APPENDIX L

UTILITIES ASSESSMENT

FIRE AND DOMESTIC WATER STUDY

The Ocean Avenue Project
101 Santa Monica Blvd.
Santa Monica, CA 90401
KPFF Job # 1800134

July 2019

CLIENT:

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Appendix

Summary

A fire flow test was conducted by the City of Santa Monica to determine the available flow and pressure in the public water lines serving the property. Based on preliminary estimates for fire and domestic demand the existing public water mains will be adequate to serve the proposed sprinklered development.

Existing Conditions

There is a 12" public water main in Ocean Avenue, an 8" public water main in 1st Court, a 12" public water main in 2nd Street, and a 12" public water main in Santa Monica Boulevard. The water mains on Ocean Avenue, 1st Court, and 2nd Street all connect to the water main on Santa Monica Boulevard.

Fire Flow Test Results

The City of Santa Monica conducted a fire flow test using three hydrants: one hydrant on Santa Monica Boulevard, one hydrant on Ocean Avenue and one hydrant on 2nd Street. These hydrants were chosen because they were closest to the project site. Additionally, there are other fire hydrants nearby that are available for fire services. These hydrants would provide additional capacity beyond that demonstrated in the fire flow test results.

The results of the flow test are shown in Appendix A. The 2016 California Fire Code permits a 50% reduction for sprinklered buildings. Taking the 50% reduction into consideration, the fire flow demands will not exceed 2,625 GPM at 20 PSI. The total available flow is 4,143 GPM at 20 PSI. All the fire hydrants are connected through the public water mains, so the lowest fire hydrant rated capacity of 4,143 GPM at 20 PSI was used for this study to be conservative. The project will be sprinklered and demands approximately 118 GPM of domestic water and 2,625 GPM of fire water which equates to a total demand of 2,743 GPM. The existing demand does not need to be estimated and netted out, since the water pipes are driven by pressure rather than gravity. The proposed water demand is independent from the demand of the existing buildings.

As previously mentioned, the existing available water flow and pressure is 4,143 GPM at 20 PSI as shown on Table 1, therefore the existing water flow and pressure is adequate to serve the proposed development since a 50% reduction is allowed for the fire flow demand. Detailed calculations of the total available flow can be found in Appendix C.

Table 1: Existing Fire Flow[1]

Hydrant #	Static Pressure (PSI)	Residual Pressure (PSI)	Flow (GPM)	Rated Capacity at 20 PSI (GPM)
FH #1	72	58	2,541	5,161
FH #2	74	58	2,148	4,143[2]
FH #3	70	58	2,541	5,491

(1) The fire flow tests were determined in accordance with Appendix B of the 2016 California Fire Code, which has been adopted by the City of Santa Monica's Municipal Code by reference
(2) All the fire hydrants are connected through the public water mains, so the lowest fire hydrant rated capacity at 20 PSI was used for this study to be conservative.

Table 2: Proposed Domestic Water Demand Summary[1]							
Proposed Building Use	**SGF Category**	**Quantity**	**SGF**	**Sewer Demand (GPD)**	**Peak/Max Flow (GPD) (Peaking factor = 2.5)**	**Peak Daily Demand (GPD) (Water-Sewer Ratio = 1.15)**	**Peak Daily Demand (gpm)**
Hotel							
Hotel Rooms	Hotel: Guest Room	120 Rooms	120 GPD/Room	14,400	36,000	41,400	28.8
Spa	Massage Parlor	4,400 SF	250 GPD/ 1,000 SF	1,100	2,750	3,163	2.2
Meeting/ Banquet Space	Banquet Room	8,700 SF	350 GPD/ 1,000 SF	3,045	7,613	8,755	6.1
Kitchen	Restaurant: Take Out	4,270 SF	300 GPD/ 1,000 SF	1,281	3,203	3,683	2.6
Hotel Services: Lobbies and Lounges	Lounge	15,510 SF	50 GPD/ 1,000 SF	776	1,940	2,231	1.5
Residential							
Apartment Units	Residential Apt: Bachelor	12 DU	75/DU	900	2,250	2,588	1.8
Apartment Units	Residential Apt: 1 Bedroom	55 DU	110/DU	6,050	15,125	17,394	12.1
Apartment Units	Residential Apt: 2 Bedroom	23 DU	150/DU	3,450	8,625	9,919	6.9
Apartment Units	Residential Apt: 3 Bedroom	10 DU	190/DU	1,900	4,750	5,463	3.8
Retail/Restaurant							
Restaurant Outdoor Dining	Restaurant: Full Service	165 Seats[2] *4,940 SF*	30/Seat	4,940	12,350	14,203	9.9
Restaurant Indoor Dining	Restaurant: Full Service	638 Seats[2] *19,130 SF*	30/Seat	19,130	47,825	54,999	38.2
Retail	Retail Area (Less than 100,000 SF)	12,040 SF	25 GPD/ 1,000 SF	301	753	866	0.6
Cultural Building	Museum: All Area	35,500 SF	30 GPD/ 1,000 SF	1,065	2,663	3,062	2.1

Observation Deck	Lounge	1,700 SF	50 GPD/ 1,000 SF	85	213	244	0.2
Shared Services (Trash Room, MEP, Storage)	Storage	15,820 SF	30 GPD/ 1,000 SF	475	1,188	1,366	0.9
			Total	**58,898**	**147,248**	**169,336**	**118**

(1) Based on calculations performed in The Ocean Ave Project – Sewer Study Report.
(2) Seat number was estimated using proposed square footage and multiplying by the factor of 1 seat/ 30 SF for the restaurant.

Table 3: Proposed Fire Water Demand Summary

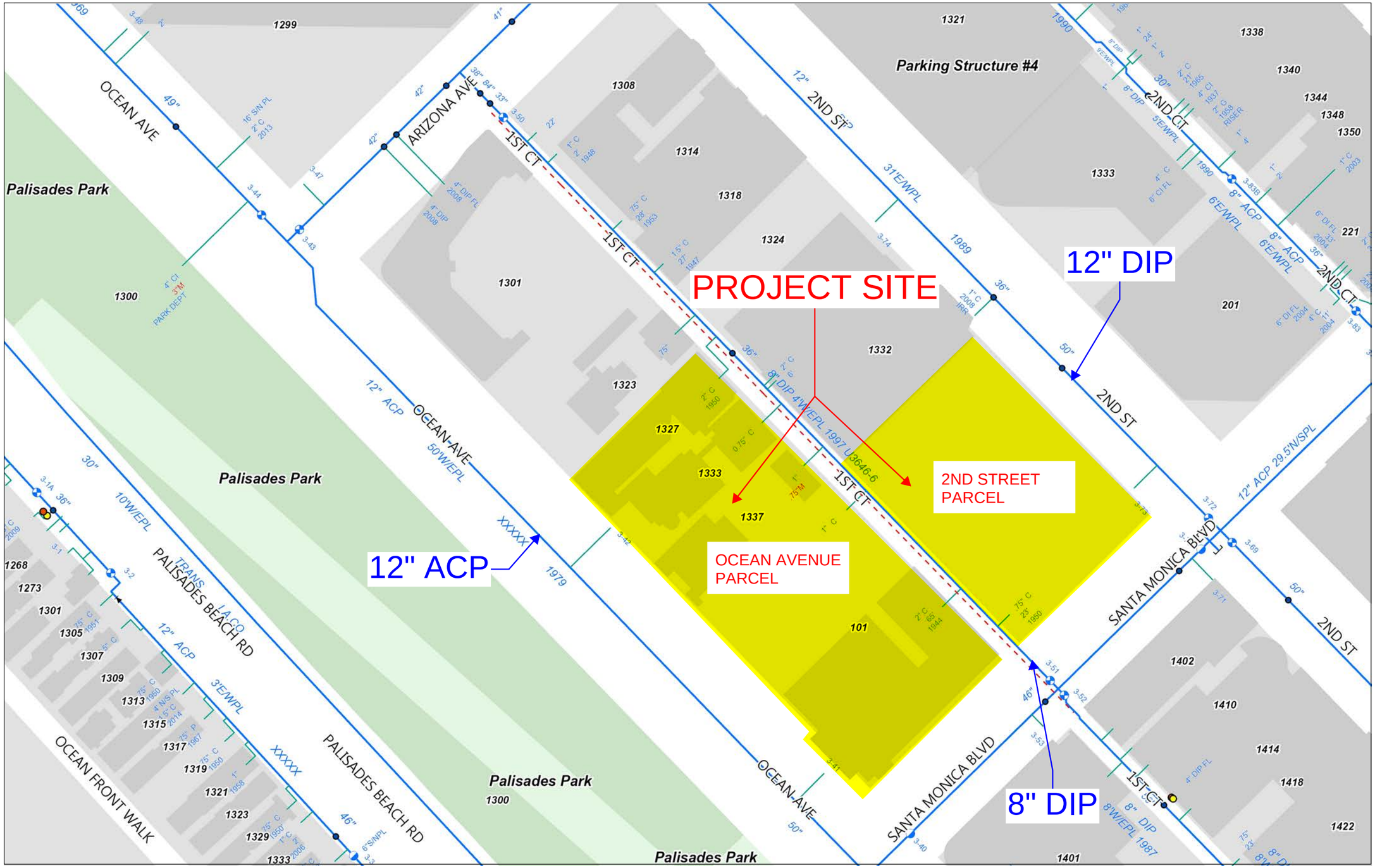
Building	Construction Type	Area or Unit	Required Fire Flow Demand (gpm) [1]
Ocean Ave #1	Type V-B	36,600 sf	2,625[2]
Ocean Ave #2	Type V-B	10,000 sf	1,375
2nd Street	Type V-B	25,500 sf	2,125

(1) Values in this column are a 50% reduction of values found in Table B105.1(2) of Appendix B in the California Fire Code due to the fully sprinklered condition of the building.
(2) The fire flow demands are not additive and it is assumed that only one building will be requiring fire flow demand at once and not all the building will simultaneously require fire flow demand. The building with the highest fire flow demand was used in the study to be conservative. Different hydrants can serve different buildings.

Appendix A

Water Main Locations, Fire Hydrant Locations and Flow Results

101 Santa Monica Blvd. - GIS Water Map



wDepth
- Abandoned Main
- Main
- Service

wFitting
- <all other values>
- Cap
- Coupling
- Reducer
- Repair Clamp

wLateralLineDistArrow
- Left
- Right

wNetworkStructure
- EnclosedStorageFacility
- PressureSustainingValve
- ProductionWell
- Pump

wSamplingStation

wSystemValve
- Air Release
- Blowoff
- Butterfly
- Gate
- Plug
- Zone

wAbandoned

wLateralLine
- Air Release
- Blowoff
- Domestic
- Fire
- Hydrant
- Multimeter
- Sampling Station

wPressurizedMain

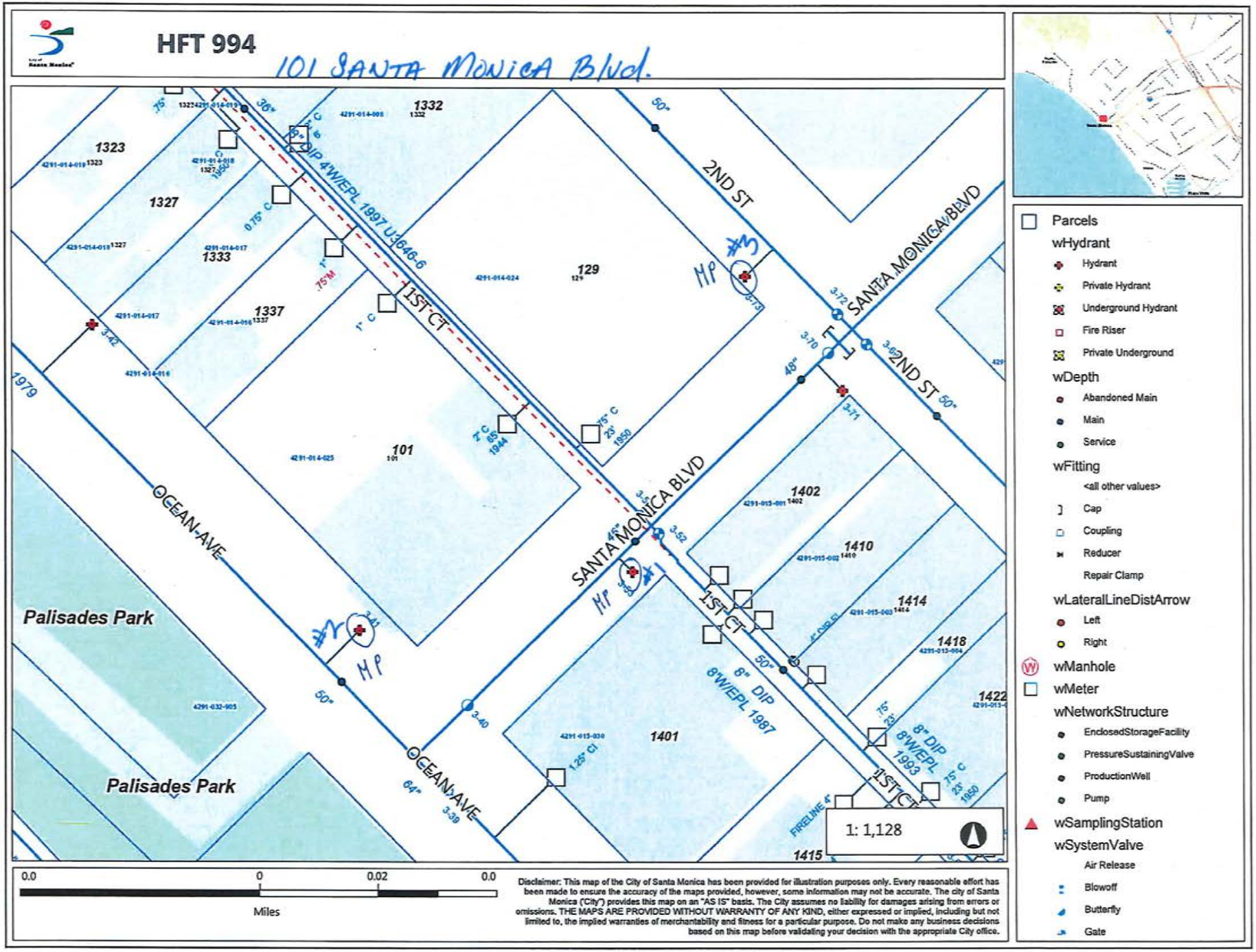
CSMENT.DBO.expo_stations

CSMENT.DBO.expo_line

City Boundary

0.0 0 0.02 0.0
Miles

1: 1,128



CITY OF
Santa Monica®
WATER DIVISION

FIRE HYDRANT FORM

CIVIL ENG. TEST No. 994(B)

WORK ORDER No. _____

INSPECTION No. 25492

DATE: 05-09-2018

BY: D.Rosa

LOCATION: 101 Santa Monica Blvd.

	EMP #	FIRE HYD #	OUTLET SIZE	STATIC PRESS	PITOT PRESS	GPM (flow)
F.H. NO. 1	18941	1334	4"	72	35	2541
F.H. NO. 2	21632	1321	4"	74	25	2148
F.H. NO. 3	19953	1330	4"	70	35	2541

EMPLOYEE # 18759

MINUTES FLOWED 4

STATIC 72

RESIDUAL 58

LOCATION 101 Santa Monica Blvd.

LABOR/ EMPLOYEES

D.Rosa-18759, S.Perez-18941, I.Garcia-19953-A.Gonzalez-21632

COMMENTS:

Static and residual were taken under normal flow conditions.

Appendix B

Appendix B & Appendix C of the California Fire Code

CALIFORNIA FIRE CODE – MATRIX ADOPTION TABLE
APPENDIX B – FIRE-FLOW REQUIREMENTS FOR BUILDINGS

(Matrix Adoption Tables are non-regulatory, intended only as an aid to the user.
See Chapter 1 for state agency authority and building applications.)

Adopting Agency	BSC	BSC-CG	SFM		HCD			DSA		OSHPD				BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
			T-24	T-19*	1	2	1/AC	AC	SS	1	2	3	4								
Adopt Entire Chapter																					
Adopt Entire Chapter as amended (amended sections listed below)			X																		
Adopt only those sections that are listed below																					
[California Code of Regulations, Title 19, Division 1]																					
Chapter / Section																					
B105.2			X																		

* The *California Code of Regulations* (CCR), Title 19, Division 1 provisions that are found in the *California Fire Code* are a reprint from the current CCR, Title 19, Division 1 text for the code user's convenience only. The scope, applicability and appeals procedures of CCR, Title 19, Division I remain the same.

APPENDIX B
FIRE-FLOW REQUIREMENTS FOR BUILDINGS

SECTION B101
GENERAL

B101.1 Scope. The procedure for determining fire-flow requirements for buildings or portions of buildings hereafter constructed shall be in accordance with this appendix. This appendix does not apply to structures other than buildings.

SECTION B102
DEFINITIONS

B102.1 Definitions. For the purpose of this appendix, certain terms are defined as follows:

FIRE-FLOW. The flow rate of a water supply, measured at 20 pounds per square inch (psi) (138 kPa) residual pressure, that is available for fire fighting.

FIRE-FLOW CALCULATION AREA. The floor area, in square feet (m^2), used to determine the required fire flow.

SECTION B103
MODIFICATIONS

B103.1 Decreases. The fire chief is authorized to reduce the fire-flow requirements for isolated buildings or a group of buildings in rural areas or small communities where the development of full fire-flow requirements is impractical.

B103.2 Increases. The fire chief is authorized to increase the fire-flow requirements where conditions indicate an unusual susceptibility to group fires or conflagrations. An increase shall not be more than twice that required for the building under consideration.

B103.3 Areas without water supply systems. For information regarding water supplies for fire-fighting purposes in rural and suburban areas in which adequate and reliable water supply systems do not exist, the fire code official is authorized to utilize NFPA 1142 or the *California Wildland-Urban Interface Code*.

SECTION B104
FIRE-FLOW CALCULATION AREA

B104.1 General. The fire-flow calculation area shall be the total floor area of all floor levels within the exterior walls, and under the horizontal projections of the roof of a building, except as modified in Section B104.3.

B104.2 Area separation. Portions of buildings which are separated by fire walls without openings, constructed in accordance with the *California Building Code*, are allowed to be considered as separate fire-flow calculation areas.

B104.3 Type IA and Type IB construction. The fire-flow calculation area of buildings constructed of Type IA and Type IB construction shall be the area of the three largest successive floors.

Exception: Fire-flow calculation area for open parking garages shall be determined by the area of the largest floor.

SECTION B105
FIRE-FLOW REQUIREMENTS FOR BUILDINGS

B105.1 One- and two-family dwellings, Group R-3 and R-4 buildings and townhouses. The minimum fire-flow and flow duration requirements for one- and two-family dwellings, Group R-3 and R-4 buildings and townhouses shall be as specified in Tables B105.1(1) and B105.1(2).

TABLE B105.1(1)
REQUIRED FIRE-FLOW FOR ONE- AND TWO-FAMILY DWELLINGS, GROUP R-3 AND R-4 BUILDINGS AND TOWNHOUSES

FIRE-FLOW CALCULATION AREA (square feet)	AUTOMATIC SPRINKLER SYSTEM (Design Standard)	MINIMUM FIRE-FLOW (gallons per minute)	FLOW DURATION (hours)
0-3,600	No automatic sprinkler system	1,000	1
3,601 and greater	No automatic sprinkler system	Value in Table B105.1(2)	Duration in Table B105.1(2) at the required fire-flow rate
0-3,600	Section 903.3.1.3 of the *California Fire Code* or Section *313.3* of the *California Residential Code*	500	$^1/_2$
3,601 and greater	Section 903.3.1.3 of the *California Fire Code* or Section *313.3* of the *California Residential Code*	$^1/_2$ value in Table B105.1(2)	1

For SI: 1 square foot = 0.0929 m^2, 1 gallon per minute = 3.785 L/m.

TABLE B105.1(2)
REFERENCE TABLE FOR TABLES B105.1(1) AND B105.2

FIRE-FLOW CALCULATION AREA (square feet)					FIRE-FLOW (gallons per minute)[b]	FLOW DURATION (hours)
Type IA and IB[a]	Type IIA and IIIA[a]	Type IV and V-A[a]	Type IIB and IIIB[a]	Type V-B[a]		
0-22,700	0-12,700	0-8,200	0-5,900	0-3,600	1,500	
22,701-30,200	12,701-17,000	8,201-10,900	5,901-7,900	3,601-4,800	1,750	
30,201-38,700	17,001-21,800	10,901-12,900	7,901-9,800	4,801-6,200	2,000	
38,701-48,300	21,801-24,200	12,901-17,400	9,801-12,600	6,201-7,700	2,250	2
48,301-59,000	24,201-33,200	17,401-21,300	12,601-15,400	7,701-9,400	2,500	
59,001-70,900	33,201-39,700	21,301-25,500	15,401-18,400	9,401-11,300	2,750	
70,901-83,700	39,701-47,100	25,501-30,100	18,401-21,800	11,301-13,400	3,000	
83,701-97,700	47,101-54,900	30,101-35,200	21,801-25,900	13,401-15,600	3,250	
97,701-112,700	54,901-63,400	35,201-40,600	25,901-29,300	15,601-18,000	3,500	
112,701-128,700	63,401-72,400	40,601-46,400	29,301-33,500	18,001-20,600	3,750	
128,701-145,900	72,401-82,100	46,401-52,500	33,501-37,900	20,601-23,300	4,000	
145,901-164,200	82,101-92,400	52,501-59,100	37,901-42,700	23,301-26,300	4,250	
164,201-183,400	92,401-103,100	59,101-66,000	42,701-47,700	26,301-29,300	4,500	
183,401-203,700	103,101-114,600	66,001-73,300	47,701-53,000	29,301-32,600	4,750	
203,701-225,200	114,601-126,700	73,301-81,100	53,001-58,600	32,601-36,000	5,000	
225,201-247,700	126,701-139,400	81,101-89,200	58,601-65,400	36,001-39,600	5,250	
247,701-271,200	139,401-152,600	89,201-97,700	65,401-70,600	39,601-43,400	5,500	
271,201-295,900	152,601-166,500	97,701-106,500	70,601-77,000	43,401-47,400	5,750	
295,901-Greater	166,501-Greater	106,501-115,800	77,001-83,700	47,401-51,500	6,000	
—	—	115,801-125,500	83,701-90,600	51,501-55,700	6,250	
—	—	125,501-135,500	90,601-97,900	55,701-60,200	6,500	
—	—	135,501-145,800	97,901-106,800	60,201-64,800	6,750	
—	—	145,801-156,700	106,801-113,200	64,801-69,600	7,000	
—	—	156,701-167,900	113,201-121,300	69,601-74,600	7,250	
—	—	167,901-179,400	121,301-129,600	74,601-79,800	7,500	
—	—	179,401-191,400	129,601-138,300	79,801-85,100	7,750	
—	—	191,401-Greater	138,301-Greater	85,101-Greater	8,000	

Ocean Ave (2) Demand

REDUCED = 1,375 GPM

2nd Street Demand

REDUCED = 2,125 GPM

Ocean Ave (1) Demand

REDUCED = 2,625 GPM

For SI: 1 square foot = 0.0929 m^2, 1 gallon per minute = 3.785 L/m, 1 pound per square inch = 6.895 kPa.

a. Types of construction are based on the *California Building Code*.

b. Measured at 20 psi residual pressure.

TABLE B105.2
REQUIRED FIRE-FLOW FOR BUILDINGS OTHER THAN ONE- AND TWO-FAMILY DWELLINGS, GROUP R-3 AND R-4 BUILDINGS AND TOWNHOUSES

AUTOMATIC SPRINKLER SYSTEM (Design Standard)	MINIMUM FIRE-FLOW (gallons per minute)	FLOW DURATION (hours)
No automatic sprinkler system	Value in Table B105.1(2)	Duration in Table B105.1(2)
Section 903.3.1.1 of the *California Fire Code*	25% of the value in Table B105.1(2)[a]	Duration in Table B105.1(2) at the reduced flow rate
Section 903.3.1.2 of the *California Fire Code*	25% of the value in Table B105.1(2)[b]	Duration in Table B105.1(2) at the reduced flow rate

For SI: 1 gallon per minute = 3.785 L/m.
a. The reduced fire-flow shall be not less than 1,000 gallons per minute.
b. The reduced fire-flow shall be not less than 1,500 gallons per minute.

ONLY FOR AUTOMATIC SPRINKLER SYSTEMS IN GROUP R OCCUPANICES

B105.2 Buildings other than one- and two-family dwellings, Group R-3 and R-4 buildings and townhouses. The minimum fire-flow and flow duration for buildings other than one- and two-family dwellings, Group R-3 and R-4 buildings and townhouses shall be as specified in Tables B105.2 and B105.1(2).

75% REDUCTION IN FIRE FLOW IS ALLOWED BY THE CODE. 50% IS TYPICALLY ACCEPTED BY THE REVIEWING FIRE JURISDICTION.

> **Exception:** *[SFM] Group B, S-2 and U occupancies having a floor area not exceeding 1,000 square feet, primarily constructed of noncombustible exterior walls with wood or steel roof framing, having a Class A roof assembly, with uses limited to the following or similar uses:*
>
> 1. *California State Parks buildings of an accessory nature (restrooms).*
> 2. *Safety roadside rest areas, (SRRA), public restrooms.*
> 3. *Truck inspection facilities, (TIF), CHP office space and vehicle inspection bays.*
> 4. *Sand/salt storage buildings, storage of sand and salt.*

B105.3 Water supply for buildings equipped with an automatic sprinkler system. For buildings equipped with an approved automatic sprinkler system, the water supply shall be capable of providing the greater of:

1. The automatic sprinkler system demand, including hose stream allowance.
2. The required fire-flow.

SECTION B106
REFERENCED STANDARDS

ICC	IWUIC—15	International Wildland-Urban Interface Code	B103.3
NFPA	1142—12	Standard on Water Supplies for Suburban and Rural Fire Fighting	B103.3

CALIFORNIA FIRE CODE – MATRIX ADOPTION TABLE
APPENDIX BB – FIRE-FLOW REQUIREMENTS FOR BUILDINGS

(Matrix Adoption Tables are non-regulatory, intended only as an aid to the user.
See Chapter 1 for state agency authority and building applications.)

Adopting Agency	BSC	BSC-CG	SFM		HCD			DSA		OSHPD				BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
			T-24	T-19*	1	2	1/AC	AC	SS	1	2	3	4								
Adopt Entire Chapter			X																		
Adopt Entire Chapter as amended (amended sections listed below)																					
Adopt only those sections that are listed below																					
[California Code of Regulations, Title 19, Division 1]																					
Chapter / Section																					

* The *California Code of Regulations* (CCR), Title 19, Division 1 provisions that are found in the *California Fire Code* are a reprint from the current CCR, Title 19, Division 1 text for the code user's convenience only. The scope, applicability and appeals procedures of CCR, Title 19, Division I remain the same.

APPENDIX BB

FIRE-FLOW REQUIREMENTS FOR BUILDINGS

SECTION BB101
SCOPE

BB101.1 *The procedures determining fire-flow requirements for any school buildings or portions of buildings hereafter constructed for which review and approval is required under Subdivision(a) of Section 17280 of the Government Code shall be in accordance with this appendix as amended by the state fire marshal. This appendix does not apply to structures other than buildings.*

SECTION BB102
DEFINITIONS

BB102.1 *For the purpose of Appendix III-A, certain terms are defined as follows:*

FIRE AREA. *The floor area, in square feet, used to determine the required fire flow.*

FIRE FLOW. *The flow rate of a water supply, measured at 20 psi (137.9 kPa) residual pressure, that is available for firefighting.*

SECTION BB103
MODIFICATIONS

BB103.1 *An alternative method of providing water for fire protection or any other alternative, in lieu of providing the water, may be enforced when deemed appropriate by the fire chief and the state fire marshal.*

SECTION BB104
FIRE AREA

BB104.1 General. *The fire area shall be the total floor area of all floor levels within the exterior walls, and under the horizontal projections of the roof of a building, except as modified in Section 4.*

BB104.2 Area separation. *Portions of buildings which are separated by one or more 4-hour area separation walls constructed in accordance with the building code, without openings and provided with a 30-inch (762 mm) parapet, are allowed to be considered as separate fire areas.*

BB104.3 Type I and Type IB construction. *The fire area of buildings constructed of Type I and Type IB construction shall be the area of the three largest successive floors.*

SECTION BB105
FIRE-FLOW REQUIREMENTS FOR BUILDINGS

BB105.1 *The minimum fire flow and flow duration for school buildings shall be as specified in Table BB105.1.*

Exception: *A reduction in required fire flow of up to 75 percent is allowed when the building is provided with an approved automatic sprinkler system. When a reduction in fire flow is used, fire flow shall not be less than 1500 GPM.*

TABLE BB105.1
MINIMUM REQUIRED FIRE-FLOW AND FLOW DURATION FOR BUILDINGS

FIRE AREA (square feet)					FIRE-FLOW (gallons per minute)b	FLOW DURATION (hours)
Type IA and IB a	Type IIA and IIIA a	Type IV and V-A a	Type IIB and IIIB a	Type V-B a		
0-22,700	0-12,700	0-8,200	0-5,900	0-3,600	1,500	2
22,701-30,200	12,701-17,000	8,201-10,900	5,901-7,900	3,601-4,800	1,750	
30,201-38,700	17,001-21,800	10,901-12,900	7,901-9,800	4,801-6,200	2,000	
38,701-48,300	21,801-24,200	12,901-17,400	9,801-12,600	6,201-7,700	2,250	
48,301-59,000	24,201-33,200	17,401-21,300	12,601-15,400	7,701-9,400	2,500	
59,001-70,900	33,201-39,700	21,301-25,500	15,401-18,400	9,401-11,300	2,750	
70,901-83,700	39,701-47,100	25,501-30,100	18,401-21,800	11,301-13,400	3,000	3
83,701-97,700	47,101-54,900	30,101-35,200	21,801-25,900	13,401-15,600	3,250	
97,701-112,700	54,901-63,400	35,201-40,600	25,901-29,300	15,601-18,000	3,500	
112,701-128,700	63,401-72,400	40,601-46,400	29,301-33,500	18,001-20,600	3,750	
128,701-145,900	72,401-82,100	46,401-52,500	33,501-37,900	20,601-23,300	4,000	4
145,901-164,200	82,101-92,400	52,501-59,100	37,901-42,700	23,301-26,300	4,250	
164,201-183,400	92,401-103,100	59,101-66,000	42,701-47,700	26,301-29,300	4,500	
183,401-203,700	103,101-114,600	66,001-73,300	47,701-53,000	29,301-32,600	4,750	
203,701-225,200	114,601-126,700	73,301-81,100	53,001-58,600	32,601-36,000	5,000	
225,201-247,700	126,701-139,400	81,101-89,200	58,601-65,400	36,001-39,600	5,250	
247,701-271,200	139,401-152,600	89,201-97,700	65,401-70,600	39,601-43,400	5,500	
271,201-295,900	152,601-166,500	97,701-106,500	70,601-77,000	43,401-47,400	5,750	
295,901-Greater	166,501-Greater	106,501-115,800	77,001-83,700	47,401-51,500	6,000	
—	—	115,801-125,500	83,701-90,600	51,501-55,700	6,250	
—	—	125,501-135,500	90,601-97,900	55,701-60,200	6,500	
—	—	135,501-145,800	97,901-106,800	60,201-64,800	6,750	
—	—	145,801-156,700	106,801-113,200	64,801-69,600	7,000	
—	—	156,701-167,900	113,201-121,300	69,601-74,600	7,250	
—	—	167,901-179,400	121,301-129,600	74,601-79,800	7,500	
—	—	179,401-191,400	129,601-138,300	79,801-85,100	7,750	
—	—	191,401-Greater	138,301-Greater	85,101-Greater	8,000	

For SI: 1 square foot = 0.0929 m^2, 1 gallon per minute = 3.785 L/m, 1 pound per square inch = 6.895kPa.

a. Types of construction are based on the *California Building Code*.

b. Measured at 20 psi.

CALIFORNIA FIRE CODE – MATRIX ADOPTION TABLE
APPENDIX C – FIRE HYDRANT LOCATIONS AND DISTRIBUTION

(Matrix Adoption Tables are non-regulatory, intended only as an aid to the user.
See Chapter 1 for state agency authority and building applications.)

Adopting Agency	BSC	BSC-CG	SFM		HCD			DSA		OSHPD				BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
			T-24	T-19*	1	2	1/AC	AC	SS	1	2	3	4								
Adopt Entire Chapter																					
Adopt Entire Chapter as amended (amended sections listed below)			X																		
Adopt only those sections that are listed below																					
[California Code of Regulations, Title 19, Division 1]																					
Chapter / Section																					
C101.1			X																		

* The *California Code of Regulations* (CCR), Title 19, Division 1 provisions that are found in the *California Fire Code* are a reprint from the current CCR, Title 19, Division 1 text for the code user's convenience only. The scope, applicability and appeals procedures of CCR, Title 19, Division I remain the same.

APPENDIX C

FIRE HYDRANT LOCATIONS AND DISTRIBUTION

SECTION C101
GENERAL

C101.1 Scope. In addition to the requirements of Section 507.5.1 of the *California Fire Code*, fire hydrants shall be provided in accordance with this appendix for the protection of buildings, or portions of buildings, hereafter constructed or moved into the jurisdiction.

Exception: *[SFM] Group B, S-2 and U occupancies having a floor area not exceeding 1,000 square feet, primarily constructed of noncombustible exterior walls with wood or steel roof framing, having a Class A roof assembly, with uses limited to the following or similar uses:*

1. *California State Parks buildings of an accessory nature (restrooms).*
2. *Safety roadside rest areas, (SRRA), public restrooms.*
3. *Truck inspection facilities, (TIF), California Highway Patrol (CHP) office space and vehicle inspection bays.*
4. *Sand/salt storage buildings, storage of sand and salt.*

SECTION C102
NUMBER OF FIRE HYDRANTS

C102.1 Minimum number of fire hydrants for a building. The number of fire hydrants available to a building shall be not less than the minimum specified in Table C102.1.

SECTION C103
FIRE HYDRANT SPACING

C103.1 Hydrant spacing. Fire apparatus access roads and public streets providing required access to buildings in accordance with Section 503 of the *California Fire Code* shall be provided with one or more fire hydrants, as determined by Section C102.1. Where more than one fire hydrant is required, the distance between required fire hydrants shall be in accordance with Sections C103.2 and C103.3.

