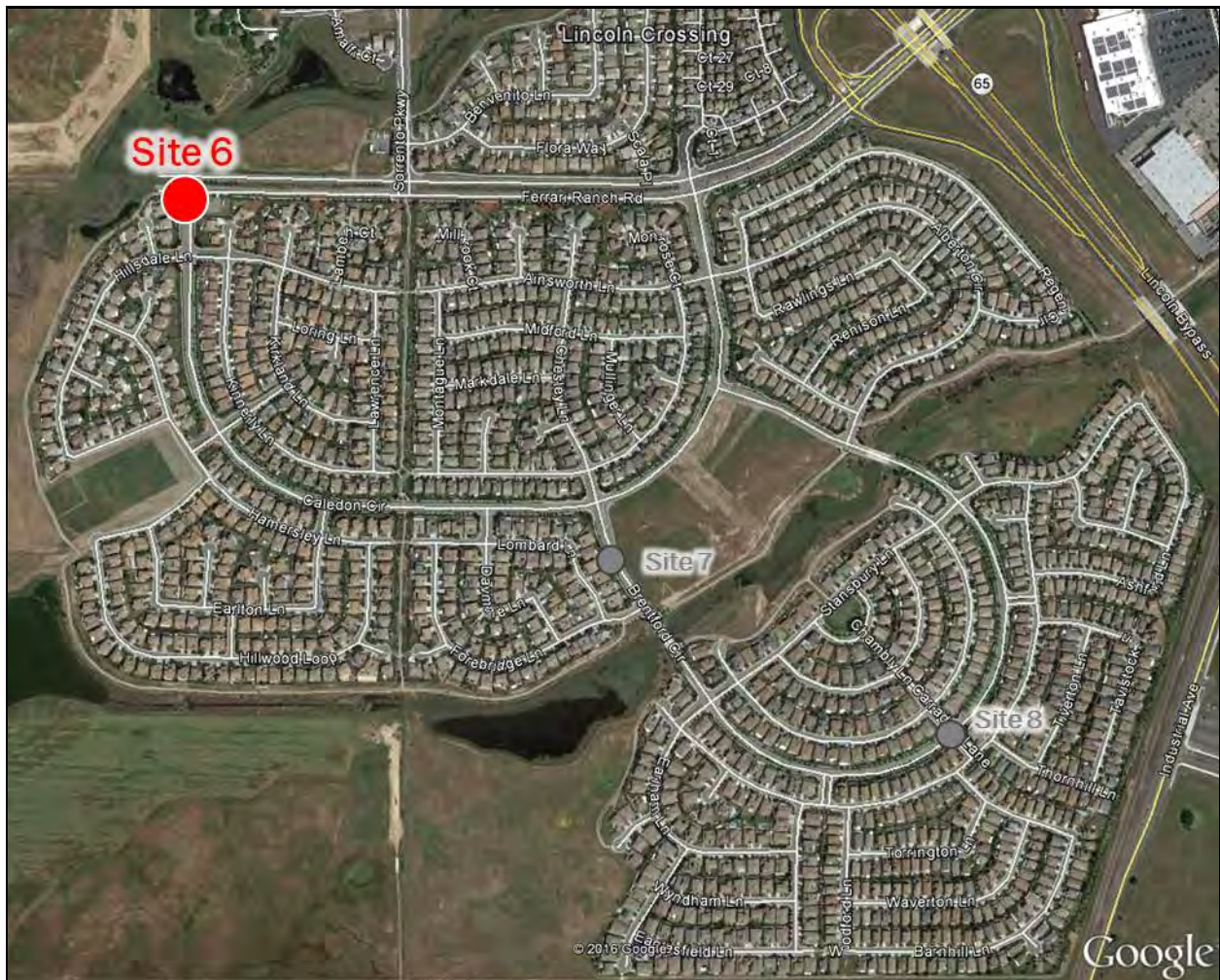
Sanitary Sewer Flow Monitoring

Temporary Monitoring: February 26 to April 3, 2016

Monitoring Site: Site 6

Location: Intersection of Ferrari Ranch Rd and Caledon Cir.

Data Summary Report

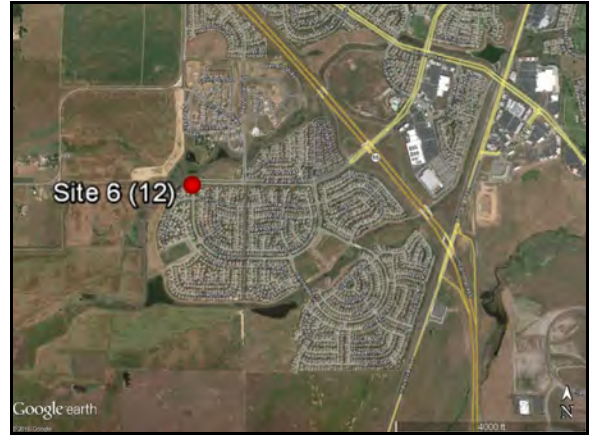


Vicinity Map: Site 6

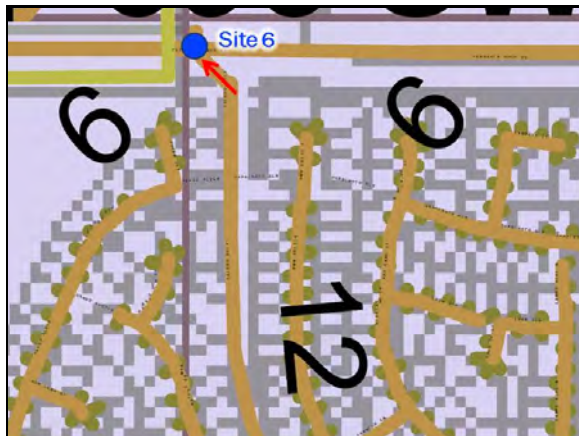
SITE 6

Site Information

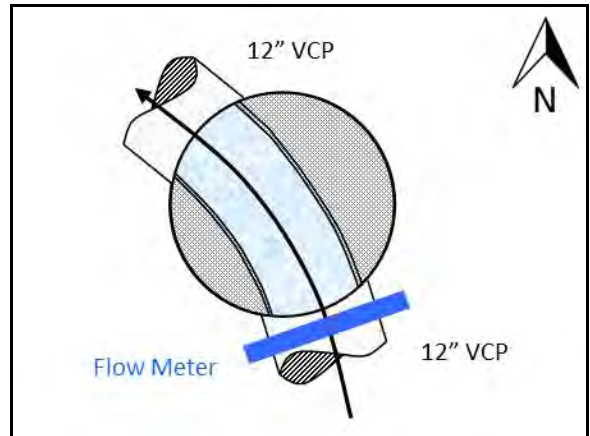
Location:	Intersection of Ferrari Ranch Rd and Caledon Cir.
Coordinates:	121.3208° W, 38.8681° N
Rim Elevation (Earth):	128 feet
Pipe Diameter:	12 inches
ADWF:	0.176 mgd
Peak Measured Flow:	0.546 mgd



Satellite Map



Sanitary Map



Flow Sketch



Street View



Plan View

SITE 6

Additional Site Photos

Influent Pipe



Effluent Pipe



SITE 6

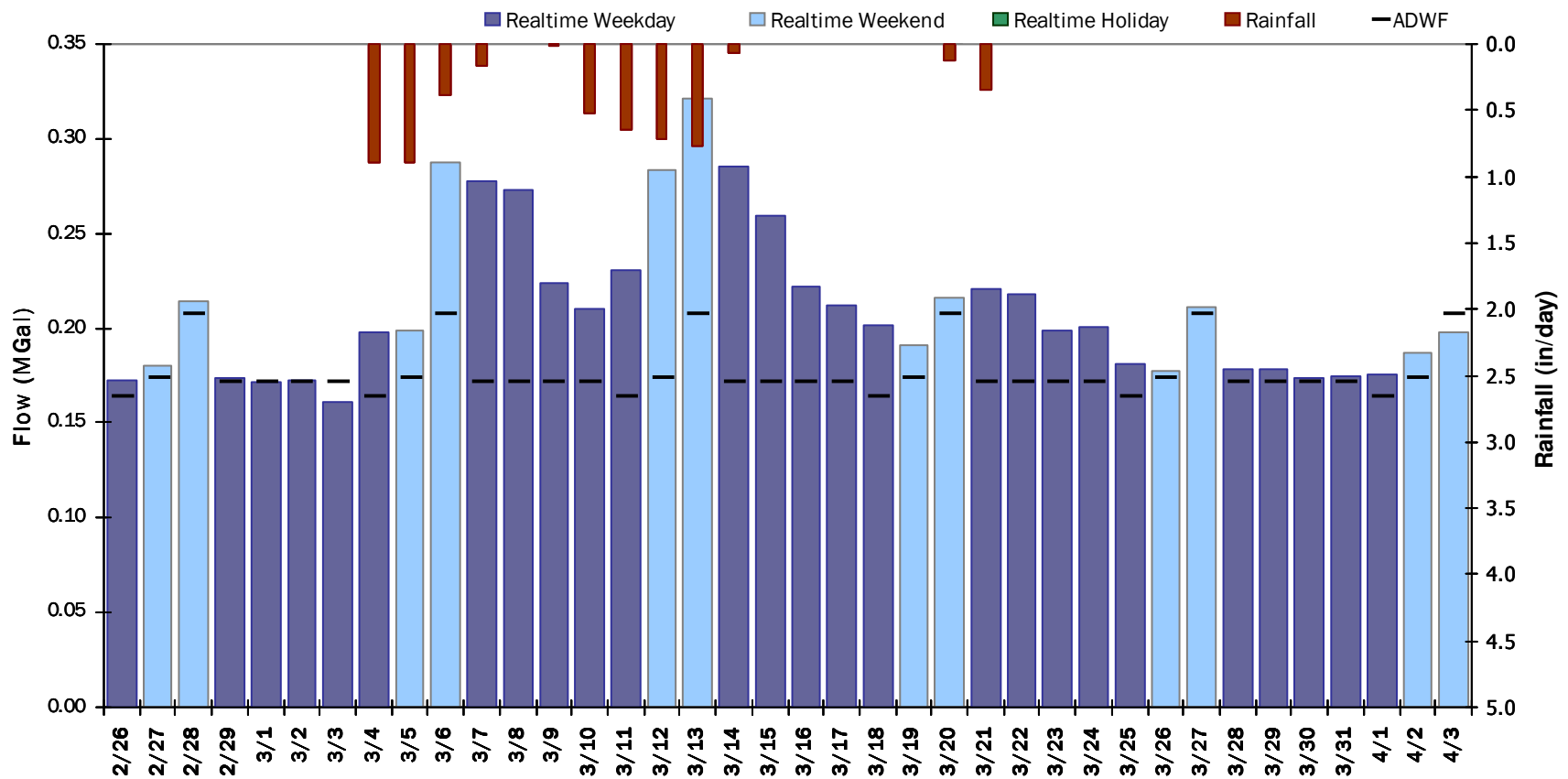
Additional Site Photos

SITE 6

Period Flow Summary: Daily Flow Totals

Avg Period Flow: 0.211 MGal Peak Daily Flow: 0.321 MGal Min Daily Flow: 0.161 MGal

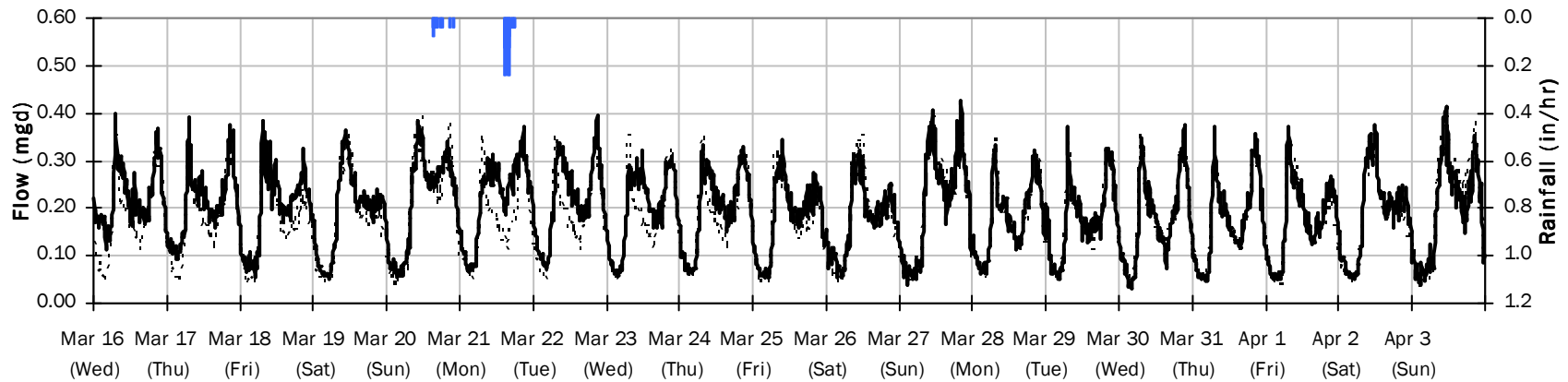
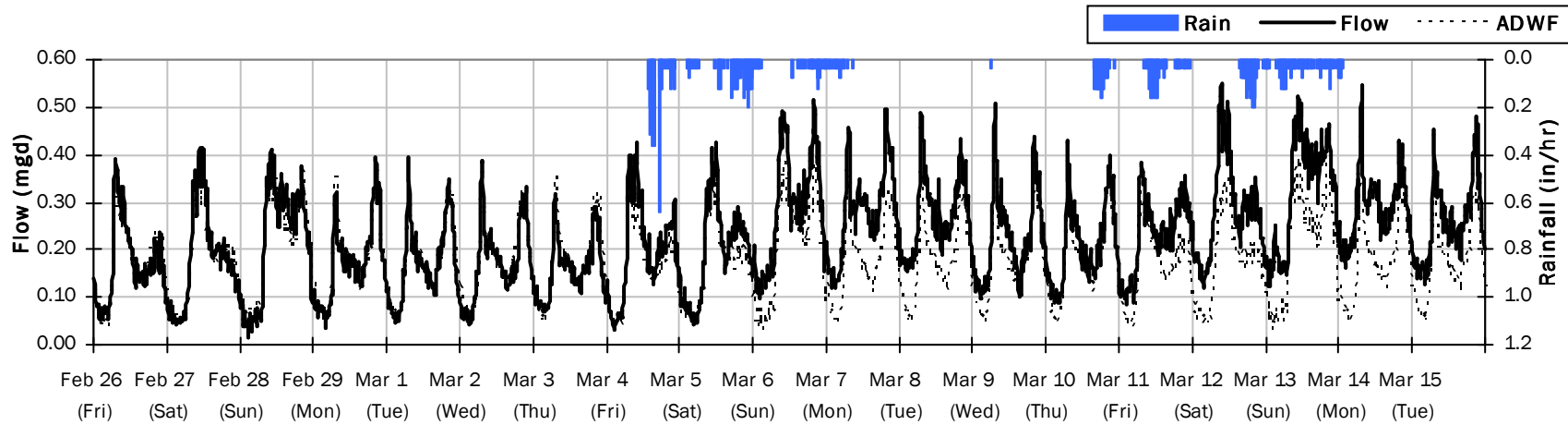
Total Period Rainfall: 5.53 inches



SITE 6

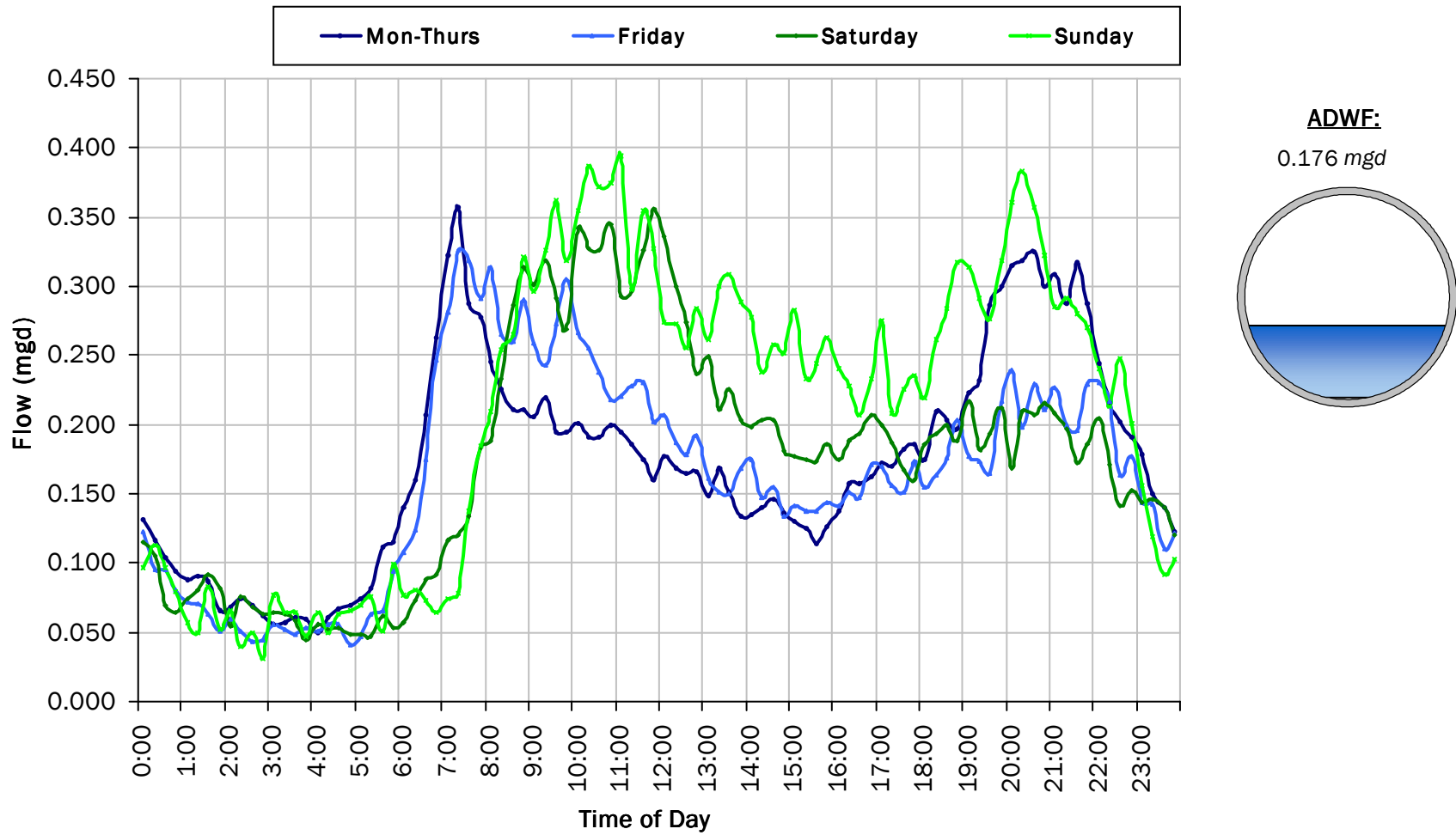
Flow Summary: 2/26/2016 to 4/3/2016

Total Period Rainfall: 5.53 inches Avg Flow: 0.211 mgd Peak Flow: 0.546 mgd Min Flow: 0.015 mgd