C103.2 Average spacing. The average spacing between fire hydrants shall be in accordance with Table C102.1.

Exception: The average spacing shall be permitted to be increased by 10 percent where existing fire hydrants provide all or a portion of the required number of fire hydrants.

C103.3 Maximum spacing. The maximum spacing between fire hydrants shall be in accordance with Table C102.1.

SECTION C104
CONSIDERATION OF EXISTING FIRE HYDRANTS

C104.1 Existing fire hydrants. Existing fire hydrants on public streets are allowed to be considered as available to meet the requirements of Sections C102 and C103. Existing fire hydrants on adjacent properties are allowed to be considered as available to meet the requirements of Sections C102 and C103 provided that a fire apparatus access road extends between properties and that an easement is established to prevent obstruction of such roads.

SECTION C105
REFERENCED STANDARDS

ICC	IFC—15	International Fire Code	C101.1, C103.1, Table C102.1
ICC	IRC—15	International Residential Code	Table C102.1

TABLE C102.1
REQUIRED NUMBER AND SPACING OF FIRE HYDRANTS

FIRE-FLOW REQUIREMENT (gpm)	MINIMUM NUMBER OF HYDRANTS	AVERAGE SPACING BETWEEN HYDRANTS[a, b, c, f, g] (feet)	MAXIMUM DISTANCE FROM ANY POINT ON STREET OR ROAD FRONTAGE TO A HYDRANT[d, f, g]
1,750 or less	1	500	250
2,000-2,250	2	450	225
2,500	3	450	225
3,000	3	400	225
3,500-4,000	4	350	210
4,500-5,000	5	300	180
5,500	6	300	180
6,000	6	250	150
6,500-7,000	7	250	150
7,500 or more	8 or more[e]	200	120

For SI: 1 foot = 304.8 mm, 1 gallon per minute = 3.785 L/m.

a. Reduce by 100 feet for dead-end streets or roads.

b. Where streets are provided with median dividers that cannot be crossed by fire fighters pulling hose lines, or where arterial streets are provided with four or more traffic lanes and have a traffic count of more than 30,000 vehicles per day, hydrant spacing shall average 500 feet on each side of the street and be arranged on an alternating basis.

c. Where new water mains are extended along streets where hydrants are not needed for protection of structures or similar fire problems, fire hydrants shall be provided at spacing not to exceed 1,000 feet to provide for transportation hazards.

d. Reduce by 50 feet for dead-end streets or roads.

e. One hydrant for each 1,000 gallons per minute or fraction thereof.

f. A 50-percent spacing increase shall be permitted where the building is equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1 of the *California Fire Code*.

g. A 25-percent spacing increase shall be permitted where the building is equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.2 or 903.3.1.3 of the *California Fire Code* or Section P2904 of the *California Residential Code*.

CALIFORNIA FIRE CODE – MATRIX ADOPTION TABLE
APPENDIX CC – FIRE HYDRANT LOCATIONS AND DISTRIBUTION

(Matrix Adoption Tables are non-regulatory, intended only as an aid to the user.
See Chapter 1 for state agency authority and building applications.)

Adopting Agency	BSC	BSC-CG	SFM		HCD			DSA		OSHPD				BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
			T-24	T-19*	1	2	1/AC	AC	SS	1	2	3	4								
Adopt Entire Chapter			X																		
Adopt Entire Chapter as amended (amended sections listed below)																					
Adopt only those sections that are listed below																					
[California Code of Regulations, Title 19, Division 1]																					
Chapter / Section																					

* The *California Code of Regulations* (CCR), Title 19, Division 1 provisions that are found in the *California Fire Code* are a reprint from the current CCR, Title 19, Division 1 text for the code user's convenience only. The scope, applicability and appeals procedures of CCR, Title 19, Division I remain the same.

APPENDIX CC

FIRE HYDRANT LOCATIONS AND DISTRIBUTION

SECTION CC101
SCOPE

CC101.1 *Fire hydrants shall be provided in accordance with this appendix for the protection of any school buildings, or portions thereof hereafter constructed for which review and approval are required under Subdivision(a) of Section 17280 of the Government Code.*

SECTION CC102
LOCATION

CC102.1 *Fire hydrants shall be provided along required fire apparatus access roads and adjacent public streets.*

SECTION CC103
NUMBER OF FIRE HYDRANTS

CC103.1 *The minimum number of fire hydrants available to a building shall not be less than that listed in Table CC105.1. The number of fire hydrants available to a complex or subdivision shall not be less than that determined by spacing requirements listed in Table CC105.1 when applied to fire apparatus access roads and perimeter streets from which fire operations could be conducted.*

SECTION CC104
CONSIDERATION OF EXISTING FIRE HYDRANTS

CC104.1 *Existing fire hydrants on public streets are allowed to be considered as available. Existing fire hydrants on adjacent properties shall not be considered available unless fire apparatus access roads extend between properties and easements are established to prevent obstruction of such roads.*

SECTION CC105
DISTRIBUTION OF FIRE HYDRANTS

CC105.1 *The average spacing between fire hydrants shall not exceed that listed in Table CC105.1.*

Exception: *A deficiency of up to 10 percent shall not be allowed when existing fire hydrants provide all, or a portion, of the required fire hydrant service.*

Regardless of the average spacing, fire hydrants shall be located such that all points on streets and access roads adjacent to a building are within the distances listed in Table CC105.1.

CC105.2 *When public or private water mains are not available to supply fire flow [not within 1,000 feet (304 800 mm) of the proposed building], the following alternatives shall be used:*

1. *Building(s) shall be protected by an automatic sprinkler system*

   Exception: *Portable (relocatable) buildings, as defined in California Education Code Section 17742.5(e), which requires that portable buildings be designed and constructed to be relocatable over public streets, shall be designed and constructed for relocation without the separation of the roof or floor from the building and when measured at the most exterior walls, shall have a*

TABLE CC105.1
NUMBER AND DISTRIBUTION OF FIRE HYDRANTS

FIRE-FLOW REQUIREMENT (gpm)	MINIMUM NUMBER OF HYDRANTS	AVERAGE SPACING BETWEEN HYDRANTS[a, b, c] (feet)	MAXIMUM DISTANCE FROM ANY POINT ON STREET OR ROAD FRONTAGE TO A HYDRANT[d]
1,750 or less	1	500	250
2,000-2,250	2	450	225
2,500	3	450	225
3,000	3	400	225
3,500-4,000	4	350	210
4,500-5,000	5	300	180
5,500	6	300	180
6,000	6	250	150
6,500-7,000	7	250	150
7,500 or more	8 or more[e]	200	120

For SI: 1 foot = 304.8 mm, 1 gallon per minute = 3.785 L/m.

a. Reduce by 100 feet for dead-end streets or roads.

b. Where streets are provided with median dividers which can be crossed by fire fighters pulling hose lines, or where arterial streets are provided with four or more traffic lanes and have a traffic count of more than 30,000 vehicles per day, hydrant spacing shall average 500 feet on each side of the street and be arranged on an alternating basis up to a fire-flow requirement of 7,000 gallons per minute and 400 feet for higher fire-flow requirements.

c Where new water mains are extended along streets where hydrants are not needed for protection of structures or similar fire problems, fire hydrants shall be provided at spacing not to exceed 1,000 feet to provide for transportation hazards.

d. Reduce by 50 feet for dead-end streets or roads.

e. One hydrant for each 1,000 gallons per minute or fraction thereof.

floor area not in excess of 2,000 square feet (186 m^2). Such portable buildings shall be separated from other structures in groupings not to exceed 9,100 square feet (845 m^2) in building area (pursuant to Table 503, California Building Code, for Type V-B buildings). Further area increases shall be as approved by the local fire authority having jurisdiction and the state fire marshal.

The water for sprinklers may be supplied by the domestic system, a pressure tank, a gravity tank or other means in accordance with NPFA 13. Water tanks shall be installed in accordance with NFPA 22. (See the California Building Code, Chapter 9.)

2. *When the adequate fire flow is not available and the water for sprinklers is provided from a source other than a public water supply, the amount of water to supply the system shall be calculated using the area/density method or the room design method as delineated in NFPA 13. The calculated duration of water flow to sprinklers shall not be less than 15 minutes to 10 heads.*
3. *The sprinkler system shall have a water flow alarm monitored by an approved central, proprietary or remote station service or a local alarm which will give audible and visual signals at a constant attended location.*
4. *When this alternative is utilized and the calculated water duration to a sprinkler is less than NFPA 13 recommendations, the area increases and fire resistive substitutions allowed in Chapter 5 of the California Building Code shall not be permitted.*

CALIFORNIA FIRE CODE – MATRIX ADOPTION TABLE
APPENDIX D – FIRE APPARATUS ACCESS ROADS

(Matrix Adoption Tables are non-regulatory, intended only as an aid to the user.
See Chapter 1 for state agency authority and building applications.)

(Not adopted by the State Fire Marshal)

Adopting Agency	BSC	BSC-CG	SFM		HCD			DSA		OSHPD				BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
			T-24	T-19*	1	2	1/AC	AC	SS	1	2	3	4								
Adopt Entire Chapter																					
Adopt Entire Chapter as amended (amended sections listed below)																					
Adopt only those sections that are listed below																					
[California Code of Regulations, Title 19, Division 1]																					
Chapter / Section																					

* The *California Code of Regulations* (CCR), Title 19, Division 1 provisions that are found in the *California Fire Code* are a reprint from the current CCR, Title 19, Division 1 text for the code user's convenience only. The scope, applicability and appeals procedures of CCR, Title 19, Division I remain the same.

APPENDIX D

FIRE APPARATUS ACCESS ROADS

The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.

SECTION D101
GENERAL

D101.1 Scope. Fire apparatus access roads shall be in accordance with this appendix and all other applicable requirements of the *California Fire Code*.

SECTION D102
REQUIRED ACCESS

D102.1 Access and loading. Facilities, buildings or portions of buildings hereafter constructed shall be accessible to fire department apparatus by way of an approved fire apparatus access road with an asphalt, concrete or other approved driving surface capable of supporting the imposed load of fire apparatus weighing at least 75,000 pounds (34 050 kg).

SECTION D103
MINIMUM SPECIFICATIONS

D103.1 Access road width with a hydrant. Where a fire hydrant is located on a fire apparatus access road, the minimum road width shall be 26 feet (7925 mm), exclusive of shoulders (see Figure D103.1).

D103.2 Grade. Fire apparatus access roads shall not exceed 10 percent in grade.

Exception: Grades steeper than 10 percent as approved by the fire chief.

D103.3 Turning radius. The minimum turning radius shall be determined by the fire code official.

D103.4 Dead ends. Dead-end fire apparatus access roads in excess of 150 feet (45 720 mm) shall be provided with width and turnaround provisions in accordance with Table D103.4.

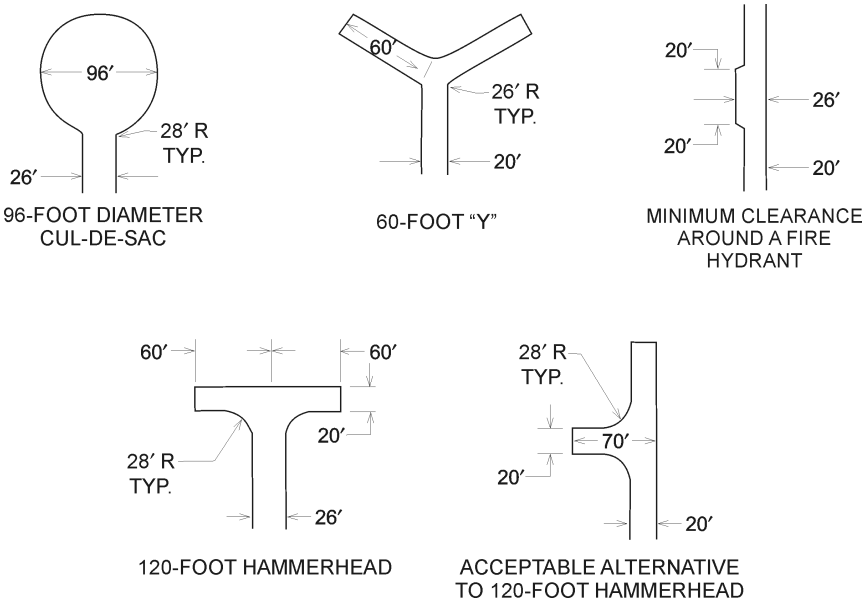
TABLE D103.4
REQUIREMENTS FOR DEAD-END
FIRE APPARATUS ACCESS ROADS

LENGTH (feet)	WIDTH (feet)	TURNAROUNDS REQUIRED
0-150	20	None required
151-500	20	120-foot Hammerhead, 60-foot "Y" or 96-foot diameter cul-de-sac in accordance with Figure D103.1
501-750	26	120-foot Hammerhead, 60-foot "Y" or 96-foot diameter cul-de-sac in accordance with Figure D103.1
Over 750	Special approval required	

For SI: 1 foot = 304.8 mm.

D103.5 Fire apparatus access road gates. Gates securing the fire apparatus access roads shall comply with all of the following criteria:

1. Where a single gate is provided, the gate width shall be not less than 20 feet (6096 mm). Where a fire apparatus road consists of a divided roadway, the gate width shall be not less than 12 feet (3658 mm).
2. Gates shall be of the swinging or sliding type.
3. Construction of gates shall be of materials that allow manual operation by one person.



For SI: 1 foot = 304.8 mm.

FIGURE D103.1
DEAD-END FIRE APPARATUS ACCESS ROAD TURNAROUND

4. Gate components shall be maintained in an operative condition at all times and replaced or repaired when defective.
5. Electric gates shall be equipped with a means of opening the gate by fire department personnel for emergency access. Emergency opening devices shall be approved by the fire code official.
6. Methods of locking shall be submitted for approval by the fire code official.
7. Electric gate operators, where provided, shall be listed in accordance with UL 325.
8. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F2200.

D103.6 Signs. Where required by the fire code official, fire apparatus access roads shall be marked with permanent NO PARKING—FIRE LANE signs complying with Figure D103.6. Signs shall have a minimum dimension of 12 inches (305 mm) wide by 18 inches (457 mm) high and have red letters on a white reflective background. Signs shall be posted on one or both sides of the fire apparatus road as required by Section D103.6.1 or D103.6.2.

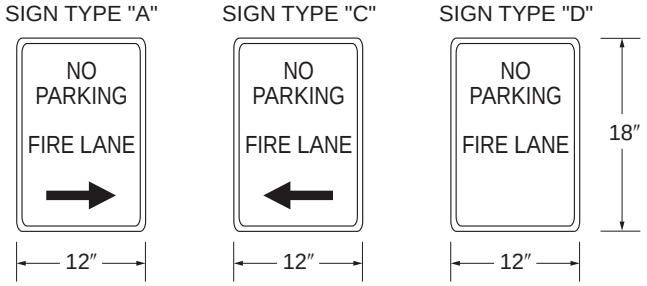


FIGURE D103.6
FIRE LANE SIGNS

D103.6.1 Roads 20 to 26 feet in width. Fire lane signs as specified in Section D103.6 shall be posted on both sides of fire apparatus access roads that are 20 to 26 feet wide (6096 to 7925 mm).

D103.6.2 Roads more than 26 feet in width. Fire lane signs as specified in Section D103.6 shall be posted on one side of fire apparatus access roads more than 26 feet wide (7925 mm) and less than 32 feet wide (9754 mm).

SECTION D104
COMMERCIAL AND INDUSTRIAL DEVELOPMENTS

D104.1 Buildings exceeding three stories or 30 feet in height. Buildings or facilities exceeding 30 feet (9144 mm) or three stories in height shall have at least two means of fire apparatus access for each structure.

D104.2 Buildings exceeding 62,000 square feet in area. Buildings or facilities having a gross building area of more than 62,000 square feet (5760 m^2) shall be provided with two separate and approved fire apparatus access roads.

Exception: Projects having a gross building area of up to 124,000 square feet (11 520 m^2) that have a single approved fire apparatus access road when all buildings are equipped throughout with approved automatic sprinkler systems.

D104.3 Remoteness. Where two fire apparatus access roads are required, they shall be placed a distance apart equal to not less than one half of the length of the maximum overall diagonal dimension of the lot or area to be served, measured in a straight line between accesses.

SECTION D105
AERIAL FIRE APPARATUS ACCESS ROADS

D105.1 Where required. Where the vertical distance between the grade plane and the highest roof surface exceeds 30 feet (9144 mm), approved aerial fire apparatus access roads shall be provided. For purposes of this section, the highest roof surface shall be determined by measurement to the eave of a pitched roof, the intersection of the roof to the exterior wall, or the top of parapet walls, whichever is greater.

D105.2 Width. Aerial fire apparatus access roads shall have a minimum unobstructed width of 26 feet (7925 mm), exclusive of shoulders, in the immediate vicinity of the building or portion thereof.

D105.3 Proximity to building. At least one of the required access routes meeting this condition shall be located within a minimum of 15 feet (4572 mm) and a maximum of 30 feet (9144 mm) from the building, and shall be positioned parallel to one entire side of the building. The side of the building on which the aerial fire apparatus access road is positioned shall be approved by the fire code official.

D105.4 Obstructions. Overhead utility and power lines shall not be located over the aerial fire apparatus access road or between the aerial fire apparatus road and the building. Other obstructions shall be permitted to be placed with the approval of the fire code official.

SECTION D106
MULTIPLE-FAMILY RESIDENTIAL DEVELOPMENTS

D106.1 Projects having more than 100 dwelling units. Multiple-family residential projects having more than 100 dwelling units shall be equipped throughout with two separate and approved fire apparatus access roads.

Exception: Projects having up to 200 dwelling units may have a single approved fire apparatus access road when all buildings, including nonresidential occupancies, are equipped throughout with approved automatic sprinkler systems installed in accordance with Section 903.3.1.1 or 903.3.1.2.

D106.2 Projects having more than 200 dwelling units. Multiple-family residential projects having more than 200 dwelling units shall be provided with two separate and approved fire apparatus access roads regardless of whether they are equipped with an approved automatic sprinkler system.

D106.3 Remoteness. Where two fire apparatus access roads are required, they shall be placed a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the property or area to be served, measured in a straight line between accesses.

SECTION D107
ONE- OR TWO-FAMILY RESIDENTIAL DEVELOPMENTS

D107.1 One- or two-family dwelling residential developments. Developments of one- or two-family dwellings where the number of dwelling units exceeds 30 shall be provided with two separate and approved fire apparatus access roads.

Exceptions:

1. Where there are more than 30 dwelling units on a single public or private fire apparatus access road and all dwelling units are equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, 903.3.1.2 or 903.3.1.3 of the *California Fire Code*, access from two directions shall not be required.
2. The number of dwelling units on a single fire apparatus access road shall not be increased unless fire apparatus access roads will connect with future development, as determined by the fire code official.

D107.2 Remoteness. Where two fire apparatus access roads are required, they shall be placed a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the property or area to be served, measured in a straight line between accesses.

SECTION D108
REFERENCED STANDARDS

ASTM	F2200—13	Standard Specification for Automated Vehicular Gate Construction	D103.5
ICC	IFC—15	International Fire Code	D101.1, D107.1
UL	325—02	Door, Drapery, Gate, Louver, and Window Operators and Systems, with Revisions through June 2013	D103.5

Appendix C

Total Available Flow from Existing Water Main

APPENDIX C

Santa Monica Blvd (FH #1)

$Q_r = Q_f \times (H_r/H_f)^{0.54}$

Static pressure = 72 PSI

Residual pressure = 58 PSI

Q_r = Rated capacity at 20 PSI

Q_f = Total test flow = 2541 gpm

H_r = Static pressure minus 20 PSI

H_f = Static pressure minus residual pressure

$Q_r = 2541 \times [(72-20)/(72-58)]^{0.54} = 5161$ gpm

Ocean Ave (FH #2)

$Q_r = Q_f \times (H_r/H_f)^{0.54}$

Static pressure = 74 PSI

Residual pressure = 58 PSI

Q_r = Rated capacity at 20 PSI

Q_f = Total test flow = 2148 gpm

H_r = Static pressure minus 20 PSI

H_f = Static pressure minus residual pressure

$Q_r = 2148 \times [(74-20)/(74-58)]^{0.54} = 4143$ gpm

2nd Street (FH #3)

$Q_r = Q_f \times (H_r/H_f)^{0.54}$

Static pressure = 70 PSI

Residual pressure = 58 PSI

Q_r = Rated capacity at 20 PSI

Q_f = Total test flow = 2541 gpm

H_r = Static pressure minus 20 PSI

H_f = Static pressure minus residual pressure

$Q_r = 2541 \times [(70\text{-}20)/(70\text{-}58)]^{0.54} = 5491$ gpm

SANITARY SEWER STUDY

The Ocean Avenue Project

101 Santa Monica Blvd.
Santa Monica, CA 90401
KPFF Job # 1800134

April 2020

CLIENT:

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Table of Contents

Appendix

Summary

This study is prepared for purposes of informing the City's Environmental Impact Report and is based on sewer monitoring data from July 2018. The City of Santa Monica has indicated that an updated sewer study may be required to be submitted to and approved by the City's Water Resources Manager prior to issuance of a building permit for the project to verify that, based on then-existing conditions, the City's sewer system can accommodate the entire development.

Flow monitoring of public sewer manholes adjacent to the site has been conducted by US^3 over a 14-day period. After a review of the data collected and analysis of the project demands it has been determined that based on existing conditions the locally monitored sewer mains have available capacity and can accommodate the entire development. The project site consists of two adjacent sites in the Downtown district of the City of Santa Monica: the Ocean Avenue Parcel and the Second Street Parcel. The Ocean Avenue Parcel is located at the northeast corner of Ocean Avenue and Santa Monica Boulevard and is about 1.2 acres in size and the Second Street Parcel consists of four lots and is about 0.69 acres in size.

Two scenarios were analyzed in this study:

Scenario 1: Routing 100% of the proposed sewage flow from the project to the Ocean Avenue main.

Scenario 2: Routing 100% of the proposed sewage flow from the project to the 2nd Street main.

After conducting the sewer flow monitoring and calculating the project's proposed sewer flow, it was determined that the 1st Court main most likely cannot accommodate any of the project's sewage flow without doing any upgrades to this main. It appears that these main upgrades would extend well beyond the project site. Therefore, it was determined that routing all the project's projected sewage flow would be diverted to the 2nd Street main and/or to the Ocean Avenue main.

The City of Santa Monica sewer design criteria states that for sewer pipes that are less than 15" in diameter, the depth to diameter ratio of a sewer pipe must be less than or equal 0.5 (50% full). Additionally, for sewer pipes that are more than 15" in diameter the depth to diameter ratio of a sewer pipe must be less than or equal 0.75 (75% full).

Based on the analysis in this report, it has been determined that under all the above-mentioned scenarios and with the sewer flows currently existing the locally monitored Ocean Avenue and 2nd Street sewer mains have available capacity and can accommodate the entire development while still satisfying the City of Santa Monica sewer design criteria. In addition, rather than directing the project's entire sewage flow to either the Ocean Avenue or the 2nd Street Main, an option would be available to split the project's sewage between the Ocean Avenue and 2nd Street mains. As indicated above, the City may require an updated sewer study to be approved by the City's Water Resources Manager prior to issuance of the project's building permit in order to verify that, based on then-existing conditions (documented by sewer monitoring and the City's hydraulic model), the City's sewer system can accommodate the entire development consistent with the City of Santa Monica sewer design criteria (included below).

Existing Conditions

The project site is adjacent to three sewer mains: an 18" public sewer main in 2nd Street to the north, an 18" public sewer main in Ocean Avenue to the south and an 8" sewer main in 1st Court which runs in between the Ocean Avenue Parcel and the Second Street Parcel. All the existing buildings within the project site connect to the 8" public sewer main in 1st Court. As shown on Table 1 below, the existing buildings generate a total daily average demand of 18,205 GPD. Additionally, through the application of a peaking factor of 2.5, the total daily peak demand amounts to 45,515 GPD. Furthermore, according to the US[3] data the existing sewage flow on the 8" public sewer main in 1st Court yields to a peak flow of 0.17 MGD with a depth of 0.33 feet, which indicates this main is flowing approximately 50% full.

Table 1: Existing Sewer Flow

Existing Building Use	SGF[1] Category	Quantity	SGF[1]	Sewer Flow (GPD)	Peak/Max Flow (GPD) (Peaking factor = 2.5)
Residential					
Apartment Units	Residential Apt: Bachelor	12 DU	75/DU	900	2,250
Apartment Units	Residential Apt: 1 Bedroom	7 DU	110/DU	770	1,925

Retail/Restaurant					
Restaurant	Restaurant: Full Service	413 Seats[2] *12,390 SF*	30/Seat	12,390	30,975
Storage	Storage	690 SF	30 GPD/ 1,000 SF	21	53
Hair Salon	Beauty Parlor	1,175 SF	425 GPD/ 1,000 SF	499	1,248
Medical Spa	Spa	725 SF	Total	725	1,813
Office					
Commercial	Office Building	14,005 SF	120 GPD/ 1,000 SF	1,681	4,203
Medical	Medical Office	4,875 SF	250 GPD/ 1,000 SF	1,219	3,048
			Total	**18,205**	**45,515[3]**

(1) Based on the City of Los Angeles "Sewerage Facilities Charge Sewage Generation Factor for Residential and Commercial Categories" see attached table in Appendix D provided by City of Santa Monica.
(2) Seat number was estimated using proposed square footage and multiplying by the factor of 1 seat/ 30 SF for the restaurant and retail space.
(3) All existing sewage is conveyed to the 8" public sewer main in 1st Court.

Flow Monitoring Results Summary

The sewer manhole locations where the sewer flow monitoring was conducted were selected in consultation with and approved by the City of Santa Monica as shown in an email correspondence in Appendix E.

Ocean Avenue 18" sewer main

Data recorded from 7/12/18 to 7/27/18
Minimum flow = 0.093 MGD
Maximum flow = 0.634 MGD
Average flow = 0.324 MGD

Minimum level = 1.54 inches
Maximum level = 3.37 inches
Average level = 2.44 inches

1st Court 8" sewer main

Data recorded from 7/12/18 to 7/27/18
Minimum flow = 0.044 MGD
Maximum flow = 0.170 MGD
Average flow = 0.113 MGD

Minimum level = 2.12 inches
Maximum level = 3.98 inches
Average level = 3.12 inches

2nd Street 18" sewer main

Data recorded from 7/12/18 to 7/27/18
Minimum flow = 0.150 MGD
Maximum flow = 0.867 MGD
Average flow = 0.513 MGD

Minimum level = 1.76 inches
Maximum level = 3.87 inches
Average level = 2.97 inches

For complete flow monitoring results see attached report in Appendix C "Statistics for 2018.07 Ocean Av MH, Statistics 2018.07 Santa Monica MH, Statistics 2018.07 2nd St. MH" July 12, 2018 – July 27, 2018 prepared by Utility Systems Science and Software (US[3]).

Proposed Sewer Flow

Table 2: Total Proposed Sewer Flow

Proposed Building Use	SGF[1] Category	Quantity	SGF[1]	Sewer Flow (GPD)	Peak/Max Flow (GPD) (Peaking factor = 2.5)
Hotel					
Hotel Rooms	Hotel: Guest Room	120 Rooms	120 GPD/Room	14,400	36,000
Spa	Massage Parlor	4,400 SF	250 GPD/ 1,000 SF	1,100	2,750

Meeting/Banquet Space	Banquet Room	8,700 SF	350 GPD/ 1,000 SF	3,045	7,613
Kitchen	Restaurant : Take Out	4,949 SF	300 GPD/ 1,000 SF	1,485	3,713
Hotel Services: Lobbies and Lounges	Lounge	15,510 SF	50 GPD/ 1,000 SF	776	1,940
Residential					
Apartment Units	Residential Apt: Bachelor	12 DU	75/DU	900	2,250
Apartment Units	Residential Apt: 1 Bedroom	55 DU	110/DU	6,050	15,125
Apartment Units	Residential Apt: 2 Bedroom	23 DU	150/DU	3,450	8,625
Apartment Units	Residential Apt: 3 Bedroom	10 DU	190/DU	1,900	4,750
Retail/Restaurant					
Restaurant	Restaurant : Full Service	802 Seats[2] *24,070 SF*	30/Seat	24,070	60,175
Retail	Retail Area (Less than 100,000 SF)	12,040 SF	25 GPD/ 1,000 SF	301	753
Cultural Building	Museum: All Area	35,500 SF	30 GPD/ 1,000 SF	1,065	2,663
Observation Deck	Lounge	240 SF[3]	50 GPD/ 1,000 SF	12	30
Shared Services (Trash Room, MEP, Storage)	Storage	17,346 SF[4]	30 GPD/ 1,000 SF	520	1,300
			Total	**59,074**	**147,687**

(1) Based on the City of Los Angeles "Sewerage Facilities Charge Sewage Generation Factor for Residential and Commercial Categories" see attached table in Appendix D provided by City of Santa Monica.

(2) Seat number was estimated using proposed square footage and multiplying by the factor of 1 seat/ 30 SF for the restaurant. (19,130 SF for indoor restaurant area and 4,940 SF for outdoor restaurant area)
(3) It is anticipated that close to zero sewage will be generated from the unenclosed area on the observation deck and thus only the enclosed area has been included in this calculation.
(4) Some of square footage is below grade and is not considered as Floor Area. It is included in this report, because there may have sewage associate with it.

The total daily average demand is 59,074 GPD, which has been calculated in Table 2 above. Through the application of a peaking factor of 2.5, the total daily peak demand amounts to 147,687 GPD.

Table 3 below summarizes the net increase in the Ocean Ave main and 2nd Street main per scenarios 1 and 2.

Table 3 Net Increase in Ocean Avenue and 2nd Street Sewer Main
(Scenario 1 & 2: 100% Proposed Flow to each Main)

Sewer Main Location	Diameter Size (inches) and Material	Channel Slope (ft/ft)[1]	Existing Normal Depth (ft)	Existing % Full	Existing Flow from Building to be Removed (GPD)	Gross Flow from Proposed Development (GPD)	Net Additional Flow (GPD)	Proposed Normal Depth in Sewer (ft)[2]	Proposed[3] % Full	Net % Increase[4]
Ocean Avenue	18" VCP	0.020	0.28	18.7	0	147,687	147,687	0.42	28.0	9.3
2nd Street	18" HDPE	0.014	0.32	21.3	0	147, 687	147,687	0.45	30.0	8.7

(1) Channel slope determined through Manning's Equation $S = \left(\frac{Vn}{1.49R^{0.66}}\right)^2$ where S= Channel Slope, V= Maximum Velocity, n= Manning's Coefficient, and R=Hydraulic Radius.
(2) Proposed Normal Depth in Sewer Main = (Additional Normal Depth from Proposed Development - Existing Normal Depth from Building to be Removed within Project Site) + Existing Normal Depth
(3) Proposed % Full = (Proposed Normal Depth in Sewer Main) / (Diameter of Main)
(4) Net Increase = Proposed % Full – Existing % Full

Conclusion

If 100% of the flow (147,687 GPD) were directed to the Ocean Avenue public sewer main, the additional peak daily demand will increase the depth on Ocean Avenue by 0.14 feet. The proposed development will result in a total peak depth on Ocean Avenue of 0.42 feet. This additional demand will raise the flow depth from 18.7% full to 28.0% full during peak flow conditions for the main on Ocean Avenue.

Alternatively, if 100% of the flow (147,687 GPD) were directed to the 2nd Street public sewer main, the additional peak daily demand will increase the depth on 2nd Street by 0.13 feet. The proposed development will result in a total peak depth on 2nd Street of 0.45 feet. This additional demand will raise the flow depth from 21.3% full to 30.0% full during peak flow conditions for the main on 2nd Street.

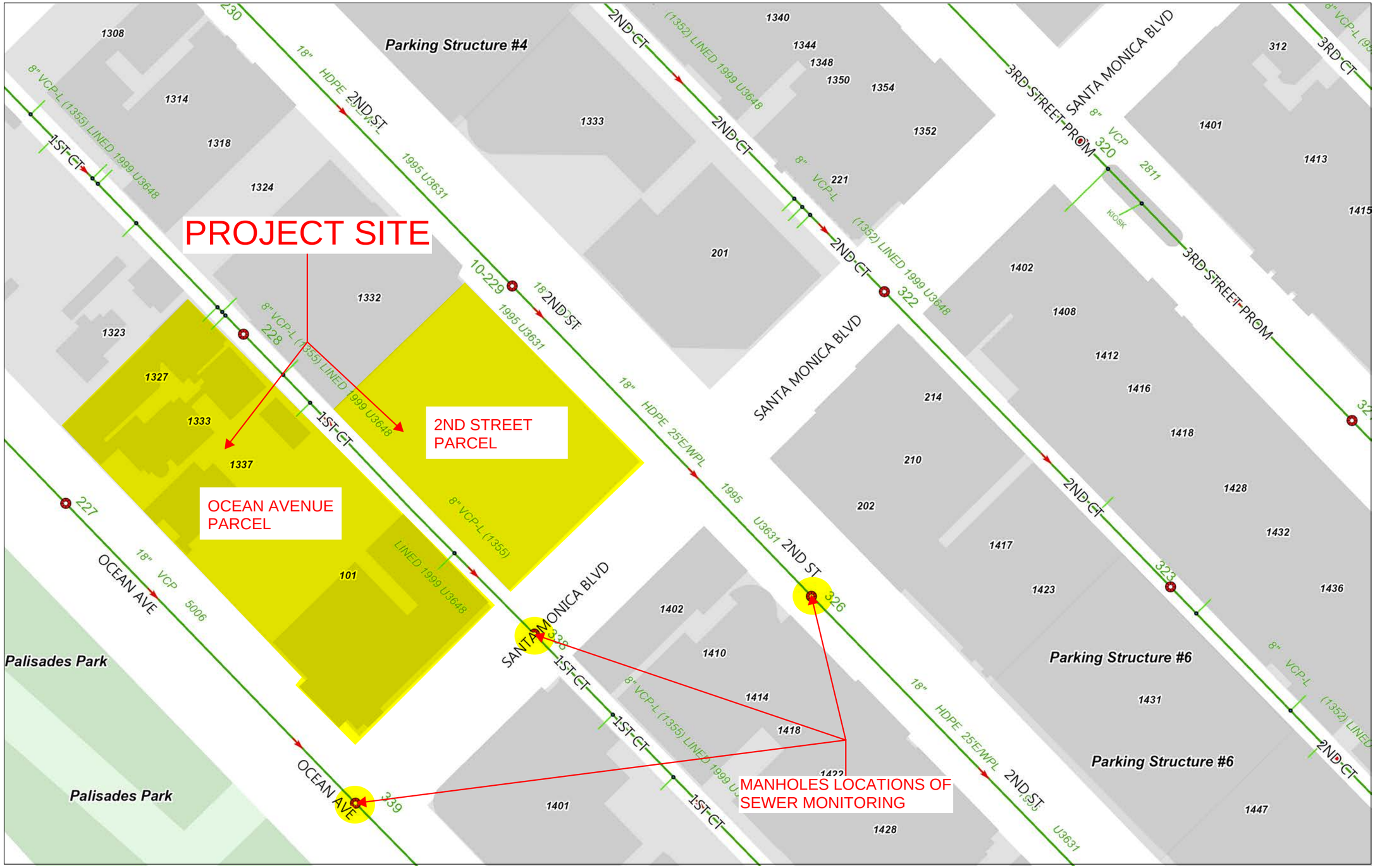
Based on existing conditions, the project's increase in sewage flow described in both scenarios satisfies the City of Santa Monica sewer design criteria for the locally monitored sewer mains. In addition, rather than directing the project's entire sewage flow to either the Ocean Avenue or the 2nd Street Main, there may be an option to split the project's sewage between the Ocean Avenue and 2nd Street mains.

This sewer flow analysis is based on the extent of the project site and July 2018 of the Ocean Avenue, 2nd Street and 1st Court upstream sewer public mains per the US[3] sewer monitoring data. Other future projects' sewer flow upstream or downstream to the Ocean Avenue, 2nd Street and 1st Court sewer public mains were not analyzed. Given that the flows in the City's sewer system upstream or downstream of the project, including the mains in Ocean Avenue and 2nd Street, could increase over time, this report cannot predict the conditions that will be existing prior to the project securing its building permit. As indicated above, the City may require an updated sewer study to be submitted to and approved by the City's Water Resources Manager prior to issuance of the project's building permit in order to verify that, based on then-existing conditions (documented by sewer monitoring and the City's hydraulic model), the City's sewer system can accommodate the entire development consistent with the City of Santa Monica sewer design criteria (included below).

Appendix A

Sewer Main Map

101 Santa Monica Blvd. - GIS Sewer Map



- Sewer Flow
- Sewer Fittings
  - <all other values>
  - Wye
  - Tap
  - Saddle
  - Cap(Lat)
  - Coupling
  - Plug
- Sewer Manholes
- Sewer Network Structures
  - <all other values>
  - GaugingStation
  - JunctionChamber
  - PumpStation
- Sewer Abandoned
- Sewer Gravity Mains
- Sewer Lateral Lines
- CSMENT.DBO.expo_stations
- CSMENT.DBO.expo_line
- City Boundary

0.0 0 0.02 0.0
Miles

1: 1,128

Appendix B

Sewer Flow and Depth Calculations

SCENARIO 1

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.015	
Channel Slope	0.02000	ft/ft
Diameter	18.00	in
Discharge	147,687.00	gal/day

Results

Normal Depth	0.14	ft
Flow Area	0.08	ft²
Wetted Perimeter	0.93	ft
Hydraulic Radius	0.09	ft
Top Width	0.87	ft
Critical Depth	0.18	ft
Percent Full	9.3	%
Critical Slope	0.00741	ft/ft
Velocity	2.78	ft/s
Velocity Head	0.12	ft
Specific Energy	0.26	ft
Froude Number	1.60	
Maximum Discharge	13.85	ft³/s
Discharge Full	12.87	ft³/s
Slope Full	0.00001	ft/ft
Flow Type	SuperCritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	9.26	%
Downstream Velocity	Infinity	ft/s

SCENARIO 1

GVF Output Data

Upstream Velocity	Infinity	ft/s
Normal Depth	0.14	ft
Critical Depth	0.18	ft
Channel Slope	0.02000	ft/ft
Critical Slope	0.00741	ft/ft

SCENARIO 2

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.011	
Channel Slope	0.01400	ft/ft
Diameter	18.00	in
Discharge	147,687.00	gal/day

Results

Normal Depth	0.13	ft
Flow Area	0.07	ft²
Wetted Perimeter	0.90	ft
Hydraulic Radius	0.08	ft
Top Width	0.84	ft
Critical Depth	0.18	ft
Percent Full	8.7	%
Critical Slope	0.00399	ft/ft
Velocity	3.06	ft/s
Velocity Head	0.15	ft
Specific Energy	0.28	ft
Froude Number	1.81	
Maximum Discharge	15.80	ft³/s
Discharge Full	14.69	ft³/s
Slope Full	0.00000	ft/ft
Flow Type	SuperCritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	8.69	%
Downstream Velocity	Infinity	ft/s

SCENARIO 2

GVF Output Data

Upstream Velocity	Infinity	ft/s
Normal Depth	0.13	ft
Critical Depth	0.18	ft
Channel Slope	0.01400	ft/ft
Critical Slope	0.00399	ft/ft

Appendix C

US3 Sewer Monitoring Report

Site Report 07-30-2018

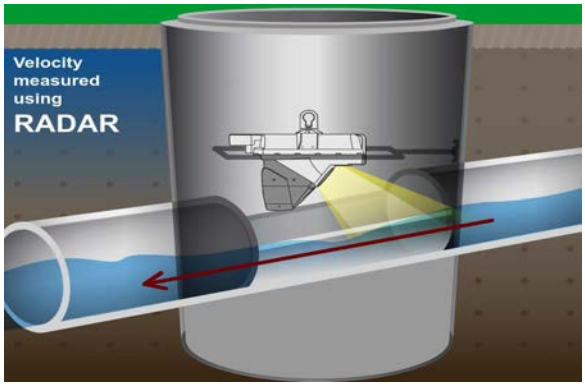
Confidential Proprietary Information

KPFF	Ocean Av & Santa Monica Blvd, Santa Monica, CA 90401
2018.07 Ocean Av MH	Monitoring for Project at 101 Santa Monica Blvd

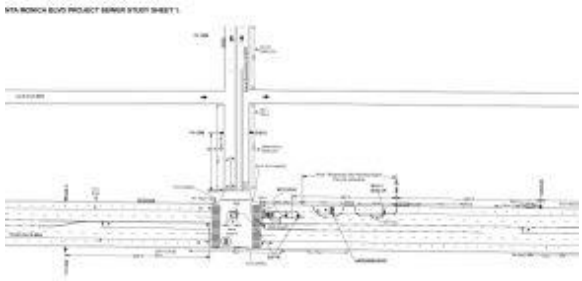
Access:	System Type:	Install Date: 7/12/2018
MH within intersection	Sanitary [X] Storm [ ]	

Map

Technology



Traffic Plan



Flow Meter			
Meter Depth: 65"			
MH Coordinates: 34.014126, -118.498017			
Moderate open channel hydraulics; no laterals			
Avg Velocity	Avg Measured Level		Multiplier
3.33 fps	2.5"		1
Gas			
O2	H2S	CO	LEL
20.9	0	0	0

Notes

Monitored upstream line as it provided the best hydraulics. Note: Breaks in trough could indicate undermining issue.

Traffic Safety

Used cones & signs per approved site-specific traffic control plans.

Land Use

Residential	Commercial	Industrial	Trunk
X	X		

Manhole Depth	90"
Monitored Pipe Size	18"
Inner Pipe Size (In/Out)	18"/18"
Pipe Shape	Round
Pipe Condition	Good
Manhole Material	Brick
Silt	0
Velocity Profile Data	*
Velocity Profile Taken	0.4 2-D
Sensor Offset	24.83"
Sensor Dist. to Crown	6.83"
Sensor Direction	Upstream
Flow Heading	East

Meter Site Document

KPFF

2018.07 Ocean Av MH

Ocean Av & Santa Monica Blvd,
Santa Monica, CA 90401

Site

Manhole Before Install

Installation Process

Installed

Upstream

Upstream Pipe Size

Site Report 07-30-2018

Confidential Proprietary Information

KPFF ~1416 2nd St, Santa Monica, CA 90401

2018.07 2nd St MH Monitoring for Project at 101 Santa Monica Blvd

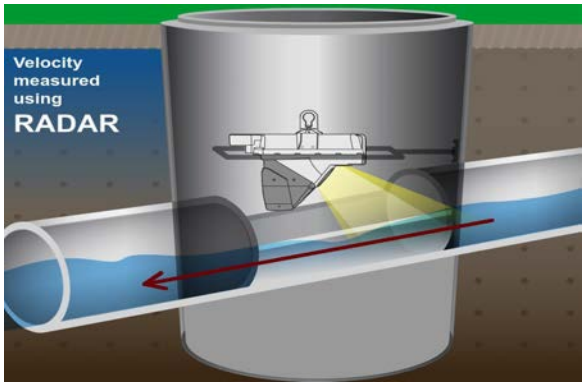
Access:
MH in EB bike lane

System Type:
Sanitary [X] Storm [ ]

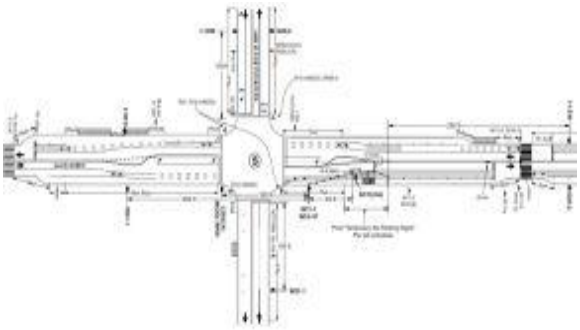
Install Date: 7/12/2018

Map

Technology



Traffic Plan



Flow Meter			
Meter Depth: 101"			
MH Coordinates: 34.014599, -118.496792			
Moderate open channel hydraulics; no laterals			
Avg Velocity	Avg Measured Level		Multiplier
4.33 fps	3.0"		1
Gas			
O2	H2S	CO	LEL
20.9	0	0	0

Notes

Monitored downstream line as it provided the best hydraulics. Note: Extensive root intrusion

Traffic Safety

Used cones & signs per approved site-specific traffic control plans.

Land Use

Residential	Commercial	Industrial	Trunk
X	X		

Manhole Depth	123"
Monitored Pipe Size	15"
Inner Pipe Size (In/Out)	15"/15"
Pipe Shape	Round
Pipe Condition	Fair
Manhole Material	Brick
Silt	0
Velocity Profile Data	*
Velocity Profile Taken	0.4 2-D
Sensor Offset	21.60"
Sensor Dist. to Crown	6.60"
Sensor Direction	Downstream
Flow Heading	East

Meter Site Document

KPFF

2018.07 2nd St MH

~1416 2nd St, Santa Monica, CA 90401

Site

Manhole Before Install

Installation Process

Installed

Downstream Pipe Size

Downstream

Site Report 07-30-2018

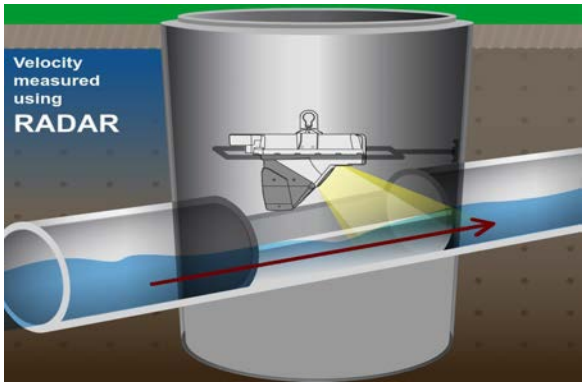
Confidential Proprietary Information

KPFF	Santa Monica Blvd & 1st Ct, Santa Monica, CA 90401
2018.07 Santa Monica Blvd MH	Monitoring for Project at 101 Santa Monica Blvd

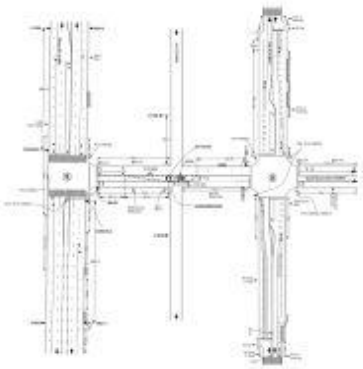
Access:	System Type:	Install Date: 7/12/2018
MH within intersection	Sanitary [X] Storm [ ]	

Map

Technology



Traffic Plan



Flow Meter			
Meter Depth: 87"			
MH Coordinates: 34.014508, -118.497541			
Moderate open channel hydraulics; Note: One drop inlet from north, no flow observed.			
Avg Velocity	Avg Measured Level		Multiplier
1.33 fps	3.25"		1
Gas			
O2	H2S	CO	LEL
20.9	0	0	0
Notes			
Monitored downstream line for total flow. Note: Issues in MH (missing bricks & pipe deformity).			
Traffic Safety			
Used cones & signs per approved site-specific traffic control plans.			
Land Use			
Residential	Commercial	Industrial	Trunk
X	X		

Manhole Depth	87"
Monitored Pipe Size	8"
Inner Pipe Size (In/Out)	8"/8"
Pipe Shape	Round
Pipe Condition	Poor
Manhole Material	Brick
Silt	0
Velocity Profile Data	*
Velocity Profile Taken	0.4 2-D
Sensor Offset	14.36"
Sensor Dist. to Crown	6.36"
Sensor Direction	Downstream
Flow Heading	East

Meter Site Document

KPFF

2018.07 Santa Monica Blvd MH

Santa Monica Blvd & 1st Ct,
Santa Monica, CA 90401

Site

Manhole Before Install

Installation Process

Installed

Downstream Pipe Size

Downstream

Utility Systems Science and Software

Report Date: 07/30/2018
Customer: KPFF
Group: Santa Monica
SiteID: 3098

Statistics for 2018.07 Ocean Av MH: 07/12/2018 thru 07/27/2018

	Flow (GPM)			Flow (MGD)			Velocity (FPS)			Level (inches)				
Date	**Avg**	**Max**	**Min**	**Avg**	**Max**	**Min**	**Avg**	**Max**	**Min**	**Avg**	**Max**	**Min**	**Total Gal**	**Rain**
7/12/18	244.67	329.03	188.68	0.35	0.47	0.27	3.52	3.98	3.19	2.56	2.90	2.30	352,328	
7/13/18	222.95	374.72	79.65	0.32	0.54	0.11	3.35	4.15	2.28	2.42	3.08	1.61	321,051	
7/14/18	221.53	354.72	79.10	0.32	0.51	0.11	3.38	4.14	2.26	2.40	2.97	1.61	318,998	
7/15/18	228.69	375.14	87.22	0.33	0.54	0.13	3.44	4.18	2.31	2.41	3.07	1.68	329,308	
Week:	**229.46**	**375.14**	**79.10**	**0.33**	**0.54**	**0.11**	**3.42**	**4.18**	**2.26**	**2.45**	**3.08**	**1.61**	**1,321,686**	
7/16/18	231.91	382.98	77.71	0.33	0.55	0.11	3.45	4.24	2.22	2.43	3.08	1.61	333,957	
7/17/18	235.84	404.37	89.24	0.34	0.58	0.13	3.47	4.28	2.37	2.46	3.18	1.69	339,614	
7/18/18	225.54	422.29	87.85	0.32	0.61	0.13	3.39	4.31	2.32	2.42	3.26	1.69	324,782	
7/19/18	225.66	382.85	76.94	0.33	0.55	0.11	3.37	4.16	2.23	2.42	3.12	1.59	324,955	
7/20/18	240.00	396.25	72.64	0.35	0.57	0.10	3.44	4.22	2.16	2.49	3.16	1.57	345,602	
7/21/18	220.43	377.15	74.51	0.32	0.54	0.11	3.31	4.18	2.13	2.41	3.08	1.61	317,416	
7/22/18	222.77	333.96	94.93	0.32	0.48	0.14	3.32	3.95	2.35	2.44	2.94	1.76	320,789	
Week:	**228.88**	**422.29**	**72.64**	**0.33**	**0.61**	**0.10**	**3.39**	**4.31**	**2.13**	**2.44**	**3.26**	**1.57**	**2,307,115**	
7/23/18	227.07	440.14	67.50	0.33	0.63	0.10	3.30	4.28	2.06	2.45	3.37	1.54	326,985	
7/24/18	227.82	372.22	85.21	0.33	0.54	0.12	3.30	4.04	2.23	2.48	3.12	1.71	328,056	
7/25/18	225.84	378.96	81.46	0.33	0.55	0.12	3.27	4.17	2.19	2.48	3.09	1.68	325,215	
7/26/18	220.88	398.12	87.01	0.32	0.57	0.13	3.23	4.16	2.25	2.46	3.21	1.72	318,066	
7/27/18	175.11	367.29	64.72	0.25	0.53	0.09	2.83	4.02	1.95	2.24	3.11	1.55	252,162	
Week:	**215.35**	**440.14**	**64.72**	**0.31**	**0.63**	**0.09**	**3.19**	**4.28**	**1.95**	**2.42**	**3.37**	**1.54**	**1,550,484**	
Totals:	**224.80**	**440.14**	**64.72**	**0.32**	**0.63**	**0.09**	**3.34**	**4.31**	**1.95**	**2.44**	**3.37**	**1.54**	**5,179,284**	

Utility Systems Science and Software

Report Date: 07/30/2018
Customer: KPFF
Group: Santa Monica
SiteID: 3100

Statistics for 2018.07 2nd St MH: 07/12/2018 thru 07/27/2018

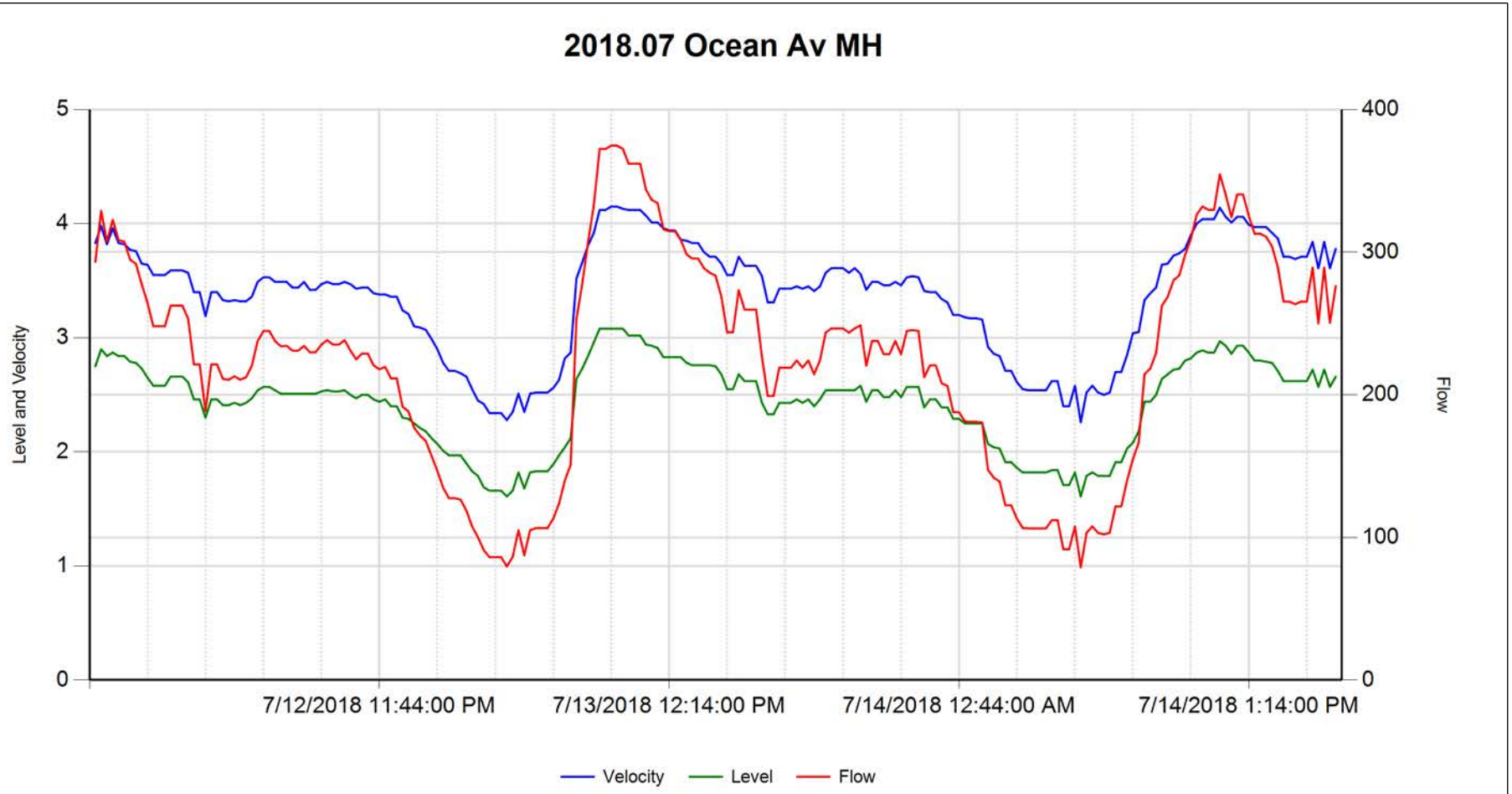
	Flow (GPM)			Flow (MGD)			Velocity (FPS)			Level (inches)				
Date	**Avg**	**Max**	**Min**	**Avg**	**Max**	**Min**	**Avg**	**Max**	**Min**	**Avg**	**Max**	**Min**	**Total Gal**	**Rain**
7/12/18	402.26	447.57	368.89	0.58	0.64	0.53	4.68	4.86	4.56	3.20	3.36	3.05	579,258	
7/13/18	349.54	563.82	114.51	0.50	0.81	0.17	4.36	5.24	3.02	2.94	3.75	1.82	503,341	
7/14/18	350.21	546.39	118.26	0.50	0.79	0.17	4.36	5.19	3.05	2.94	3.69	1.84	504,306	
7/15/18	350.65	519.79	117.57	0.51	0.75	0.17	4.35	5.07	3.03	2.95	3.62	1.84	504,937	
Week:	**363.17**	**563.82**	**114.51**	**0.52**	**0.81**	**0.17**	**4.43**	**5.24**	**3.02**	**3.01**	**3.75**	**1.82**	**2,091,842**	
7/16/18	362.03	556.66	120.42	0.52	0.80	0.17	4.38	5.18	3.04	3.00	3.75	1.87	521,320	
7/17/18	366.71	554.72	125.76	0.53	0.80	0.18	4.42	5.21	3.10	3.02	3.73	1.90	528,059	
7/18/18	357.93	584.65	104.24	0.52	0.84	0.15	4.37	5.30	2.87	2.98	3.82	1.76	515,425	
7/19/18	360.98	583.47	126.11	0.52	0.84	0.18	4.40	5.31	3.11	2.99	3.80	1.90	519,809	
7/20/18	364.08	601.60	111.39	0.52	0.87	0.16	4.38	5.34	2.97	3.01	3.87	1.80	524,276	
7/21/18	361.57	547.91	120.69	0.52	0.79	0.17	4.39	5.20	3.04	2.99	3.69	1.87	520,660	
7/22/18	358.15	536.66	123.54	0.52	0.77	0.18	4.39	5.15	3.12	2.98	3.66	1.87	515,741	
Week:	**361.64**	**601.60**	**104.24**	**0.52**	**0.87**	**0.15**	**4.39**	**5.34**	**2.87**	**2.99**	**3.87**	**1.76**	**3,645,291**	
7/23/18	365.18	569.30	127.15	0.53	0.82	0.18	4.42	5.29	3.14	3.01	3.75	1.90	525,863	
7/24/18	355.25	566.04	126.81	0.51	0.82	0.18	4.38	5.26	3.13	2.96	3.75	1.90	511,567	
7/25/18	347.08	552.85	105.97	0.50	0.80	0.15	4.34	5.22	2.89	2.93	3.71	1.78	499,788	
7/26/18	356.88	574.30	128.47	0.51	0.83	0.19	4.40	5.28	3.17	2.97	3.77	1.90	513,912	
7/27/18	287.67	554.72	117.85	0.41	0.80	0.17	4.01	5.21	3.11	2.66	3.72	1.82	414,243	
Week:	**342.41**	**574.30**	**105.97**	**0.49**	**0.83**	**0.15**	**4.31**	**5.29**	**2.89**	**2.90**	**3.77**	**1.78**	**2,465,373**	
Totals:	**356.01**	**601.60**	**104.24**	**0.51**	**0.87**	**0.15**	**4.38**	**5.34**	**2.87**	**2.97**	**3.87**	**1.76**	**8,202,505**	

Utility Systems Science and Software

Report Date: 07/30/2018
Customer: KPFF
Group: Santa Monica
SiteID: 3099

Statistics for 2018.07 Santa Monica Blvd MH: 07/12/2018 thru 07/27/2018

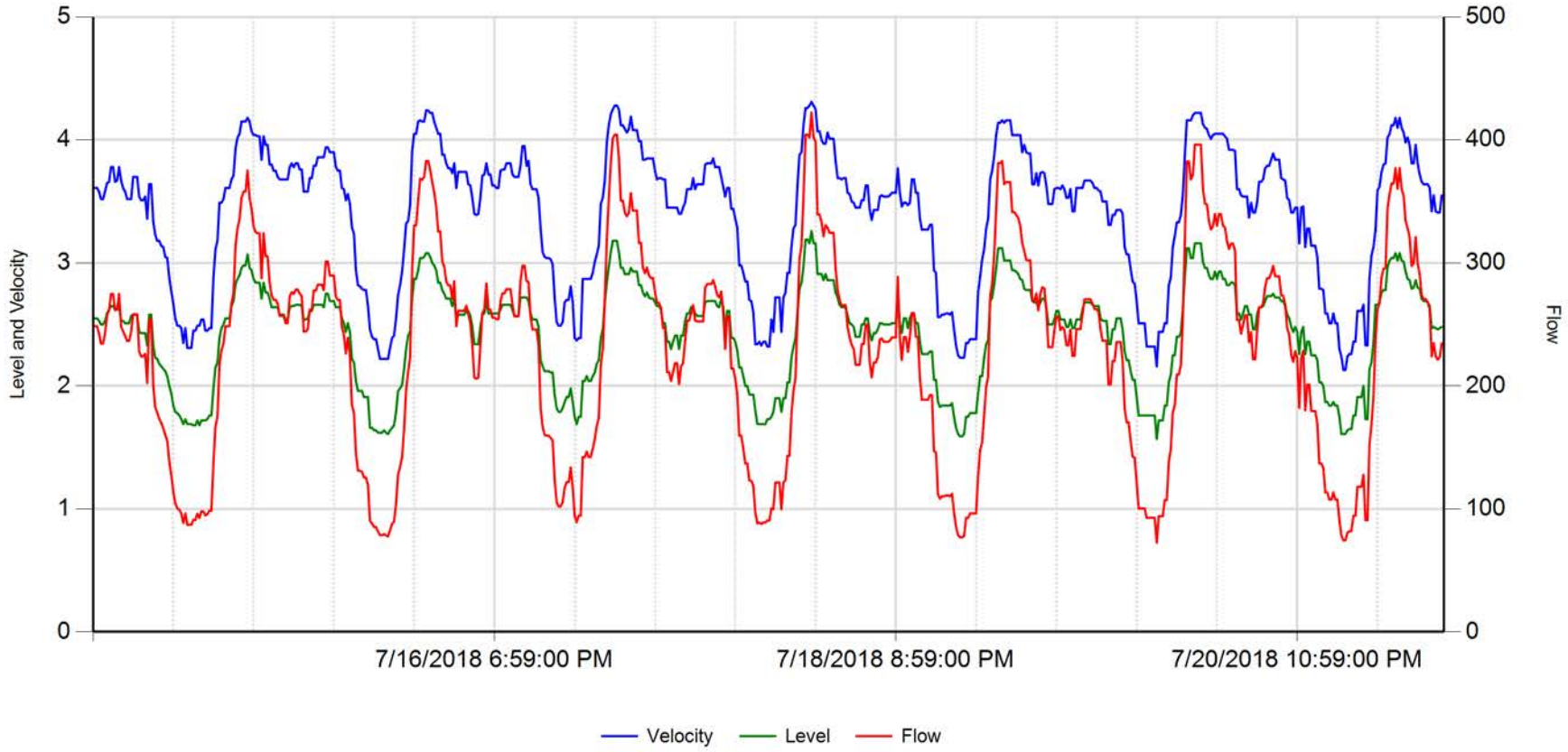
	Flow (GPM)			Flow (MGD)			Velocity (FPS)			Level (inches)				
Date	**Avg**	**Max**	**Min**	**Avg**	**Max**	**Min**	**Avg**	**Max**	**Min**	**Avg**	**Max**	**Min**	**Total Gal**	**Rain**
7/12/18	84.14	100.49	57.01	0.12	0.14	0.08	1.42	1.64	0.96	3.23	3.71	3.09	121,163	
7/13/18	80.96	103.12	56.60	0.12	0.15	0.08	1.42	1.65	0.93	3.14	3.50	2.54	116,583	
7/14/18	87.25	115.28	53.19	0.13	0.17	0.08	1.50	1.90	1.17	3.18	3.71	2.65	125,636	
7/15/18	76.68	104.03	42.71	0.11	0.15	0.06	1.39	1.71	0.92	3.05	3.84	2.50	110,426	
Week:	**82.26**	**115.28**	**42.71**	**0.12**	**0.17**	**0.06**	**1.43**	**1.90**	**0.92**	**3.15**	**3.84**	**2.50**	**473,807**	
7/16/18	73.31	91.67	30.90	0.11	0.13	0.04	1.34	1.54	0.67	3.05	3.69	2.54	105,563	
7/17/18	76.07	118.26	41.94	0.11	0.17	0.06	1.37	1.67	1.06	3.06	3.69	2.30	109,535	
7/18/18	75.13	101.74	52.08	0.11	0.15	0.08	1.35	1.57	1.03	3.09	3.87	2.29	108,190	
7/19/18	76.55	97.99	44.51	0.11	0.14	0.06	1.37	1.57	1.13	3.10	3.48	2.30	110,229	
7/20/18	83.87	116.87	49.86	0.12	0.17	0.07	1.36	1.67	1.06	3.32	3.98	2.50	120,771	
7/21/18	84.08	106.67	58.33	0.12	0.15	0.08	1.39	1.58	1.16	3.28	3.62	2.54	121,075	
7/22/18	77.96	101.74	51.18	0.11	0.15	0.07	1.36	1.60	1.00	3.14	3.66	2.53	112,258	
Week:	**78.14**	**118.26**	**30.90**	**0.11**	**0.17**	**0.04**	**1.36**	**1.67**	**0.67**	**3.15**	**3.98**	**2.29**	**787,622**	
7/23/18	76.57	98.33	45.56	0.11	0.14	0.07	1.35	1.64	0.95	3.13	3.79	2.41	110,261	
7/24/18	76.25	102.85	42.71	0.11	0.15	0.06	1.42	1.62	0.91	3.01	3.82	2.18	109,795	
7/25/18	75.92	105.97	42.22	0.11	0.15	0.06	1.33	1.63	0.70	3.15	3.61	2.32	109,323	
7/26/18	82.33	106.67	54.17	0.12	0.15	0.08	1.37	1.65	1.02	3.26	3.86	2.54	118,556	
7/27/18	64.86	107.08	42.22	0.09	0.15	0.06	1.37	1.51	1.15	2.72	3.83	2.12	93,402	
Week:	**75.19**	**107.08**	**42.22**	**0.11**	**0.15**	**0.06**	**1.37**	**1.65**	**0.70**	**3.05**	**3.86**	**2.12**	**541,337**	
Totals:	**78.25**	**118.26**	**30.90**	**0.11**	**0.17**	**0.04**	**1.38**	**1.90**	**0.67**	**3.12**	**3.98**	**2.12**	**1,802,766**	



	Velocity (fps)	Level (in)	Flow (gpm)		
Average	3.370	2.431	224.396	**RainFall**	Inches
Maximum	4.150	3.080	374.721		
Minimum	2.260	1.610	79.097		

7/30/2018 1:27:56 PM

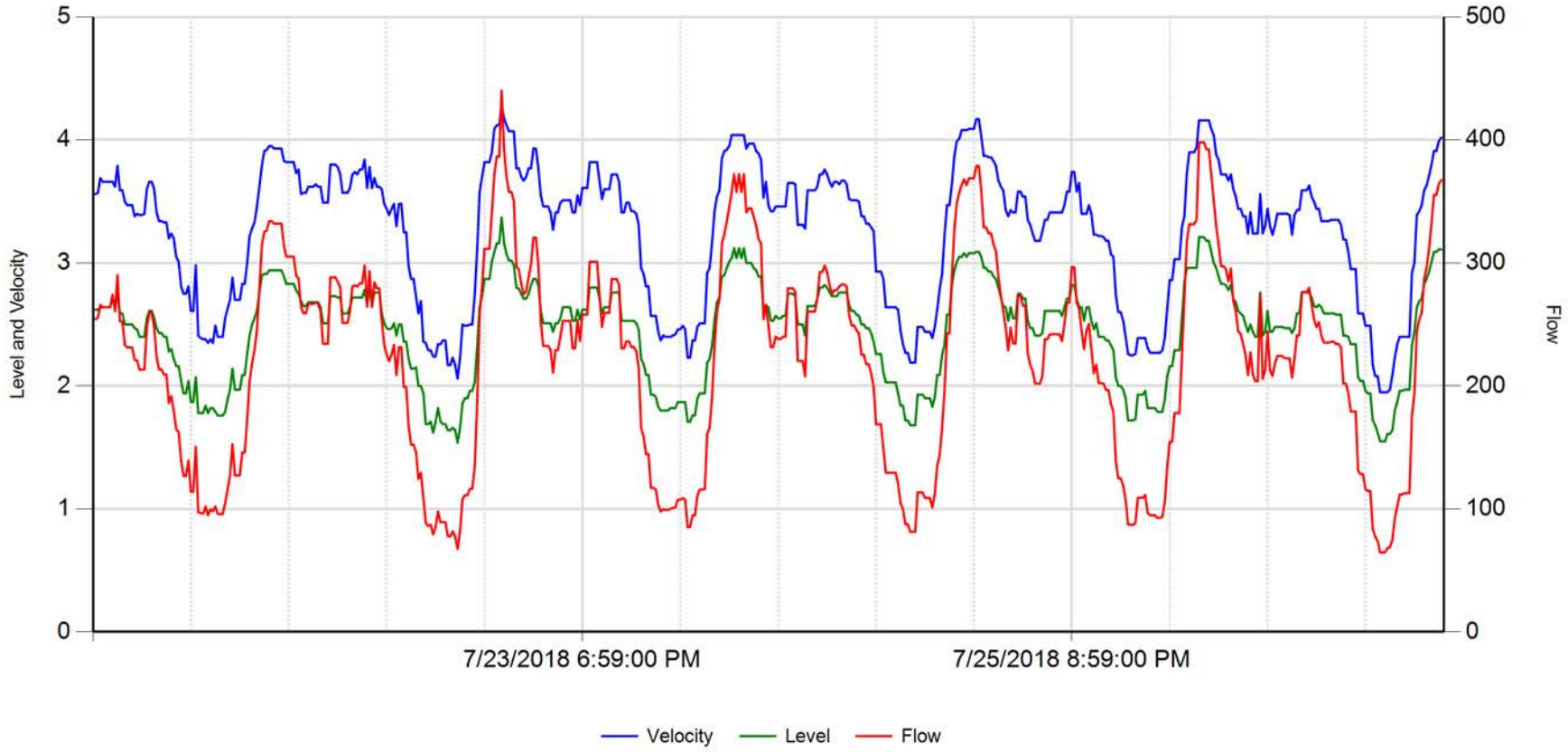
2018.07 Ocean Av MH



	Velocity (fps)	Level (in)	Flow (gpm)		
Average	3.411	2.437	229.826	**RainFall**	Inches
Maximum	4.310	3.260	422.290		
Minimum	2.130	1.570	72.639		