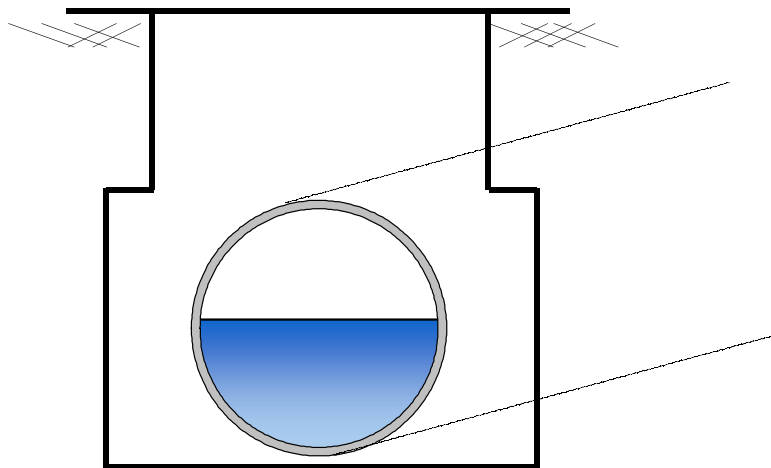
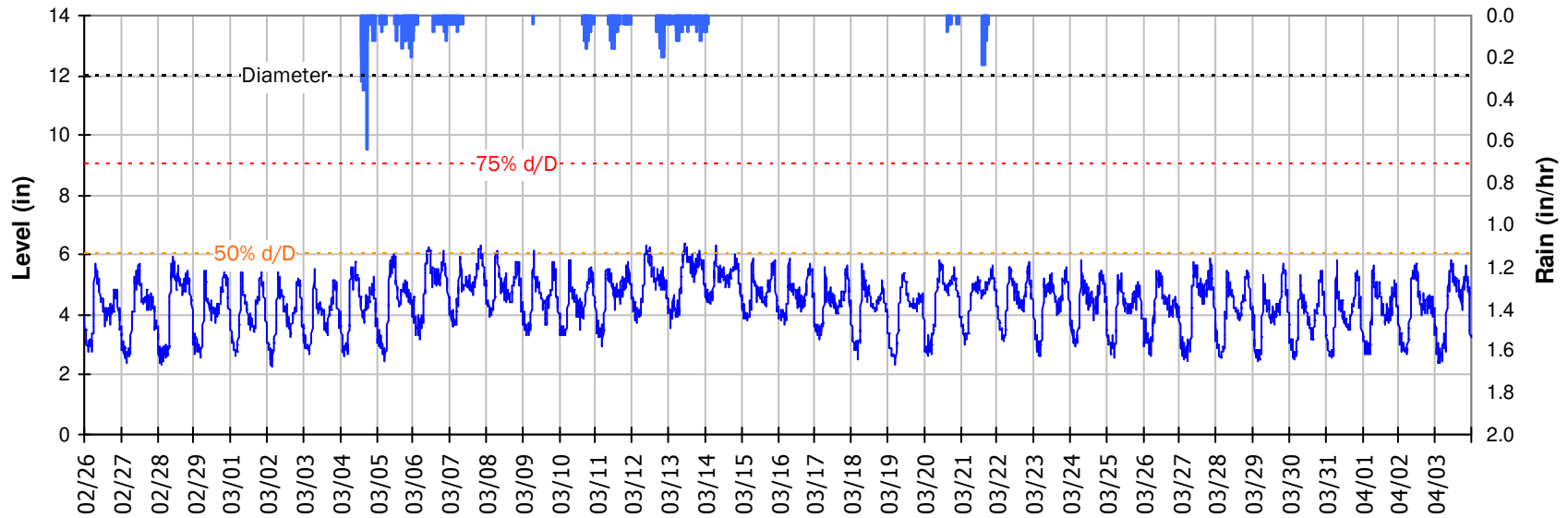
SITE 6

Average Dry Weather Flow Hydrographs



SITE 6
Site Capacity and Surge Summary

Realtime Flow Levels with Rainfall Data over Monitoring Period

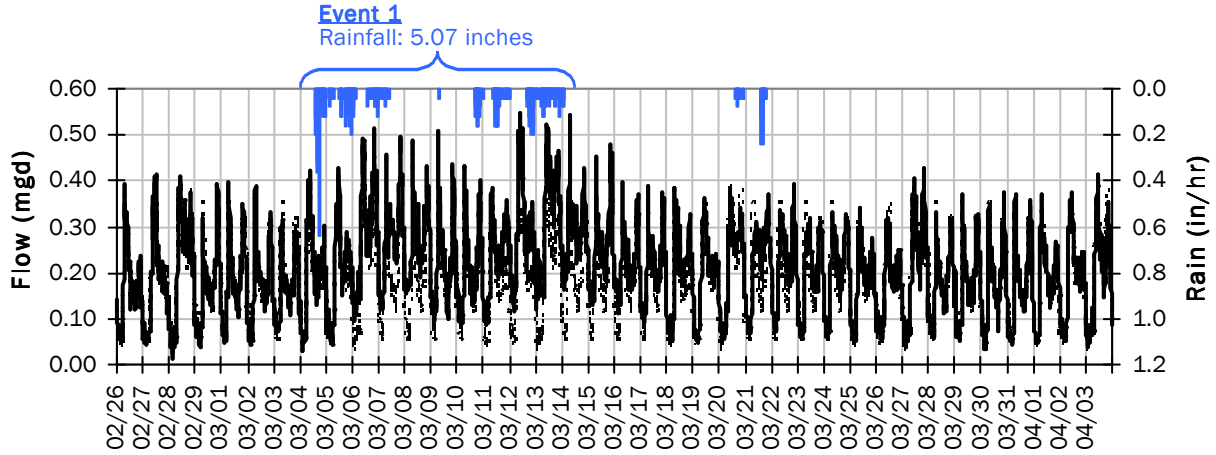


Pipe Diameter: 12 inches
Peak Measured Level: 6.4 inches
Peak d/D Ratio: 0.53

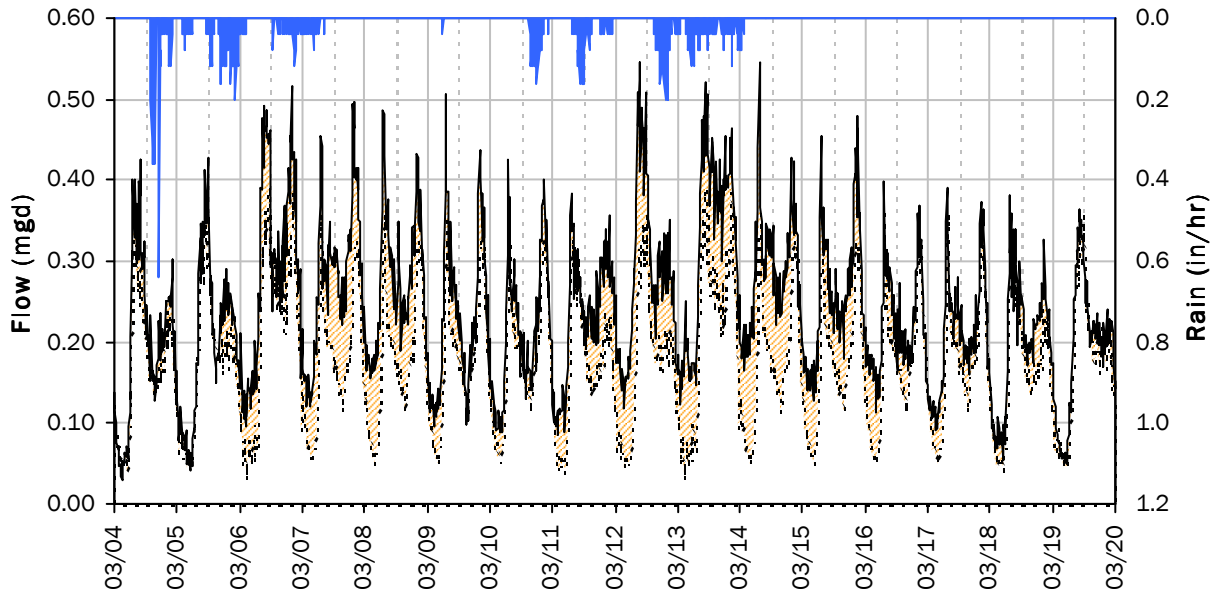
SITE 6

I/I Summary: Event 1

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



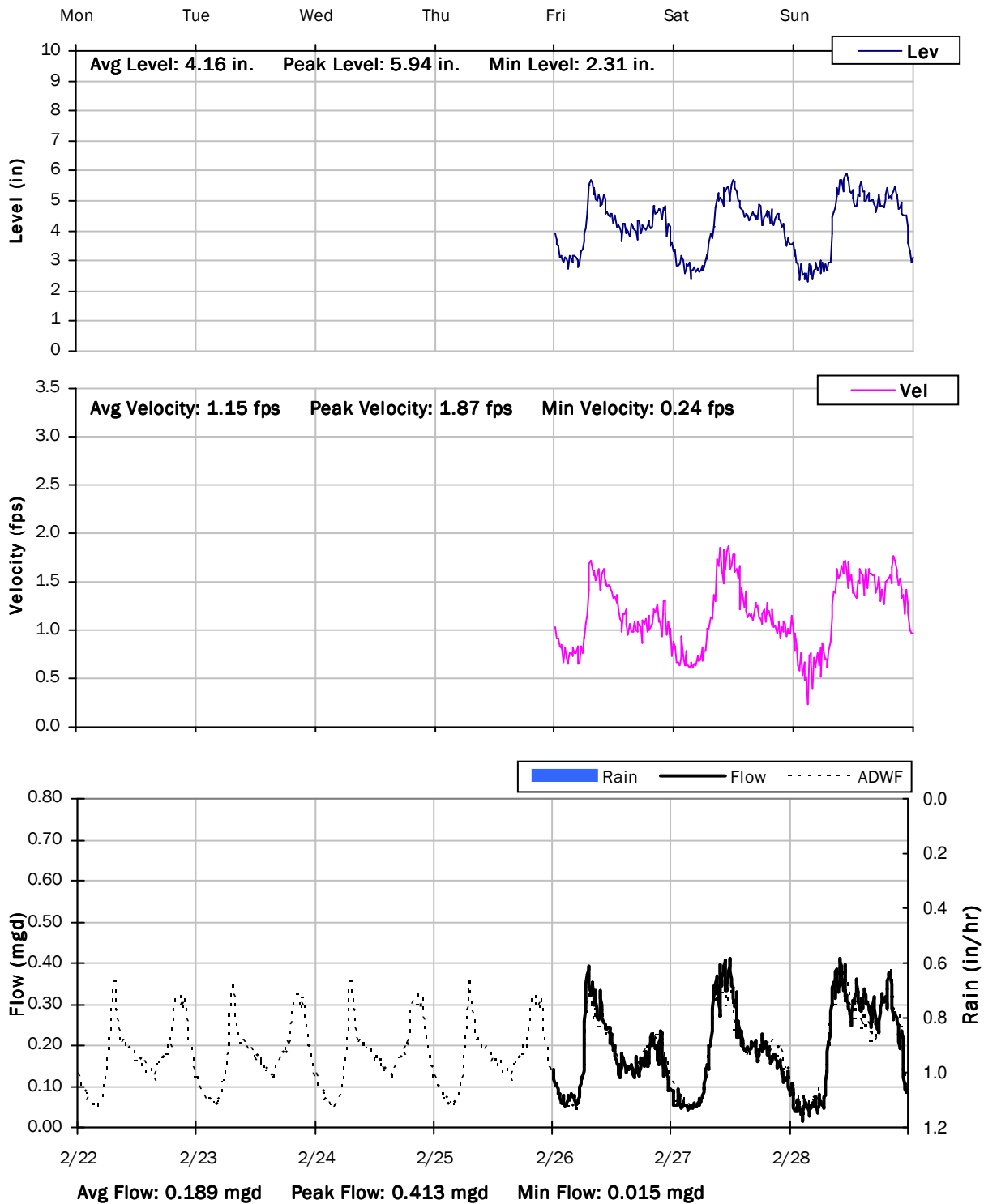
Event 1 Detail Graph



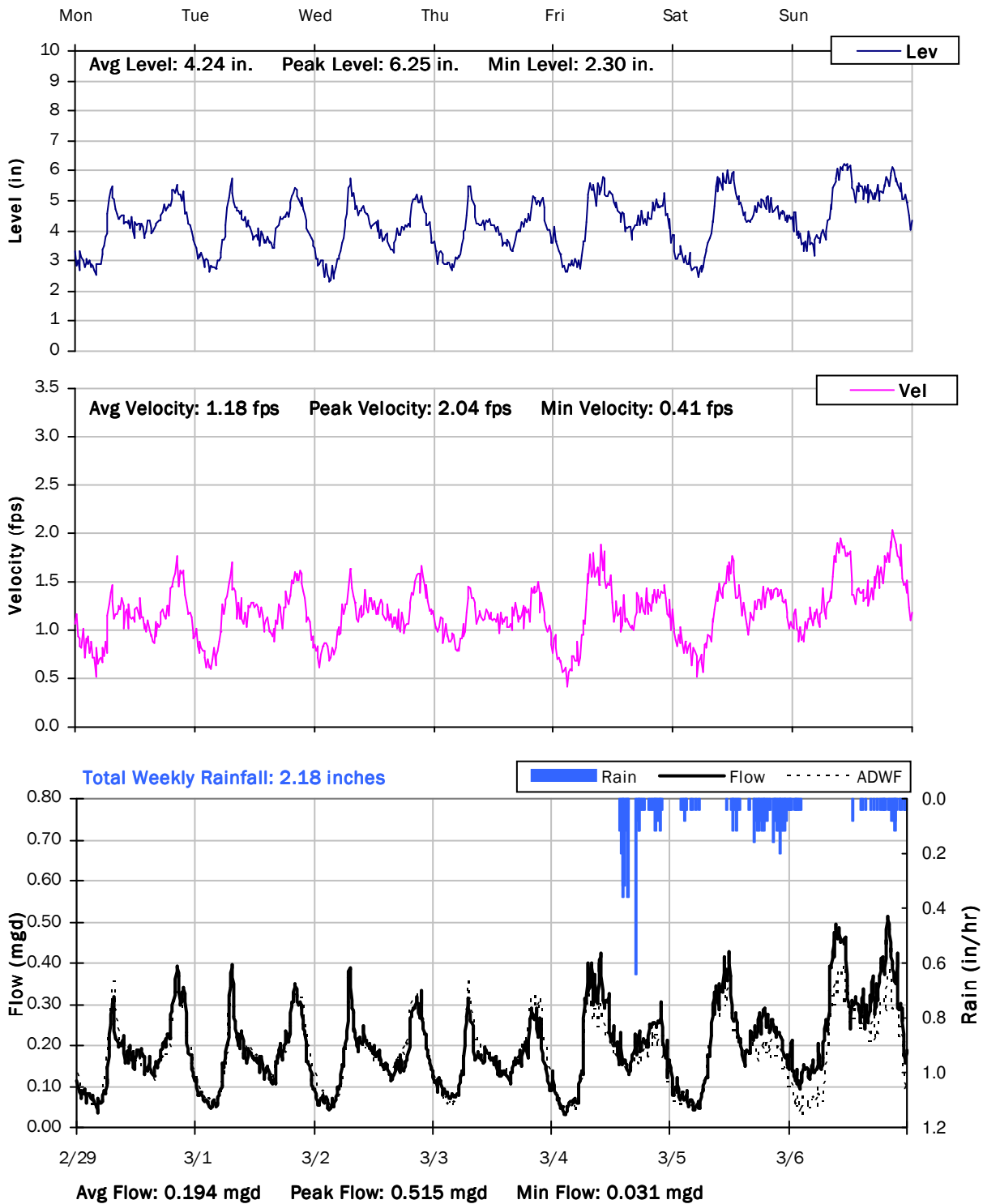
Storm Event I/I Analysis (Rain = 5.07 inches)

<u>Capacity</u>		<u>Inflow / Infiltration</u>	
Peak Flow:	0.55 mgd	Peak I/I Rate:	0.25 mgd
PF:	3.10	Total I/I:	1,050,000 gallons
Peak Level:	6.40 in		
d/D Ratio:	0.53		