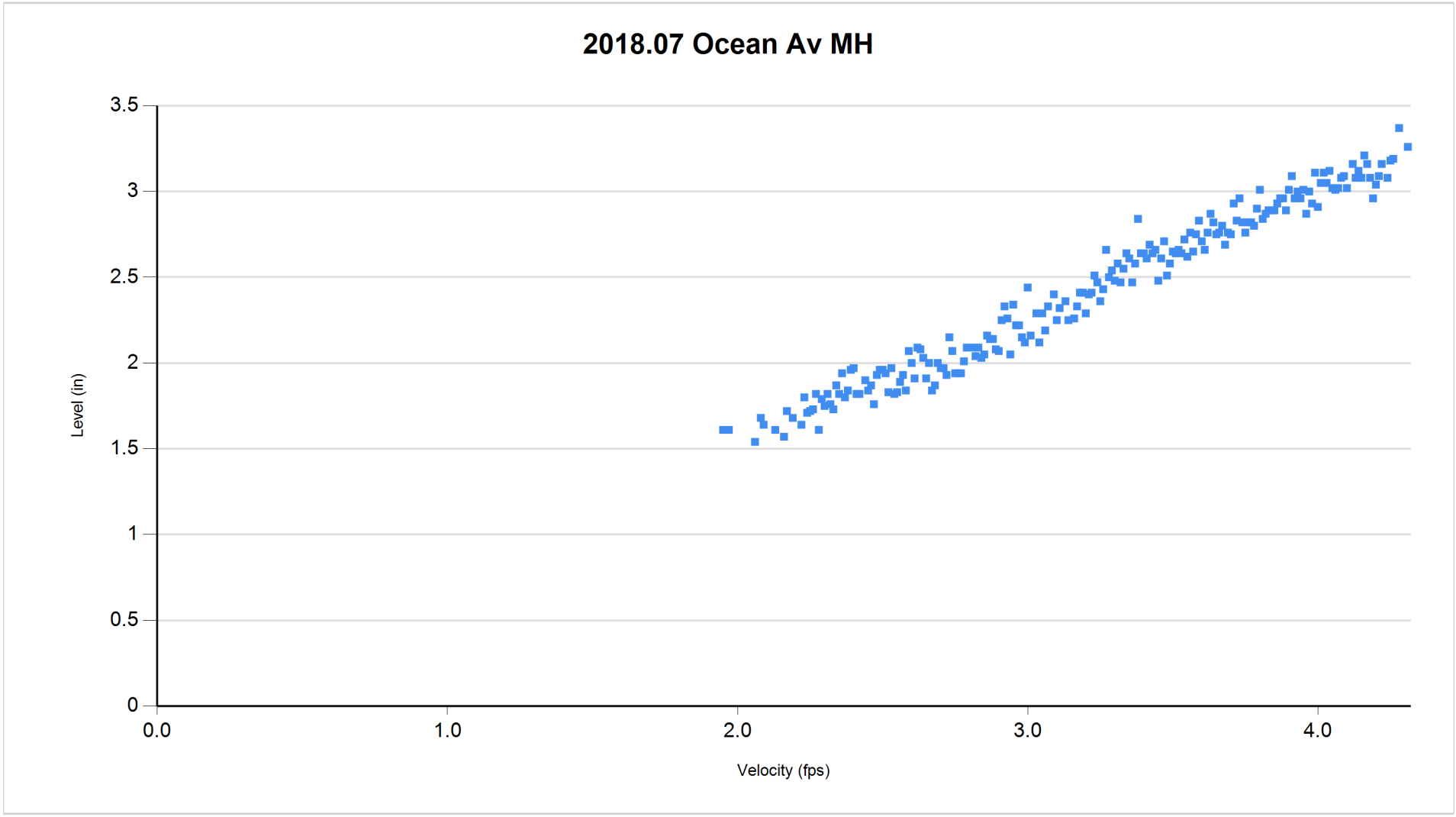
7/30/2018 1:27:56 PM

2018.07 Ocean Av MH



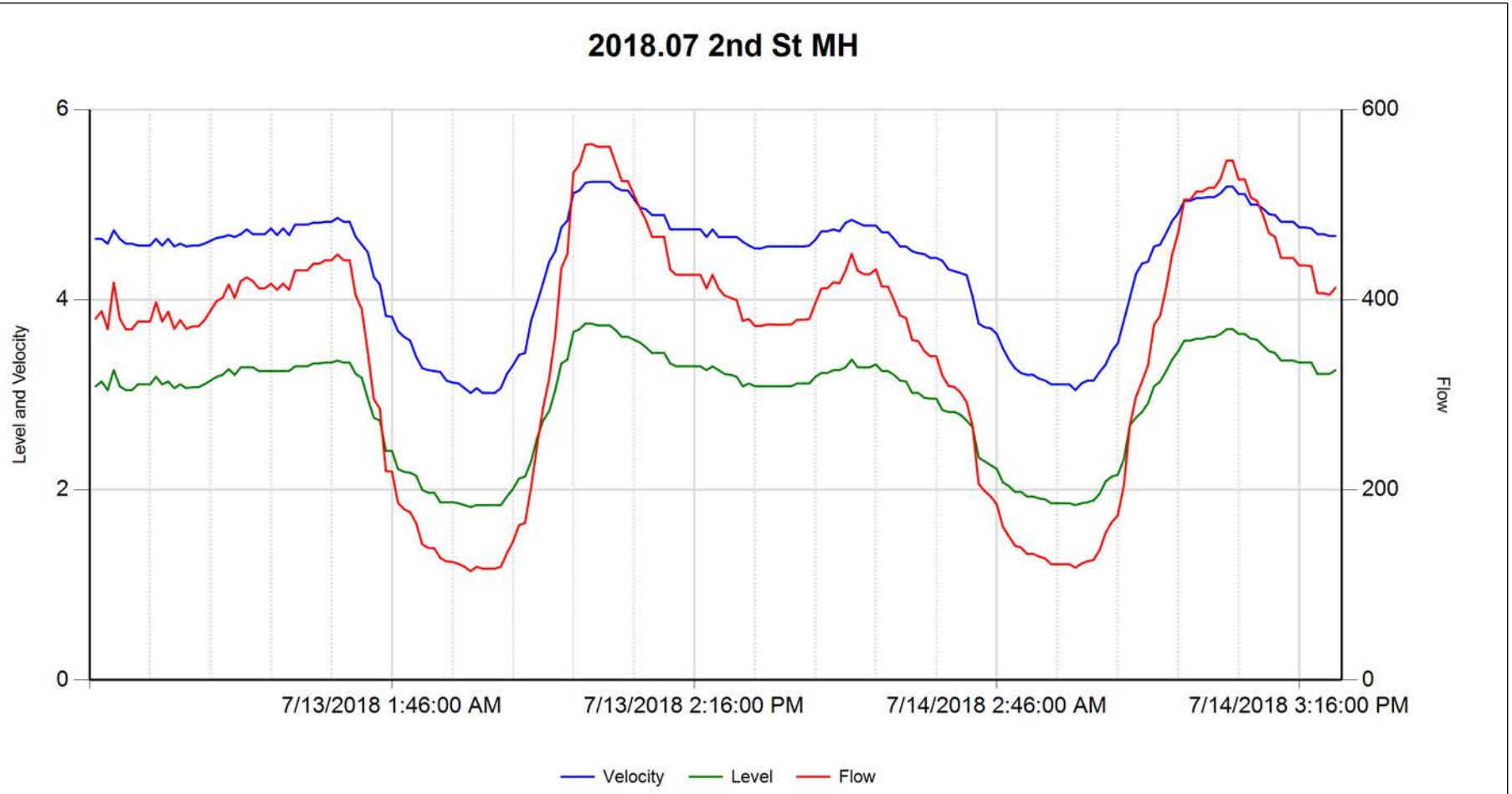
	Velocity (fps)	Level (in)	Flow (gpm)		
Average	3.264	2.451	221.971	**RainFall**	Inches
Maximum	4.280	3.370	440.138		
Minimum	1.950	1.540	64.722		

7/30/2018 1:27:56 PM



7/12/2018 thru 7/27/2018

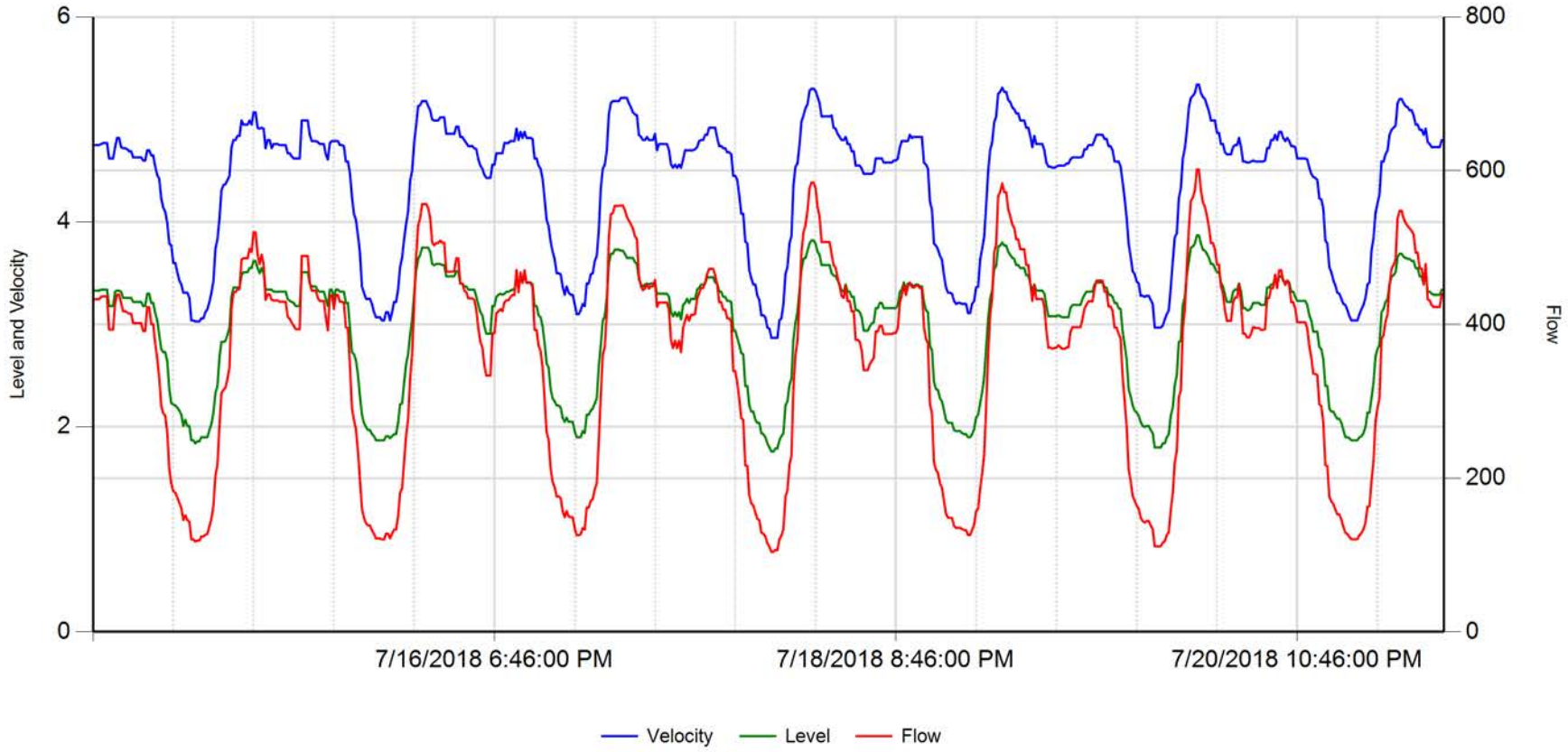
7/30/2018 1:27:56 PM



	Velocity (fps)	Level (in)	Flow (gpm)		
Average	4.375	2.947	351.448	**RainFall**	Inches
Maximum	5.240	3.750	563.818		
Minimum	3.020	1.820	114.514		

7/30/2018 1:24:51 PM

2018.07 2nd St MH



	Velocity (fps)	Level (in)	Flow (gpm)		
Average	4.381	2.986	359.383	**RainFall**	Inches
Maximum	5.340	3.870	601.595		
Minimum	2.870	1.760	104.236		

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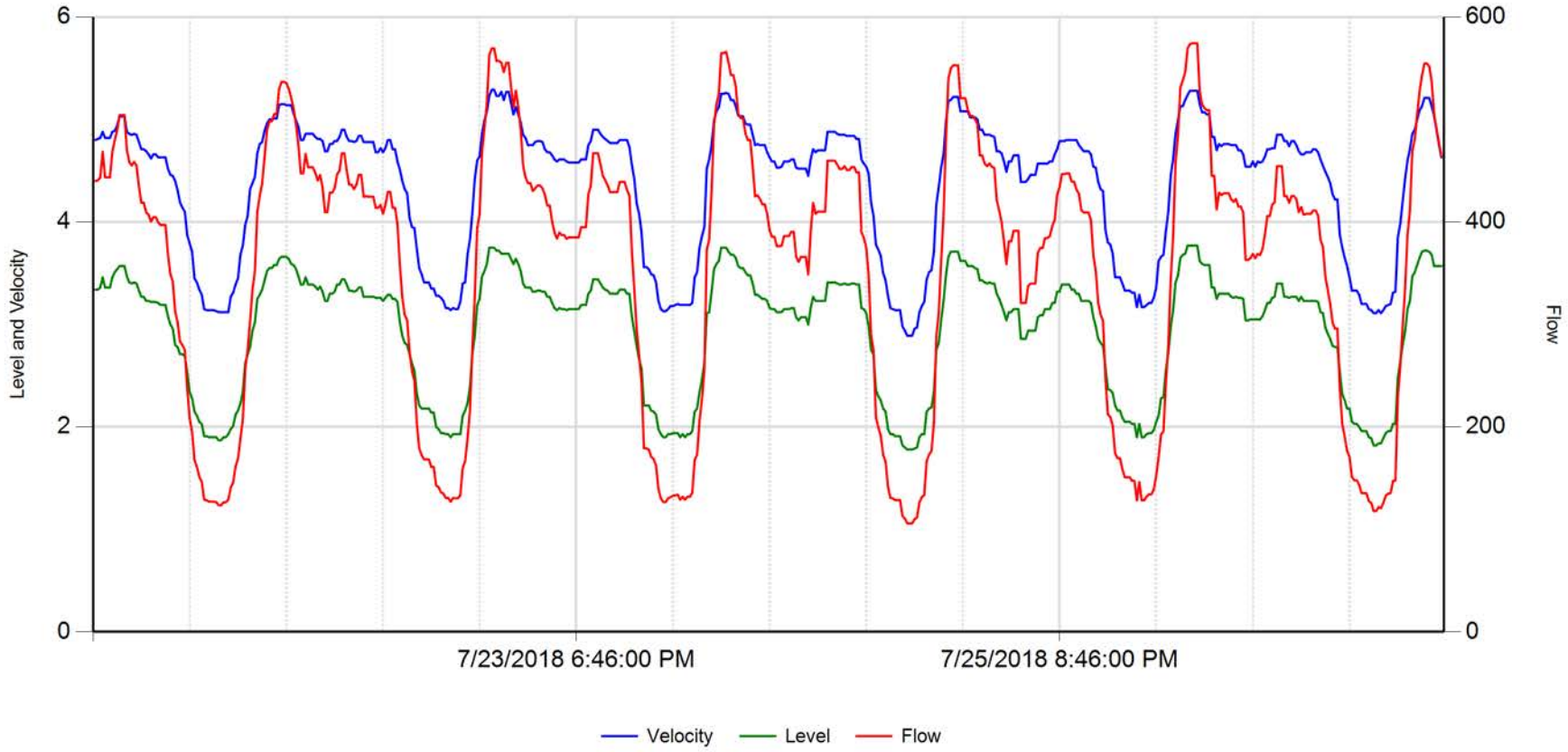
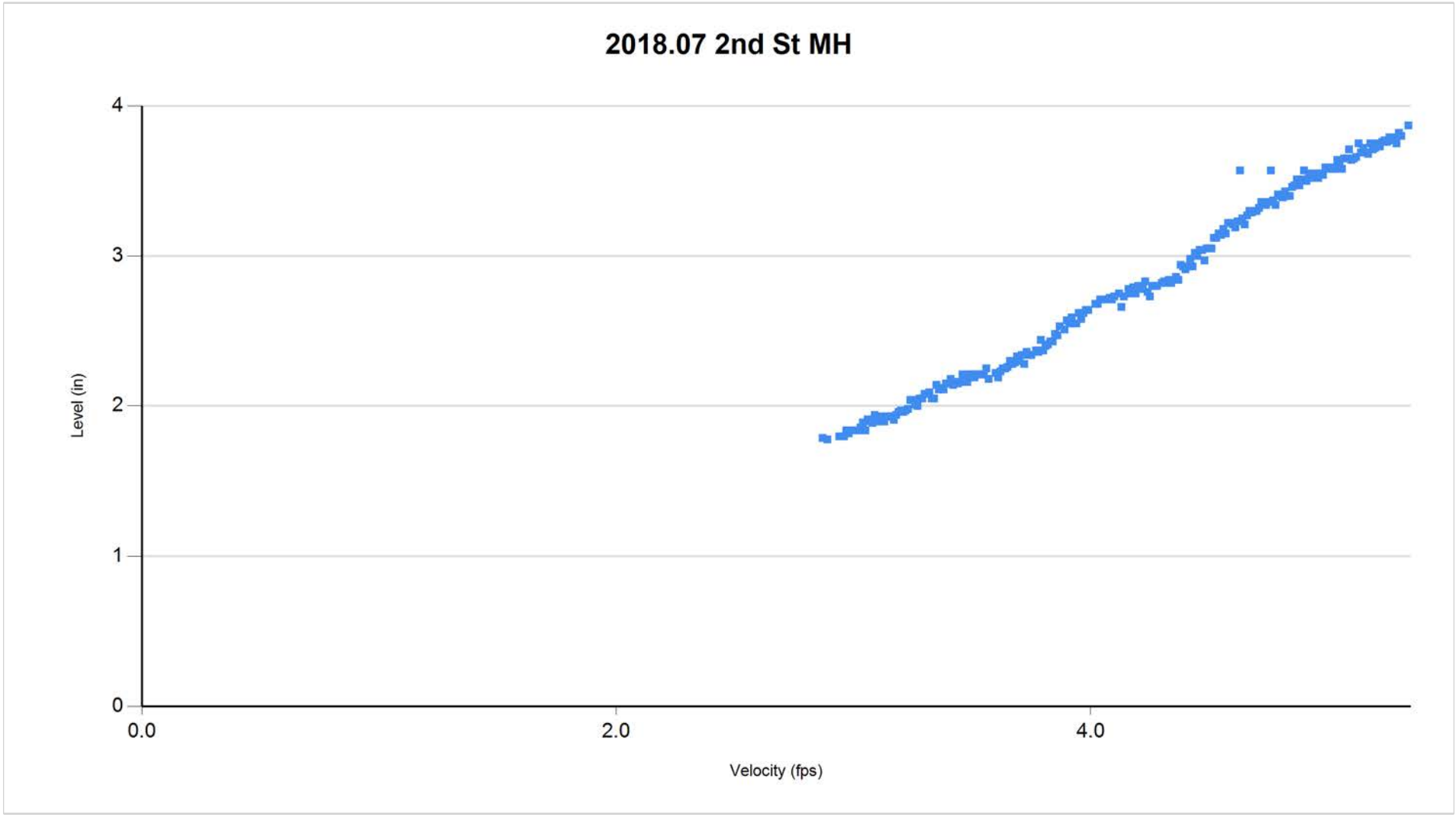
2018.07 2nd St MH



	Velocity (fps)	Level (in)	Flow (gpm)		
Average	4.374	2.961	354.794	**RainFall**	Inches
Maximum	5.290	3.770	574.304		
Minimum	2.890	1.780	105.972		

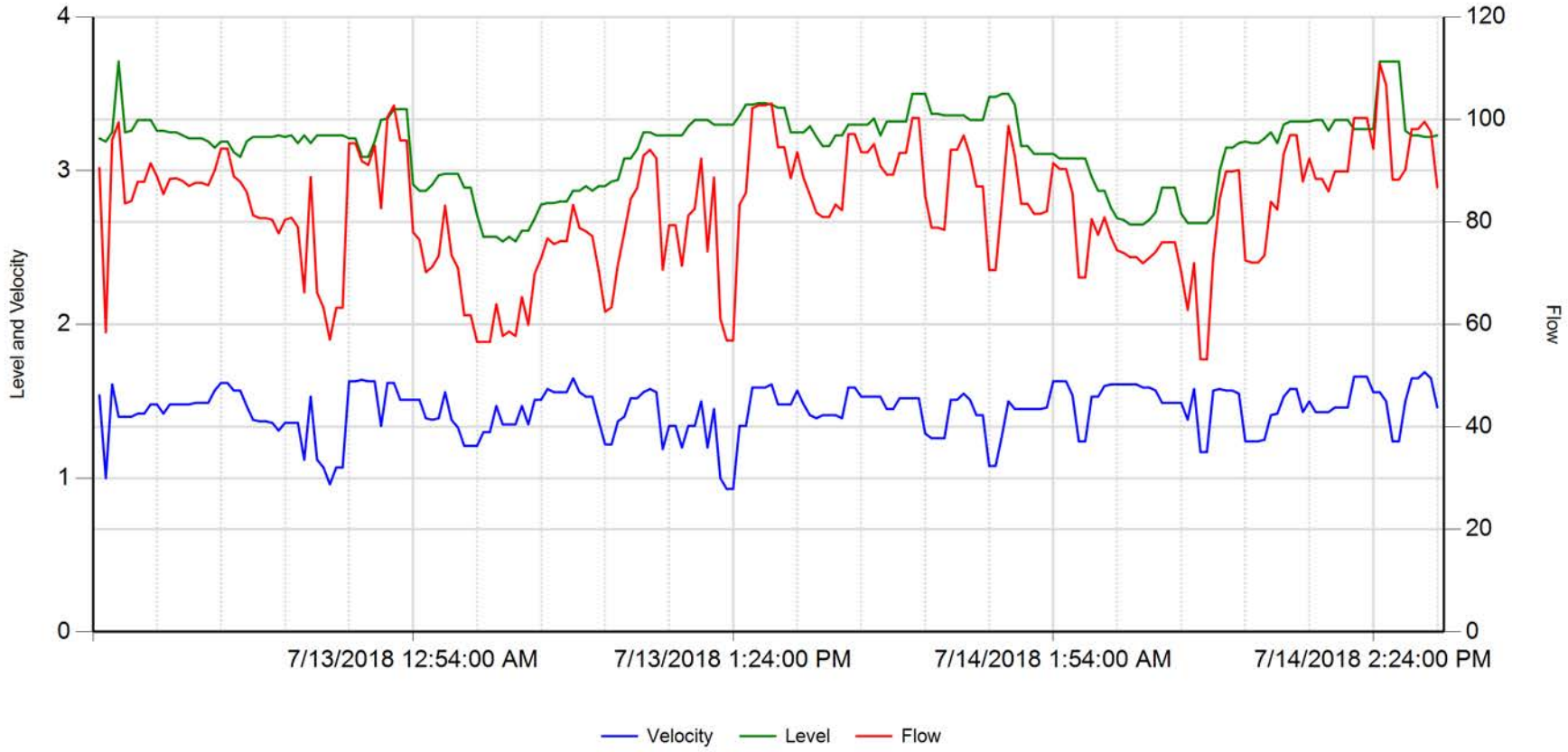
7/30/2018 1:24:51 PM



7/12/2018 thru 7/27/2018

7/30/2018 1:24:51 PM

2018.07 Santa Monica Blvd MH



	Velocity (fps)	Level (in)	Flow (gpm)		
Average	1.441	3.151	82.645	**RainFall**	Inches
Maximum	1.690	3.710	110.902		
Minimum	0.930	2.540	53.194		

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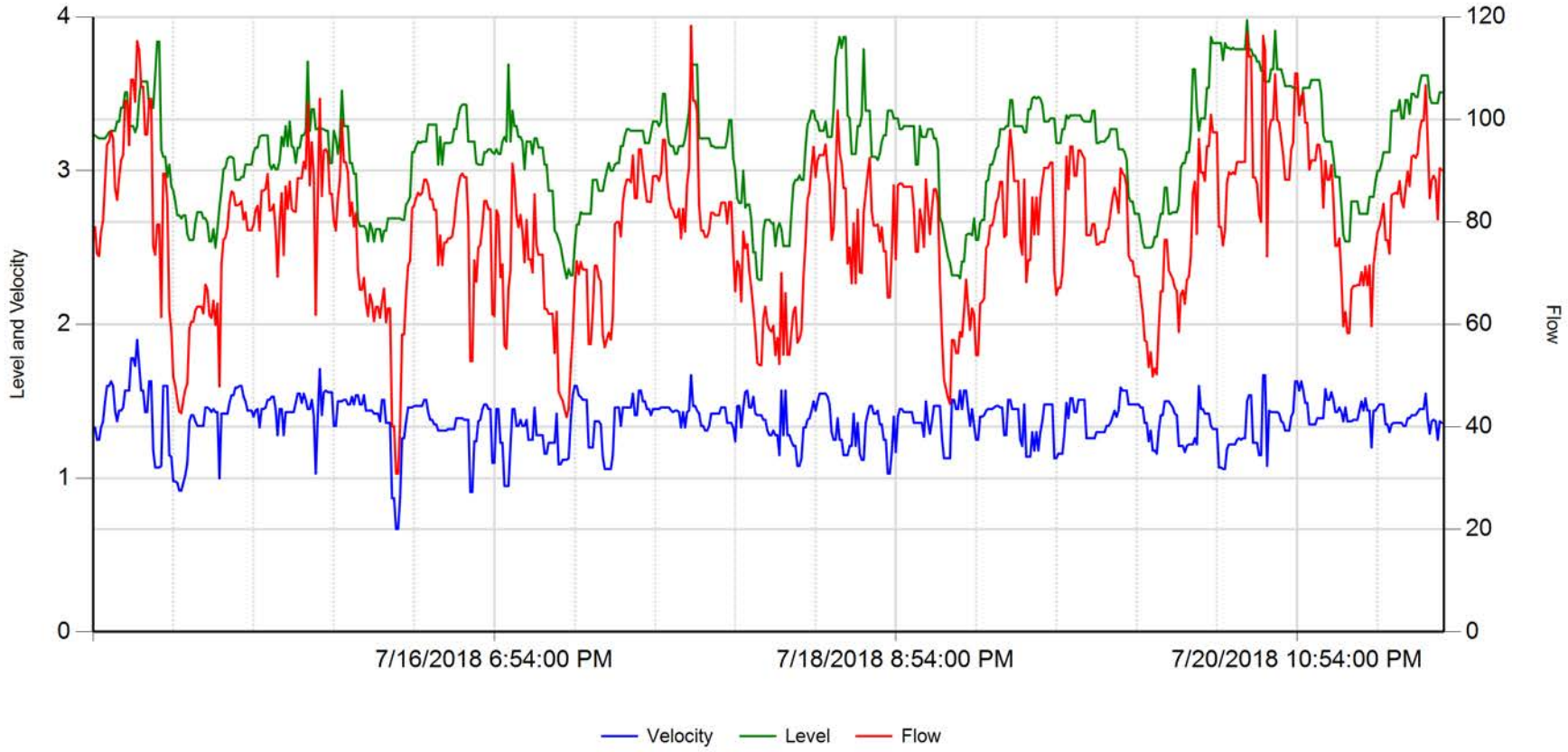
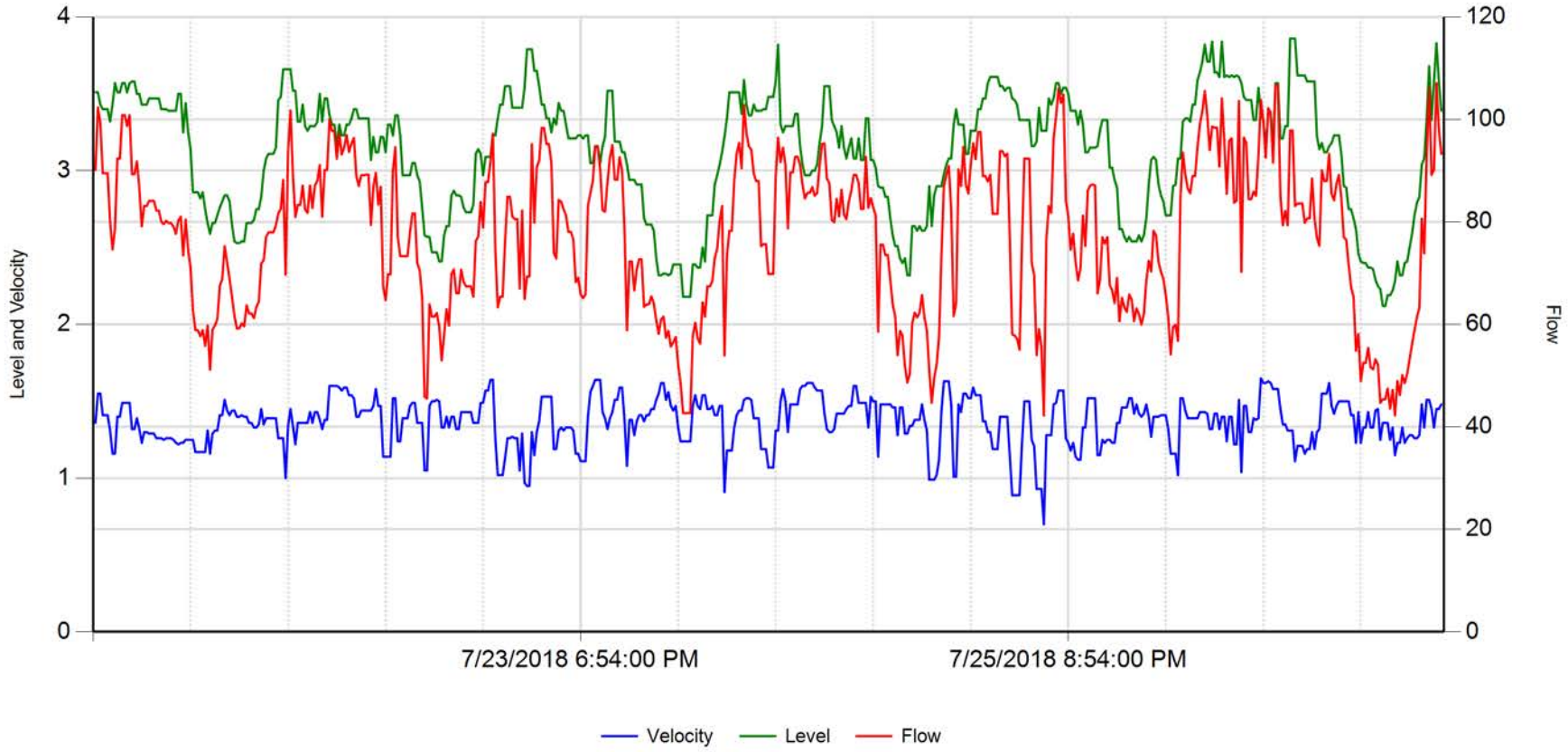
2018.07 Santa Monica Blvd MH



	Velocity (fps)	Level (in)	Flow (gpm)		
Average	1.374	3.130	78.229	**RainFall**	Inches
Maximum	1.900	3.980	118.264		
Minimum	0.670	2.290	30.903		

7/30/2018 1:28:48 PM

2018.07 Santa Monica Blvd MH



	Velocity (fps)	Level (in)	Flow (gpm)		
Average	1.366	3.121	77.295	**RainFall**	Inches
Maximum	1.650	3.860	107.083		
Minimum	0.700	2.120	42.222		

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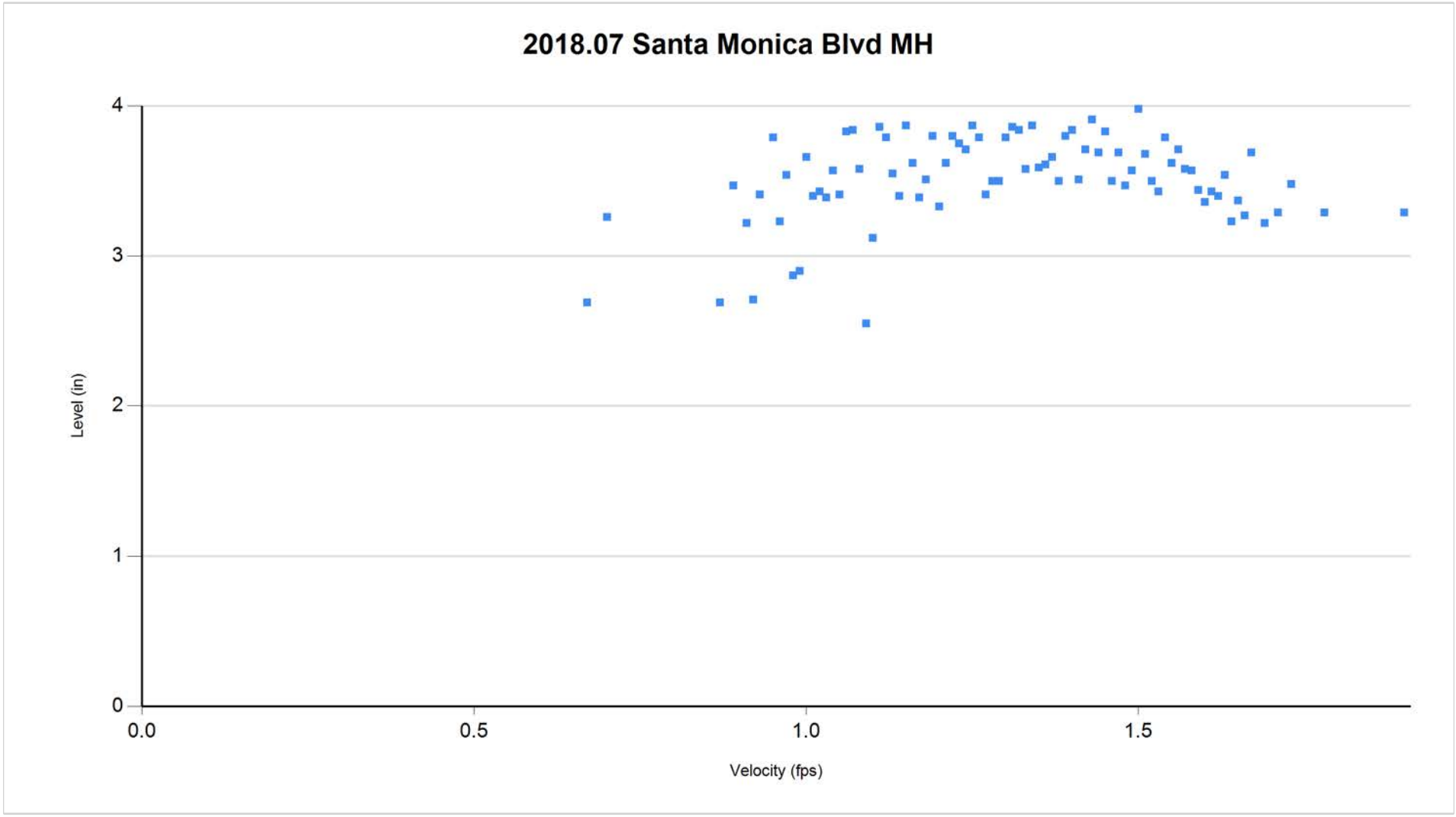


7/12/2018 thru 7/27/2018

7/30/2018 1:28:48 PM

Utility Systems Science and Software

Report Date: 07/30/2018
Customer: US3
Group: Santa Monica
SiteID: 3098

Data for 2018.07 Ocean Av MH:
7/12/2018 thru 7/27/2018

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/12 11:29	2.75	293.26	3.83
2018/07/12 11:44	2.90	329.03	3.98
2018/07/12 11:59	2.84	307.43	3.82
2018/07/12 12:14	2.87	322.71	3.96
2018/07/12 12:29	2.84	308.40	3.83
2018/07/12 12:44	2.84	307.43	3.82
2018/07/12 12:59	2.79	294.79	3.77
2018/07/12 13:14	2.78	291.87	3.76
2018/07/12 13:29	2.73	277.57	3.65
2018/07/12 13:44	2.65	264.44	3.64
2018/07/12 13:59	2.58	248.05	3.55
2018/07/12 14:14	2.58	248.05	3.55
2018/07/12 14:29	2.58	248.05	3.55
2018/07/12 14:44	2.66	262.57	3.59
2018/07/12 14:59	2.66	262.57	3.59
2018/07/12 15:14	2.66	262.57	3.59
2018/07/12 15:29	2.61	253.47	3.57
2018/07/12 15:44	2.46	221.32	3.40
2018/07/12 15:59	2.46	221.32	3.40
2018/07/12 16:14	2.30	188.68	3.19
2018/07/12 16:29	2.46	221.32	3.40
2018/07/12 16:44	2.46	221.32	3.40
2018/07/12 16:59	2.41	211.18	3.33
2018/07/12 17:14	2.41	210.62	3.32
2018/07/12 17:29	2.43	212.99	3.33
2018/07/12 17:44	2.41	210.62	3.32
2018/07/12 17:59	2.43	212.36	3.32
2018/07/12 18:14	2.47	220.49	3.36
2018/07/12 18:29	2.54	237.78	3.49
2018/07/12 18:44	2.57	244.79	3.53
2018/07/12 18:59	2.57	244.79	3.53
2018/07/12 19:14	2.54	237.78	3.49
2018/07/12 19:29	2.51	234.03	3.49
2018/07/12 19:44	2.51	234.37	3.49
2018/07/12 19:59	2.51	230.97	3.44
2018/07/12 20:14	2.51	230.97	3.44
2018/07/12 20:29	2.51	234.37	3.49
2018/07/12 20:44	2.51	229.86	3.42
2018/07/12 20:59	2.51	229.86	3.42

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/12 21:14	2.53	235.21	3.47
2018/07/12 21:29	2.54	238.33	3.49
2018/07/12 21:44	2.53	235.21	3.47
2018/07/12 21:59	2.53	235.21	3.47
2018/07/12 22:14	2.54	238.33	3.49
2018/07/12 22:29	2.50	231.11	3.47
2018/07/12 22:44	2.47	224.93	3.43
2018/07/12 22:59	2.50	228.89	3.44
2018/07/12 23:14	2.50	228.89	3.44
2018/07/12 23:29	2.46	220.62	3.39
2018/07/12 23:44	2.44	217.92	3.38
2018/07/12 23:59	2.46	219.58	3.38
2018/07/13 00:14	2.40	211.53	3.36
2018/07/13 00:29	2.40	211.53	3.36
2018/07/13 00:44	2.30	191.60	3.24
2018/07/13 00:59	2.29	188.47	3.21
2018/07/13 01:14	2.25	176.87	3.10
2018/07/13 01:29	2.21	171.53	3.09
2018/07/13 01:44	2.18	167.71	3.07
2018/07/13 01:59	2.12	157.22	2.99
2018/07/13 02:14	2.07	146.74	2.90
2018/07/13 02:29	2.01	134.93	2.78
2018/07/13 02:44	1.97	127.57	2.71
2018/07/13 02:59	1.97	127.57	2.71
2018/07/13 03:14	1.97	126.60	2.69
2018/07/13 03:29	1.90	118.96	2.66
2018/07/13 03:44	1.83	107.71	2.55
2018/07/13 03:59	1.79	100.21	2.45
2018/07/13 04:14	1.69	91.18	2.42
2018/07/13 04:29	1.66	86.18	2.34
2018/07/13 04:44	1.66	86.18	2.34
2018/07/13 04:59	1.66	86.18	2.34
2018/07/13 05:14	1.61	79.65	2.28
2018/07/13 05:29	1.66	86.46	2.35
2018/07/13 05:44	1.82	105.07	2.51
2018/07/13 05:59	1.68	87.50	2.35
2018/07/13 06:14	1.82	105.07	2.51
2018/07/13 06:29	1.83	106.60	2.52
2018/07/13 06:44	1.83	106.60	2.52
2018/07/13 06:59	1.83	106.60	2.52
2018/07/13 07:14	1.89	113.26	2.56
2018/07/13 07:29	1.97	123.82	2.63
2018/07/13 07:44	2.04	139.93	2.82
2018/07/13 07:59	2.12	151.04	2.87
2018/07/13 08:14	2.64	253.47	3.52

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/13 08:29	2.73	277.92	3.66
2018/07/13 08:44	2.84	306.80	3.81
2018/07/13 08:59	2.96	332.99	3.92
2018/07/13 09:14	3.08	372.36	4.12
2018/07/13 09:29	3.08	372.36	4.12
2018/07/13 09:44	3.08	374.72	4.15
2018/07/13 09:59	3.08	374.72	4.15
2018/07/13 10:14	3.08	372.50	4.13
2018/07/13 10:29	3.02	362.01	4.12
2018/07/13 10:44	3.02	362.01	4.12
2018/07/13 10:59	3.02	362.01	4.12
2018/07/13 11:14	2.94	343.75	4.07
2018/07/13 11:29	2.93	336.67	4.01
2018/07/13 11:44	2.91	334.37	4.01
2018/07/13 11:59	2.83	316.11	3.96
2018/07/13 12:14	2.83	314.72	3.94
2018/07/13 12:29	2.83	314.72	3.94
2018/07/13 12:44	2.83	308.54	3.86
2018/07/13 12:59	2.78	298.47	3.85
2018/07/13 13:14	2.76	295.49	3.83
2018/07/13 13:29	2.76	295.49	3.83
2018/07/13 13:44	2.76	288.68	3.75
2018/07/13 13:59	2.76	285.62	3.71
2018/07/13 14:14	2.75	283.54	3.71
2018/07/13 14:29	2.68	268.82	3.65
2018/07/13 14:44	2.55	243.89	3.55
2018/07/13 14:59	2.55	243.89	3.55
2018/07/13 15:14	2.68	273.26	3.71
2018/07/13 15:29	2.62	259.79	3.63
2018/07/13 15:44	2.62	259.79	3.63
2018/07/13 15:59	2.62	259.79	3.63
2018/07/13 16:14	2.43	226.53	3.54
2018/07/13 16:29	2.33	199.17	3.31
2018/07/13 16:44	2.33	199.17	3.31
2018/07/13 16:59	2.43	219.03	3.43
2018/07/13 17:14	2.43	219.03	3.43
2018/07/13 17:29	2.43	219.03	3.43
2018/07/13 17:44	2.46	224.10	3.45
2018/07/13 17:59	2.43	219.03	3.43
2018/07/13 18:14	2.46	224.10	3.45
2018/07/13 18:29	2.40	214.44	3.41
2018/07/13 18:44	2.46	224.10	3.45
2018/07/13 18:59	2.54	243.61	3.57
2018/07/13 19:14	2.54	246.53	3.61
2018/07/13 19:29	2.54	246.53	3.61

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/13 19:44	2.54	246.53	3.61
2018/07/13 19:59	2.54	243.61	3.57
2018/07/13 20:14	2.54	246.53	3.61
2018/07/13 20:29	2.58	248.75	3.56
2018/07/13 20:44	2.44	220.49	3.42
2018/07/13 20:59	2.54	237.78	3.49
2018/07/13 21:14	2.54	237.78	3.49
2018/07/13 21:29	2.48	228.54	3.46
2018/07/13 21:44	2.48	228.54	3.46
2018/07/13 21:59	2.54	237.78	3.49
2018/07/13 22:14	2.48	228.54	3.46
2018/07/13 22:29	2.57	244.79	3.53
2018/07/13 22:44	2.57	245.42	3.54
2018/07/13 22:59	2.57	244.79	3.53
2018/07/13 23:14	2.39	212.36	3.41
2018/07/13 23:29	2.46	220.69	3.40
2018/07/13 23:44	2.46	220.69	3.40
2018/07/13 23:59	2.39	208.12	3.34
2018/07/14 00:14	2.39	206.25	3.31
2018/07/14 00:29	2.29	187.85	3.20
2018/07/14 00:44	2.29	187.85	3.20
2018/07/14 00:59	2.25	181.46	3.18
2018/07/14 01:14	2.25	181.04	3.17
2018/07/14 01:29	2.25	181.04	3.17
2018/07/14 01:44	2.25	180.62	3.16
2018/07/14 01:59	2.07	147.50	2.92
2018/07/14 02:14	2.04	141.81	2.86
2018/07/14 02:29	2.03	139.31	2.84
2018/07/14 02:44	1.91	122.57	2.71
2018/07/14 02:59	1.91	122.57	2.71
2018/07/14 03:14	1.86	113.06	2.61
2018/07/14 03:29	1.82	106.60	2.55
2018/07/14 03:44	1.82	106.39	2.54
2018/07/14 03:59	1.82	106.39	2.54
2018/07/14 04:14	1.82	106.39	2.54
2018/07/14 04:29	1.82	106.39	2.54
2018/07/14 04:44	1.84	112.08	2.62
2018/07/14 04:59	1.84	112.08	2.62
2018/07/14 05:14	1.71	91.74	2.40
2018/07/14 05:29	1.71	91.74	2.40
2018/07/14 05:44	1.82	107.78	2.58
2018/07/14 05:59	1.61	79.10	2.26
2018/07/14 06:14	1.79	103.19	2.52
2018/07/14 06:29	1.82	107.78	2.58
2018/07/14 06:44	1.79	103.19	2.52

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/14 06:59	1.79	102.22	2.50
2018/07/14 07:14	1.79	103.19	2.52
2018/07/14 07:29	1.91	121.81	2.70
2018/07/14 07:44	1.91	121.81	2.70
2018/07/14 07:59	2.03	140.00	2.85
2018/07/14 08:14	2.08	154.93	3.04
2018/07/14 08:29	2.18	166.46	3.05
2018/07/14 08:44	2.44	214.44	3.33
2018/07/14 08:59	2.44	218.47	3.39
2018/07/14 09:14	2.50	229.44	3.44
2018/07/14 09:29	2.64	262.50	3.64
2018/07/14 09:44	2.68	268.75	3.65
2018/07/14 09:59	2.72	280.21	3.72
2018/07/14 10:14	2.73	283.82	3.74
2018/07/14 10:29	2.80	297.92	3.78
2018/07/14 10:44	2.82	309.51	3.90
2018/07/14 10:59	2.87	326.32	4.00
2018/07/14 11:14	2.89	332.01	4.04
2018/07/14 11:29	2.87	329.72	4.04
2018/07/14 11:44	2.87	329.72	4.04
2018/07/14 11:59	2.97	354.72	4.14
2018/07/14 12:14	2.93	340.49	4.06
2018/07/14 12:29	2.86	324.51	4.01
2018/07/14 12:44	2.93	340.49	4.06
2018/07/14 12:59	2.93	340.49	4.06
2018/07/14 13:14	2.87	325.35	3.99
2018/07/14 13:29	2.80	312.92	3.97
2018/07/14 13:44	2.80	312.92	3.97
2018/07/14 13:59	2.79	310.69	3.97
2018/07/14 14:14	2.78	304.10	3.92
2018/07/14 14:29	2.71	289.58	3.87
2018/07/14 14:44	2.62	265.35	3.71
2018/07/14 14:59	2.62	265.35	3.71
2018/07/14 15:14	2.62	263.54	3.69
2018/07/14 15:29	2.62	265.35	3.71
2018/07/14 15:44	2.62	265.35	3.71
2018/07/14 15:59	2.72	289.17	3.84
2018/07/14 16:14	2.57	250.14	3.61
2018/07/14 16:29	2.72	289.17	3.84
2018/07/14 16:44	2.57	250.55	3.61
2018/07/14 16:59	2.66	276.32	3.78
2018/07/14 17:14	2.55	248.61	3.61
2018/07/14 17:29	2.55	248.61	3.61
2018/07/14 17:44	2.53	242.64	3.58
2018/07/14 17:59	2.50	234.51	3.52

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/14 18:14	2.50	234.51	3.52
2018/07/14 18:29	2.53	242.64	3.58
2018/07/14 18:44	2.59	257.36	3.65
2018/07/14 18:59	2.62	261.67	3.66
2018/07/14 19:14	2.65	274.79	3.78
2018/07/14 19:29	2.65	274.79	3.78
2018/07/14 19:44	2.62	261.67	3.66
2018/07/14 19:59	2.62	262.43	3.67
2018/07/14 20:14	2.65	274.79	3.78
2018/07/14 20:29	2.53	248.40	3.67
2018/07/14 20:44	2.53	244.37	3.61
2018/07/14 20:59	2.51	240.62	3.58
2018/07/14 21:14	2.51	236.60	3.52
2018/07/14 21:29	2.51	236.60	3.52
2018/07/14 21:44	2.57	244.24	3.52
2018/07/14 21:59	2.58	258.19	3.70
2018/07/14 22:14	2.58	258.19	3.70
2018/07/14 22:29	2.58	258.19	3.70
2018/07/14 22:44	2.44	227.92	3.54
2018/07/14 22:59	2.43	224.10	3.51
2018/07/14 23:14	2.43	224.10	3.51
2018/07/14 23:29	2.43	226.04	3.54
2018/07/14 23:44	2.33	202.43	3.36
2018/07/14 23:59	2.58	254.03	3.64
2018/07/15 00:14	2.58	254.03	3.64
2018/07/15 00:29	2.33	200.97	3.34
2018/07/15 00:44	2.23	182.64	3.23
2018/07/15 00:59	2.22	178.47	3.18
2018/07/15 01:14	2.18	173.33	3.18
2018/07/15 01:29	2.16	170.00	3.14
2018/07/15 01:44	2.14	165.76	3.13
2018/07/15 01:59	2.12	160.28	3.05
2018/07/15 02:14	2.08	155.42	3.04
2018/07/15 02:29	2.00	138.61	2.88
2018/07/15 02:44	1.94	127.64	2.77
2018/07/15 02:59	1.84	114.24	2.67
2018/07/15 03:14	1.79	104.51	2.55
2018/07/15 03:29	1.78	100.69	2.49
2018/07/15 03:44	1.76	99.37	2.49
2018/07/15 03:59	1.73	96.32	2.47
2018/07/15 04:14	1.69	88.54	2.35
2018/07/15 04:29	1.73	96.32	2.47
2018/07/15 04:44	1.69	87.22	2.31
2018/07/15 04:59	1.69	87.22	2.31
2018/07/15 05:14	1.69	87.22	2.31

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/15 05:29	1.68	91.11	2.45
2018/07/15 05:44	1.68	91.11	2.45
2018/07/15 05:59	1.72	96.11	2.49
2018/07/15 06:14	1.68	92.71	2.49
2018/07/15 06:29	1.72	97.99	2.54
2018/07/15 06:44	1.72	97.99	2.54
2018/07/15 06:59	1.72	94.72	2.45
2018/07/15 07:14	1.73	95.83	2.45
2018/07/15 07:29	1.76	98.61	2.47
2018/07/15 07:44	1.76	98.61	2.47
2018/07/15 07:59	1.98	137.08	2.88
2018/07/15 08:14	2.15	166.81	3.11
2018/07/15 08:29	2.19	175.07	3.18
2018/07/15 08:44	2.39	217.36	3.49
2018/07/15 08:59	2.47	228.82	3.49
2018/07/15 09:14	2.50	234.51	3.52
2018/07/15 09:29	2.55	248.61	3.61
2018/07/15 09:44	2.55	248.61	3.61
2018/07/15 09:59	2.55	248.61	3.61
2018/07/15 10:14	2.65	267.01	3.68
2018/07/15 10:29	2.69	275.28	3.71
2018/07/15 10:44	2.83	314.03	3.93
2018/07/15 10:59	2.87	328.33	4.02
2018/07/15 11:14	2.90	335.42	4.05
2018/07/15 11:29	2.96	352.85	4.15
2018/07/15 11:44	2.98	357.98	4.15
2018/07/15 11:59	2.98	357.98	4.15
2018/07/15 12:14	3.07	375.14	4.18
2018/07/15 12:29	2.96	352.85	4.15
2018/07/15 12:44	2.94	343.89	4.07
2018/07/15 12:59	2.87	329.79	4.04
2018/07/15 13:14	2.84	325.21	4.04
2018/07/15 13:29	2.84	324.10	4.03
2018/07/15 13:44	2.84	324.10	4.03
2018/07/15 13:59	2.71	287.64	3.84
2018/07/15 14:14	2.84	324.10	4.03
2018/07/15 14:29	2.76	305.42	3.96
2018/07/15 14:44	2.76	305.42	3.96
2018/07/15 14:59	2.71	284.44	3.80
2018/07/15 15:14	2.64	273.68	3.80
2018/07/15 15:29	2.64	270.14	3.75
2018/07/15 15:44	2.64	270.14	3.75
2018/07/15 15:59	2.64	266.94	3.70
2018/07/15 16:14	2.58	257.01	3.68
2018/07/15 16:29	2.58	257.01	3.68

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/15 16:44	2.58	257.01	3.68
2018/07/15 16:59	2.54	251.04	3.68
2018/07/15 17:14	2.54	251.11	3.68
2018/07/15 17:29	2.64	272.71	3.78
2018/07/15 17:44	2.65	276.32	3.81
2018/07/15 17:59	2.65	274.79	3.78
2018/07/15 18:14	2.66	278.40	3.81
2018/07/15 18:29	2.66	278.40	3.81
2018/07/15 18:44	2.66	275.07	3.76
2018/07/15 18:59	2.65	272.99	3.76
2018/07/15 19:14	2.54	244.24	3.58
2018/07/15 19:29	2.54	244.24	3.58
2018/07/15 19:44	2.55	246.18	3.58
2018/07/15 19:59	2.61	261.94	3.69
2018/07/15 20:14	2.61	261.94	3.69
2018/07/15 20:29	2.66	277.57	3.79
2018/07/15 20:44	2.66	277.57	3.79
2018/07/15 20:59	2.66	282.36	3.86
2018/07/15 21:14	2.66	282.36	3.86
2018/07/15 21:29	2.66	282.36	3.86
2018/07/15 21:44	2.64	278.05	3.86
2018/07/15 21:59	2.75	301.18	3.94
2018/07/15 22:14	2.75	301.18	3.94
2018/07/15 22:29	2.69	289.79	3.90
2018/07/15 22:44	2.69	289.79	3.90
2018/07/15 22:59	2.69	289.79	3.90
2018/07/15 23:14	2.64	272.50	3.78
2018/07/15 23:29	2.64	269.93	3.75
2018/07/15 23:44	2.64	269.93	3.75
2018/07/15 23:59	2.55	248.19	3.61
2018/07/16 00:14	2.51	241.60	3.60
2018/07/16 00:29	2.44	226.46	3.51
2018/07/16 00:44	2.51	239.17	3.56
2018/07/16 00:59	2.44	224.30	3.48
2018/07/16 01:14	2.22	184.65	3.29
2018/07/16 01:29	2.19	178.33	3.24
2018/07/16 01:44	2.04	145.56	2.94
2018/07/16 01:59	1.96	131.25	2.82
2018/07/16 02:14	1.96	131.04	2.81
2018/07/16 02:29	1.96	130.28	2.79
2018/07/16 02:44	1.91	125.56	2.78
2018/07/16 02:59	1.91	125.56	2.78
2018/07/16 03:14	1.91	119.58	2.65
2018/07/16 03:29	1.66	90.35	2.46
2018/07/16 03:44	1.66	88.26	2.40

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/16 03:59	1.64	85.35	2.38
2018/07/16 04:14	1.64	85.35	2.38
2018/07/16 04:29	1.62	81.67	2.30
2018/07/16 04:44	1.62	78.82	2.22
2018/07/16 04:59	1.62	78.54	2.22
2018/07/16 05:14	1.64	79.51	2.22
2018/07/16 05:29	1.62	78.54	2.22
2018/07/16 05:44	1.61	77.71	2.22
2018/07/16 05:59	1.64	82.71	2.31
2018/07/16 06:14	1.66	87.92	2.39
2018/07/16 06:29	1.68	89.65	2.41
2018/07/16 06:44	1.79	104.51	2.55
2018/07/16 06:59	1.96	127.92	2.74
2018/07/16 07:14	1.98	134.31	2.82
2018/07/16 07:29	2.01	142.15	2.93
2018/07/16 07:44	2.14	165.07	3.11
2018/07/16 07:59	2.30	196.67	3.32
2018/07/16 08:14	2.41	211.46	3.34
2018/07/16 08:29	2.44	223.40	3.47
2018/07/16 08:44	2.72	294.51	3.91
2018/07/16 08:59	2.87	330.55	4.05
2018/07/16 09:14	2.87	330.55	4.05
2018/07/16 09:29	2.94	350.83	4.15
2018/07/16 09:44	3.04	368.47	4.16
2018/07/16 09:59	3.04	367.71	4.15
2018/07/16 10:14	3.05	370.07	4.15
2018/07/16 10:29	3.08	382.98	4.24
2018/07/16 10:44	3.08	382.98	4.24
2018/07/16 10:59	3.05	375.69	4.22
2018/07/16 11:14	3.00	365.83	4.22
2018/07/16 11:29	2.98	357.36	4.15
2018/07/16 11:44	2.94	345.90	4.10
2018/07/16 11:59	2.84	325.55	4.05
2018/07/16 12:14	2.84	325.55	4.05
2018/07/16 12:29	2.78	301.46	3.88
2018/07/16 12:44	2.75	297.08	3.88
2018/07/16 12:59	2.71	285.14	3.81
2018/07/16 13:14	2.71	281.80	3.77
2018/07/16 13:29	2.71	281.80	3.77
2018/07/16 13:44	2.65	271.04	3.73
2018/07/16 13:59	2.71	285.14	3.81
2018/07/16 14:14	2.55	248.61	3.61
2018/07/16 14:29	2.58	261.11	3.74
2018/07/16 14:44	2.58	261.11	3.74
2018/07/16 14:59	2.58	261.11	3.74

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/16 15:14	2.58	261.11	3.74
2018/07/16 15:29	2.61	265.21	3.74
2018/07/16 15:44	2.61	258.33	3.64
2018/07/16 15:59	2.57	251.32	3.63
2018/07/16 16:14	2.48	233.12	3.53
2018/07/16 16:29	2.34	206.87	3.40
2018/07/16 16:44	2.34	205.90	3.39
2018/07/16 16:59	2.34	206.87	3.40
2018/07/16 17:14	2.48	233.12	3.53
2018/07/16 17:29	2.58	259.37	3.71
2018/07/16 17:44	2.59	262.15	3.72
2018/07/16 17:59	2.69	283.33	3.81
2018/07/16 18:14	2.59	262.15	3.72
2018/07/16 18:29	2.59	262.15	3.72
2018/07/16 18:44	2.59	255.62	3.63
2018/07/16 18:59	2.59	255.62	3.63
2018/07/16 19:14	2.59	254.30	3.61
2018/07/16 19:29	2.59	254.30	3.61
2018/07/16 19:44	2.62	268.33	3.75
2018/07/16 19:59	2.66	275.28	3.76
2018/07/16 20:14	2.66	275.28	3.76
2018/07/16 20:29	2.66	278.75	3.81
2018/07/16 20:44	2.66	278.75	3.81
2018/07/16 20:59	2.66	278.75	3.81
2018/07/16 21:14	2.62	266.04	3.72
2018/07/16 21:29	2.57	256.60	3.70
2018/07/16 21:44	2.57	256.60	3.70
2018/07/16 21:59	2.57	256.60	3.70
2018/07/16 22:14	2.72	285.42	3.79
2018/07/16 22:29	2.72	297.71	3.95
2018/07/16 22:44	2.72	297.71	3.95
2018/07/16 22:59	2.72	285.42	3.79
2018/07/16 23:14	2.69	284.58	3.83
2018/07/16 23:29	2.59	256.18	3.64
2018/07/16 23:44	2.54	245.90	3.60
2018/07/16 23:59	2.54	245.90	3.60
2018/07/17 00:14	2.54	245.90	3.60
2018/07/17 00:29	2.48	233.12	3.53
2018/07/17 00:44	2.21	182.36	3.28
2018/07/17 00:59	2.16	167.22	3.09
2018/07/17 01:14	2.12	160.21	3.05
2018/07/17 01:29	2.12	159.65	3.04
2018/07/17 01:44	2.12	159.65	3.04
2018/07/17 01:59	2.11	157.78	3.03
2018/07/17 02:14	2.11	155.76	2.99

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/17 02:29	1.93	124.37	2.72
2018/07/17 02:44	1.82	105.56	2.52
2018/07/17 02:59	1.79	102.01	2.49
2018/07/17 03:14	1.79	102.01	2.49
2018/07/17 03:29	1.82	105.56	2.52
2018/07/17 03:44	1.87	117.36	2.68
2018/07/17 03:59	1.91	121.81	2.70
2018/07/17 04:14	1.91	121.81	2.70
2018/07/17 04:29	1.98	133.68	2.81
2018/07/17 04:44	1.87	117.36	2.68
2018/07/17 04:59	1.75	94.65	2.39
2018/07/17 05:14	1.69	89.24	2.37
2018/07/17 05:29	1.75	94.65	2.39
2018/07/17 05:44	1.75	94.65	2.39
2018/07/17 05:59	2.04	142.15	2.87
2018/07/17 06:14	2.04	142.15	2.87
2018/07/17 06:29	2.08	146.60	2.87
2018/07/17 06:44	2.04	142.15	2.87
2018/07/17 06:59	2.04	142.29	2.87
2018/07/17 07:14	2.08	148.82	2.92
2018/07/17 07:29	2.11	156.74	3.01
2018/07/17 07:44	2.18	167.43	3.07
2018/07/17 07:59	2.21	174.44	3.14
2018/07/17 08:14	2.39	216.87	3.48
2018/07/17 08:29	2.46	229.51	3.53
2018/07/17 08:44	2.68	270.42	3.67
2018/07/17 08:59	2.84	319.93	3.98
2018/07/17 09:14	2.97	352.50	4.12
2018/07/17 09:29	3.09	382.15	4.21
2018/07/17 09:44	3.18	401.39	4.25
2018/07/17 09:59	3.18	404.37	4.28
2018/07/17 10:14	3.18	404.37	4.28
2018/07/17 10:29	3.09	386.25	4.25
2018/07/17 10:44	2.96	350.62	4.12
2018/07/17 10:59	2.96	350.62	4.12
2018/07/17 11:14	2.91	340.83	4.09
2018/07/17 11:29	2.91	338.05	4.06
2018/07/17 11:44	2.91	340.83	4.09
2018/07/17 11:59	2.96	356.74	4.19
2018/07/17 12:14	2.93	342.57	4.08
2018/07/17 12:29	2.93	342.57	4.08
2018/07/17 12:44	2.93	342.57	4.08
2018/07/17 12:59	2.82	316.39	3.99
2018/07/17 13:14	2.82	316.39	3.99
2018/07/17 13:29	2.76	296.11	3.84

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/17 13:44	2.73	291.80	3.84
2018/07/17 13:59	2.76	296.32	3.85
2018/07/17 14:14	2.72	289.86	3.85
2018/07/17 14:29	2.71	287.71	3.85
2018/07/17 14:44	2.71	287.71	3.85
2018/07/17 14:59	2.68	276.60	3.75
2018/07/17 15:14	2.65	267.22	3.68
2018/07/17 15:29	2.65	267.57	3.69
2018/07/17 15:44	2.62	263.54	3.69
2018/07/17 15:59	2.51	247.15	3.68
2018/07/17 16:14	2.51	247.15	3.68
2018/07/17 16:29	2.36	211.39	3.45
2018/07/17 16:44	2.36	211.39	3.45
2018/07/17 16:59	2.30	204.03	3.45
2018/07/17 17:14	2.36	211.25	3.45
2018/07/17 17:29	2.41	218.54	3.45
2018/07/17 17:44	2.41	218.54	3.45
2018/07/17 17:59	2.30	201.53	3.40
2018/07/17 18:14	2.41	215.83	3.40
2018/07/17 18:29	2.41	218.68	3.45
2018/07/17 18:44	2.53	236.32	3.49
2018/07/17 18:59	2.59	253.12	3.60
2018/07/17 19:14	2.59	253.12	3.60
2018/07/17 19:29	2.64	259.03	3.60
2018/07/17 19:44	2.64	265.76	3.69
2018/07/17 19:59	2.59	253.12	3.60
2018/07/17 20:14	2.57	252.50	3.64
2018/07/17 20:29	2.57	252.50	3.64
2018/07/17 20:44	2.57	252.50	3.64
2018/07/17 20:59	2.57	252.50	3.64
2018/07/17 21:14	2.68	279.86	3.80
2018/07/17 21:29	2.69	282.78	3.81
2018/07/17 21:44	2.69	282.78	3.81
2018/07/17 21:59	2.69	282.78	3.81
2018/07/17 22:14	2.69	285.97	3.85
2018/07/17 22:29	2.69	280.83	3.78
2018/07/17 22:44	2.65	274.10	3.78
2018/07/17 22:59	2.64	272.01	3.78
2018/07/17 23:14	2.71	276.80	3.70
2018/07/17 23:29	2.64	260.83	3.62
2018/07/17 23:44	2.46	230.14	3.54
2018/07/17 23:59	2.61	256.53	3.61
2018/07/18 00:14	2.61	256.53	3.61
2018/07/18 00:29	2.39	214.24	3.44
2018/07/18 00:44	2.39	214.24	3.44

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/18 00:59	2.36	206.11	3.36
2018/07/18 01:14	2.29	193.33	3.29
2018/07/18 01:29	2.15	159.58	2.98
2018/07/18 01:44	2.15	159.58	2.98
2018/07/18 01:59	2.08	149.10	2.92
2018/07/18 02:14	2.00	137.01	2.85
2018/07/18 02:29	2.00	137.01	2.85
2018/07/18 02:44	1.93	123.19	2.70
2018/07/18 02:59	1.93	122.85	2.69
2018/07/18 03:14	1.93	118.89	2.60
2018/07/18 03:29	1.80	97.01	2.34
2018/07/18 03:44	1.69	88.33	2.34
2018/07/18 03:59	1.69	89.03	2.36
2018/07/18 04:14	1.69	87.85	2.33
2018/07/18 04:29	1.69	89.03	2.36
2018/07/18 04:44	1.69	89.03	2.36
2018/07/18 04:59	1.73	90.62	2.32
2018/07/18 05:14	1.73	90.62	2.32
2018/07/18 05:29	1.75	100.49	2.54
2018/07/18 05:44	1.79	99.86	2.44
2018/07/18 05:59	1.90	121.53	2.72
2018/07/18 06:14	1.90	121.53	2.72
2018/07/18 06:29	1.90	121.53	2.72
2018/07/18 06:44	1.79	99.86	2.44
2018/07/18 06:59	1.90	121.53	2.72
2018/07/18 07:14	1.90	123.40	2.76
2018/07/18 07:29	2.03	143.19	2.92
2018/07/18 07:44	2.03	143.19	2.92
2018/07/18 07:59	2.23	177.43	3.13
2018/07/18 08:14	2.32	195.90	3.28
2018/07/18 08:29	2.39	206.25	3.31
2018/07/18 08:44	2.59	255.49	3.63
2018/07/18 08:59	2.79	303.54	3.88
2018/07/18 09:14	2.84	313.82	3.90
2018/07/18 09:29	2.97	353.12	4.12
2018/07/18 09:44	3.19	404.30	4.26
2018/07/18 09:59	3.19	404.30	4.26
2018/07/18 10:14	3.16	402.01	4.28
2018/07/18 10:29	3.26	422.29	4.31
2018/07/18 10:44	3.16	402.01	4.28
2018/07/18 10:59	3.16	398.82	4.25
2018/07/18 11:14	2.91	339.44	4.07
2018/07/18 11:29	2.91	339.44	4.07
2018/07/18 11:44	2.91	332.92	4.00
2018/07/18 11:59	2.86	321.74	3.97