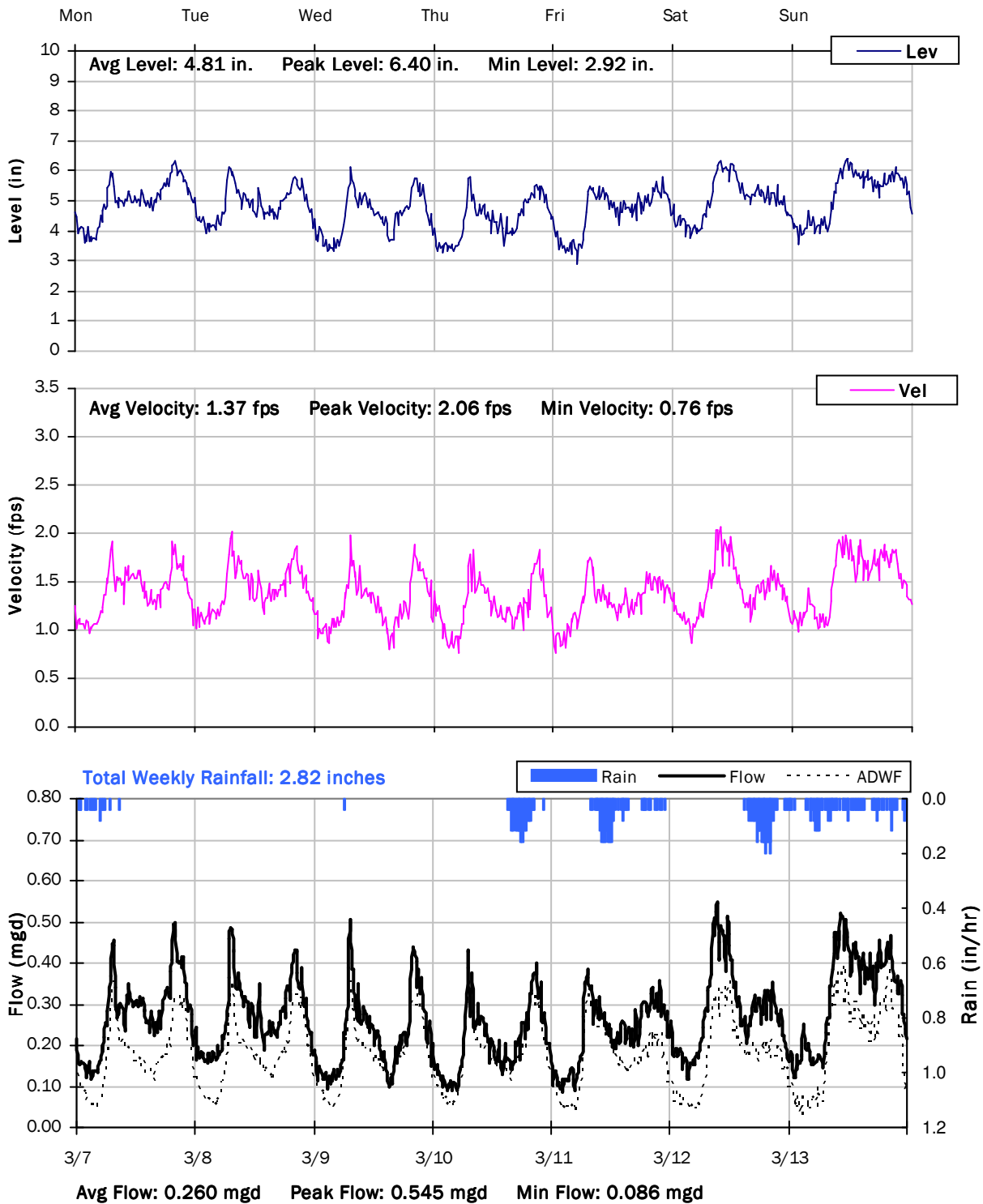
SITE 6
Weekly Level, Velocity and Flow Hydrographs
2/22/2016 to 2/29/2016



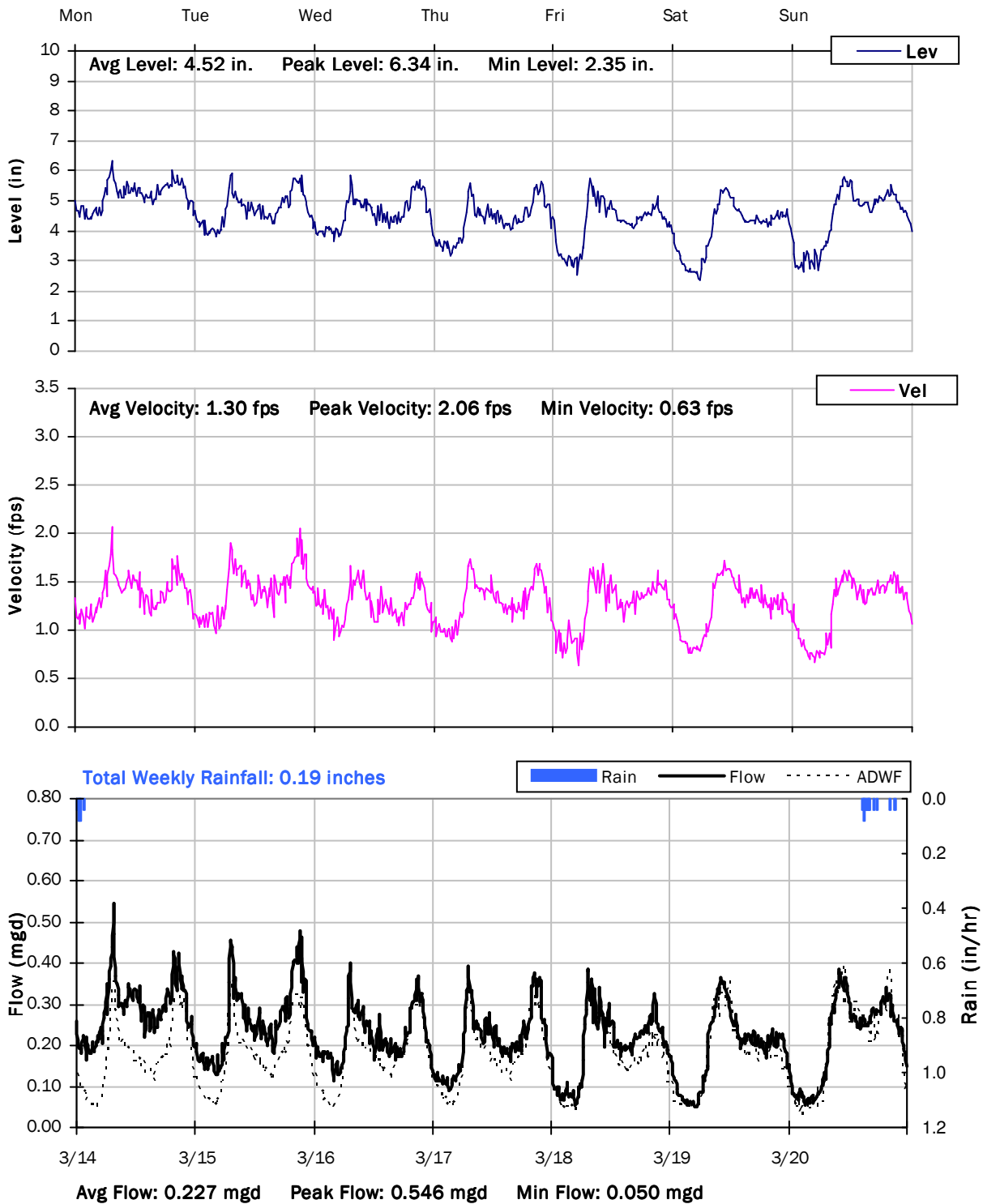
SITE 6
Weekly Level, Velocity and Flow Hydrographs
2/29/2016 to 3/7/2016



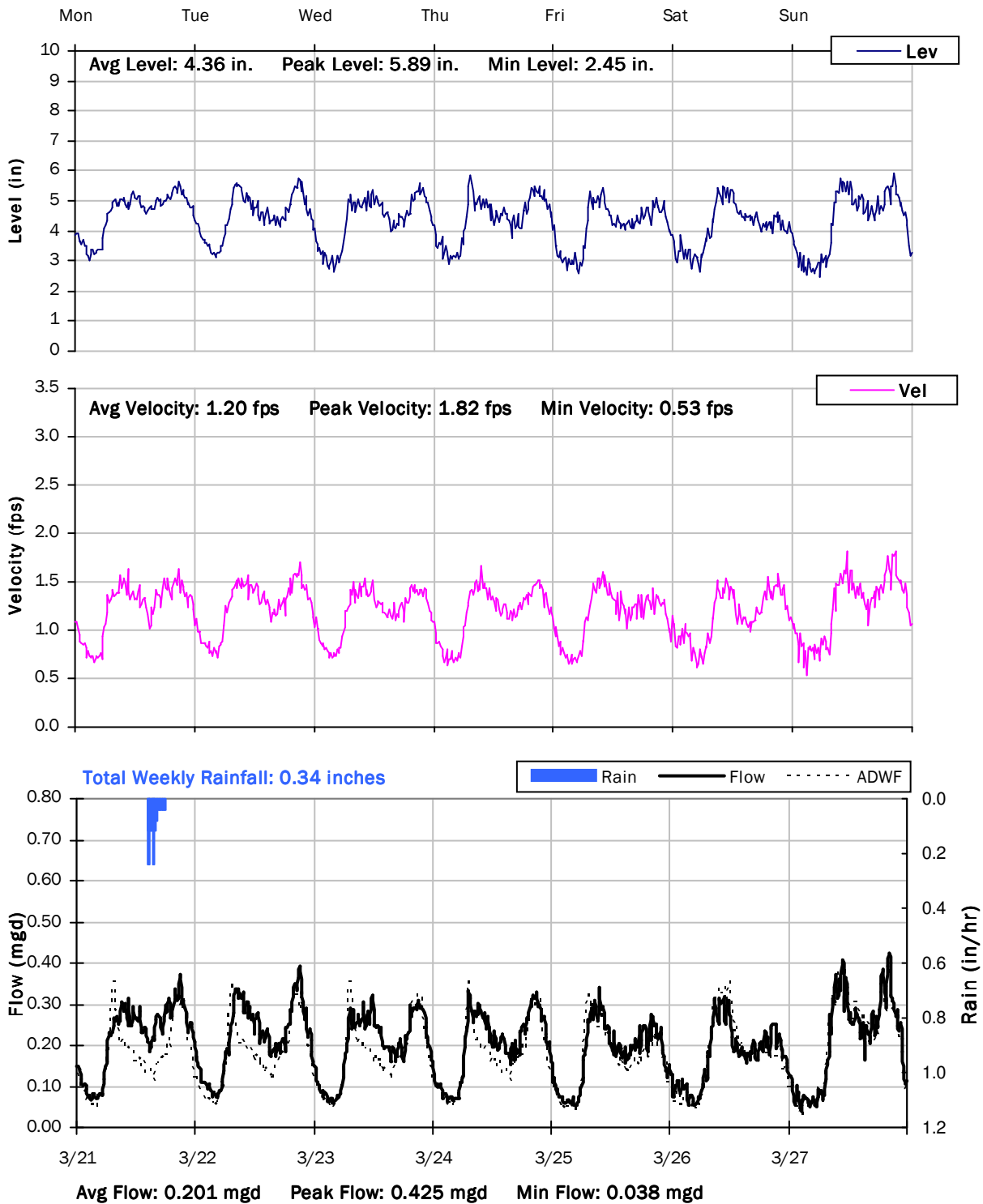
SITE 6
Weekly Level, Velocity and Flow Hydrographs
3/7/2016 to 3/14/2016



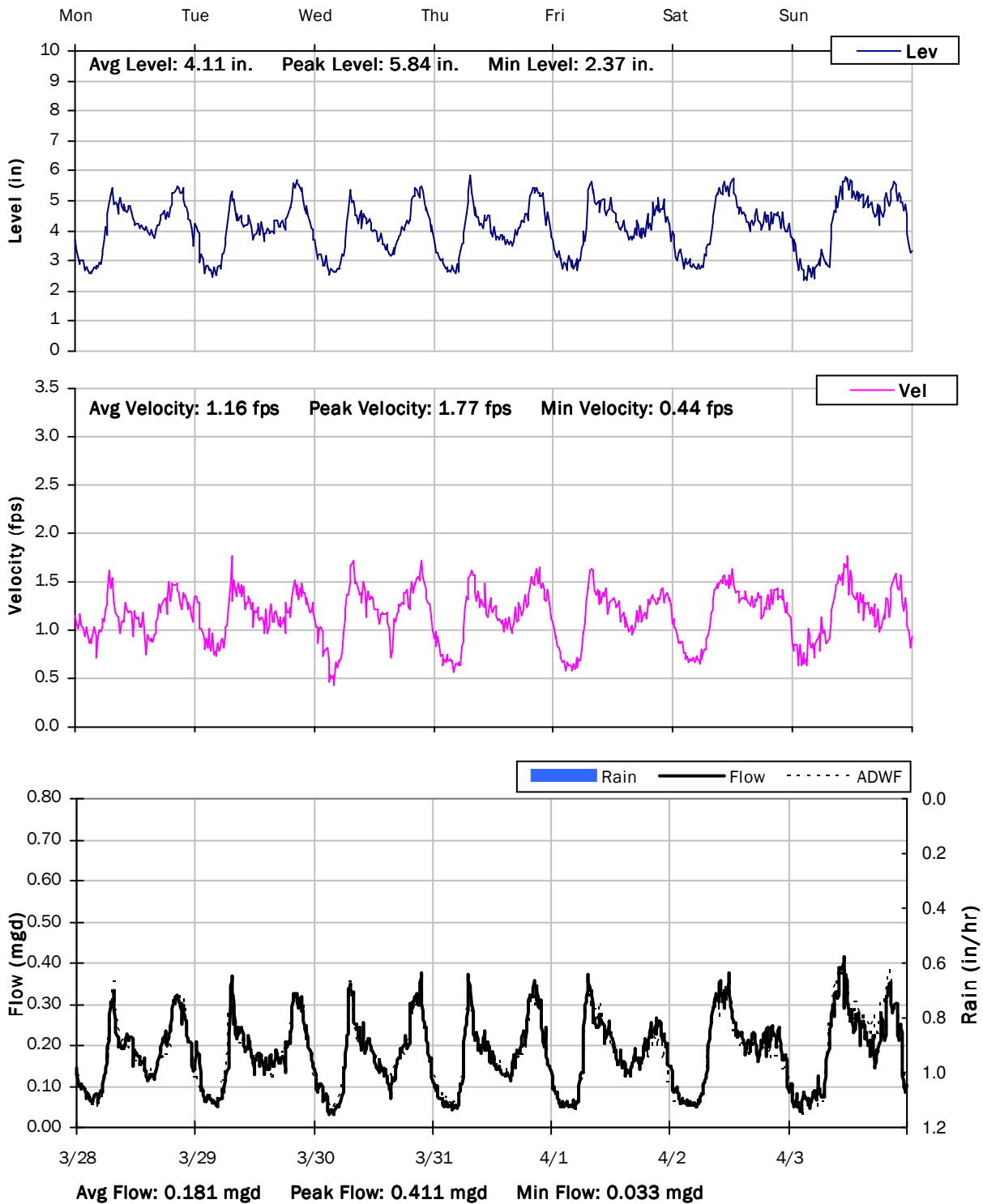
SITE 6
Weekly Level, Velocity and Flow Hydrographs
3/14/2016 to 3/21/2016



SITE 6
Weekly Level, Velocity and Flow Hydrographs
3/21/2016 to 3/28/2016



SITE 6
Weekly Level, Velocity and Flow Hydrographs
3/28/2016 to 4/4/2016



City of Lincoln

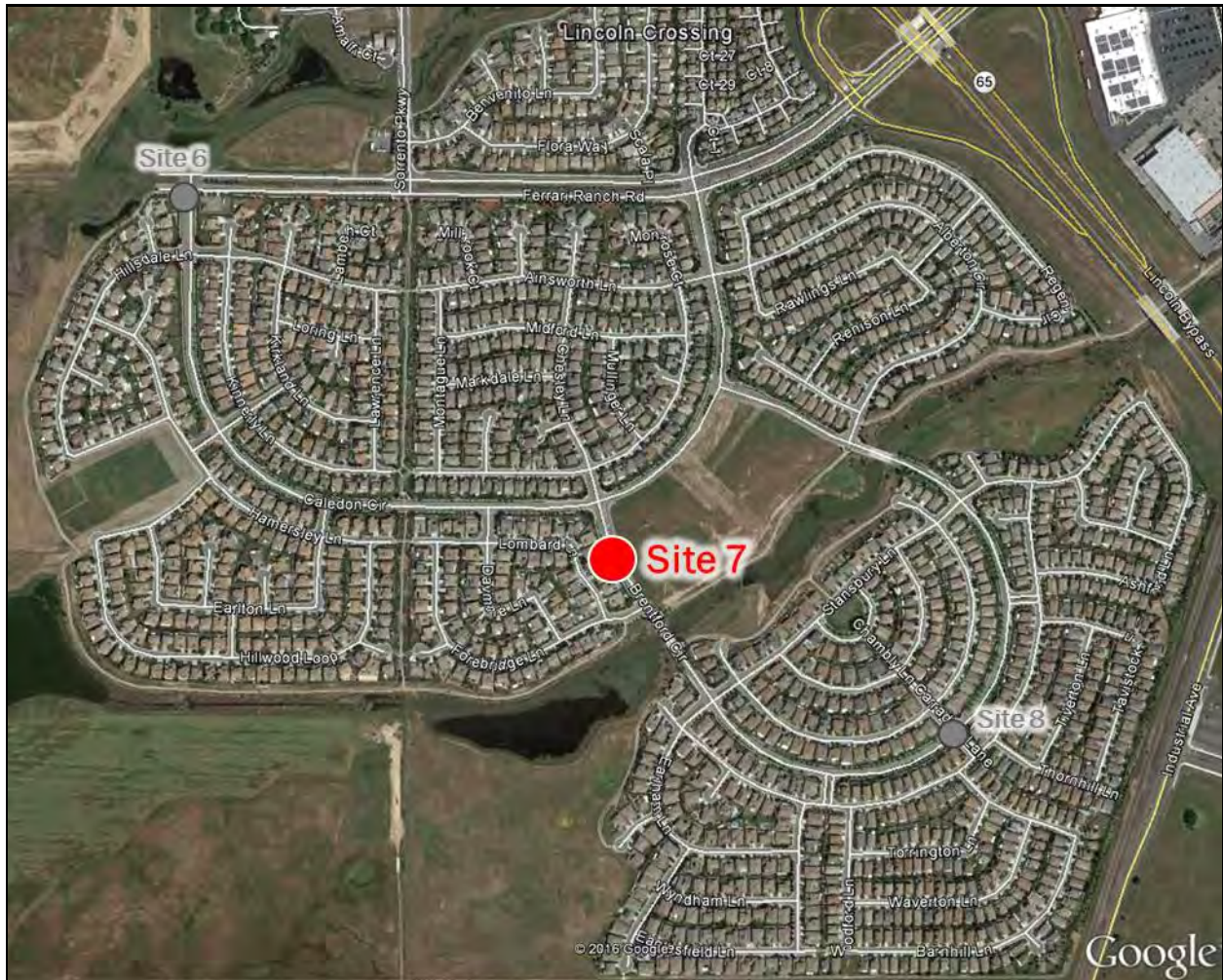
Sanitary Sewer Flow Monitoring

Temporary Monitoring: February 26 to April 3, 2016

Monitoring Site: Site 7

Location: Brentford Cir. 300 ft south of Caledon Cir.

Data Summary Report



Vicinity Map: Site 7

SITE 7

Site Information

Location: Brentford Cir. 300 ft south of Caledon Cir.

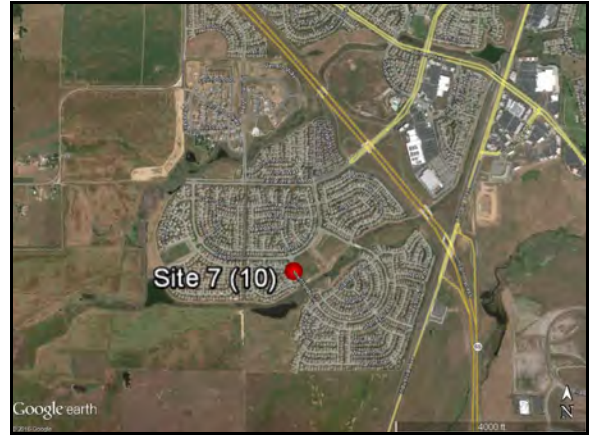
Coordinates: 121.3132° W, 38.8630° N

Rim Elevation (Earth): 127 feet

Pipe Diameter: 10 inches

ADWF: 0.087 mgd

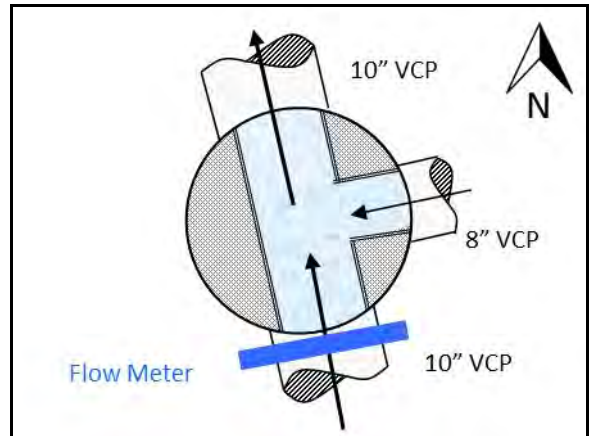
Peak Measured Flow: 0.321 mgd



Satellite Map



Sanitary Map



Flow Sketch



Street View



Plan View

SITE 7

Additional Site Photos

Influent Pipe



Effluent Pipe



SITE 7

Additional Site Photos

East Lateral

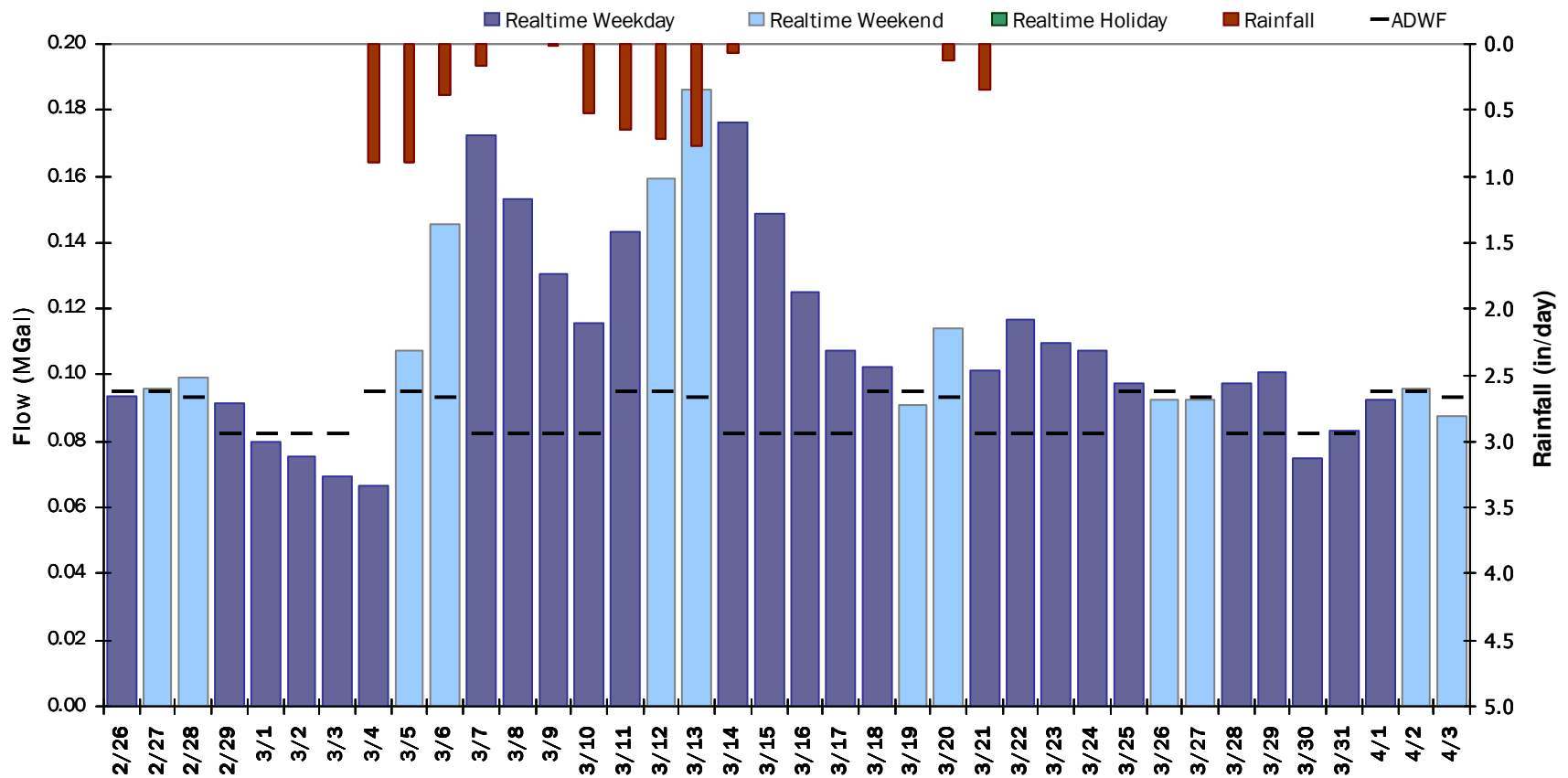


SITE 7

Period Flow Summary: Daily Flow Totals

Avg Period Flow: 0.111 MGal Peak Daily Flow: 0.186 MGal Min Daily Flow: 0.067 MGal

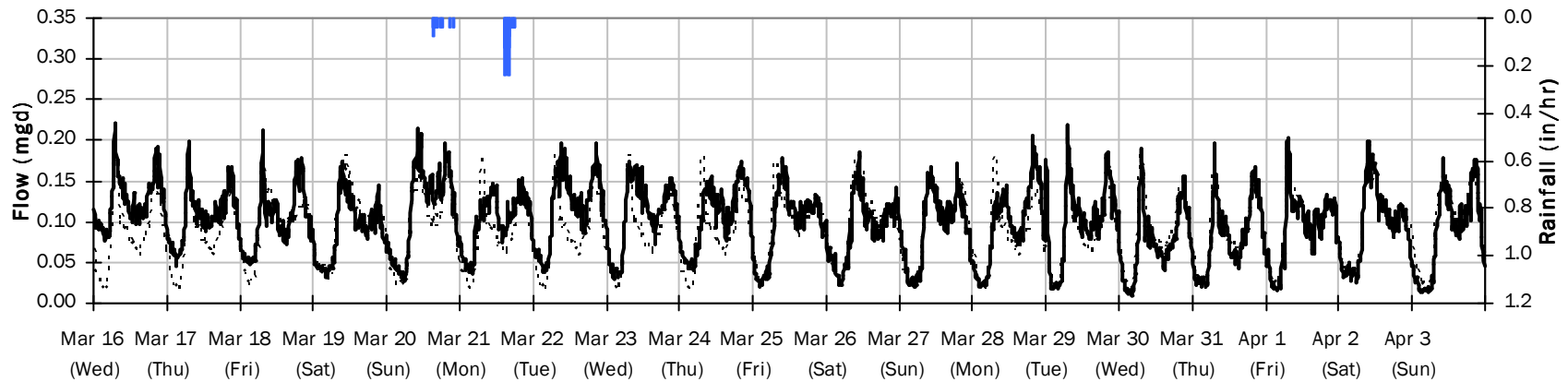
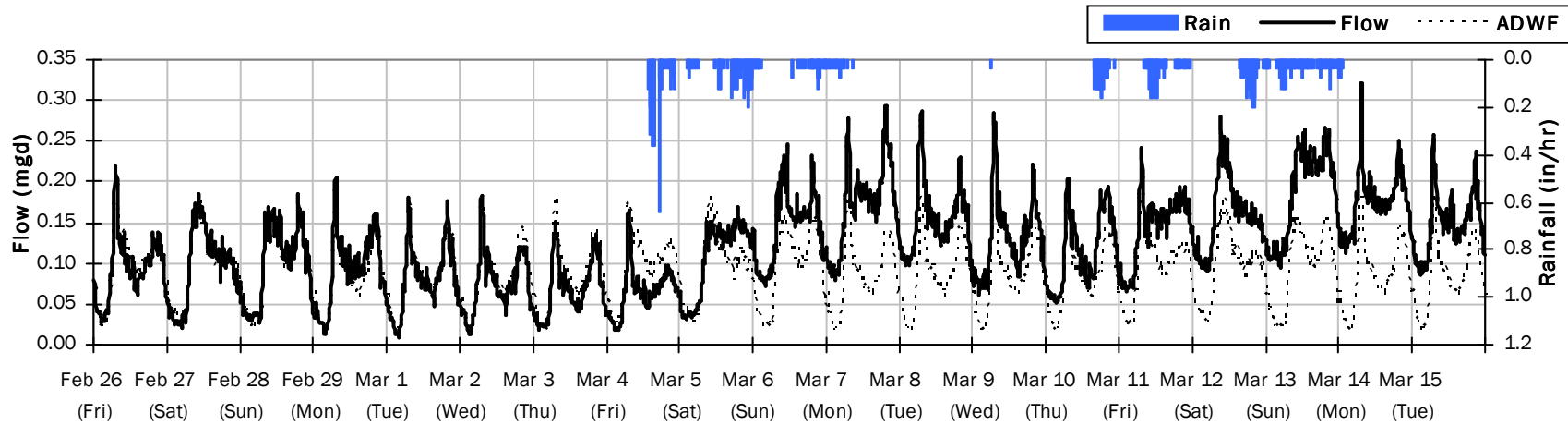
Total Period Rainfall: 5.53 inches



SITE 7

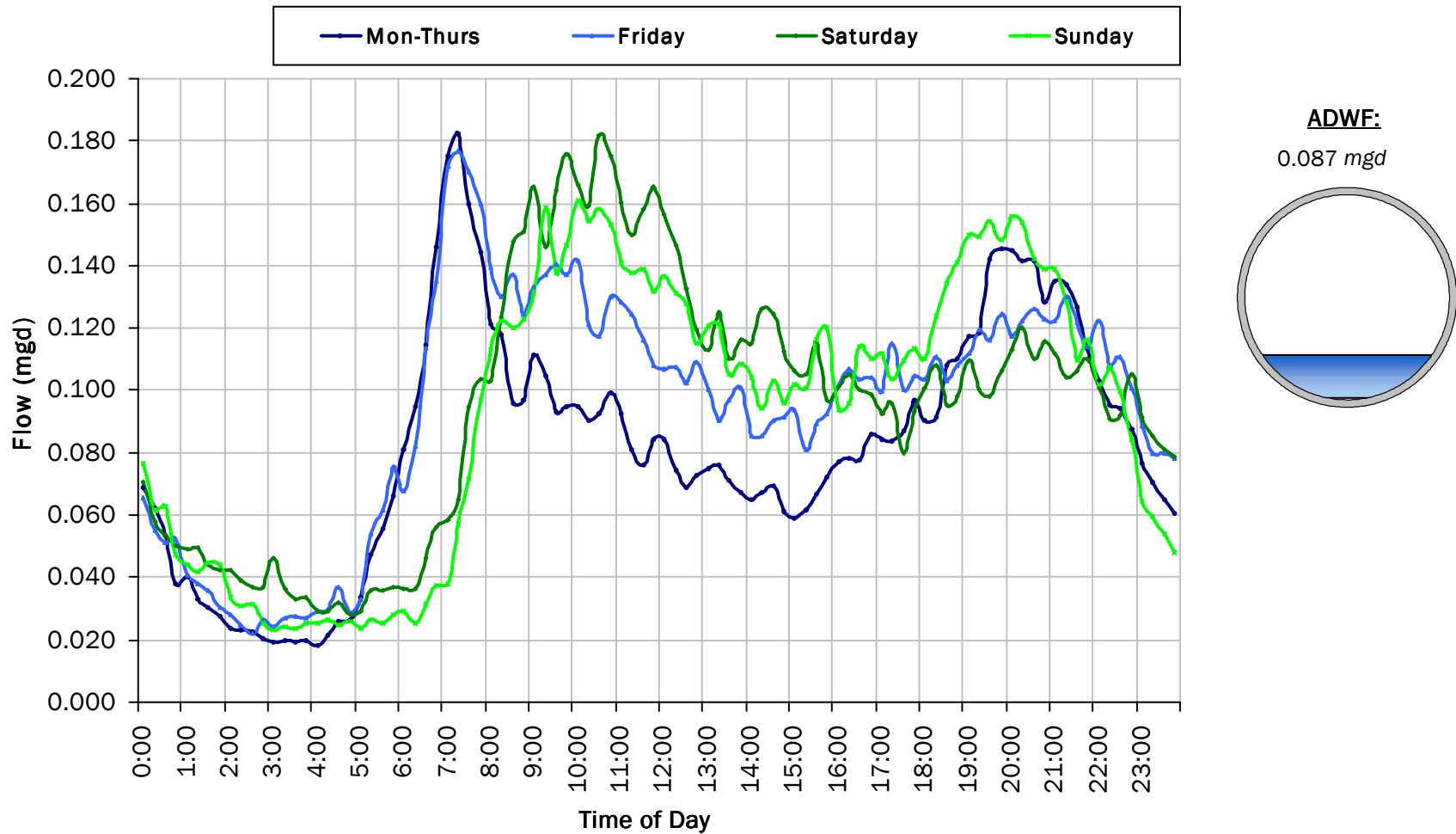
Flow Summary: 2/26/2016 to 4/3/2016

Total Period Rainfall: 5.53 inches Avg Flow: 0.111 mgd Peak Flow: 0.321 mgd Min Flow: 0.009 mgd



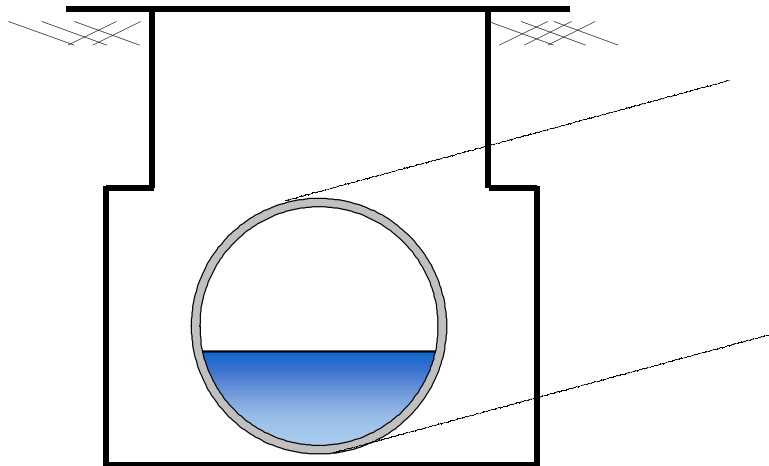
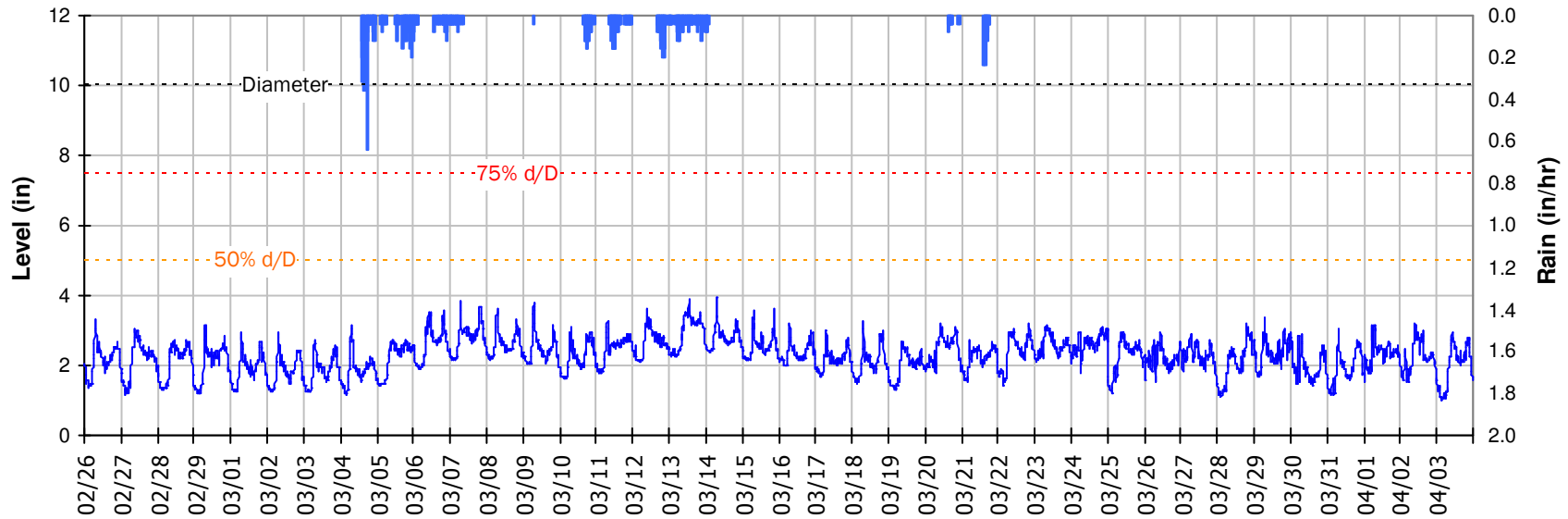
SITE 7