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/18 12:14	2.91	330.76	3.97
2018/07/18 12:29	2.86	328.61	4.06
2018/07/18 12:44	2.86	324.51	4.01
2018/07/18 12:59	2.86	324.51	4.01
2018/07/18 13:14	2.86	324.51	4.01
2018/07/18 13:29	2.76	295.49	3.83
2018/07/18 13:44	2.72	278.05	3.69
2018/07/18 13:59	2.66	269.86	3.69
2018/07/18 14:14	2.64	265.35	3.68
2018/07/18 14:29	2.64	265.76	3.69
2018/07/18 14:44	2.64	265.76	3.69
2018/07/18 14:59	2.57	247.71	3.57
2018/07/18 15:14	2.51	239.37	3.56
2018/07/18 15:29	2.50	233.40	3.50
2018/07/18 15:44	2.48	230.28	3.49
2018/07/18 15:59	2.40	217.22	3.45
2018/07/18 16:14	2.40	217.22	3.45
2018/07/18 16:29	2.40	217.22	3.45
2018/07/18 16:44	2.50	233.96	3.51
2018/07/18 16:59	2.50	233.96	3.51
2018/07/18 17:14	2.55	249.79	3.63
2018/07/18 17:29	2.55	249.79	3.63
2018/07/18 17:44	2.43	219.03	3.43
2018/07/18 17:59	2.37	207.01	3.35
2018/07/18 18:14	2.43	219.03	3.43
2018/07/18 18:29	2.43	219.03	3.43
2018/07/18 18:44	2.46	222.99	3.43
2018/07/18 18:59	2.51	237.71	3.54
2018/07/18 19:14	2.51	238.68	3.55
2018/07/18 19:29	2.50	235.83	3.54
2018/07/18 19:44	2.50	235.83	3.54
2018/07/18 19:59	2.50	235.83	3.54
2018/07/18 20:14	2.50	236.74	3.55
2018/07/18 20:29	2.51	239.44	3.57
2018/07/18 20:44	2.51	239.44	3.57
2018/07/18 20:59	2.51	239.44	3.57
2018/07/18 21:14	2.75	288.61	3.77
2018/07/18 21:29	2.51	239.44	3.57
2018/07/18 21:44	2.43	221.18	3.46
2018/07/18 21:59	2.55	239.79	3.49
2018/07/18 22:14	2.55	239.79	3.49
2018/07/18 22:29	2.47	227.71	3.47
2018/07/18 22:44	2.55	239.79	3.49
2018/07/18 22:59	2.59	259.24	3.68
2018/07/18 23:14	2.59	259.24	3.68

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/18 23:29	2.51	240.00	3.57
2018/07/18 23:44	2.51	240.00	3.57
2018/07/18 23:59	2.36	206.11	3.36
2018/07/19 00:14	2.26	188.68	3.27
2018/07/19 00:29	2.26	188.68	3.27
2018/07/19 00:44	2.26	188.68	3.27
2018/07/19 00:59	2.26	188.68	3.27
2018/07/19 01:14	2.28	192.57	3.31
2018/07/19 01:29	2.28	192.57	3.31
2018/07/19 01:44	2.05	147.15	2.94
2018/07/19 01:59	2.05	145.97	2.92
2018/07/19 02:14	1.87	112.01	2.56
2018/07/19 02:29	1.83	108.33	2.56
2018/07/19 02:44	1.84	110.35	2.58
2018/07/19 02:59	1.84	110.35	2.58
2018/07/19 03:14	1.84	110.97	2.59
2018/07/19 03:29	1.84	110.97	2.59
2018/07/19 03:44	1.84	110.35	2.58
2018/07/19 03:59	1.86	112.36	2.60
2018/07/19 04:14	1.75	97.22	2.46
2018/07/19 04:29	1.66	85.56	2.33
2018/07/19 04:44	1.61	78.75	2.25
2018/07/19 04:59	1.59	76.94	2.23
2018/07/19 05:14	1.59	76.94	2.23
2018/07/19 05:29	1.61	77.99	2.23
2018/07/19 05:44	1.75	92.71	2.35
2018/07/19 05:59	1.75	92.71	2.35
2018/07/19 06:14	1.78	96.32	2.38
2018/07/19 06:29	1.78	96.32	2.38
2018/07/19 06:44	1.78	96.32	2.38
2018/07/19 06:59	1.78	96.32	2.38
2018/07/19 07:14	1.94	127.22	2.76
2018/07/19 07:29	2.08	147.78	2.89
2018/07/19 07:44	2.08	154.51	3.03
2018/07/19 07:59	2.23	176.04	3.11
2018/07/19 08:14	2.34	199.17	3.28
2018/07/19 08:29	2.37	207.64	3.36
2018/07/19 08:44	2.69	273.12	3.68
2018/07/19 08:59	2.72	282.85	3.75
2018/07/19 09:14	2.82	306.94	3.87
2018/07/19 09:29	2.96	343.33	4.04
2018/07/19 09:44	3.12	381.18	4.14
2018/07/19 09:59	3.12	381.18	4.14
2018/07/19 10:14	3.12	382.85	4.16
2018/07/19 10:29	3.02	364.17	4.14

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/19 10:44	3.02	365.76	4.16
2018/07/19 10:59	3.02	365.76	4.16
2018/07/19 11:14	3.02	365.76	4.16
2018/07/19 11:29	2.94	341.39	4.04
2018/07/19 11:44	2.94	341.39	4.04
2018/07/19 11:59	2.93	339.10	4.04
2018/07/19 12:14	2.91	336.74	4.04
2018/07/19 12:29	2.87	329.79	4.04
2018/07/19 12:44	2.86	316.11	3.90
2018/07/19 12:59	2.79	309.65	3.96
2018/07/19 13:14	2.78	302.50	3.90
2018/07/19 13:29	2.78	302.15	3.89
2018/07/19 13:44	2.78	302.15	3.89
2018/07/19 13:59	2.69	270.62	3.64
2018/07/19 14:14	2.68	268.61	3.64
2018/07/19 14:29	2.68	275.14	3.73
2018/07/19 14:44	2.64	261.46	3.63
2018/07/19 14:59	2.68	275.14	3.73
2018/07/19 15:14	2.71	280.21	3.74
2018/07/19 15:29	2.71	279.30	3.73
2018/07/19 15:44	2.64	261.46	3.63
2018/07/19 15:59	2.50	231.67	3.48
2018/07/19 16:14	2.50	231.67	3.48
2018/07/19 16:29	2.50	231.67	3.48
2018/07/19 16:44	2.54	245.42	3.60
2018/07/19 16:59	2.61	256.53	3.61
2018/07/19 17:14	2.61	256.53	3.61
2018/07/19 17:29	2.54	245.42	3.60
2018/07/19 17:44	2.54	247.78	3.63
2018/07/19 17:59	2.54	245.62	3.60
2018/07/19 18:14	2.48	233.12	3.53
2018/07/19 18:29	2.48	233.12	3.53
2018/07/19 18:44	2.54	245.62	3.60
2018/07/19 18:59	2.47	224.44	3.42
2018/07/19 19:14	2.47	224.44	3.42
2018/07/19 19:29	2.54	246.25	3.61
2018/07/19 19:44	2.54	246.25	3.61
2018/07/19 19:59	2.54	246.25	3.61
2018/07/19 20:14	2.62	258.40	3.61
2018/07/19 20:29	2.68	270.42	3.67
2018/07/19 20:44	2.68	270.42	3.67
2018/07/19 20:59	2.68	270.42	3.67
2018/07/19 21:14	2.68	270.42	3.67
2018/07/19 21:29	2.66	266.94	3.65
2018/07/19 21:44	2.65	262.50	3.61

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/19 21:59	2.65	262.50	3.61
2018/07/19 22:14	2.65	260.49	3.59
2018/07/19 22:29	2.55	245.90	3.58
2018/07/19 22:44	2.53	236.67	3.50
2018/07/19 22:59	2.53	236.67	3.50
2018/07/19 23:14	2.53	236.67	3.50
2018/07/19 23:29	2.34	201.18	3.31
2018/07/19 23:44	2.34	201.18	3.31
2018/07/19 23:59	2.46	220.21	3.39
2018/07/20 00:14	2.46	220.21	3.39
2018/07/20 00:29	2.55	235.62	3.43
2018/07/20 00:44	2.55	235.62	3.43
2018/07/20 00:59	2.55	235.62	3.43
2018/07/20 01:14	2.46	220.69	3.40
2018/07/20 01:29	2.28	182.01	3.13
2018/07/20 01:44	2.21	170.42	3.07
2018/07/20 01:59	2.21	170.42	3.07
2018/07/20 02:14	2.12	155.07	2.95
2018/07/20 02:29	2.05	142.57	2.85
2018/07/20 02:44	2.05	141.74	2.83
2018/07/20 02:59	1.91	121.46	2.69
2018/07/20 03:14	1.76	100.35	2.51
2018/07/20 03:29	1.76	100.35	2.51
2018/07/20 03:44	1.76	100.35	2.51
2018/07/20 03:59	1.76	100.35	2.51
2018/07/20 04:14	1.76	92.85	2.32
2018/07/20 04:29	1.76	92.85	2.32
2018/07/20 04:44	1.76	92.85	2.32
2018/07/20 04:59	1.76	92.85	2.32
2018/07/20 05:14	1.76	92.85	2.32
2018/07/20 05:29	1.57	72.64	2.16
2018/07/20 05:44	1.72	94.10	2.44
2018/07/20 05:59	1.72	94.10	2.44
2018/07/20 06:14	1.72	94.10	2.44
2018/07/20 06:29	1.84	107.22	2.51
2018/07/20 06:44	1.84	107.22	2.51
2018/07/20 06:59	2.03	138.40	2.82
2018/07/20 07:14	2.09	148.47	2.88
2018/07/20 07:29	2.25	178.68	3.13
2018/07/20 07:44	2.25	184.03	3.22
2018/07/20 07:59	2.40	209.30	3.33
2018/07/20 08:14	2.40	209.30	3.33
2018/07/20 08:29	2.43	216.80	3.39
2018/07/20 08:44	2.62	253.82	3.55
2018/07/20 08:59	2.89	318.82	3.88

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/20 09:14	3.12	382.57	4.16
2018/07/20 09:29	3.12	382.57	4.16
2018/07/20 09:44	3.04	367.92	4.16
2018/07/20 09:59	3.04	371.46	4.20
2018/07/20 10:14	3.16	396.25	4.22
2018/07/20 10:29	3.16	396.25	4.22
2018/07/20 10:44	3.16	396.25	4.22
2018/07/20 10:59	3.16	396.25	4.22
2018/07/20 11:14	3.01	360.83	4.13
2018/07/20 11:29	2.96	348.40	4.10
2018/07/20 11:44	2.96	347.50	4.09
2018/07/20 11:59	2.90	334.30	4.04
2018/07/20 12:14	2.87	327.36	4.01
2018/07/20 12:29	2.87	329.72	4.04
2018/07/20 12:44	2.93	339.72	4.05
2018/07/20 12:59	2.87	330.42	4.05
2018/07/20 13:14	2.93	339.72	4.05
2018/07/20 13:29	2.93	339.72	4.05
2018/07/20 13:44	2.87	330.42	4.05
2018/07/20 13:59	2.87	328.82	4.03
2018/07/20 14:14	2.82	317.71	4.01
2018/07/20 14:29	2.82	311.32	3.92
2018/07/20 14:44	2.84	315.76	3.92
2018/07/20 14:59	2.84	315.76	3.92
2018/07/20 15:14	2.82	310.00	3.91
2018/07/20 15:29	2.59	253.75	3.60
2018/07/20 15:44	2.59	253.75	3.60
2018/07/20 15:59	2.54	242.50	3.55
2018/07/20 16:14	2.59	249.58	3.54
2018/07/20 16:29	2.65	257.36	3.54
2018/07/20 16:44	2.65	257.36	3.54
2018/07/20 16:59	2.58	235.62	3.37
2018/07/20 17:14	2.58	243.82	3.49
2018/07/20 17:29	2.46	221.60	3.41
2018/07/20 17:44	2.46	221.60	3.41
2018/07/20 17:59	2.58	243.82	3.49
2018/07/20 18:14	2.64	263.89	3.66
2018/07/20 18:29	2.64	263.89	3.66
2018/07/20 18:44	2.65	267.22	3.68
2018/07/20 18:59	2.69	280.28	3.77
2018/07/20 19:14	2.73	287.64	3.79
2018/07/20 19:29	2.73	287.64	3.79
2018/07/20 19:44	2.73	291.32	3.84
2018/07/20 19:59	2.75	297.57	3.89
2018/07/20 20:14	2.72	289.17	3.84

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/20 20:29	2.72	289.17	3.84
2018/07/20 20:44	2.72	289.17	3.84
2018/07/20 20:59	2.69	273.82	3.69
2018/07/20 21:14	2.69	273.33	3.68
2018/07/20 21:29	2.65	266.25	3.67
2018/07/20 21:44	2.58	246.87	3.53
2018/07/20 21:59	2.55	241.60	3.51
2018/07/20 22:14	2.48	225.21	3.41
2018/07/20 22:29	2.44	219.79	3.41
2018/07/20 22:44	2.48	228.19	3.45
2018/07/20 22:59	2.44	222.64	3.45
2018/07/20 23:14	2.26	182.22	3.16
2018/07/20 23:29	2.44	222.64	3.45
2018/07/20 23:44	2.48	228.54	3.46
2018/07/20 23:59	2.26	180.28	3.13
2018/07/21 00:14	2.36	201.04	3.28
2018/07/21 00:29	2.36	201.04	3.28
2018/07/21 00:44	2.25	179.65	3.14
2018/07/21 00:59	2.25	179.65	3.14
2018/07/21 01:14	2.25	179.65	3.14
2018/07/21 01:29	2.21	169.79	3.05
2018/07/21 01:44	2.03	136.94	2.79
2018/07/21 01:59	2.03	136.94	2.79
2018/07/21 02:14	2.00	133.61	2.78
2018/07/21 02:29	1.87	113.40	2.59
2018/07/21 02:44	1.87	113.40	2.59
2018/07/21 02:59	1.84	107.64	2.51
2018/07/21 03:14	1.84	107.64	2.51
2018/07/21 03:29	1.87	113.40	2.59
2018/07/21 03:44	1.84	107.64	2.51
2018/07/21 03:59	1.84	107.64	2.51
2018/07/21 04:14	1.75	91.04	2.30
2018/07/21 04:29	1.61	78.54	2.24
2018/07/21 04:44	1.61	74.51	2.13
2018/07/21 04:59	1.61	74.51	2.13
2018/07/21 05:14	1.64	80.56	2.24
2018/07/21 05:29	1.65	82.01	2.26
2018/07/21 05:44	1.65	82.01	2.26
2018/07/21 05:59	1.76	94.44	2.36
2018/07/21 06:14	1.76	94.44	2.36
2018/07/21 06:29	1.91	118.06	2.61
2018/07/21 06:44	1.91	118.06	2.61
2018/07/21 06:59	1.91	118.06	2.61
2018/07/21 07:14	2.00	127.78	2.66
2018/07/21 07:29	1.73	90.90	2.33

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/21 07:44	1.73	90.90	2.33
2018/07/21 07:59	2.14	152.64	2.88
2018/07/21 08:14	2.19	168.61	3.06
2018/07/21 08:29	2.36	191.74	3.13
2018/07/21 08:44	2.66	239.37	3.27
2018/07/21 08:59	2.66	262.71	3.59
2018/07/21 09:14	2.68	267.01	3.62
2018/07/21 09:29	2.76	288.33	3.74
2018/07/21 09:44	2.78	295.21	3.80
2018/07/21 09:59	2.78	295.90	3.81
2018/07/21 10:14	2.97	344.37	4.02
2018/07/21 10:29	3.02	355.83	4.05
2018/07/21 10:44	3.04	364.58	4.12
2018/07/21 10:59	3.04	364.58	4.12
2018/07/21 11:14	3.08	377.15	4.18
2018/07/21 11:29	3.02	360.42	4.10
2018/07/21 11:44	3.08	377.15	4.18
2018/07/21 11:59	3.02	360.42	4.10
2018/07/21 12:14	3.01	354.86	4.06
2018/07/21 12:29	2.93	333.96	3.98
2018/07/21 12:44	2.87	328.33	4.02
2018/07/21 12:59	2.86	320.97	3.96
2018/07/21 13:14	2.79	297.57	3.81
2018/07/21 13:29	2.80	299.72	3.81
2018/07/21 13:44	2.86	320.97	3.96
2018/07/21 13:59	2.80	299.72	3.81
2018/07/21 14:14	2.79	290.90	3.72
2018/07/21 14:29	2.71	273.61	3.66
2018/07/21 14:44	2.69	270.55	3.64
2018/07/21 14:59	2.69	270.55	3.64
2018/07/21 15:14	2.68	268.19	3.64
2018/07/21 15:29	2.65	262.15	3.61
2018/07/21 15:44	2.47	224.10	3.42
2018/07/21 15:59	2.48	234.72	3.55
2018/07/21 16:14	2.47	224.10	3.42
2018/07/21 16:29	2.46	221.46	3.41
2018/07/21 16:44	2.47	223.33	3.41
2018/07/21 16:59	2.48	234.72	3.55
2018/07/21 17:14	2.62	254.37	3.56
2018/07/21 17:29	2.62	255.42	3.57
2018/07/21 17:44	2.64	265.76	3.69
2018/07/21 17:59	2.64	264.03	3.66
2018/07/21 18:14	2.64	264.03	3.66
2018/07/21 18:29	2.64	264.03	3.66
2018/07/21 18:44	2.64	264.03	3.66

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/21 18:59	2.71	274.17	3.66
2018/07/21 19:14	2.64	260.83	3.62
2018/07/21 19:29	2.75	290.00	3.79
2018/07/21 19:44	2.59	252.50	3.59
2018/07/21 19:59	2.59	252.50	3.59
2018/07/21 20:14	2.50	233.40	3.50
2018/07/21 20:29	2.50	231.25	3.47
2018/07/21 20:44	2.50	231.25	3.47
2018/07/21 20:59	2.50	231.25	3.47
2018/07/21 21:14	2.47	221.32	3.38
2018/07/21 21:29	2.46	220.76	3.40
2018/07/21 21:44	2.40	213.26	3.39
2018/07/21 21:59	2.40	213.26	3.39
2018/07/21 22:14	2.40	213.54	3.40
2018/07/21 22:29	2.55	247.50	3.60
2018/07/21 22:44	2.61	259.65	3.66
2018/07/21 22:59	2.61	259.65	3.66
2018/07/21 23:14	2.55	247.50	3.60
2018/07/21 23:29	2.47	223.40	3.41
2018/07/21 23:44	2.43	213.47	3.34
2018/07/21 23:59	2.43	213.47	3.34
2018/07/22 00:14	2.40	209.30	3.33
2018/07/22 00:29	2.40	209.30	3.33
2018/07/22 00:44	2.28	186.11	3.20
2018/07/22 00:59	2.30	191.67	3.24
2018/07/22 01:14	2.22	179.51	3.20
2018/07/22 01:29	2.16	164.93	3.05
2018/07/22 01:44	2.16	162.57	3.01
2018/07/22 01:59	2.04	139.44	2.81
2018/07/22 02:14	1.94	126.87	2.75
2018/07/22 02:29	1.94	126.87	2.75
2018/07/22 02:44	2.04	139.44	2.81
2018/07/22 02:59	1.87	114.10	2.61
2018/07/22 03:14	1.87	114.10	2.61
2018/07/22 03:29	2.07	150.49	2.98
2018/07/22 03:44	1.78	97.36	2.41
2018/07/22 03:59	1.78	96.74	2.39
2018/07/22 04:14	1.78	96.32	2.38
2018/07/22 04:29	1.84	101.94	2.38
2018/07/22 04:44	1.78	94.93	2.35
2018/07/22 04:59	1.82	99.65	2.38
2018/07/22 05:14	1.82	98.19	2.35
2018/07/22 05:29	1.79	102.01	2.49
2018/07/22 05:44	1.76	95.76	2.40
2018/07/22 05:59	1.76	95.76	2.40

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/22 06:14	1.76	95.76	2.40
2018/07/22 06:29	1.79	104.51	2.55
2018/07/22 06:44	1.89	116.11	2.63
2018/07/22 06:59	1.97	127.36	2.70
2018/07/22 07:14	2.14	152.64	2.88
2018/07/22 07:29	1.97	127.36	2.70
2018/07/22 07:44	1.97	127.36	2.70
2018/07/22 07:59	1.97	127.36	2.70
2018/07/22 08:14	2.09	145.90	2.83
2018/07/22 08:29	2.09	145.90	2.83
2018/07/22 08:44	2.26	172.78	3.00
2018/07/22 08:59	2.41	203.82	3.22
2018/07/22 09:14	2.50	218.40	3.28
2018/07/22 09:29	2.55	229.30	3.33
2018/07/22 09:44	2.61	245.55	3.46
2018/07/22 09:59	2.76	279.03	3.62
2018/07/22 10:14	2.90	313.96	3.79
2018/07/22 10:29	2.91	325.42	3.91
2018/07/22 10:44	2.91	326.46	3.92
2018/07/22 10:59	2.94	333.96	3.95
2018/07/22 11:14	2.94	333.96	3.95
2018/07/22 11:29	2.94	332.01	3.93
2018/07/22 11:44	2.94	332.01	3.93
2018/07/22 11:59	2.94	332.01	3.93
2018/07/22 12:14	2.94	332.01	3.93
2018/07/22 12:29	2.89	314.44	3.83
2018/07/22 12:44	2.83	305.14	3.82
2018/07/22 12:59	2.83	305.14	3.82
2018/07/22 13:14	2.83	305.14	3.82
2018/07/22 13:29	2.83	305.14	3.82
2018/07/22 13:44	2.78	289.86	3.73
2018/07/22 13:59	2.75	287.29	3.76
2018/07/22 14:14	2.69	264.30	3.56
2018/07/22 14:29	2.65	259.17	3.57
2018/07/22 14:44	2.65	259.17	3.57
2018/07/22 14:59	2.68	266.74	3.62
2018/07/22 15:14	2.68	266.74	3.62
2018/07/22 15:29	2.68	266.74	3.62
2018/07/22 15:44	2.68	268.05	3.64
2018/07/22 15:59	2.68	266.74	3.62
2018/07/22 16:14	2.64	260.69	3.62
2018/07/22 16:29	2.51	234.37	3.49
2018/07/22 16:44	2.51	234.37	3.49
2018/07/22 16:59	2.51	234.37	3.49
2018/07/22 17:14	2.73	288.33	3.80

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/22 17:29	2.73	288.33	3.80
2018/07/22 17:44	2.73	288.33	3.80
2018/07/22 17:59	2.72	284.79	3.78
2018/07/22 18:14	2.72	280.21	3.72
2018/07/22 18:29	2.59	251.32	3.57
2018/07/22 18:44	2.59	251.32	3.57
2018/07/22 18:59	2.59	251.32	3.57
2018/07/22 19:14	2.64	260.14	3.61
2018/07/22 19:29	2.72	280.76	3.72
2018/07/22 19:44	2.72	281.80	3.74
2018/07/22 19:59	2.72	280.76	3.72
2018/07/22 20:14	2.72	283.47	3.76
2018/07/22 20:29	2.72	283.47	3.76
2018/07/22 20:44	2.78	297.92	3.84
2018/07/22 20:59	2.66	264.51	3.61
2018/07/22 21:14	2.78	293.40	3.78
2018/07/22 21:29	2.66	264.51	3.61
2018/07/22 21:44	2.76	284.24	3.69
2018/07/22 21:59	2.76	279.30	3.62
2018/07/22 22:14	2.76	279.30	3.62
2018/07/22 22:29	2.59	253.12	3.60
2018/07/22 22:44	2.51	233.75	3.48
2018/07/22 22:59	2.47	225.49	3.44
2018/07/22 23:14	2.46	220.21	3.39
2018/07/22 23:29	2.47	225.49	3.44
2018/07/22 23:44	2.51	233.40	3.48
2018/07/22 23:59	2.41	208.96	3.30
2018/07/23 00:14	2.50	231.53	3.48
2018/07/23 00:29	2.50	231.53	3.48
2018/07/23 00:44	2.36	199.03	3.25
2018/07/23 00:59	2.36	199.03	3.25
2018/07/23 01:14	2.22	166.81	2.97
2018/07/23 01:29	2.14	152.29	2.87
2018/07/23 01:44	2.14	152.29	2.87
2018/07/23 01:59	2.15	146.39	2.73
2018/07/23 02:14	2.00	124.44	2.59
2018/07/23 02:29	2.00	129.44	2.69
2018/07/23 02:44	1.94	109.03	2.36
2018/07/23 02:59	1.69	88.40	2.35
2018/07/23 03:14	1.69	86.18	2.29
2018/07/23 03:29	1.71	87.22	2.29
2018/07/23 03:44	1.62	79.37	2.24
2018/07/23 03:59	1.71	85.42	2.24
2018/07/23 04:14	1.82	97.92	2.34
2018/07/23 04:29	1.71	89.24	2.34

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/23 04:44	1.69	89.37	2.37
2018/07/23 04:59	1.69	89.37	2.37
2018/07/23 05:14	1.64	77.78	2.17
2018/07/23 05:29	1.64	77.78	2.17
2018/07/23 05:44	1.66	81.94	2.23
2018/07/23 05:59	1.64	77.78	2.17
2018/07/23 06:14	1.54	67.50	2.06
2018/07/23 06:29	1.66	81.94	2.23
2018/07/23 06:44	1.86	107.99	2.50
2018/07/23 06:59	1.90	111.18	2.49
2018/07/23 07:14	1.90	111.18	2.49
2018/07/23 07:29	1.96	116.39	2.50
2018/07/23 07:44	1.96	116.39	2.50
2018/07/23 07:59	2.03	134.31	2.74
2018/07/23 08:14	2.32	185.90	3.11
2018/07/23 08:29	2.64	258.26	3.58
2018/07/23 08:44	2.73	281.25	3.70
2018/07/23 08:59	2.87	311.53	3.82
2018/07/23 09:14	2.87	311.53	3.82
2018/07/23 09:29	2.87	311.53	3.82
2018/07/23 09:44	3.01	340.55	3.90
2018/07/23 09:59	3.09	371.87	4.09
2018/07/23 10:14	3.16	386.53	4.12
2018/07/23 10:29	3.16	386.53	4.12
2018/07/23 10:44	3.37	440.14	4.28
2018/07/23 10:59	3.16	391.67	4.17
2018/07/23 11:14	3.07	369.51	4.12
2018/07/23 11:29	3.02	357.71	4.07
2018/07/23 11:44	3.02	357.71	4.07
2018/07/23 11:59	2.98	350.42	4.07
2018/07/23 12:14	2.80	296.94	3.77
2018/07/23 12:29	2.79	294.79	3.77
2018/07/23 12:44	2.75	282.99	3.70
2018/07/23 12:59	2.71	274.58	3.67
2018/07/23 13:14	2.71	276.80	3.70
2018/07/23 13:29	2.75	288.12	3.77
2018/07/23 13:44	2.82	298.75	3.77
2018/07/23 13:59	2.87	320.62	3.93
2018/07/23 14:14	2.87	320.62	3.93
2018/07/23 14:29	2.82	298.75	3.77
2018/07/23 14:44	2.61	251.67	3.55
2018/07/23 14:59	2.51	232.57	3.46
2018/07/23 15:14	2.51	232.57	3.46
2018/07/23 15:29	2.51	232.57	3.46
2018/07/23 15:44	2.51	229.24	3.41

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/23 15:59	2.44	210.83	3.27
2018/07/23 16:14	2.51	229.24	3.41
2018/07/23 16:29	2.51	229.24	3.41
2018/07/23 16:44	2.55	239.79	3.49
2018/07/23 16:59	2.64	252.92	3.51
2018/07/23 17:14	2.64	252.92	3.51
2018/07/23 17:29	2.64	252.92	3.51
2018/07/23 17:44	2.64	252.92	3.51
2018/07/23 17:59	2.53	230.55	3.41
2018/07/23 18:14	2.53	230.55	3.41
2018/07/23 18:29	2.62	253.61	3.55
2018/07/23 18:44	2.54	236.67	3.47
2018/07/23 18:59	2.62	258.05	3.61
2018/07/23 19:14	2.62	258.05	3.61
2018/07/23 19:29	2.62	258.05	3.61
2018/07/23 19:44	2.80	300.90	3.82
2018/07/23 19:59	2.80	300.90	3.82
2018/07/23 20:14	2.80	300.90	3.82
2018/07/23 20:29	2.80	300.90	3.82
2018/07/23 20:44	2.71	273.61	3.66
2018/07/23 20:59	2.59	248.05	3.52
2018/07/23 21:14	2.64	259.51	3.60
2018/07/23 21:29	2.64	259.51	3.60
2018/07/23 21:44	2.64	259.51	3.60
2018/07/23 21:59	2.76	286.94	3.72
2018/07/23 22:14	2.76	286.94	3.72
2018/07/23 22:29	2.76	286.94	3.72
2018/07/23 22:44	2.76	282.01	3.66
2018/07/23 22:59	2.53	230.55	3.41
2018/07/23 23:14	2.53	230.55	3.41
2018/07/23 23:29	2.53	236.32	3.49
2018/07/23 23:44	2.53	236.32	3.49
2018/07/23 23:59	2.53	231.67	3.42
2018/07/24 00:14	2.53	231.67	3.42
2018/07/24 00:29	2.51	228.40	3.40
2018/07/24 00:44	2.46	215.21	3.31
2018/07/24 00:59	2.22	166.32	2.96
2018/07/24 01:14	2.18	158.68	2.91
2018/07/24 01:29	2.09	144.65	2.81
2018/07/24 01:44	2.09	144.65	2.81
2018/07/24 01:59	1.93	117.08	2.57
2018/07/24 02:14	1.93	117.08	2.57
2018/07/24 02:29	1.91	115.90	2.57
2018/07/24 02:44	1.83	103.33	2.44
2018/07/24 02:59	1.80	97.85	2.37

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/24 03:14	1.80	99.72	2.41
2018/07/24 03:29	1.80	99.17	2.40
2018/07/24 03:44	1.80	99.17	2.40
2018/07/24 03:59	1.82	100.28	2.40
2018/07/24 04:14	1.82	100.83	2.41
2018/07/24 04:29	1.82	101.25	2.42
2018/07/24 04:44	1.87	107.57	2.46
2018/07/24 04:59	1.87	107.57	2.46
2018/07/24 05:14	1.87	108.75	2.49
2018/07/24 05:29	1.87	107.57	2.46
2018/07/24 05:44	1.71	85.21	2.23
2018/07/24 05:59	1.71	85.21	2.23
2018/07/24 06:14	1.76	94.79	2.37
2018/07/24 06:29	1.76	94.79	2.37
2018/07/24 06:44	1.90	110.83	2.48
2018/07/24 06:59	1.94	115.90	2.51
2018/07/24 07:14	1.94	115.90	2.51
2018/07/24 07:29	1.94	115.90	2.51
2018/07/24 07:44	2.19	160.83	2.92
2018/07/24 07:59	2.22	166.32	2.96
2018/07/24 08:14	2.33	191.18	3.17
2018/07/24 08:29	2.54	233.12	3.42
2018/07/24 08:44	2.68	260.76	3.54
2018/07/24 08:59	2.72	270.69	3.59
2018/07/24 09:14	2.89	315.97	3.85
2018/07/24 09:29	2.90	323.33	3.91
2018/07/24 09:44	2.96	333.75	3.92
2018/07/24 09:59	3.01	345.14	3.95
2018/07/24 10:14	3.04	357.71	4.04
2018/07/24 10:29	3.12	372.22	4.04
2018/07/24 10:44	3.04	357.71	4.04
2018/07/24 10:59	3.12	372.22	4.04
2018/07/24 11:14	3.04	357.71	4.04
2018/07/24 11:29	3.12	372.22	4.04
2018/07/24 11:44	3.00	341.11	3.93
2018/07/24 11:59	3.00	344.37	3.97
2018/07/24 12:14	3.00	344.37	3.97
2018/07/24 12:29	2.96	337.50	3.97
2018/07/24 12:44	2.94	330.55	3.91
2018/07/24 12:59	2.89	319.44	3.89
2018/07/24 13:14	2.89	315.83	3.84
2018/07/24 13:29	2.64	254.30	3.53
2018/07/24 13:44	2.65	266.04	3.66
2018/07/24 13:59	2.64	249.72	3.47
2018/07/24 14:14	2.53	231.67	3.42

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/24 14:29	2.53	231.67	3.42
2018/07/24 14:44	2.57	240.14	3.46
2018/07/24 14:59	2.55	238.12	3.46
2018/07/24 15:14	2.55	238.12	3.46
2018/07/24 15:29	2.57	240.14	3.46
2018/07/24 15:44	2.57	240.14	3.46
2018/07/24 15:59	2.75	279.44	3.65
2018/07/24 16:14	2.75	279.44	3.65
2018/07/24 16:29	2.75	279.44	3.65
2018/07/24 16:44	2.73	276.60	3.64
2018/07/24 16:59	2.50	220.35	3.31
2018/07/24 17:14	2.50	220.35	3.31
2018/07/24 17:29	2.50	220.35	3.31
2018/07/24 17:44	2.41	207.92	3.28
2018/07/24 17:59	2.65	260.49	3.59
2018/07/24 18:14	2.65	260.49	3.59
2018/07/24 18:29	2.65	260.49	3.59
2018/07/24 18:44	2.65	260.49	3.59
2018/07/24 18:59	2.71	270.97	3.62
2018/07/24 19:14	2.80	292.64	3.72
2018/07/24 19:29	2.80	292.64	3.72
2018/07/24 19:44	2.82	297.85	3.76
2018/07/24 19:59	2.80	292.64	3.72
2018/07/24 20:14	2.76	282.01	3.66
2018/07/24 20:29	2.73	275.00	3.62
2018/07/24 20:44	2.73	277.92	3.66
2018/07/24 20:59	2.73	277.92	3.66
2018/07/24 21:14	2.76	280.83	3.64
2018/07/24 21:29	2.76	282.57	3.67
2018/07/24 21:44	2.76	282.57	3.67
2018/07/24 21:59	2.76	280.83	3.64
2018/07/24 22:14	2.66	257.78	3.52
2018/07/24 22:29	2.61	249.24	3.51
2018/07/24 22:44	2.61	249.24	3.51
2018/07/24 22:59	2.58	245.42	3.51
2018/07/24 23:14	2.57	242.64	3.50
2018/07/24 23:29	2.50	225.42	3.38
2018/07/24 23:44	2.50	225.42	3.38
2018/07/24 23:59	2.47	217.71	3.32
2018/07/25 00:14	2.47	217.71	3.32
2018/07/25 00:29	2.43	210.21	3.29
2018/07/25 00:44	2.36	199.65	3.26
2018/07/25 00:59	2.26	168.89	2.93
2018/07/25 01:14	2.26	168.89	2.93
2018/07/25 01:29	2.26	168.89	2.93