Average Dry Weather Flow Hydrographs



SITE 7
Site Capacity and Surge Summary

Realtime Flow Levels with Rainfall Data over Monitoring Period

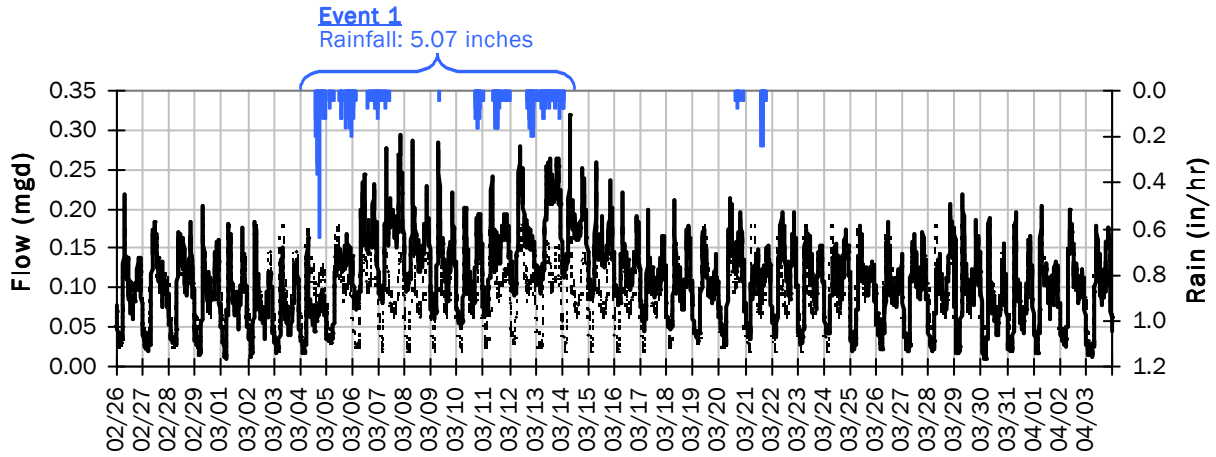


Pipe Diameter: 10 inches
Peak Measured Level: 3.96 inches
Peak d/D Ratio: 0.40

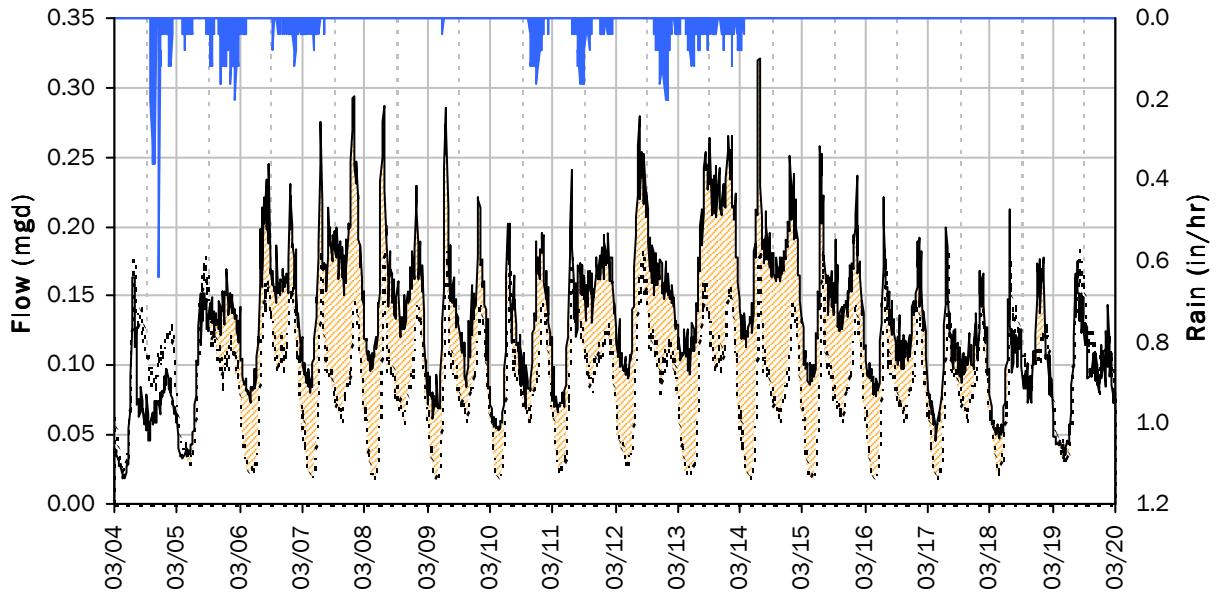
SITE 7

I/I Summary: Event 1

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



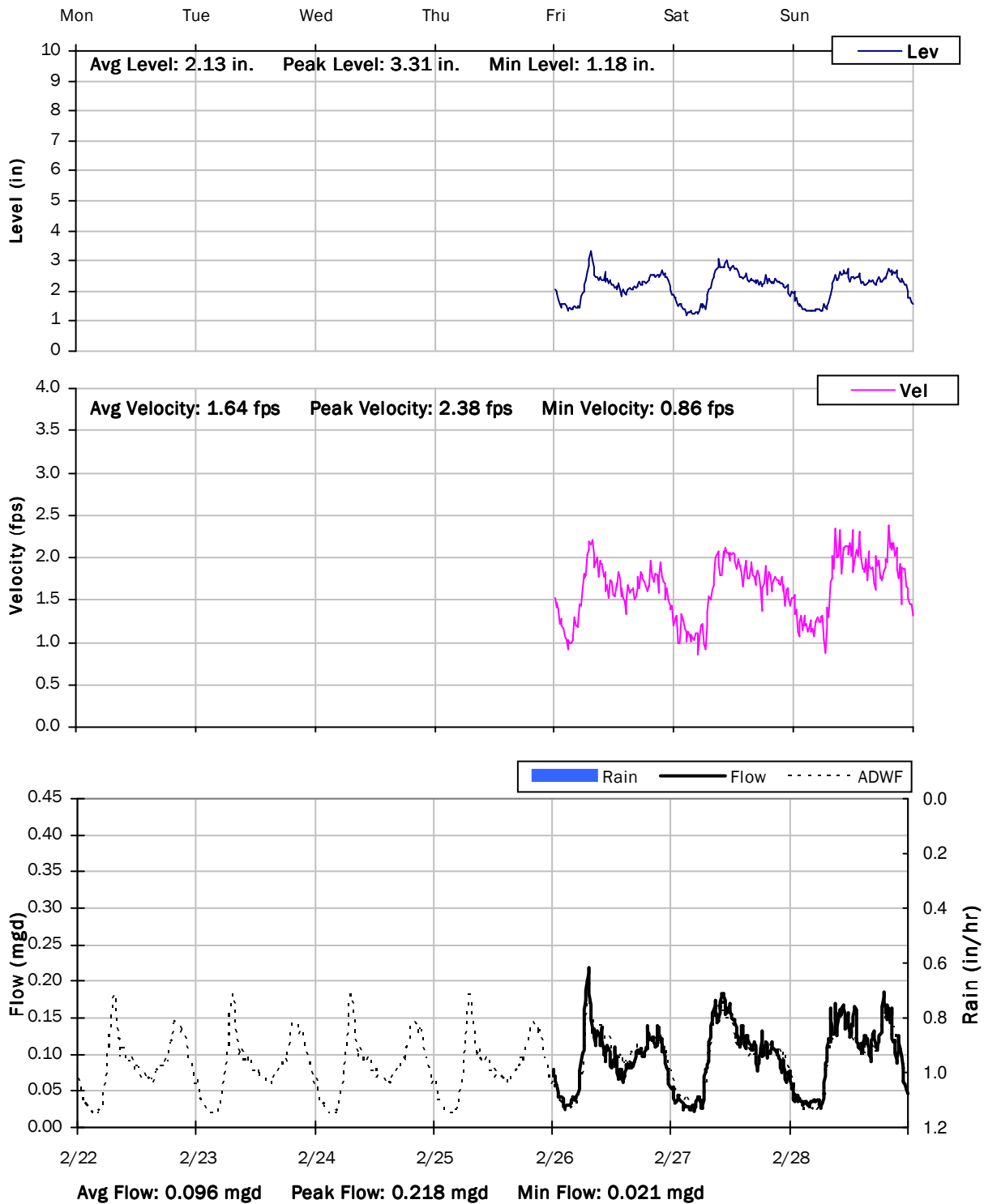
Event 1 Detail Graph



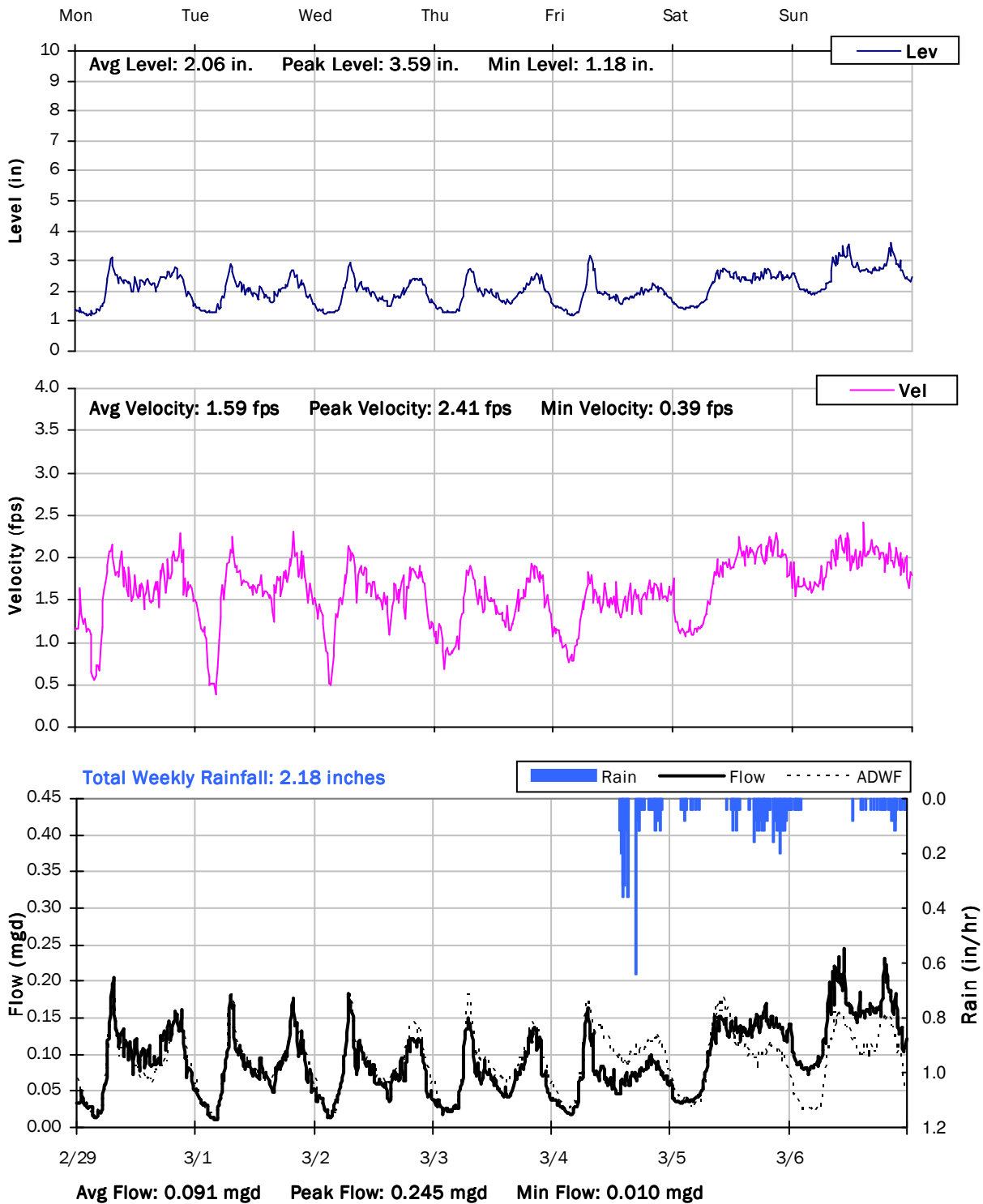
Storm Event I/I Analysis (Rain = 5.07 inches)

<u>Capacity</u>		<u>Inflow / Infiltration</u>	
Peak Flow:	0.32 mgd	Peak I/I Rate:	0.15 mgd
PF:	3.68	Total I/I:	734,000 gallons
Peak Level:	3.96 in		
d/D Ratio:	0.40		

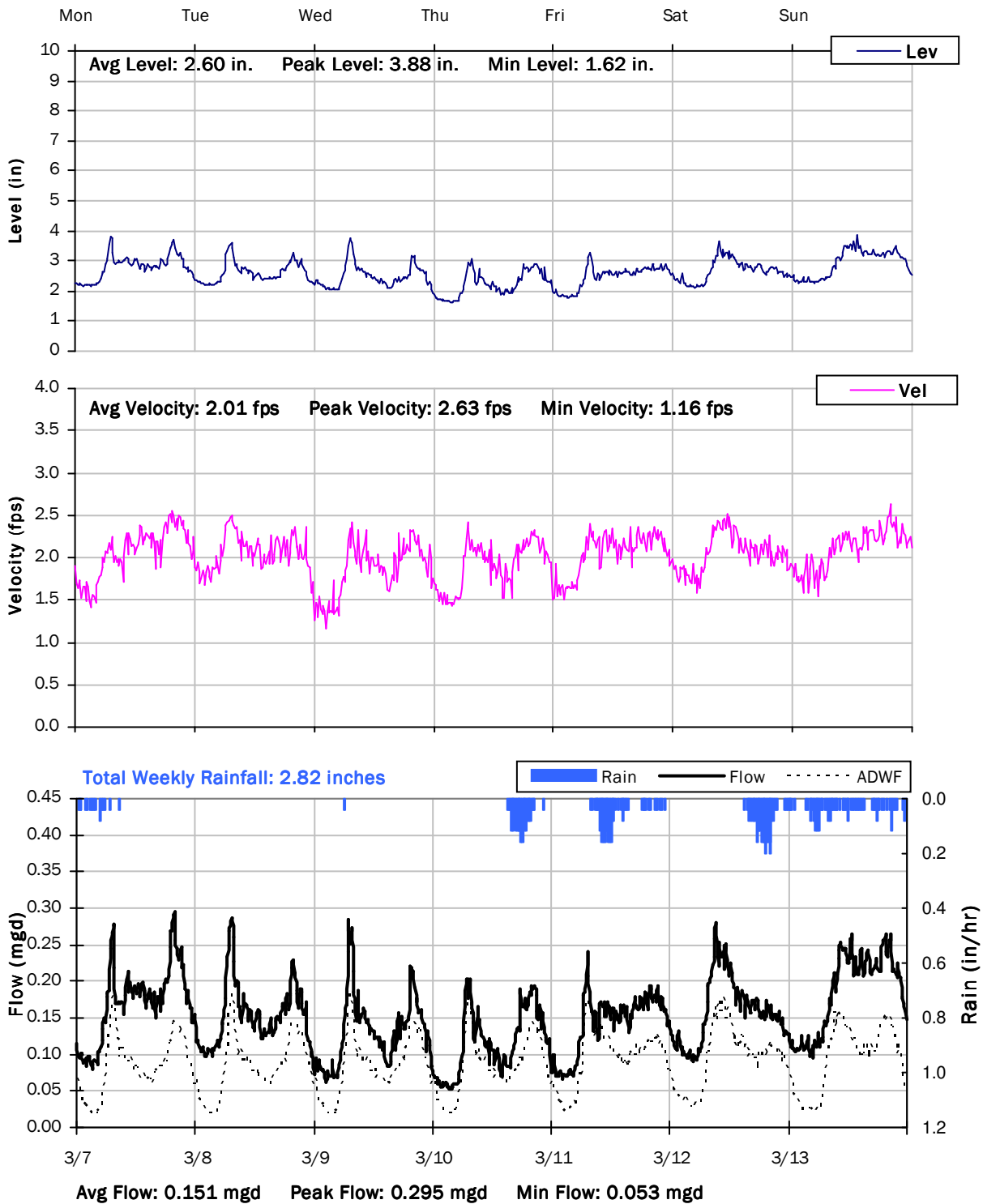
SITE 7
Weekly Level, Velocity and Flow Hydrographs
2/22/2016 to 2/29/2016



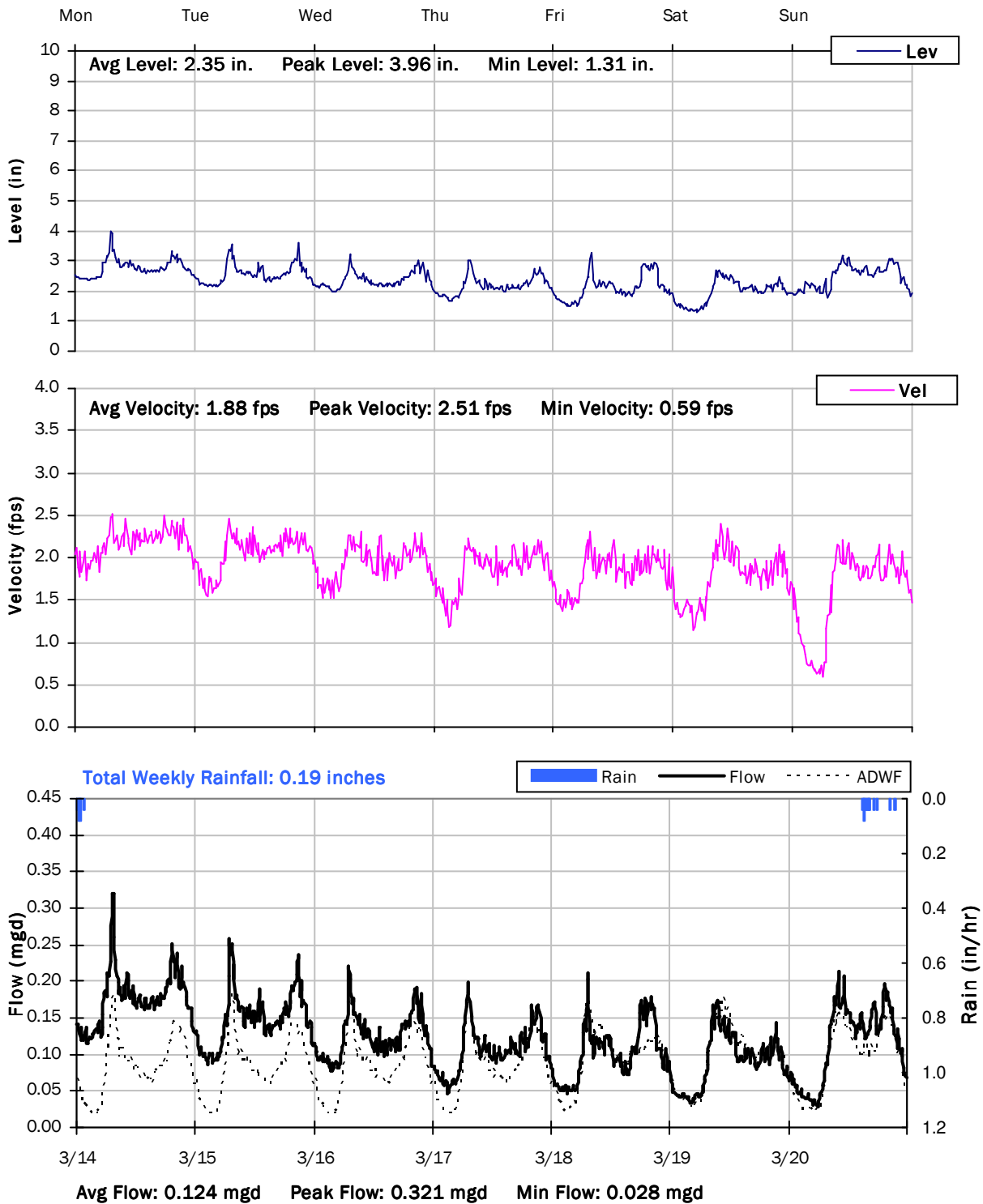
SITE 7
Weekly Level, Velocity and Flow Hydrographs
2/29/2016 to 3/7/2016



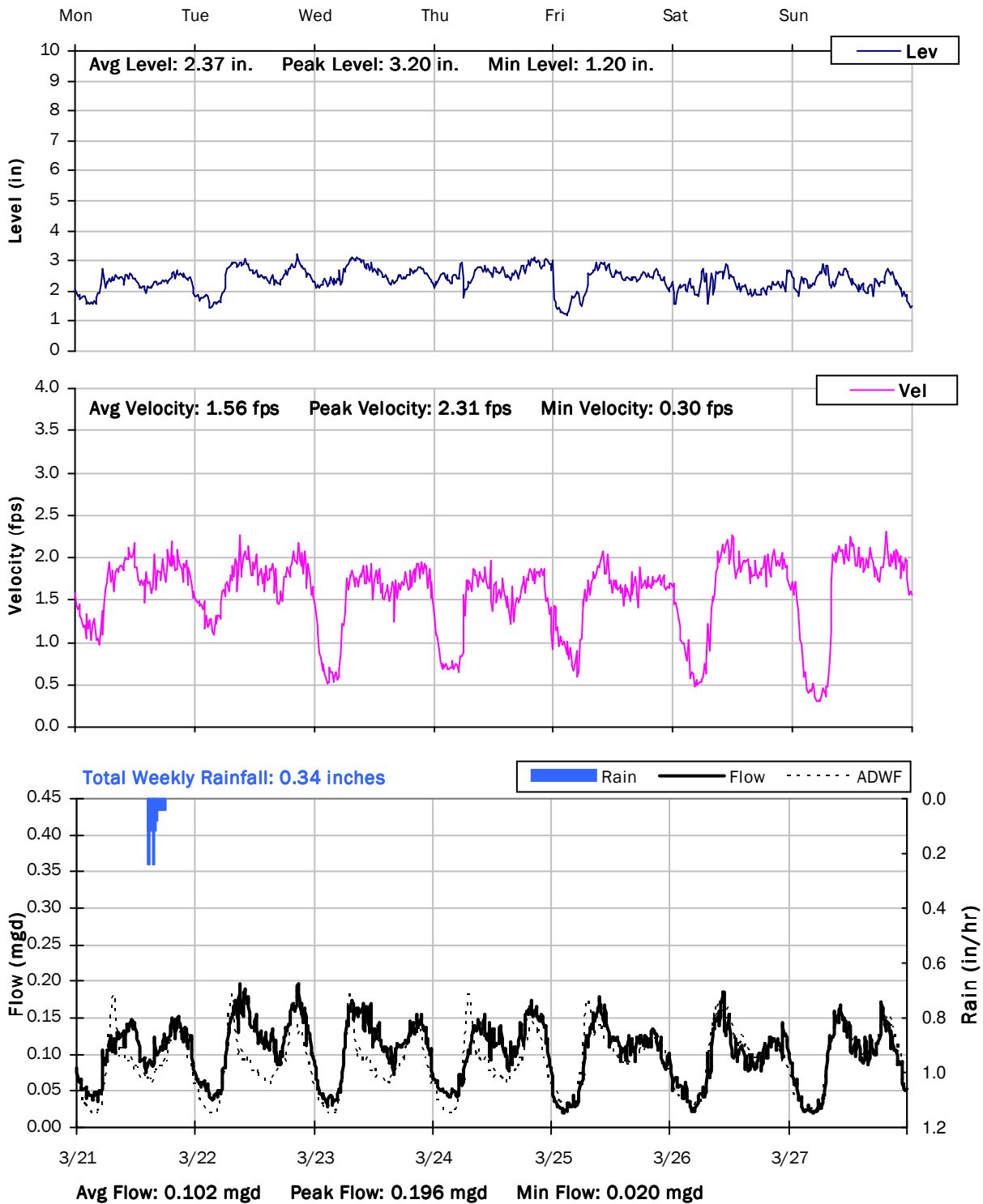
SITE 7
Weekly Level, Velocity and Flow Hydrographs
3/7/2016 to 3/14/2016



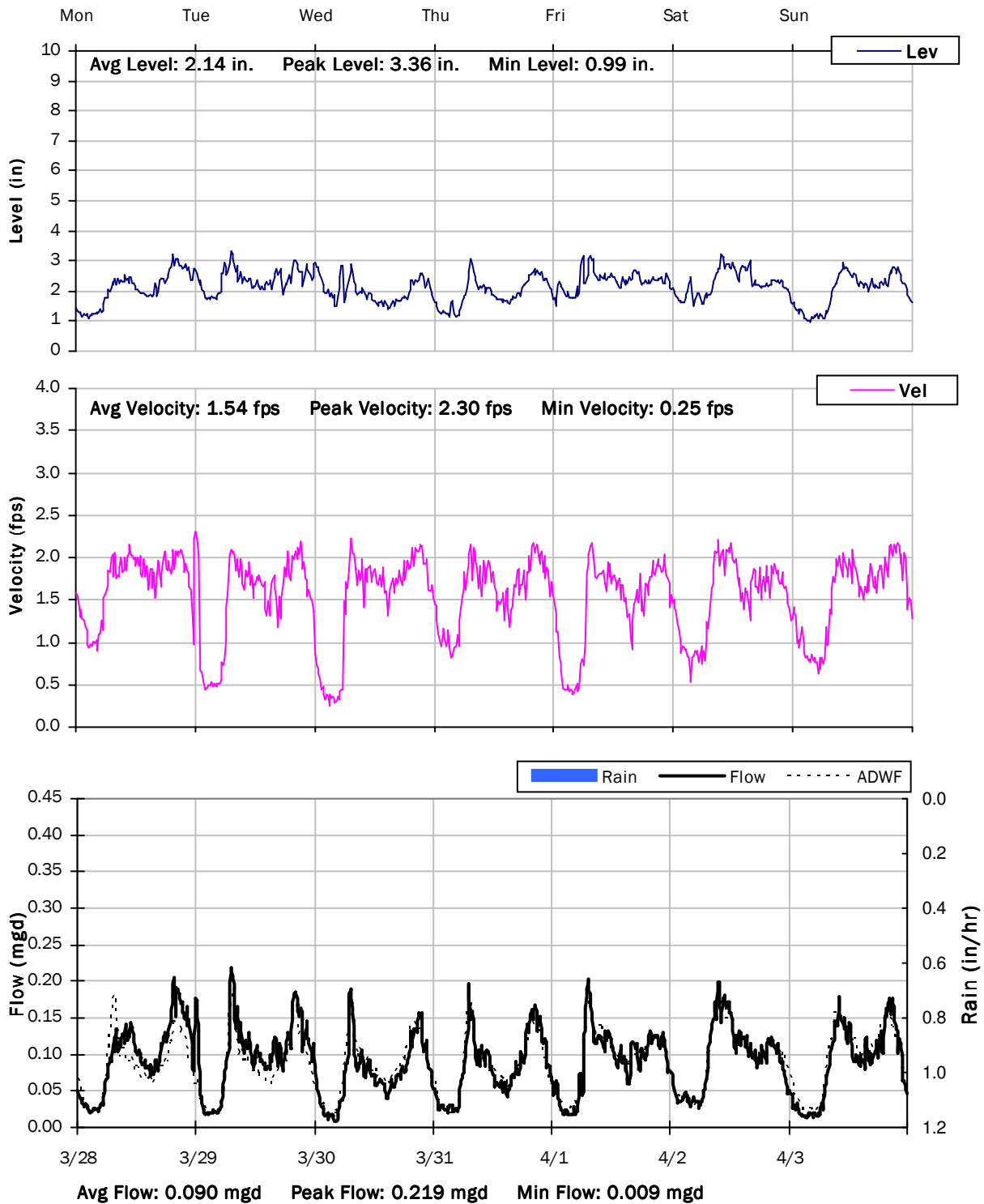
SITE 7
Weekly Level, Velocity and Flow Hydrographs
3/14/2016 to 3/21/2016



SITE 7
Weekly Level, Velocity and Flow Hydrographs
3/21/2016 to 3/28/2016



SITE 7
Weekly Level, Velocity and Flow Hydrographs
3/28/2016 to 4/4/2016



City of Lincoln

Sanitary Sewer Flow Monitoring

Temporary Monitoring: February 26 to April 3, 2016

Monitoring Site: Site 8

Location: Intersection of Brentford Cir and Caradale Ln

Data Summary Report



Vicinity Map: Site 8

SITE 8

Site Information

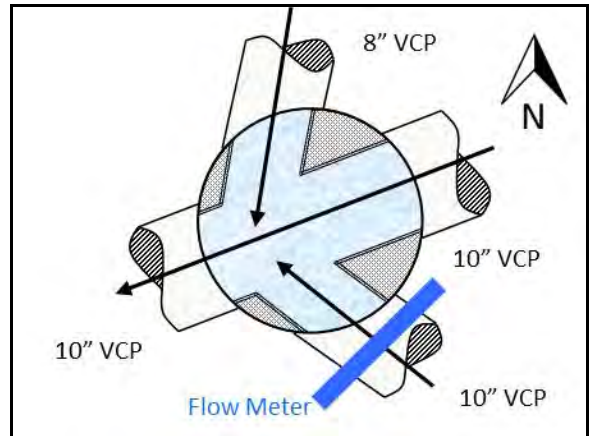
Location:	Intersection of Brentford Cir and Caradale Ln
Coordinates:	121.3072° W, 38.8606° N
Rim Elevation (Earth):	132 feet
Pipe Diameter:	10 inches
ADWF:	0.018 mgd
Peak Measured Flow:	0.054 mgd



Satellite Map



Sanitary Map



Flow Sketch



Street View



Plan View

SITE 8

Additional Site Photos

Influent Pipe



Effluent Pipe



SITE 8

Additional Site Photos

Northwest Lateral



Northeast Lateral

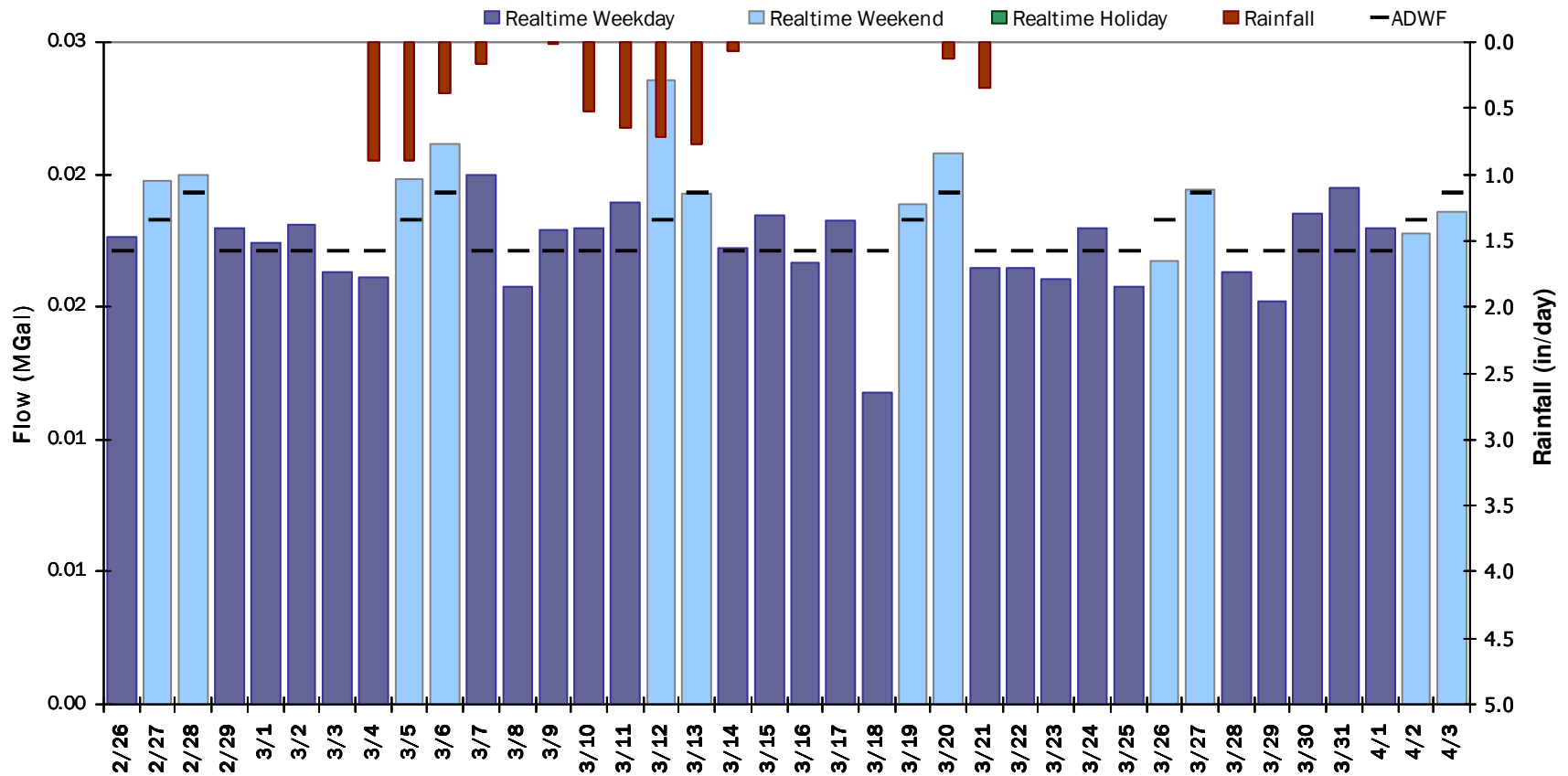


SITE 8

Period Flow Summary: Daily Flow Totals

Avg Period Flow: 0.018 MGal Peak Daily Flow: 0.024 MGal Min Daily Flow: 0.012 MGal