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/25 01:44	2.11	149.17	2.87
2018/07/25 01:59	2.03	129.37	2.64
2018/07/25 02:14	2.03	129.37	2.64
2018/07/25 02:29	2.03	129.37	2.64
2018/07/25 02:44	2.03	129.37	2.64
2018/07/25 02:59	2.03	129.37	2.64
2018/07/25 03:14	1.94	120.83	2.62
2018/07/25 03:29	1.84	104.72	2.45
2018/07/25 03:44	1.84	100.00	2.34
2018/07/25 03:59	1.72	87.50	2.27
2018/07/25 04:14	1.72	87.50	2.27
2018/07/25 04:29	1.68	81.46	2.19
2018/07/25 04:44	1.68	81.46	2.19
2018/07/25 04:59	1.68	81.46	2.19
2018/07/25 05:14	1.93	113.40	2.48
2018/07/25 05:29	1.93	113.40	2.48
2018/07/25 05:44	1.93	113.40	2.48
2018/07/25 05:59	1.90	108.96	2.44
2018/07/25 06:14	1.90	108.96	2.44
2018/07/25 06:29	1.90	108.96	2.44
2018/07/25 06:44	1.83	101.11	2.39
2018/07/25 06:59	1.91	112.15	2.48
2018/07/25 07:14	2.09	135.21	2.62
2018/07/25 07:29	2.09	143.75	2.79
2018/07/25 07:44	2.25	166.32	2.91
2018/07/25 07:59	2.34	196.11	3.23
2018/07/25 08:14	2.58	242.78	3.47
2018/07/25 08:29	2.58	242.78	3.47
2018/07/25 08:44	2.82	288.54	3.64
2018/07/25 08:59	2.94	326.87	3.87
2018/07/25 09:14	3.01	348.82	3.99
2018/07/25 09:29	3.05	357.15	4.01
2018/07/25 09:44	3.05	363.33	4.08
2018/07/25 09:59	3.08	368.05	4.08
2018/07/25 10:14	3.05	363.33	4.08
2018/07/25 10:29	3.08	368.89	4.09
2018/07/25 10:44	3.08	368.89	4.09
2018/07/25 10:59	3.08	368.89	4.09
2018/07/25 11:14	3.09	378.96	4.17
2018/07/25 11:29	3.09	378.96	4.17
2018/07/25 11:44	3.05	358.68	4.03
2018/07/25 11:59	2.96	328.96	3.87
2018/07/25 12:14	2.96	328.96	3.87
2018/07/25 12:29	2.93	324.10	3.86
2018/07/25 12:44	2.93	324.10	3.86

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/25 12:59	2.89	315.07	3.83
2018/07/25 13:14	2.87	309.51	3.79
2018/07/25 13:29	2.80	289.03	3.67
2018/07/25 13:44	2.72	273.19	3.62
2018/07/25 13:59	2.65	260.90	3.59
2018/07/25 14:14	2.64	247.43	3.43
2018/07/25 14:29	2.53	228.89	3.38
2018/07/25 14:44	2.64	247.43	3.43
2018/07/25 14:59	2.55	234.58	3.41
2018/07/25 15:14	2.55	234.58	3.41
2018/07/25 15:29	2.75	273.54	3.58
2018/07/25 15:44	2.75	273.54	3.58
2018/07/25 15:59	2.71	265.28	3.54
2018/07/25 16:14	2.71	265.28	3.54
2018/07/25 16:29	2.53	226.60	3.35
2018/07/25 16:44	2.47	217.01	3.31
2018/07/25 16:59	2.47	212.22	3.24
2018/07/25 17:14	2.41	201.94	3.18
2018/07/25 17:29	2.41	201.94	3.18
2018/07/25 17:44	2.41	201.94	3.18
2018/07/25 17:59	2.43	208.26	3.26
2018/07/25 18:14	2.61	237.99	3.35
2018/07/25 18:29	2.61	237.99	3.35
2018/07/25 18:44	2.61	242.01	3.41
2018/07/25 18:59	2.61	242.08	3.41
2018/07/25 19:14	2.61	242.08	3.41
2018/07/25 19:29	2.61	242.08	3.41
2018/07/25 19:44	2.61	242.08	3.41
2018/07/25 19:59	2.57	236.53	3.41
2018/07/25 20:14	2.64	250.35	3.47
2018/07/25 20:29	2.71	267.78	3.58
2018/07/25 20:44	2.71	267.78	3.58
2018/07/25 20:59	2.82	296.67	3.74
2018/07/25 21:14	2.82	296.67	3.74
2018/07/25 21:29	2.71	267.78	3.58
2018/07/25 21:44	2.64	262.71	3.65
2018/07/25 21:59	2.64	244.86	3.40
2018/07/25 22:14	2.53	230.00	3.40
2018/07/25 22:29	2.64	244.86	3.40
2018/07/25 22:44	2.64	250.35	3.47
2018/07/25 22:59	2.53	230.00	3.40
2018/07/25 23:14	2.46	210.28	3.23
2018/07/25 23:29	2.51	217.22	3.23
2018/07/25 23:44	2.40	202.36	3.22
2018/07/25 23:59	2.40	202.36	3.22

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/26 00:14	2.40	201.74	3.21
2018/07/26 00:29	2.37	196.60	3.18
2018/07/26 00:44	2.37	196.60	3.18
2018/07/26 00:59	2.33	185.14	3.07
2018/07/26 01:14	2.29	178.96	3.05
2018/07/26 01:29	2.07	138.33	2.74
2018/07/26 01:44	2.00	124.86	2.60
2018/07/26 01:59	2.00	124.86	2.60
2018/07/26 02:14	1.97	118.96	2.53
2018/07/26 02:29	1.90	107.22	2.40
2018/07/26 02:44	1.72	87.43	2.26
2018/07/26 02:59	1.72	87.01	2.25
2018/07/26 03:14	1.72	87.01	2.25
2018/07/26 03:29	1.73	88.47	2.26
2018/07/26 03:44	1.93	109.03	2.39
2018/07/26 03:59	1.93	109.03	2.39
2018/07/26 04:14	1.93	109.03	2.39
2018/07/26 04:29	1.96	111.32	2.39
2018/07/26 04:44	1.82	96.81	2.31
2018/07/26 04:59	1.82	94.86	2.27
2018/07/26 05:14	1.82	94.86	2.27
2018/07/26 05:29	1.82	94.86	2.27
2018/07/26 05:44	1.79	92.71	2.27
2018/07/26 05:59	1.79	92.71	2.27
2018/07/26 06:14	1.79	93.54	2.29
2018/07/26 06:29	1.89	105.62	2.39
2018/07/26 06:44	2.08	134.10	2.63
2018/07/26 06:59	2.16	154.51	2.86
2018/07/26 07:14	2.16	154.51	2.86
2018/07/26 07:29	2.29	177.99	3.03
2018/07/26 07:44	2.29	177.99	3.03
2018/07/26 07:59	2.29	177.99	3.03
2018/07/26 08:14	2.54	224.72	3.29
2018/07/26 08:29	2.84	272.15	3.38
2018/07/26 08:44	2.96	316.87	3.73
2018/07/26 08:59	2.96	331.53	3.90
2018/07/26 09:14	2.96	331.53	3.90
2018/07/26 09:29	2.96	331.53	3.90
2018/07/26 09:44	2.96	335.14	3.94
2018/07/26 09:59	3.21	398.12	4.16
2018/07/26 10:14	3.21	398.12	4.16
2018/07/26 10:29	3.21	398.12	4.16
2018/07/26 10:44	3.18	392.43	4.16
2018/07/26 10:59	3.18	392.43	4.16
2018/07/26 11:14	3.09	371.87	4.09

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/26 11:29	3.00	350.90	4.04
2018/07/26 11:44	2.96	330.14	3.88
2018/07/26 11:59	2.89	315.35	3.84
2018/07/26 12:14	2.83	297.43	3.72
2018/07/26 12:29	2.83	297.43	3.72
2018/07/26 12:44	2.82	294.86	3.72
2018/07/26 12:59	2.78	285.14	3.67
2018/07/26 13:14	2.82	295.35	3.72
2018/07/26 13:29	2.71	269.03	3.60
2018/07/26 13:44	2.68	260.97	3.54
2018/07/26 13:59	2.61	244.37	3.44
2018/07/26 14:14	2.59	242.50	3.44
2018/07/26 14:29	2.57	234.17	3.38
2018/07/26 14:44	2.50	225.07	3.38
2018/07/26 14:59	2.44	208.96	3.24
2018/07/26 15:14	2.50	227.15	3.41
2018/07/26 15:29	2.44	209.17	3.24
2018/07/26 15:44	2.40	203.96	3.24
2018/07/26 15:59	2.40	203.96	3.24
2018/07/26 16:14	2.76	274.03	3.56
2018/07/26 16:29	2.41	205.69	3.24
2018/07/26 16:44	2.44	212.78	3.30
2018/07/26 16:59	2.61	244.37	3.44
2018/07/26 17:14	2.44	212.78	3.30
2018/07/26 17:29	2.44	208.12	3.23
2018/07/26 17:44	2.48	218.05	3.30
2018/07/26 17:59	2.48	224.30	3.40
2018/07/26 18:14	2.48	224.30	3.40
2018/07/26 18:29	2.48	224.30	3.40
2018/07/26 18:44	2.47	222.50	3.40
2018/07/26 18:59	2.47	222.50	3.40
2018/07/26 19:14	2.47	222.22	3.39
2018/07/26 19:29	2.43	206.74	3.23
2018/07/26 19:44	2.47	222.22	3.39
2018/07/26 19:59	2.59	241.18	3.43
2018/07/26 20:14	2.59	241.18	3.43
2018/07/26 20:29	2.76	276.32	3.59
2018/07/26 20:44	2.76	276.32	3.59
2018/07/26 20:59	2.76	276.32	3.59
2018/07/26 21:14	2.76	279.79	3.63
2018/07/26 21:29	2.72	266.67	3.54
2018/07/26 21:44	2.65	254.17	3.50
2018/07/26 21:59	2.64	247.99	3.44
2018/07/26 22:14	2.66	251.74	3.44
2018/07/26 22:29	2.64	240.83	3.34

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/26 22:44	2.59	235.28	3.34
2018/07/26 22:59	2.59	235.28	3.34
2018/07/26 23:14	2.59	235.28	3.34
2018/07/26 23:29	2.59	235.97	3.35
2018/07/26 23:44	2.59	235.97	3.35
2018/07/26 23:59	2.58	234.10	3.35
2018/07/27 00:14	2.58	234.10	3.35
2018/07/27 00:29	2.58	231.46	3.31
2018/07/27 00:44	2.41	202.01	3.19
2018/07/27 00:59	2.41	202.01	3.19
2018/07/27 01:14	2.40	194.37	3.09
2018/07/27 01:29	2.34	179.24	2.95
2018/07/27 01:44	2.34	179.24	2.95
2018/07/27 01:59	2.34	179.24	2.95
2018/07/27 02:14	2.07	131.11	2.59
2018/07/27 02:29	2.04	128.33	2.59
2018/07/27 02:44	2.04	128.33	2.59
2018/07/27 02:59	1.96	115.90	2.49
2018/07/27 03:14	1.94	114.65	2.49
2018/07/27 03:29	1.94	114.65	2.49
2018/07/27 03:44	1.72	83.75	2.17
2018/07/27 03:59	1.68	77.64	2.08
2018/07/27 04:14	1.62	73.82	2.08
2018/07/27 04:29	1.55	64.72	1.95
2018/07/27 04:44	1.55	64.72	1.95
2018/07/27 04:59	1.55	64.72	1.95
2018/07/27 05:14	1.61	68.12	1.95
2018/07/27 05:29	1.61	68.89	1.97
2018/07/27 05:44	1.64	74.93	2.09
2018/07/27 05:59	1.80	92.22	2.23
2018/07/27 06:14	1.87	102.22	2.34
2018/07/27 06:29	1.96	111.74	2.40
2018/07/27 06:44	1.96	111.74	2.40
2018/07/27 06:59	1.97	112.99	2.40
2018/07/27 07:14	1.97	112.99	2.40
2018/07/27 07:29	1.97	112.99	2.40
2018/07/27 07:44	2.33	176.04	2.92
2018/07/27 07:59	2.44	193.68	3.00
2018/07/27 08:14	2.64	244.24	3.39
2018/07/27 08:29	2.69	254.24	3.42
2018/07/27 08:44	2.71	259.44	3.47
2018/07/27 08:59	2.83	287.08	3.59
2018/07/27 09:14	2.87	296.18	3.63
2018/07/27 09:29	2.93	311.46	3.71
2018/07/27 09:44	3.01	332.15	3.80

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/27 09:59	3.09	355.35	3.91
2018/07/27 10:14	3.09	355.35	3.91
2018/07/27 10:29	3.11	364.51	3.99
2018/07/27 10:44	3.11	367.29	4.02

Utility Systems Science and Software

Report Date: 07/30/2018
Customer: US3
Group: Santa Monica
SiteID: 3100

Data for 2018.07 2nd St MH: 7/12/2018 thru 7/27/2018

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/12 13:31	3.09	380.14	4.64
2018/07/12 13:46	3.14	387.98	4.64
2018/07/12 14:01	3.05	368.89	4.59
2018/07/12 14:16	3.26	417.98	4.73
2018/07/12 14:31	3.09	380.14	4.64
2018/07/12 14:46	3.05	368.89	4.59
2018/07/12 15:01	3.05	368.89	4.59
2018/07/12 15:16	3.11	377.08	4.57
2018/07/12 15:31	3.11	377.08	4.57
2018/07/12 15:46	3.11	377.08	4.57
2018/07/12 16:01	3.19	397.29	4.64
2018/07/12 16:16	3.11	377.08	4.57
2018/07/12 16:31	3.14	387.36	4.64
2018/07/12 16:46	3.07	369.44	4.56
2018/07/12 17:01	3.11	378.54	4.59
2018/07/12 17:16	3.07	369.44	4.56
2018/07/12 17:31	3.08	371.94	4.57
2018/07/12 17:46	3.08	371.94	4.57
2018/07/12 18:01	3.11	378.54	4.59
2018/07/12 18:16	3.15	388.47	4.62
2018/07/12 18:31	3.19	398.54	4.65
2018/07/12 18:46	3.21	402.01	4.66
2018/07/12 19:01	3.27	416.04	4.68
2018/07/12 19:16	3.21	402.01	4.66
2018/07/12 19:31	3.29	419.58	4.69
2018/07/12 19:46	3.29	423.47	4.74
2018/07/12 20:01	3.29	419.58	4.69
2018/07/12 20:16	3.25	412.01	4.69
2018/07/12 20:31	3.25	412.01	4.69
2018/07/12 20:46	3.25	416.87	4.75
2018/07/12 21:01	3.25	410.48	4.68
2018/07/12 21:16	3.25	416.87	4.75
2018/07/12 21:31	3.25	410.48	4.68
2018/07/12 21:46	3.30	430.83	4.79
2018/07/12 22:01	3.30	430.83	4.79
2018/07/12 22:16	3.30	430.83	4.79
2018/07/12 22:31	3.33	437.98	4.81
2018/07/12 22:46	3.33	437.98	4.81
2018/07/12 23:01	3.34	441.60	4.82

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/12 23:16	3.34	441.60	4.82
2018/07/12 23:31	3.36	447.57	4.86
2018/07/12 23:46	3.34	441.60	4.82
2018/07/13 00:01	3.34	441.60	4.82
2018/07/13 00:16	3.22	404.65	4.66
2018/07/13 00:31	3.18	390.00	4.58
2018/07/13 00:46	2.96	345.07	4.50
2018/07/13 01:01	2.76	295.35	4.24
2018/07/13 01:16	2.73	285.49	4.16
2018/07/13 01:31	2.41	219.72	3.83
2018/07/13 01:46	2.41	219.24	3.82
2018/07/13 02:01	2.22	186.46	3.67
2018/07/13 02:16	2.19	179.93	3.61
2018/07/13 02:31	2.18	176.60	3.57
2018/07/13 02:46	2.15	165.00	3.40
2018/07/13 03:01	2.00	142.85	3.28
2018/07/13 03:16	1.97	139.03	3.26
2018/07/13 03:31	1.97	138.61	3.25
2018/07/13 03:46	1.87	128.33	3.24
2018/07/13 04:01	1.87	124.86	3.15
2018/07/13 04:16	1.87	124.24	3.13
2018/07/13 04:31	1.86	122.22	3.12
2018/07/13 04:46	1.84	119.17	3.07
2018/07/13 05:01	1.82	114.51	3.02
2018/07/13 05:16	1.84	119.17	3.07
2018/07/13 05:31	1.84	117.22	3.02
2018/07/13 05:46	1.84	117.22	3.02
2018/07/13 06:01	1.84	117.22	3.02
2018/07/13 06:16	1.84	119.17	3.07
2018/07/13 06:31	1.93	133.40	3.22
2018/07/13 06:46	2.01	145.49	3.31
2018/07/13 07:01	2.12	162.85	3.42
2018/07/13 07:16	2.14	165.28	3.44
2018/07/13 07:31	2.30	202.85	3.78
2018/07/13 07:46	2.55	246.94	3.97
2018/07/13 08:01	2.73	286.67	4.18
2018/07/13 08:16	2.83	317.36	4.40
2018/07/13 08:31	3.05	362.71	4.51
2018/07/13 08:46	3.33	433.19	4.76
2018/07/13 09:01	3.37	447.92	4.83
2018/07/13 09:16	3.66	533.54	5.12
2018/07/13 09:31	3.69	542.29	5.15
2018/07/13 09:46	3.75	563.05	5.23
2018/07/13 10:01	3.75	563.82	5.24
2018/07/13 10:16	3.73	560.90	5.24

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/13 10:31	3.73	560.90	5.24
2018/07/13 10:46	3.73	560.90	5.24
2018/07/13 11:01	3.68	542.91	5.18
2018/07/13 11:16	3.61	524.79	5.15
2018/07/13 11:31	3.61	524.79	5.15
2018/07/13 11:46	3.58	510.76	5.06
2018/07/13 12:01	3.55	496.18	4.97
2018/07/13 12:16	3.50	483.40	4.95
2018/07/13 12:31	3.44	466.18	4.89
2018/07/13 12:46	3.44	466.18	4.89
2018/07/13 13:01	3.44	466.18	4.89
2018/07/13 13:16	3.33	431.67	4.74
2018/07/13 13:31	3.30	426.25	4.74
2018/07/13 13:46	3.30	426.25	4.74
2018/07/13 14:01	3.30	426.25	4.74
2018/07/13 14:16	3.30	426.25	4.74
2018/07/13 14:31	3.30	426.25	4.74
2018/07/13 14:46	3.26	411.87	4.66
2018/07/13 15:01	3.30	426.25	4.74
2018/07/13 15:16	3.26	411.87	4.66
2018/07/13 15:31	3.22	404.37	4.66
2018/07/13 15:46	3.21	402.01	4.66
2018/07/13 16:01	3.19	399.51	4.66
2018/07/13 16:16	3.09	377.92	4.61
2018/07/13 16:31	3.12	379.72	4.57
2018/07/13 16:46	3.09	372.43	4.54
2018/07/13 17:01	3.09	372.43	4.54
2018/07/13 17:16	3.09	373.96	4.56
2018/07/13 17:31	3.09	373.96	4.56
2018/07/13 17:46	3.09	373.75	4.56
2018/07/13 18:01	3.09	373.96	4.56
2018/07/13 18:16	3.09	373.96	4.56
2018/07/13 18:31	3.12	378.89	4.56
2018/07/13 18:46	3.12	378.89	4.56
2018/07/13 19:01	3.12	379.72	4.57
2018/07/13 19:16	3.19	396.46	4.63
2018/07/13 19:31	3.23	411.80	4.72
2018/07/13 19:46	3.23	412.15	4.72
2018/07/13 20:01	3.26	418.40	4.74
2018/07/13 20:16	3.26	417.22	4.72
2018/07/13 20:31	3.29	430.48	4.81
2018/07/13 20:46	3.37	448.33	4.84
2018/07/13 21:01	3.29	430.48	4.81
2018/07/13 21:16	3.29	426.94	4.78
2018/07/13 21:31	3.29	426.94	4.78

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/13 21:46	3.32	432.08	4.78
2018/07/13 22:01	3.25	413.82	4.71
2018/07/13 22:16	3.25	413.82	4.71
2018/07/13 22:31	3.21	399.79	4.64
2018/07/13 22:46	3.15	383.47	4.56
2018/07/13 23:01	3.14	380.83	4.56
2018/07/13 23:16	3.02	357.64	4.51
2018/07/13 23:31	3.02	356.53	4.49
2018/07/13 23:46	2.97	346.18	4.48
2018/07/14 00:01	2.96	340.49	4.44
2018/07/14 00:16	2.96	340.49	4.44
2018/07/14 00:31	2.84	320.35	4.41
2018/07/14 00:46	2.82	309.51	4.32
2018/07/14 01:01	2.82	308.26	4.30
2018/07/14 01:16	2.79	302.29	4.28
2018/07/14 01:31	2.73	292.57	4.26
2018/07/14 01:46	2.66	266.60	4.03
2018/07/14 02:01	2.34	206.32	3.75
2018/07/14 02:16	2.30	198.82	3.71
2018/07/14 02:31	2.26	193.19	3.70
2018/07/14 02:46	2.22	184.72	3.64
2018/07/14 03:01	2.08	161.25	3.49
2018/07/14 03:16	2.04	151.18	3.37
2018/07/14 03:31	1.98	141.32	3.28
2018/07/14 03:46	1.98	139.44	3.23
2018/07/14 04:01	1.93	132.78	3.21
2018/07/14 04:16	1.93	132.78	3.21
2018/07/14 04:31	1.91	129.93	3.17
2018/07/14 04:46	1.90	127.85	3.15
2018/07/14 05:01	1.86	121.81	3.11
2018/07/14 05:16	1.86	121.81	3.11
2018/07/14 05:31	1.86	121.81	3.11
2018/07/14 05:46	1.86	121.81	3.11
2018/07/14 06:01	1.84	118.26	3.05
2018/07/14 06:16	1.86	122.57	3.12
2018/07/14 06:31	1.87	124.93	3.15
2018/07/14 06:46	1.89	126.32	3.15
2018/07/14 07:01	1.96	136.81	3.24
2018/07/14 07:16	2.09	155.00	3.32
2018/07/14 07:31	2.14	166.11	3.46
2018/07/14 07:46	2.16	173.12	3.54
2018/07/14 08:01	2.32	204.30	3.78
2018/07/14 08:16	2.68	267.64	4.02
2018/07/14 08:31	2.76	297.64	4.27
2018/07/14 08:46	2.82	313.75	4.38

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/14 09:01	2.91	331.18	4.40
2018/07/14 09:16	3.09	373.75	4.56
2018/07/14 09:31	3.14	382.98	4.58
2018/07/14 09:46	3.25	412.29	4.70
2018/07/14 10:01	3.37	447.92	4.83
2018/07/14 10:16	3.46	470.69	4.91
2018/07/14 10:31	3.57	505.21	5.04
2018/07/14 10:46	3.57	505.21	5.04
2018/07/14 11:01	3.59	513.82	5.07
2018/07/14 11:16	3.59	513.82	5.07
2018/07/14 11:31	3.61	517.71	5.08
2018/07/14 11:46	3.61	517.71	5.08
2018/07/14 12:01	3.64	527.36	5.12
2018/07/14 12:16	3.69	546.39	5.19
2018/07/14 12:31	3.69	546.39	5.19
2018/07/14 12:46	3.64	526.46	5.11
2018/07/14 13:01	3.64	526.46	5.11
2018/07/14 13:16	3.59	507.36	5.00
2018/07/14 13:31	3.58	504.03	5.00
2018/07/14 13:46	3.52	489.44	4.96
2018/07/14 14:01	3.46	470.00	4.90
2018/07/14 14:16	3.44	466.18	4.89
2018/07/14 14:31	3.36	443.96	4.82
2018/07/14 14:46	3.36	443.96	4.82
2018/07/14 15:01	3.36	443.96	4.82
2018/07/14 15:16	3.34	436.04	4.76
2018/07/14 15:31	3.34	436.04	4.76
2018/07/14 15:46	3.34	435.42	4.75
2018/07/14 16:01	3.22	406.87	4.69
2018/07/14 16:16	3.22	406.87	4.69
2018/07/14 16:31	3.22	405.28	4.67
2018/07/14 16:46	3.26	412.71	4.67
2018/07/14 17:01	3.33	432.85	4.75
2018/07/14 17:16	3.33	432.85	4.75
2018/07/14 17:31	3.33	432.85	4.75
2018/07/14 17:46	3.34	435.76	4.76
2018/07/14 18:01	3.34	436.73	4.77
2018/07/14 18:16	3.34	436.73	4.77
2018/07/14 18:31	3.34	436.73	4.77
2018/07/14 18:46	3.18	393.33	4.62
2018/07/14 19:01	3.18	393.33	4.62
2018/07/14 19:16	3.18	393.33	4.62
2018/07/14 19:31	3.32	428.12	4.73
2018/07/14 19:46	3.33	438.75	4.82
2018/07/14 20:01	3.33	438.75	4.82

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/14 20:16	3.32	428.12	4.73
2018/07/14 20:31	3.26	417.22	4.72
2018/07/14 20:46	3.26	417.22	4.72
2018/07/14 21:01	3.26	415.69	4.71
2018/07/14 21:16	3.26	414.17	4.69
2018/07/14 21:31	3.26	414.17	4.69
2018/07/14 21:46	3.22	401.73	4.63
2018/07/14 22:01	3.22	401.73	4.63
2018/07/14 22:16	3.22	401.73	4.63
2018/07/14 22:31	3.22	401.73	4.63
2018/07/14 22:46	3.22	401.73	4.63
2018/07/14 23:01	3.18	391.53	4.60
2018/07/14 23:16	3.18	391.53	4.60
2018/07/14 23:31	3.30	422.36	4.70
2018/07/14 23:46	3.30	422.36	4.70
2018/07/15 00:01	3.21	400.48	4.65
2018/07/15 00:16	3.21	400.48	4.65
2018/07/15 00:31	3.11	374.93	4.54
2018/07/15 00:46	3.04	355.97	4.46
2018/07/15 01:01	2.90	330.07	4.42
2018/07/15 01:16	2.76	294.24	4.23
2018/07/15 01:31	2.73	284.37	4.14
2018/07/15 01:46	2.73	281.39	4.10
2018/07/15 02:01	2.64	259.58	3.99
2018/07/15 02:16	2.37	211.94	3.79
2018/07/15 02:31	2.23	193.12	3.77
2018/07/15 02:46	2.22	183.05	3.60
2018/07/15 03:01	2.21	181.18	3.60
2018/07/15 03:16	2.19	175.00	3.51
2018/07/15 03:31	2.16	167.85	3.43
2018/07/15 03:46	2.12	161.32	3.39
2018/07/15 04:01	2.01	145.83	3.31
2018/07/15 04:16	2.07	151.74	3.31
2018/07/15 04:31	2.01	145.49	3.31
2018/07/15 04:46	2.01	143.61	3.26
2018/07/15 05:01	1.87	120.42	3.04
2018/07/15 05:16	1.87	120.42	3.04
2018/07/15 05:31	1.84	117.57	3.03
2018/07/15 05:46	1.86	118.89	3.03
2018/07/15 06:01	1.86	118.89	3.03
2018/07/15 06:16	1.90	124.17	3.06
2018/07/15 06:31	1.90	124.17	3.06
2018/07/15 06:46	1.90	126.46	3.12
2018/07/15 07:01	1.90	127.50	3.15
2018/07/15 07:16	1.97	137.64	3.22

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/15 07:31	2.03	147.01	3.31
2018/07/15 07:46	2.14	164.17	3.42
2018/07/15 08:01	2.33	203.89	3.74
2018/07/15 08:16	2.40	217.71	3.83
2018/07/15 08:31	2.68	268.19	4.03
2018/07/15 08:46	2.83	310.62	4.31
2018/07/15 09:01	2.83	314.86	4.36
2018/07/15 09:16	2.84	317.92	4.37
2018/07/15 09:31	2.90	329.44	4.41
2018/07/15 09:46	2.97	344.24	4.45
2018/07/15 10:01	3.27	420.76	4.73
2018/07/15 10:16	3.36	441.94	4.80
2018/07/15 10:31	3.36	441.94	4.80
2018/07/15 10:46	3.36	445.97	4.84
2018/07/15 11:01	3.36	445.97	4.84
2018/07/15 11:16	3.48	484.44	4.99
2018/07/15 11:31	3.51	486.11	4.95
2018/07/15 11:46	3.51	486.11	4.95
2018/07/15 12:01	3.51	486.11	4.95
2018/07/15 12:16	3.55	498.19	4.99
2018/07/15 12:31	3.55	494.30	4.95
2018/07/15 12:46	3.62	519.79	5.07
2018/07/15 13:01	3.62	519.79	5.07
2018/07/15 13:16	3.55	490.83	4.92
2018/07/15 13:31	3.50	478.61	4.91
2018/07/15 13:46	3.55	490.83	4.92
2018/07/15 14:01	3.50	478.61	4.91
2018/07/15 14:16	3.34	432.08	4.72
2018/07/15 14:31	3.34	439.10	4.80
2018/07/15 14:46	3.34	439.10	4.80
2018/07/15 15:01	3.34	432.08	4.72
2018/07/15 15:16	3.32	431.18	4.76
2018/07/15 15:31	3.32	431.18	4.76
2018/07/15 15:46	3.32	431.18	4.76
2018/07/15 16:01	3.32	429.58	4.75
2018/07/15 16:16	3.32	429.58	4.75
2018/07/15 16:31	3.32	429.58	4.75
2018/07/15 16:46	3.32	429.58	4.75
2018/07/15 17:01	3.25	410.00	4.67
2018/07/15 17:16	3.23	407.50	4.67
2018/07/15 17:31	3.22	402.36	4.64
2018/07/15 17:46	3.21	398.61	4.62
2018/07/15 18:01	3.18	393.75	4.62
2018/07/15 18:16	3.18	393.75	4.62
2018/07/15 18:31	3.18	393.75	4.62

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/15 18:46	3.51	489.10	4.99
2018/07/15 19:01	3.51	489.10	4.99
2018/07/15 19:16	3.51	489.10	4.99
2018/07/15 19:31	3.51	489.10	4.99
2018/07/15 19:46	3.40	454.37	4.85
2018/07/15 20:01	3.37	444.03	4.79
2018/07/15 20:16	3.37	444.03	4.79
2018/07/15 20:31	3.37	444.03	4.79
2018/07/15 20:46	3.33	434.79	4.78
2018/07/15 21:01	3.32	430.48	4.76
2018/07/15 21:16	3.32	430.48	4.76
2018/07/15 21:31	3.32	430.48	4.76
2018/07/15 21:46	3.25	409.23	4.66
2018/07/15 22:01	3.18	392.36	4.61
2018/07/15 22:16	3.34	436.73	4.77
2018/07/15 22:31	3.34	438.47	4.79
2018/07/15 22:46	3.25	420.42	4.79
2018/07/15 23:01	3.34	438.47	4.79
2018/07/15 23:16	3.34	438.47	4.79
2018/07/15 23:31	3.32	429.58	4.75
2018/07/15 23:46	3.32	429.58	4.75
2018/07/16 00:01	3.32	428.68	4.74
2018/07/16 00:16	3.21	396.04	4.59
2018/07/16 00:31	3.21	395.28	4.59
2018/07/16 00:46	2.97	346.18	4.48
2018/07/16 01:01	2.73	291.94	4.25
2018/07/16 01:16	2.71	275.97	4.08
2018/07/16 01:31	2.65	263.96	4.02
2018/07/16 01:46	2.51	235.14	3.87
2018/07/16 02:01	2.30	198.40	3.70
2018/07/16 02:16	2.12	160.56	3.37
2018/07/16 02:31	2.04	148.61	3.31
2018/07/16 02:46	2.00	141.67	3.25
2018/07/16 03:01	1.97	138.61	3.25
2018/07/16 03:16	1.97	138.61	3.25
2018/07/16 03:31	1.93	132.43	3.20
2018/07/16 03:46	1.91	127.57	3.12
2018/07/16 04:01	1.87	121.67	3.07
2018/07/16 04:16	1.87	121.67	3.07
2018/07/16 04:31	1.87	121.67	3.07
2018/07/16 04:46	1.87	120.42	3.04
2018/07/16 05:01	1.87	120.42	3.04
2018/07/16 05:16	1.91	127.85	3.12
2018/07/16 05:31	1.91	127.85	3.12
2018/07/16 05:46	1.89	121.67	3.04