Total Period Rainfall: 5.53 inches



SITE 8

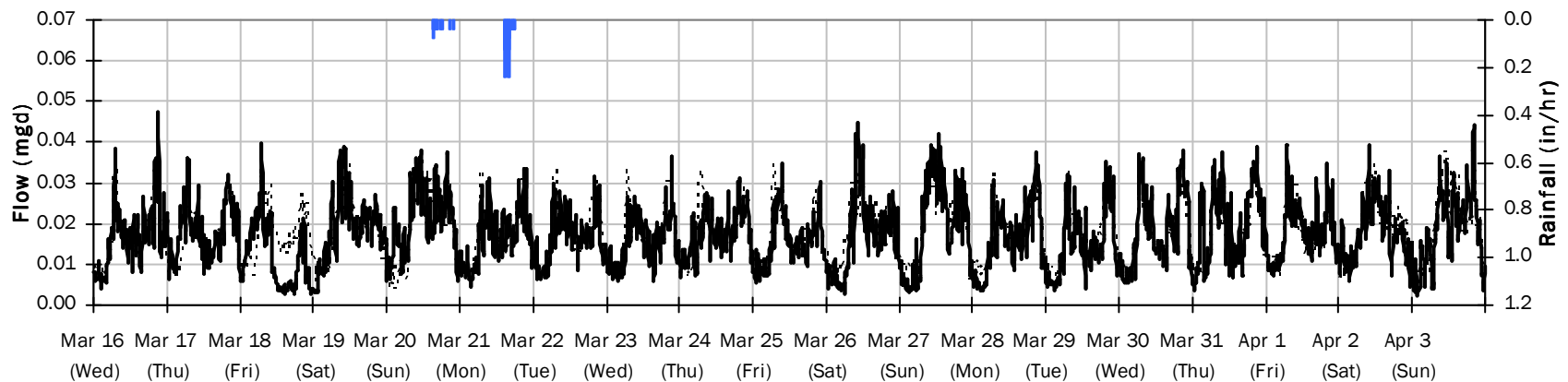
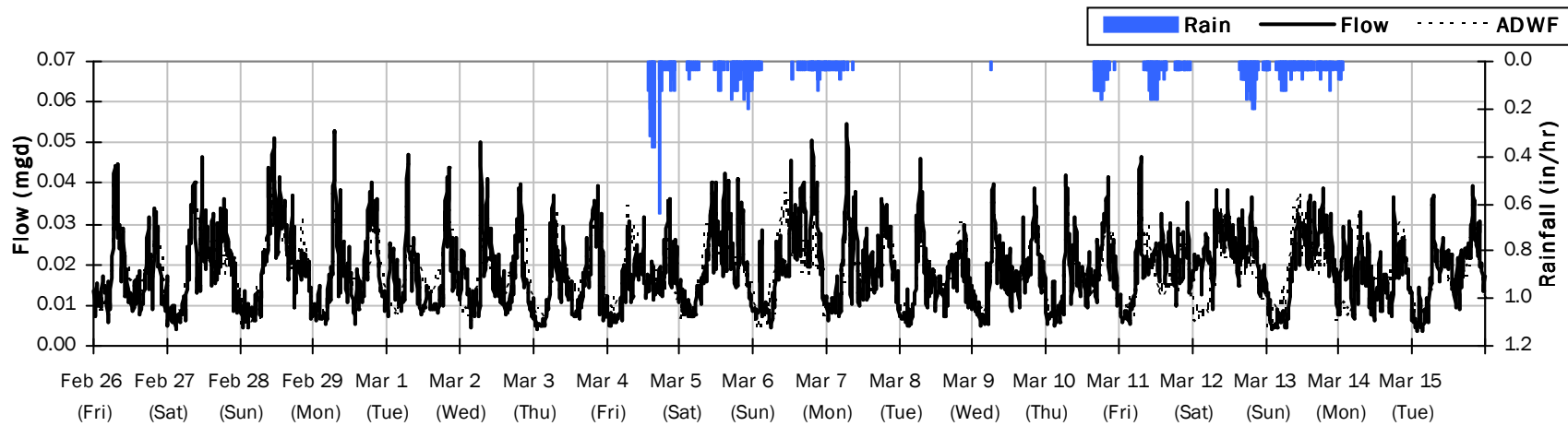
Flow Summary: 2/26/2016 to 4/3/2016

Total Period Rainfall: 5.53 inches

Avg Flow: 0.018 mgd

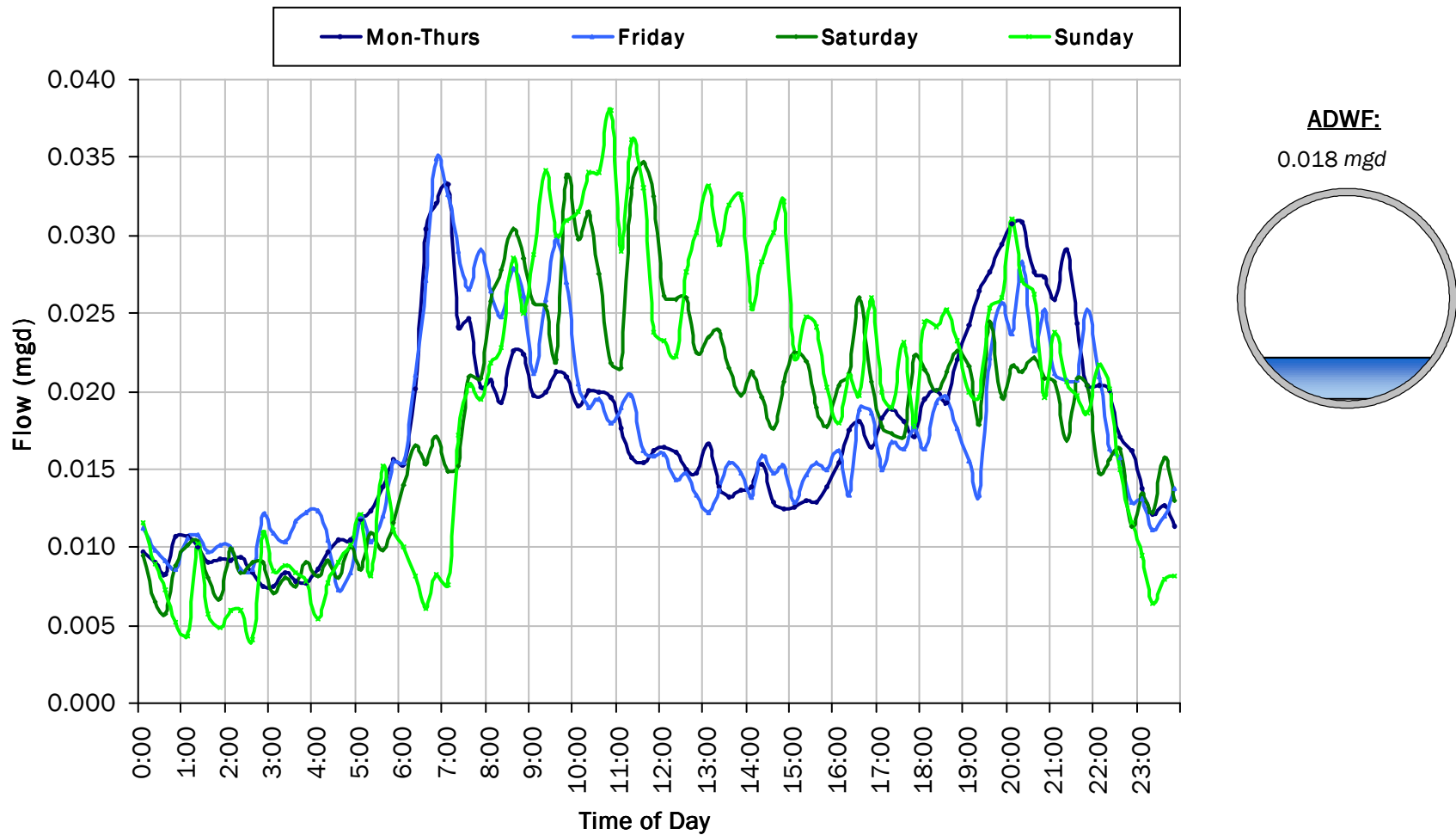
Peak Flow: 0.054 mgd

Min Flow: 0.002 mgd



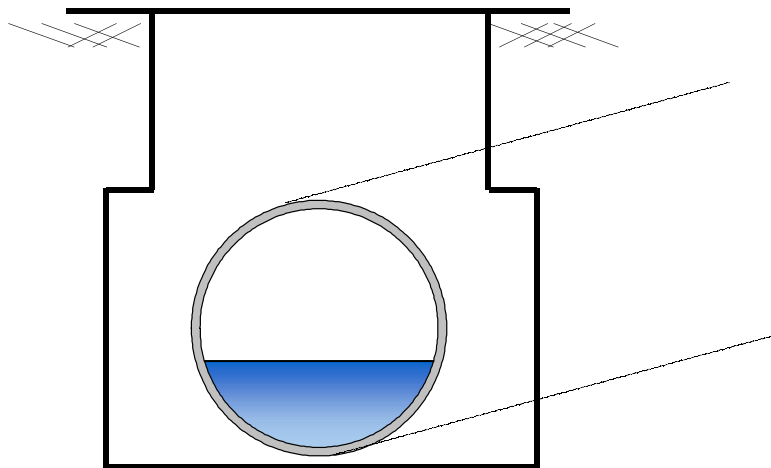
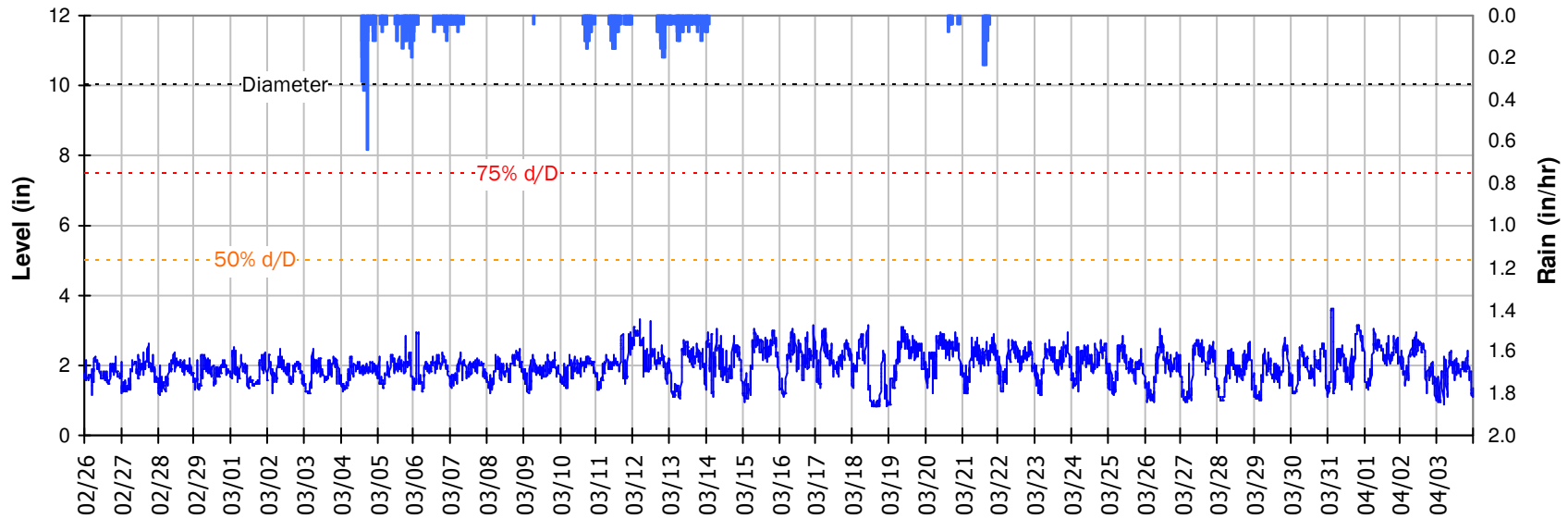
SITE 8

Average Dry Weather Flow Hydrographs



SITE 8
Site Capacity and Surge Summary

Realtime Flow Levels with Rainfall Data over Monitoring Period

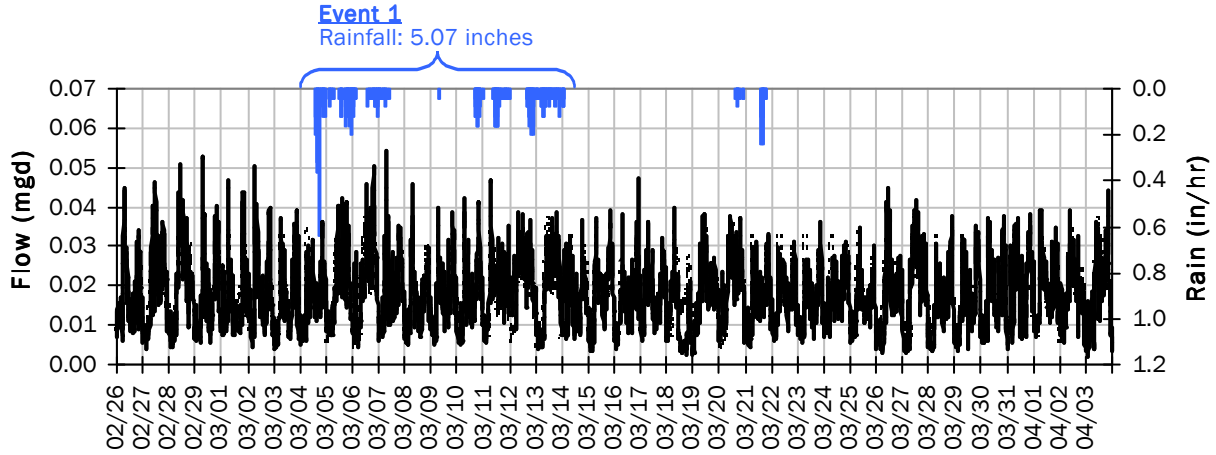


Pipe Diameter:	10	<i>inches</i>
Peak Measured Level:	3.61	<i>inches</i>
Peak d/D Ratio:	0.36	

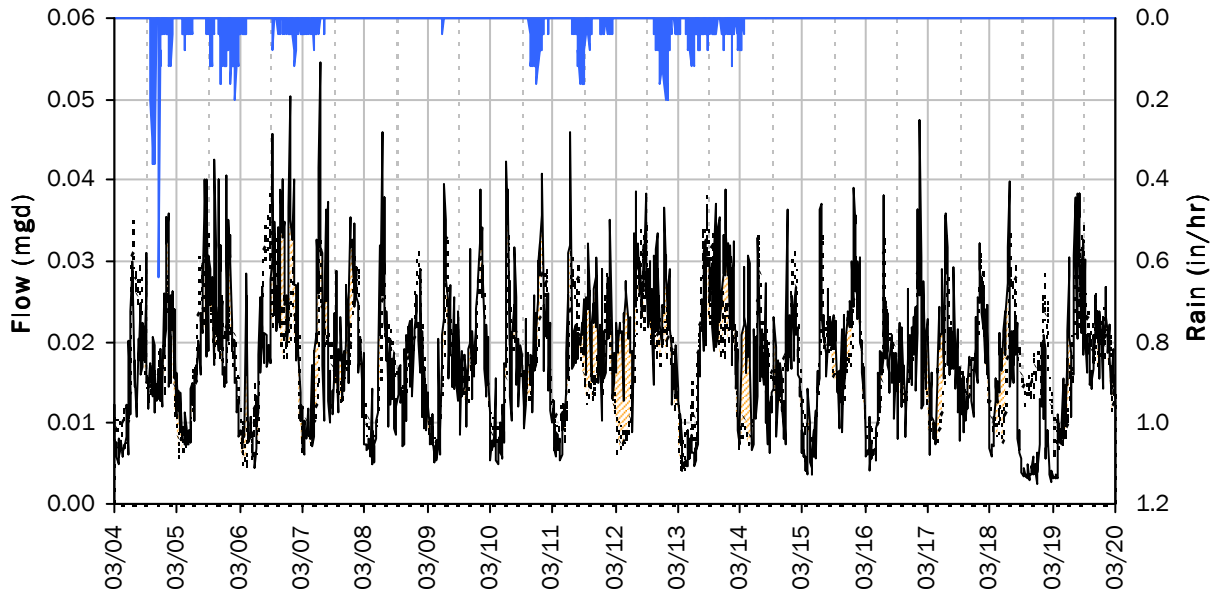
SITE 8

I/I Summary: Event 1

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



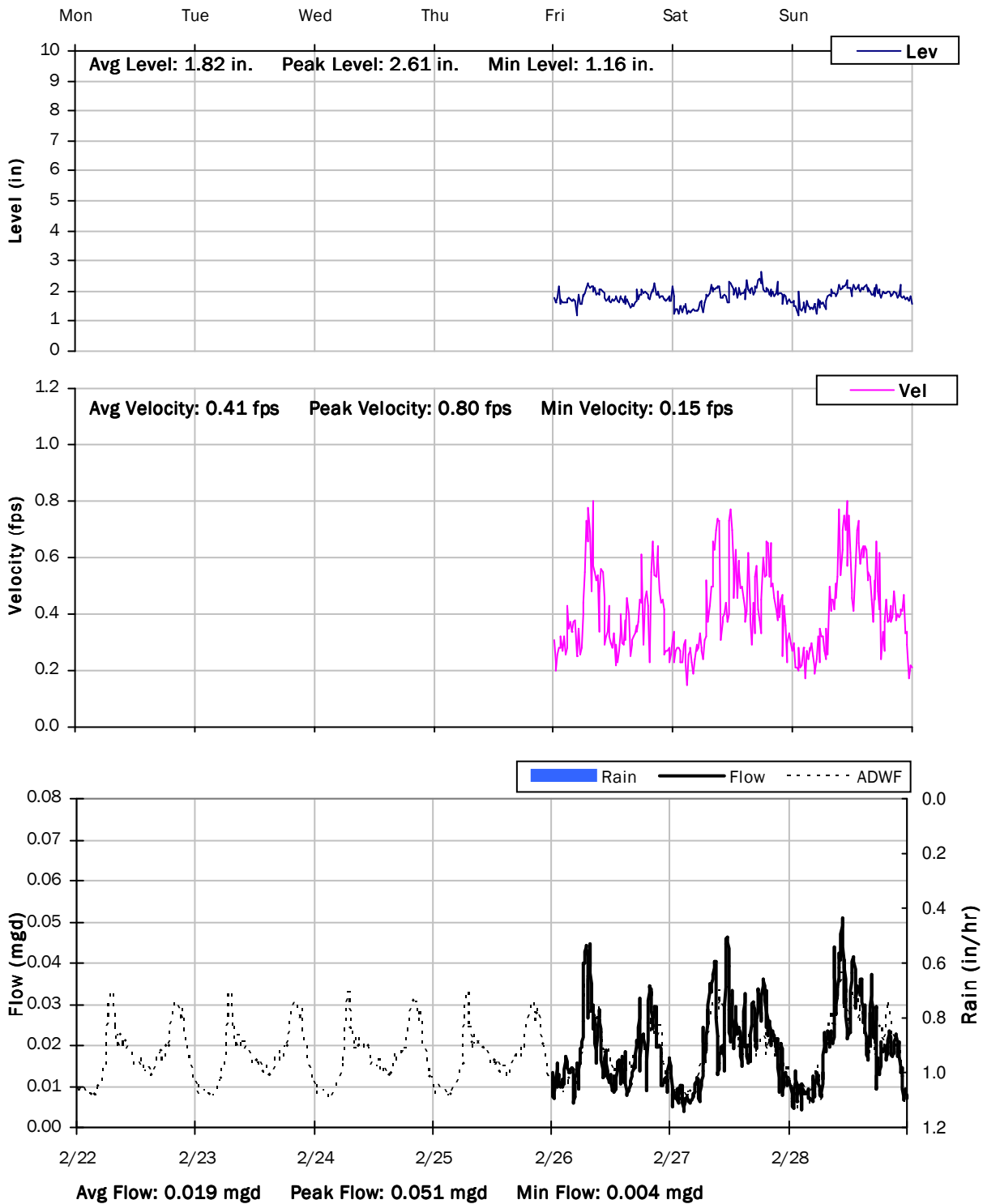
Event 1 Detail Graph



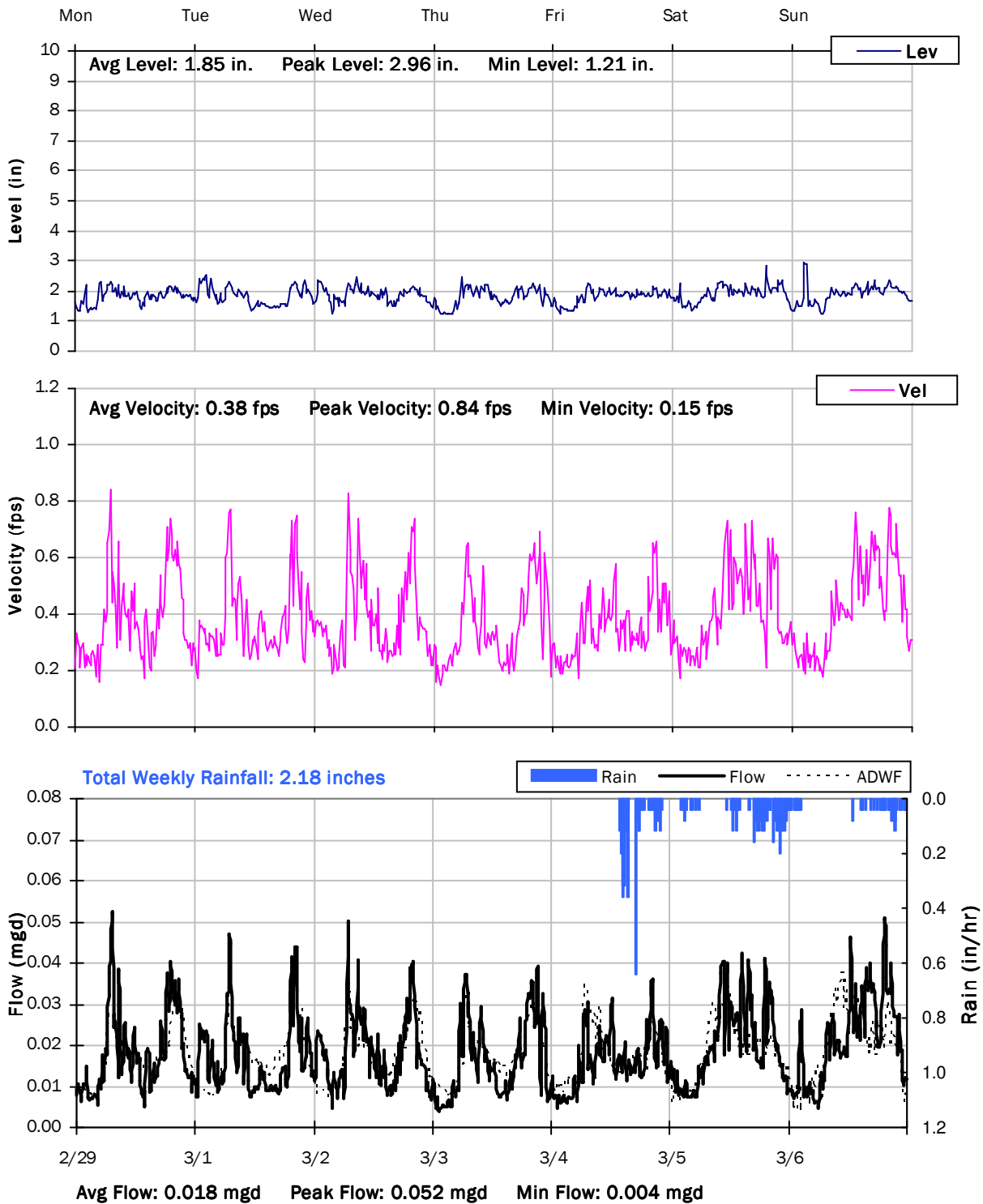
Storm Event I/I Analysis (Rain = 5.07 inches)

<u>Capacity</u>		<u>Inflow / Infiltration</u>	
Peak Flow:	0.05 mgd	Peak I/I Rate:	0.03 mgd
PF:	3.10	Total I/I:	12,000 gallons
Peak Level:	3.34 in		
d/D Ratio:	0.33		

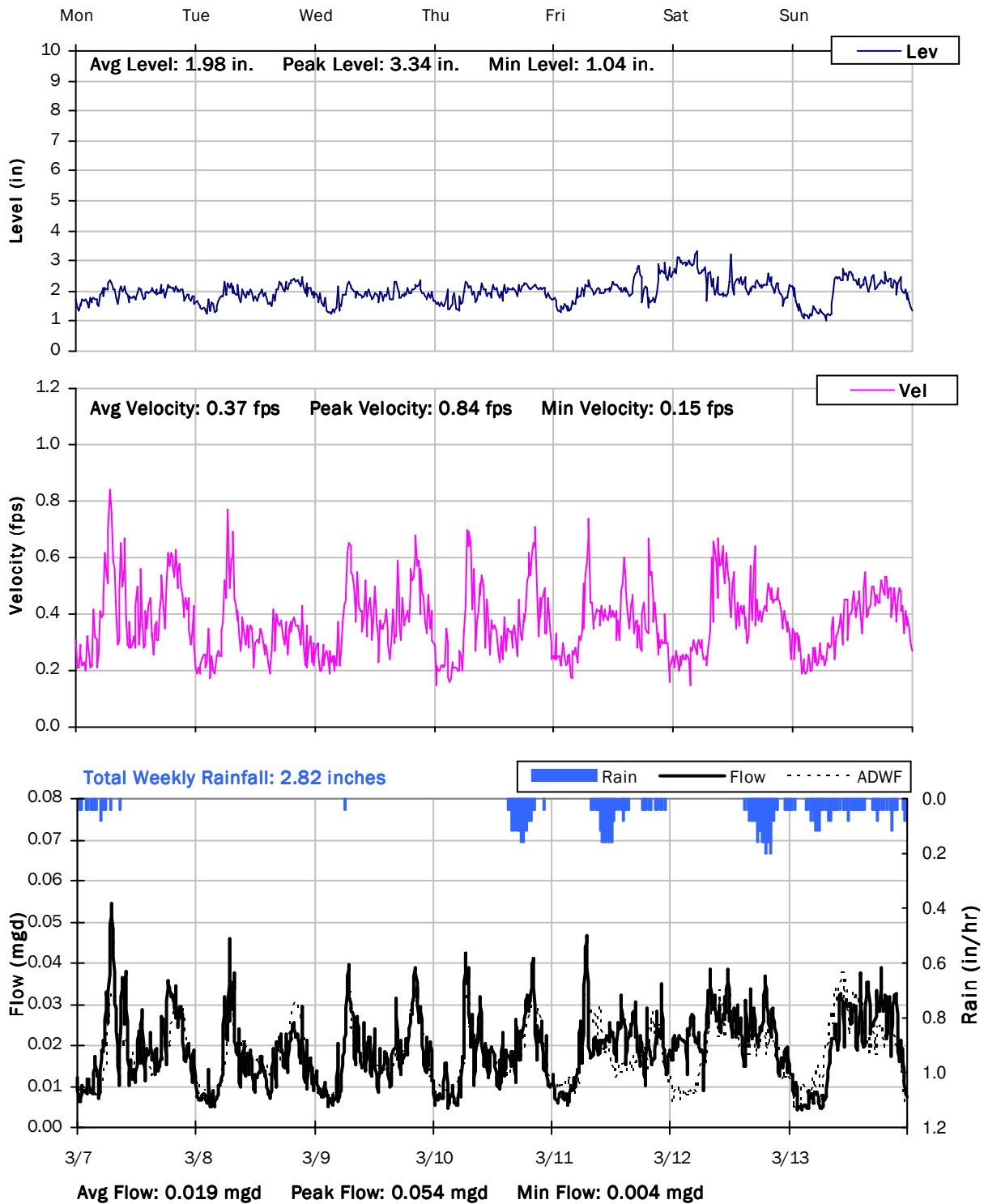
SITE 8
Weekly Level, Velocity and Flow Hydrographs
2/22/2016 to 2/29/2016



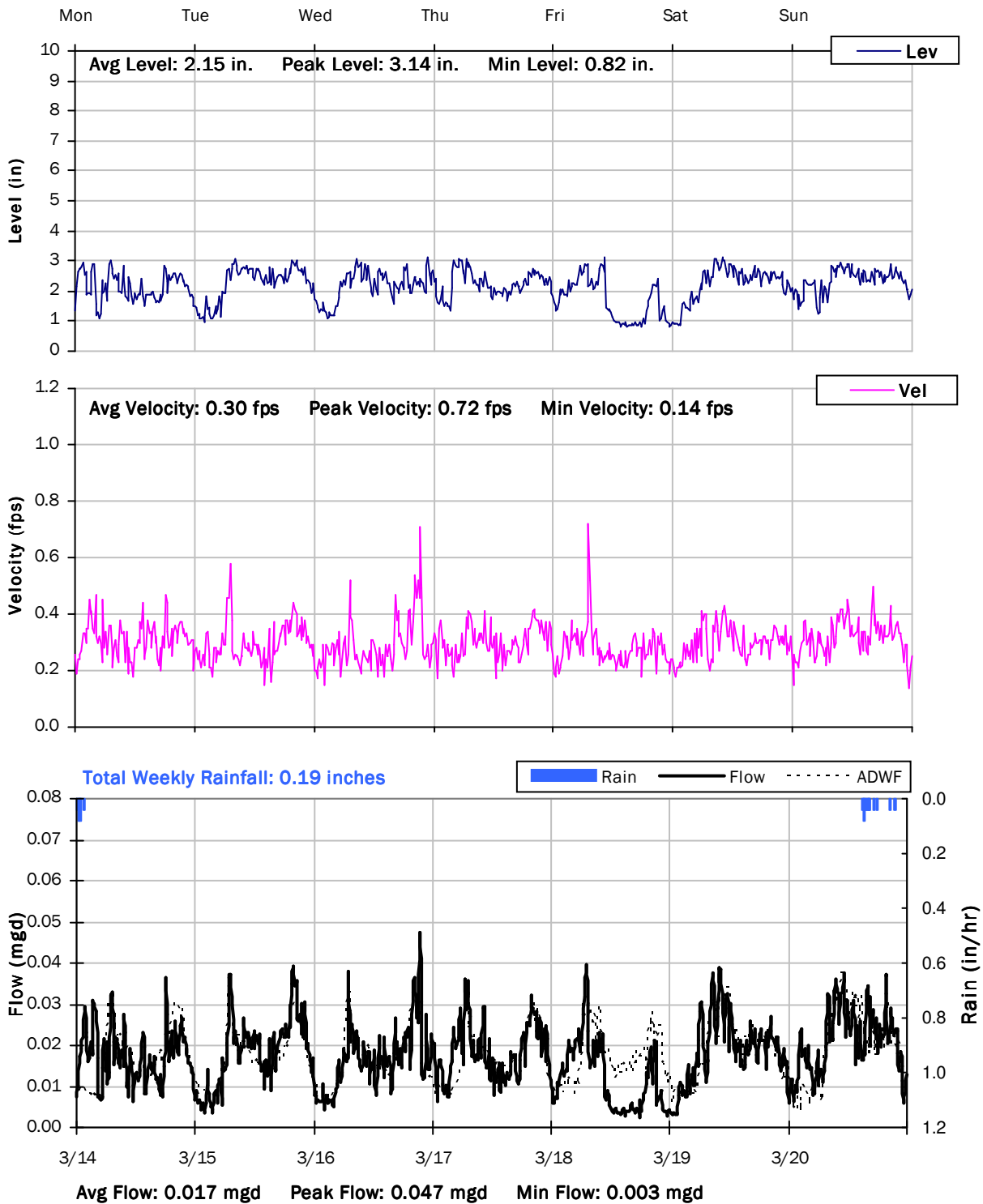
SITE 8
Weekly Level, Velocity and Flow Hydrographs
2/29/2016 to 3/7/2016



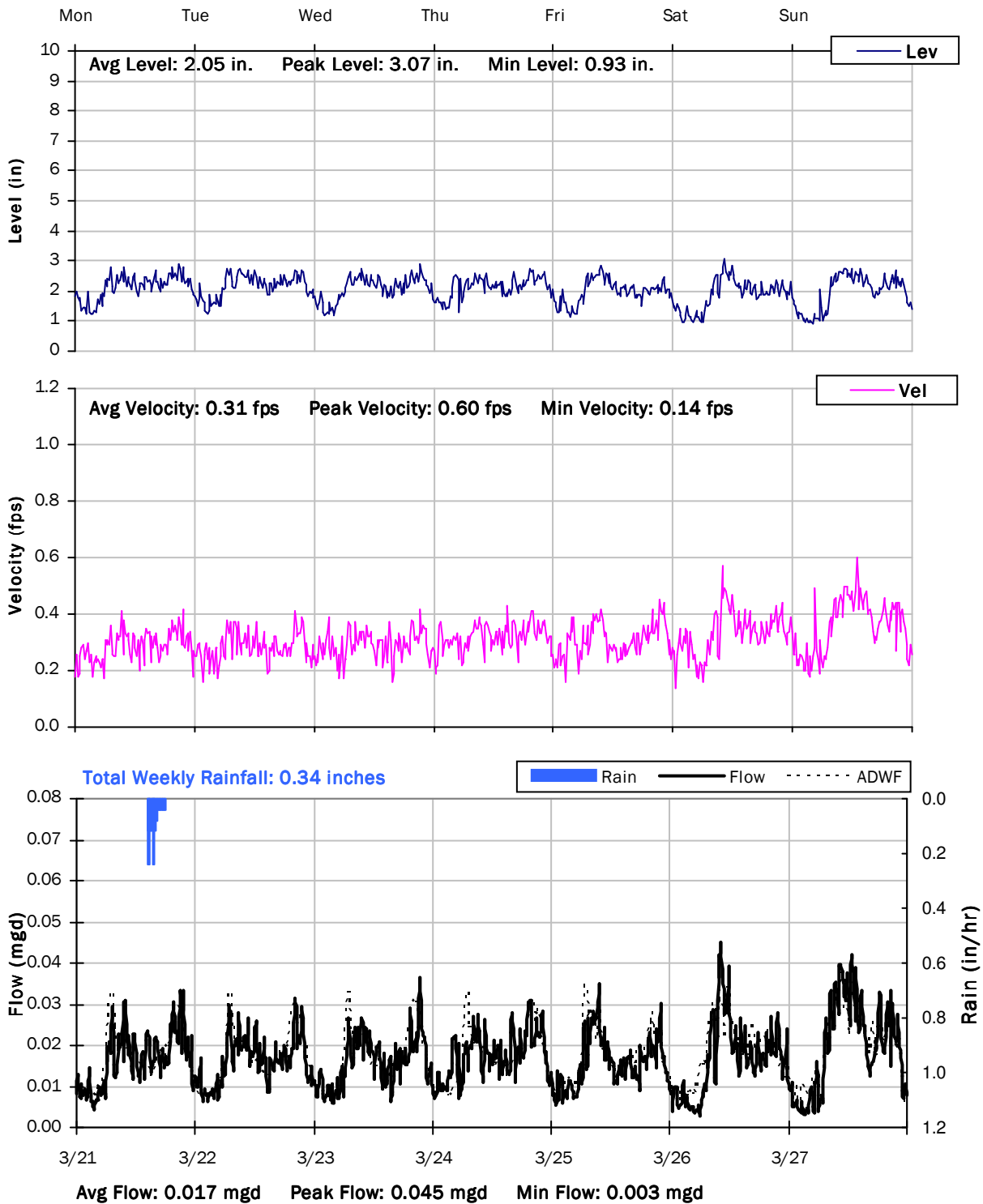
SITE 8
Weekly Level, Velocity and Flow Hydrographs
3/7/2016 to 3/14/2016



SITE 8
Weekly Level, Velocity and Flow Hydrographs
3/14/2016 to 3/21/2016



SITE 8
Weekly Level, Velocity and Flow Hydrographs
3/21/2016 to 3/28/2016



SITE 8
Weekly Level, Velocity and Flow Hydrographs
3/28/2016 to 4/4/2016