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/16 06:01	1.91	127.85	3.12
2018/07/16 06:16	1.93	133.12	3.22
2018/07/16 06:31	1.93	133.12	3.22
2018/07/16 06:46	2.04	150.07	3.34
2018/07/16 07:01	2.22	181.04	3.56
2018/07/16 07:16	2.23	186.87	3.65
2018/07/16 07:31	2.43	221.67	3.83
2018/07/16 07:46	2.61	255.35	3.98
2018/07/16 08:01	2.71	277.01	4.10
2018/07/16 08:16	2.90	328.82	4.40
2018/07/16 08:31	3.05	362.01	4.50
2018/07/16 08:46	3.29	426.60	4.77
2018/07/16 09:01	3.52	487.71	4.94
2018/07/16 09:16	3.64	528.75	5.13
2018/07/16 09:31	3.68	538.54	5.14
2018/07/16 09:46	3.75	556.66	5.18
2018/07/16 10:01	3.75	556.66	5.18
2018/07/16 10:16	3.75	556.66	5.18
2018/07/16 10:31	3.75	551.39	5.13
2018/07/16 10:46	3.71	538.61	5.09
2018/07/16 11:01	3.59	506.67	5.00
2018/07/16 11:16	3.58	503.12	4.99
2018/07/16 11:31	3.59	505.90	4.99
2018/07/16 11:46	3.59	505.90	4.99
2018/07/16 12:01	3.59	509.17	5.02
2018/07/16 12:16	3.58	506.39	5.02
2018/07/16 12:31	3.58	506.39	5.02
2018/07/16 12:46	3.47	468.61	4.86
2018/07/16 13:01	3.47	468.61	4.86
2018/07/16 13:16	3.47	468.61	4.86
2018/07/16 13:31	3.47	468.61	4.86
2018/07/16 13:46	3.47	469.30	4.86
2018/07/16 14:01	3.52	485.97	4.93
2018/07/16 14:16	3.52	485.97	4.93
2018/07/16 14:31	3.40	453.19	4.83
2018/07/16 14:46	3.40	453.19	4.83
2018/07/16 15:01	3.37	444.30	4.80
2018/07/16 15:16	3.37	441.87	4.77
2018/07/16 15:31	3.34	434.03	4.74
2018/07/16 15:46	3.34	434.03	4.74
2018/07/16 16:01	3.34	434.03	4.74
2018/07/16 16:16	3.34	431.94	4.72
2018/07/16 16:31	3.27	418.61	4.71
2018/07/16 16:46	3.19	394.93	4.61
2018/07/16 17:01	3.12	377.57	4.55

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/16 17:16	3.09	370.28	4.52
2018/07/16 17:31	2.98	346.80	4.46
2018/07/16 17:46	2.91	333.47	4.43
2018/07/16 18:01	2.91	333.47	4.43
2018/07/16 18:16	2.91	333.47	4.43
2018/07/16 18:31	3.18	388.68	4.56
2018/07/16 18:46	3.18	388.68	4.56
2018/07/16 19:01	3.27	414.72	4.67
2018/07/16 19:16	3.29	417.22	4.67
2018/07/16 19:31	3.30	419.86	4.67
2018/07/16 19:46	3.29	417.36	4.67
2018/07/16 20:01	3.30	428.89	4.77
2018/07/16 20:16	3.32	431.46	4.77
2018/07/16 20:31	3.32	431.46	4.77
2018/07/16 20:46	3.33	435.62	4.79
2018/07/16 21:01	3.34	438.47	4.79
2018/07/16 21:16	3.34	438.47	4.79
2018/07/16 21:31	3.46	470.69	4.91
2018/07/16 21:46	3.36	441.94	4.80
2018/07/16 22:01	3.46	467.64	4.88
2018/07/16 22:16	3.41	454.03	4.82
2018/07/16 22:31	3.47	470.28	4.88
2018/07/16 22:46	3.41	454.03	4.82
2018/07/16 23:01	3.41	454.03	4.82
2018/07/16 23:16	3.41	454.03	4.82
2018/07/16 23:31	3.39	448.40	4.81
2018/07/16 23:46	3.18	392.98	4.62
2018/07/17 00:01	3.18	392.98	4.62
2018/07/17 00:16	3.09	372.78	4.55
2018/07/17 00:31	3.07	365.55	4.52
2018/07/17 00:46	2.98	344.10	4.42
2018/07/17 01:01	2.82	302.85	4.23
2018/07/17 01:16	2.62	260.14	4.02
2018/07/17 01:31	2.58	250.07	3.96
2018/07/17 01:46	2.37	212.85	3.81
2018/07/17 02:01	2.28	195.07	3.71
2018/07/17 02:16	2.25	188.33	3.64
2018/07/17 02:31	2.21	176.39	3.50
2018/07/17 02:46	2.21	176.39	3.50
2018/07/17 03:01	2.19	174.24	3.49
2018/07/17 03:16	2.09	157.22	3.37
2018/07/17 03:31	2.05	149.37	3.29
2018/07/17 03:46	2.09	157.22	3.37
2018/07/17 04:01	2.05	150.21	3.31
2018/07/17 04:16	2.05	149.37	3.29

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/17 04:31	2.05	149.37	3.29
2018/07/17 04:46	1.96	135.07	3.20
2018/07/17 05:01	1.90	125.76	3.10
2018/07/17 05:16	1.90	125.76	3.10
2018/07/17 05:31	1.90	127.15	3.14
2018/07/17 05:46	1.96	135.07	3.20
2018/07/17 06:01	1.94	133.19	3.18
2018/07/17 06:16	2.12	161.74	3.40
2018/07/17 06:31	2.12	161.74	3.40
2018/07/17 06:46	2.16	170.69	3.49
2018/07/17 07:01	2.18	172.85	3.50
2018/07/17 07:16	2.23	185.69	3.62
2018/07/17 07:31	2.28	193.33	3.67
2018/07/17 07:46	2.59	249.51	3.92
2018/07/17 08:01	2.80	307.71	4.33
2018/07/17 08:16	3.04	360.83	4.52
2018/07/17 08:31	3.08	371.25	4.56
2018/07/17 08:46	3.27	417.71	4.70
2018/07/17 09:01	3.59	512.08	5.05
2018/07/17 09:16	3.69	543.19	5.16
2018/07/17 09:31	3.69	545.07	5.18
2018/07/17 09:46	3.73	554.37	5.18
2018/07/17 10:01	3.73	554.37	5.18
2018/07/17 10:16	3.73	554.37	5.18
2018/07/17 10:31	3.72	554.72	5.21
2018/07/17 10:46	3.72	554.72	5.21
2018/07/17 11:01	3.69	548.89	5.21
2018/07/17 11:16	3.65	540.14	5.21
2018/07/17 11:31	3.65	534.72	5.16
2018/07/17 11:46	3.65	530.35	5.12
2018/07/17 12:01	3.65	524.93	5.07
2018/07/17 12:16	3.61	515.07	5.05
2018/07/17 12:31	3.59	511.04	5.04
2018/07/17 12:46	3.44	462.85	4.85
2018/07/17 13:01	3.39	450.00	4.83
2018/07/17 13:16	3.37	444.72	4.80
2018/07/17 13:31	3.39	446.87	4.80
2018/07/17 13:46	3.40	452.64	4.83
2018/07/17 14:01	3.39	446.87	4.80
2018/07/17 14:16	3.40	449.51	4.80
2018/07/17 14:31	3.40	449.51	4.80
2018/07/17 14:46	3.41	457.98	4.86
2018/07/17 15:01	3.30	423.12	4.70
2018/07/17 15:16	3.30	428.47	4.76
2018/07/17 15:31	3.30	428.47	4.76

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/17 15:46	3.30	428.47	4.76
2018/07/17 16:01	3.30	428.47	4.76
2018/07/17 16:16	3.30	428.47	4.76
2018/07/17 16:31	3.27	417.71	4.70
2018/07/17 16:46	3.12	378.89	4.56
2018/07/17 17:01	3.08	369.23	4.53
2018/07/17 17:16	3.12	378.89	4.56
2018/07/17 17:31	3.08	369.23	4.53
2018/07/17 17:46	3.12	378.89	4.56
2018/07/17 18:01	3.05	364.10	4.53
2018/07/17 18:16	3.19	394.93	4.61
2018/07/17 18:31	3.21	404.86	4.70
2018/07/17 18:46	3.25	412.43	4.70
2018/07/17 19:01	3.21	404.86	4.70
2018/07/17 19:16	3.25	412.43	4.70
2018/07/17 19:31	3.25	412.43	4.70
2018/07/17 19:46	3.25	413.82	4.71
2018/07/17 20:01	3.34	433.54	4.73
2018/07/17 20:16	3.36	440.90	4.79
2018/07/17 20:31	3.39	447.43	4.80
2018/07/17 20:46	3.39	447.43	4.80
2018/07/17 21:01	3.40	455.07	4.85
2018/07/17 21:16	3.46	465.69	4.85
2018/07/17 21:31	3.46	472.36	4.92
2018/07/17 21:46	3.46	472.36	4.92
2018/07/17 22:01	3.46	472.36	4.92
2018/07/17 22:16	3.41	463.75	4.92
2018/07/17 22:31	3.40	451.94	4.82
2018/07/17 22:46	3.32	428.96	4.74
2018/07/17 23:01	3.32	428.96	4.74
2018/07/17 23:16	3.27	419.23	4.72
2018/07/17 23:31	3.27	419.23	4.72
2018/07/17 23:46	3.23	407.98	4.68
2018/07/18 00:01	3.23	407.98	4.68
2018/07/18 00:16	3.22	403.89	4.66
2018/07/18 00:31	2.94	339.30	4.45
2018/07/18 00:46	2.94	339.30	4.45
2018/07/18 01:01	2.87	324.58	4.41
2018/07/18 01:16	2.80	302.92	4.26
2018/07/18 01:31	2.72	278.05	4.08
2018/07/18 01:46	2.71	275.97	4.08
2018/07/18 02:01	2.40	216.80	3.81
2018/07/18 02:16	2.40	215.83	3.79
2018/07/18 02:31	2.21	177.50	3.53
2018/07/18 02:46	2.15	167.50	3.45

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/18 03:01	2.15	164.58	3.39
2018/07/18 03:16	2.07	155.42	3.39
2018/07/18 03:31	2.04	147.50	3.28
2018/07/18 03:46	2.04	145.28	3.24
2018/07/18 04:01	1.94	129.17	3.09
2018/07/18 04:16	1.93	127.78	3.09
2018/07/18 04:31	1.90	124.44	3.07
2018/07/18 04:46	1.84	115.35	2.97
2018/07/18 05:01	1.80	110.97	2.96
2018/07/18 05:16	1.76	104.24	2.87
2018/07/18 05:31	1.76	104.24	2.87
2018/07/18 05:46	1.79	106.67	2.87
2018/07/18 06:01	1.79	106.67	2.87
2018/07/18 06:16	1.87	120.62	3.04
2018/07/18 06:31	1.91	125.35	3.06
2018/07/18 06:46	1.94	133.89	3.20
2018/07/18 07:01	2.21	175.83	3.49
2018/07/18 07:16	2.25	184.17	3.56
2018/07/18 07:31	2.41	217.29	3.79
2018/07/18 07:46	2.47	229.10	3.86
2018/07/18 08:01	2.86	319.10	4.36
2018/07/18 08:16	3.02	360.28	4.54
2018/07/18 08:31	3.12	379.72	4.57
2018/07/18 08:46	3.33	432.43	4.75
2018/07/18 09:01	3.54	494.03	4.98
2018/07/18 09:16	3.64	520.07	5.04
2018/07/18 09:31	3.65	529.44	5.11
2018/07/18 09:46	3.72	548.40	5.15
2018/07/18 10:01	3.79	577.29	5.28
2018/07/18 10:16	3.82	584.65	5.30
2018/07/18 10:31	3.82	584.65	5.30
2018/07/18 10:46	3.79	577.29	5.28
2018/07/18 11:01	3.71	552.85	5.22
2018/07/18 11:16	3.68	540.21	5.16
2018/07/18 11:31	3.58	507.36	5.03
2018/07/18 11:46	3.58	507.36	5.03
2018/07/18 12:01	3.58	507.36	5.03
2018/07/18 12:16	3.58	507.36	5.03
2018/07/18 12:31	3.58	507.36	5.03
2018/07/18 12:46	3.50	491.60	5.04
2018/07/18 13:01	3.48	477.29	4.92
2018/07/18 13:16	3.47	473.89	4.91
2018/07/18 13:31	3.43	460.76	4.86
2018/07/18 13:46	3.39	450.00	4.83
2018/07/18 14:01	3.33	437.01	4.80

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/18 14:16	3.32	434.44	4.80
2018/07/18 14:31	3.39	450.00	4.83
2018/07/18 14:46	3.32	430.48	4.76
2018/07/18 15:01	3.32	430.48	4.76
2018/07/18 15:16	3.27	416.94	4.69
2018/07/18 15:31	3.27	416.94	4.69
2018/07/18 15:46	3.14	380.07	4.55
2018/07/18 16:01	3.14	380.07	4.55
2018/07/18 16:16	3.12	377.57	4.55
2018/07/18 16:31	3.07	365.90	4.52
2018/07/18 16:46	2.94	340.62	4.47
2018/07/18 17:01	2.94	340.62	4.47
2018/07/18 17:16	2.94	340.62	4.47
2018/07/18 17:31	2.98	348.05	4.47
2018/07/18 17:46	3.01	352.71	4.47
2018/07/18 18:01	3.02	356.04	4.49
2018/07/18 18:16	3.16	390.90	4.62
2018/07/18 18:31	3.16	390.90	4.62
2018/07/18 18:46	3.21	398.26	4.62
2018/07/18 19:01	3.21	398.26	4.62
2018/07/18 19:16	3.16	387.50	4.58
2018/07/18 19:31	3.16	387.50	4.58
2018/07/18 19:46	3.16	387.50	4.58
2018/07/18 20:01	3.16	387.50	4.58
2018/07/18 20:16	3.16	387.50	4.58
2018/07/18 20:31	3.16	388.96	4.60
2018/07/18 20:46	3.16	388.96	4.60
2018/07/18 21:01	3.19	395.55	4.62
2018/07/18 21:16	3.32	428.12	4.73
2018/07/18 21:31	3.34	438.47	4.79
2018/07/18 21:46	3.41	451.46	4.79
2018/07/18 22:01	3.34	438.47	4.79
2018/07/18 22:16	3.40	448.82	4.79
2018/07/18 22:31	3.40	454.37	4.85
2018/07/18 22:46	3.39	448.82	4.82
2018/07/18 23:01	3.37	447.92	4.83
2018/07/18 23:16	3.39	450.55	4.83
2018/07/18 23:31	3.39	450.55	4.83
2018/07/18 23:46	3.37	447.36	4.83
2018/07/19 00:01	3.37	447.36	4.83
2018/07/19 00:16	3.22	397.08	4.58
2018/07/19 00:31	3.14	381.32	4.56
2018/07/19 00:46	3.12	375.62	4.52
2018/07/19 01:01	2.79	296.46	4.20
2018/07/19 01:16	2.75	284.86	4.12

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/19 01:31	2.44	220.97	3.79
2018/07/19 01:46	2.37	210.76	3.77
2018/07/19 02:01	2.36	206.80	3.73
2018/07/19 02:16	2.28	193.12	3.67
2018/07/19 02:31	2.25	187.71	3.63
2018/07/19 02:46	2.16	170.28	3.48
2018/07/19 03:01	2.07	154.03	3.36
2018/07/19 03:16	2.04	148.61	3.31
2018/07/19 03:31	2.04	148.61	3.31
2018/07/19 03:46	2.04	148.19	3.30
2018/07/19 04:01	1.97	137.99	3.23
2018/07/19 04:16	1.96	135.42	3.20
2018/07/19 04:31	1.96	135.62	3.21
2018/07/19 04:46	1.96	135.62	3.21
2018/07/19 05:01	1.94	133.96	3.20
2018/07/19 05:16	1.93	132.43	3.20
2018/07/19 05:31	1.93	132.43	3.20
2018/07/19 05:46	1.90	126.11	3.11
2018/07/19 06:01	1.90	126.11	3.11
2018/07/19 06:16	1.93	132.43	3.20
2018/07/19 06:31	1.98	139.44	3.23
2018/07/19 06:46	2.09	157.08	3.36
2018/07/19 07:01	2.12	160.28	3.37
2018/07/19 07:16	2.23	186.11	3.63
2018/07/19 07:31	2.34	205.83	3.74
2018/07/19 07:46	2.48	230.14	3.85
2018/07/19 08:01	2.78	291.74	4.16
2018/07/19 08:16	3.05	360.62	4.49
2018/07/19 08:31	3.25	413.05	4.70
2018/07/19 08:46	3.33	434.79	4.78
2018/07/19 09:01	3.54	493.12	4.97
2018/07/19 09:16	3.57	504.30	5.03
2018/07/19 09:31	3.76	567.22	5.25
2018/07/19 09:46	3.77	572.22	5.27
2018/07/19 10:01	3.80	583.47	5.31
2018/07/19 10:16	3.77	572.22	5.27
2018/07/19 10:31	3.77	572.22	5.27
2018/07/19 10:46	3.71	549.93	5.19
2018/07/19 11:01	3.68	541.11	5.17
2018/07/19 11:16	3.65	530.35	5.12
2018/07/19 11:31	3.64	525.55	5.10
2018/07/19 11:46	3.58	510.76	5.06
2018/07/19 12:01	3.58	510.76	5.06
2018/07/19 12:16	3.55	497.92	4.99
2018/07/19 12:31	3.55	497.92	4.99

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/19 12:46	3.55	497.92	4.99
2018/07/19 13:01	3.48	477.29	4.92
2018/07/19 13:16	3.48	477.29	4.92
2018/07/19 13:31	3.40	453.61	4.84
2018/07/19 13:46	3.33	430.83	4.73
2018/07/19 14:01	3.39	450.69	4.84
2018/07/19 14:16	3.33	433.19	4.76
2018/07/19 14:31	3.33	433.19	4.76
2018/07/19 14:46	3.33	433.19	4.76
2018/07/19 15:01	3.33	433.19	4.76
2018/07/19 15:16	3.30	423.12	4.70
2018/07/19 15:31	3.19	392.71	4.58
2018/07/19 15:46	3.08	369.79	4.54
2018/07/19 16:01	3.08	369.79	4.54
2018/07/19 16:16	3.08	368.61	4.53
2018/07/19 16:31	3.08	369.30	4.53
2018/07/19 16:46	3.08	369.79	4.54
2018/07/19 17:01	3.09	372.92	4.55
2018/07/19 17:16	3.08	370.48	4.55
2018/07/19 17:31	3.07	368.12	4.55
2018/07/19 17:46	3.07	368.12	4.55
2018/07/19 18:01	3.07	370.00	4.57
2018/07/19 18:16	3.07	370.00	4.57
2018/07/19 18:31	3.16	390.42	4.61
2018/07/19 18:46	3.19	396.46	4.63
2018/07/19 19:01	3.19	396.46	4.63
2018/07/19 19:16	3.19	396.46	4.63
2018/07/19 19:31	3.19	396.46	4.63
2018/07/19 19:46	3.19	396.46	4.63
2018/07/19 20:01	3.25	407.08	4.64
2018/07/19 20:16	3.29	420.76	4.71
2018/07/19 20:31	3.32	425.76	4.71
2018/07/19 20:46	3.32	430.14	4.75
2018/07/19 21:01	3.32	430.14	4.75
2018/07/19 21:16	3.32	430.14	4.75
2018/07/19 21:31	3.39	447.43	4.80
2018/07/19 21:46	3.41	457.01	4.85
2018/07/19 22:01	3.41	457.15	4.85
2018/07/19 22:16	3.41	457.15	4.85
2018/07/19 22:31	3.41	457.01	4.85
2018/07/19 22:46	3.36	442.78	4.81
2018/07/19 23:01	3.36	442.78	4.81
2018/07/19 23:16	3.29	423.47	4.74
2018/07/19 23:31	3.29	423.47	4.74
2018/07/19 23:46	3.27	417.71	4.70

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/20 00:01	3.21	396.04	4.59
2018/07/20 00:16	3.21	396.04	4.59
2018/07/20 00:31	3.16	387.98	4.59
2018/07/20 00:46	3.15	382.15	4.54
2018/07/20 01:01	2.93	332.29	4.39
2018/07/20 01:16	2.80	301.04	4.23
2018/07/20 01:31	2.66	267.15	4.04
2018/07/20 01:46	2.37	211.94	3.79
2018/07/20 02:01	2.30	196.11	3.66
2018/07/20 02:16	2.21	177.15	3.52
2018/07/20 02:31	2.16	170.69	3.49
2018/07/20 02:46	2.14	164.51	3.42
2018/07/20 03:01	2.11	160.49	3.40
2018/07/20 03:16	2.05	148.61	3.28
2018/07/20 03:31	2.01	144.31	3.28
2018/07/20 03:46	2.00	142.43	3.27
2018/07/20 04:01	2.01	144.31	3.28
2018/07/20 04:16	2.01	144.31	3.28
2018/07/20 04:31	1.97	138.33	3.24
2018/07/20 04:46	1.94	133.89	3.20
2018/07/20 05:01	1.80	111.39	2.97
2018/07/20 05:16	1.80	111.39	2.97
2018/07/20 05:31	1.80	111.39	2.97
2018/07/20 05:46	1.80	111.67	2.97
2018/07/20 06:01	1.84	115.97	2.99
2018/07/20 06:16	1.84	118.19	3.05
2018/07/20 06:31	1.90	125.76	3.10
2018/07/20 06:46	1.93	130.07	3.14
2018/07/20 07:01	2.11	158.47	3.36
2018/07/20 07:16	2.19	180.35	3.62
2018/07/20 07:31	2.41	220.62	3.85
2018/07/20 07:46	2.51	236.11	3.89
2018/07/20 08:01	2.83	305.35	4.23
2018/07/20 08:16	2.84	314.65	4.33
2018/07/20 08:31	3.19	395.55	4.62
2018/07/20 08:46	3.27	419.86	4.72
2018/07/20 09:01	3.48	474.79	4.89
2018/07/20 09:16	3.62	525.14	5.12
2018/07/20 09:31	3.75	560.41	5.21
2018/07/20 09:46	3.76	565.35	5.23
2018/07/20 10:01	3.79	574.58	5.26
2018/07/20 10:16	3.87	601.60	5.34
2018/07/20 10:31	3.87	601.60	5.34
2018/07/20 10:46	3.79	574.58	5.26
2018/07/20 11:01	3.73	559.03	5.22

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/20 11:16	3.72	553.19	5.20
2018/07/20 11:31	3.69	541.39	5.14
2018/07/20 11:46	3.65	526.73	5.08
2018/07/20 12:01	3.59	505.90	4.99
2018/07/20 12:16	3.59	505.90	4.99
2018/07/20 12:31	3.55	497.64	4.99
2018/07/20 12:46	3.51	477.85	4.87
2018/07/20 13:01	3.51	477.85	4.87
2018/07/20 13:16	3.41	449.23	4.76
2018/07/20 13:31	3.37	441.18	4.76
2018/07/20 13:46	3.29	417.98	4.68
2018/07/20 14:01	3.22	404.65	4.66
2018/07/20 14:16	3.22	404.65	4.66
2018/07/20 14:31	3.22	404.65	4.66
2018/07/20 14:46	3.32	428.12	4.73
2018/07/20 15:01	3.34	435.14	4.75
2018/07/20 15:16	3.34	435.14	4.75
2018/07/20 15:31	3.40	452.08	4.82
2018/07/20 15:46	3.32	428.12	4.73
2018/07/20 16:01	3.16	388.05	4.59
2018/07/20 16:16	3.16	388.05	4.59
2018/07/20 16:31	3.14	382.98	4.58
2018/07/20 16:46	3.14	382.98	4.58
2018/07/20 17:01	3.16	388.05	4.59
2018/07/20 17:16	3.21	396.73	4.60
2018/07/20 17:31	3.21	395.42	4.59
2018/07/20 17:46	3.21	395.42	4.59
2018/07/20 18:01	3.21	395.28	4.59
2018/07/20 18:16	3.19	392.85	4.59
2018/07/20 18:31	3.19	392.85	4.59
2018/07/20 18:46	3.19	394.17	4.60
2018/07/20 19:01	3.36	434.72	4.72
2018/07/20 19:16	3.36	434.72	4.72
2018/07/20 19:31	3.39	447.43	4.80
2018/07/20 19:46	3.39	447.43	4.80
2018/07/20 20:01	3.46	464.86	4.85
2018/07/20 20:16	3.39	447.43	4.80
2018/07/20 20:31	3.47	470.55	4.88
2018/07/20 20:46	3.47	470.55	4.88
2018/07/20 21:01	3.43	457.36	4.82
2018/07/20 21:16	3.41	451.73	4.79
2018/07/20 21:31	3.43	456.80	4.82
2018/07/20 21:46	3.41	451.73	4.79
2018/07/20 22:01	3.32	428.96	4.74
2018/07/20 22:16	3.32	428.96	4.74

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/20 22:31	3.27	420.76	4.73
2018/07/20 22:46	3.23	402.78	4.62
2018/07/20 23:01	3.23	402.78	4.62
2018/07/20 23:16	3.23	402.78	4.62
2018/07/20 23:31	3.23	402.78	4.62
2018/07/20 23:46	3.23	402.78	4.62
2018/07/21 00:01	3.19	394.93	4.61
2018/07/21 00:16	3.09	371.73	4.53
2018/07/21 00:31	3.04	357.36	4.47
2018/07/21 00:46	2.93	336.18	4.44
2018/07/21 01:01	2.93	335.62	4.43
2018/07/21 01:16	2.93	334.30	4.41
2018/07/21 01:31	2.78	296.32	4.23
2018/07/21 01:46	2.76	293.82	4.22
2018/07/21 02:01	2.66	272.85	4.13
2018/07/21 02:16	2.40	217.22	3.82
2018/07/21 02:31	2.40	215.83	3.79
2018/07/21 02:46	2.18	175.90	3.56
2018/07/21 03:01	2.15	170.00	3.51
2018/07/21 03:16	2.15	166.25	3.43
2018/07/21 03:31	2.11	159.24	3.38
2018/07/21 03:46	2.08	152.99	3.31
2018/07/21 04:01	2.08	152.78	3.30
2018/07/21 04:16	2.04	146.04	3.25
2018/07/21 04:31	1.97	136.53	3.20
2018/07/21 04:46	1.90	129.10	3.19
2018/07/21 05:01	1.90	127.36	3.14
2018/07/21 05:16	1.89	123.47	3.08
2018/07/21 05:31	1.87	120.69	3.04
2018/07/21 05:46	1.87	120.69	3.04
2018/07/21 06:01	1.87	120.69	3.04
2018/07/21 06:16	1.87	120.69	3.04
2018/07/21 06:31	1.90	125.76	3.10
2018/07/21 06:46	1.91	128.89	3.15
2018/07/21 07:01	1.94	133.54	3.19
2018/07/21 07:16	2.00	142.08	3.26
2018/07/21 07:31	2.14	162.99	3.39
2018/07/21 07:46	2.14	163.75	3.41
2018/07/21 08:01	2.28	195.90	3.72
2018/07/21 08:16	2.43	222.22	3.84
2018/07/21 08:31	2.69	274.30	4.09
2018/07/21 08:46	2.76	291.18	4.18
2018/07/21 09:01	2.80	304.10	4.27
2018/07/21 09:16	3.12	381.04	4.59
2018/07/21 09:31	3.15	386.25	4.59

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/21 09:46	3.22	403.89	4.66
2018/07/21 10:01	3.25	413.05	4.70
2018/07/21 10:16	3.39	451.60	4.85
2018/07/21 10:31	3.47	472.78	4.90
2018/07/21 10:46	3.48	477.29	4.92
2018/07/21 11:01	3.51	484.86	4.94
2018/07/21 11:16	3.66	538.05	5.16
2018/07/21 11:31	3.69	547.91	5.20
2018/07/21 11:46	3.69	547.91	5.20
2018/07/21 12:01	3.66	538.05	5.16
2018/07/21 12:16	3.65	532.15	5.13
2018/07/21 12:31	3.64	528.26	5.12
2018/07/21 12:46	3.64	525.00	5.09
2018/07/21 13:01	3.62	521.87	5.09
2018/07/21 13:16	3.62	517.08	5.04
2018/07/21 13:31	3.55	493.61	4.95
2018/07/21 13:46	3.55	493.61	4.95
2018/07/21 14:01	3.47	472.78	4.90
2018/07/21 14:16	3.47	472.78	4.90
2018/07/21 14:31	3.39	452.29	4.85
2018/07/21 14:46	3.50	478.61	4.91
2018/07/21 15:01	3.32	432.78	4.78
2018/07/21 15:16	3.32	431.18	4.76
2018/07/21 15:31	3.30	425.21	4.73
2018/07/21 15:46	3.29	422.71	4.73
2018/07/21 16:01	3.29	422.71	4.73
2018/07/21 16:16	3.29	422.71	4.73
2018/07/21 16:31	3.29	422.71	4.73
2018/07/21 16:46	3.34	439.93	4.80
2018/07/21 17:01	3.34	439.93	4.80
2018/07/21 17:16	3.34	440.69	4.81
2018/07/21 17:31	3.36	443.54	4.82
2018/07/21 17:46	3.46	468.33	4.88
2018/07/21 18:01	3.36	443.54	4.82
2018/07/21 18:16	3.36	443.54	4.82
2018/07/21 18:31	3.36	443.54	4.82
2018/07/21 18:46	3.46	468.33	4.88
2018/07/21 19:01	3.51	479.72	4.89
2018/07/21 19:16	3.54	489.72	4.94
2018/07/21 19:31	3.57	504.30	5.03
2018/07/21 19:46	3.57	504.30	5.03
2018/07/21 20:01	3.57	504.30	5.03
2018/07/21 20:16	3.47	470.42	4.88
2018/07/21 20:31	3.41	458.68	4.86
2018/07/21 20:46	3.40	455.07	4.85

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/21 21:01	3.41	458.68	4.86
2018/07/21 21:16	3.40	455.07	4.85
2018/07/21 21:31	3.33	434.79	4.78
2018/07/21 21:46	3.27	418.75	4.71
2018/07/21 22:01	3.27	418.75	4.71
2018/07/21 22:16	3.23	409.37	4.69
2018/07/21 22:31	3.23	407.08	4.66
2018/07/21 22:46	3.22	400.35	4.62
2018/07/21 23:01	3.22	404.65	4.66
2018/07/21 23:16	3.22	404.65	4.66
2018/07/21 23:31	3.21	399.51	4.63
2018/07/21 23:46	3.19	397.08	4.63
2018/07/22 00:01	3.19	397.08	4.63
2018/07/22 00:16	3.19	397.08	4.63
2018/07/22 00:31	3.08	368.40	4.52
2018/07/22 00:46	3.00	349.24	4.46
2018/07/22 01:01	2.96	341.87	4.45
2018/07/22 01:16	2.80	312.78	4.40
2018/07/22 01:31	2.78	302.15	4.31
2018/07/22 01:46	2.71	283.26	4.19
2018/07/22 02:01	2.71	279.93	4.14
2018/07/22 02:16	2.69	274.86	4.10
2018/07/22 02:31	2.53	237.22	3.87
2018/07/22 02:46	2.34	208.54	3.79
2018/07/22 03:01	2.28	195.07	3.71
2018/07/22 03:16	2.15	167.43	3.45
2018/07/22 03:31	2.11	160.90	3.41
2018/07/22 03:46	2.05	151.46	3.34
2018/07/22 04:01	2.03	146.46	3.29
2018/07/22 04:16	1.91	129.17	3.15
2018/07/22 04:31	1.91	128.47	3.14
2018/07/22 04:46	1.90	127.08	3.14
2018/07/22 05:01	1.90	127.08	3.14
2018/07/22 05:16	1.90	127.08	3.14
2018/07/22 05:31	1.90	126.67	3.13
2018/07/22 05:46	1.87	123.54	3.12
2018/07/22 06:01	1.87	123.54	3.12
2018/07/22 06:16	1.90	126.46	3.12
2018/07/22 06:31	1.90	126.46	3.12
2018/07/22 06:46	1.93	129.17	3.12
2018/07/22 07:01	1.98	140.90	3.27
2018/07/22 07:16	2.01	145.83	3.31
2018/07/22 07:31	2.12	161.32	3.39
2018/07/22 07:46	2.16	169.17	3.45
2018/07/22 08:01	2.23	188.68	3.68

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/22 08:16	2.34	207.22	3.77
2018/07/22 08:31	2.62	256.39	3.97
2018/07/22 08:46	2.71	274.79	4.06
2018/07/22 09:01	2.78	303.05	4.32
2018/07/22 09:16	2.94	334.17	4.38
2018/07/22 09:31	3.02	352.15	4.44
2018/07/22 09:46	3.25	410.00	4.67
2018/07/22 10:01	3.29	425.62	4.76
2018/07/22 10:16	3.34	437.50	4.78
2018/07/22 10:31	3.43	463.26	4.89
2018/07/22 10:46	3.52	489.44	4.96
2018/07/22 11:01	3.55	498.33	5.00
2018/07/22 11:16	3.55	498.33	5.00
2018/07/22 11:31	3.58	505.21	5.01
2018/07/22 11:46	3.58	505.21	5.01
2018/07/22 12:01	3.64	529.58	5.14
2018/07/22 12:16	3.66	536.66	5.15
2018/07/22 12:31	3.66	536.66	5.15
2018/07/22 12:46	3.66	535.62	5.14
2018/07/22 13:01	3.64	529.93	5.14
2018/07/22 13:16	3.59	521.32	5.14
2018/07/22 13:31	3.58	510.76	5.06
2018/07/22 13:46	3.54	495.00	4.99
2018/07/22 14:01	3.47	475.14	4.93
2018/07/22 14:16	3.39	447.43	4.80
2018/07/22 14:31	3.39	447.43	4.80
2018/07/22 14:46	3.46	466.53	4.86
2018/07/22 15:01	3.39	453.26	4.86
2018/07/22 15:16	3.39	453.26	4.86
2018/07/22 15:31	3.39	453.26	4.86
2018/07/22 15:46	3.37	447.92	4.83
2018/07/22 16:01	3.34	440.55	4.81
2018/07/22 16:16	3.37	445.76	4.81
2018/07/22 16:31	3.32	433.68	4.79
2018/07/22 16:46	3.23	409.65	4.69
2018/07/22 17:01	3.23	409.65	4.69
2018/07/22 17:16	3.30	428.61	4.76
2018/07/22 17:31	3.30	428.61	4.76
2018/07/22 17:46	3.32	432.98	4.79
2018/07/22 18:01	3.39	446.39	4.79
2018/07/22 18:16	3.39	450.00	4.83
2018/07/22 18:31	3.44	467.01	4.90
2018/07/22 18:46	3.44	467.01	4.90
2018/07/22 19:01	3.39	450.00	4.83
2018/07/22 19:16	3.33	436.39	4.79

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/22 19:31	3.33	436.39	4.79
2018/07/22 19:46	3.32	432.08	4.78
2018/07/22 20:01	3.33	436.39	4.79
2018/07/22 20:16	3.36	445.97	4.84
2018/07/22 20:31	3.36	445.97	4.84
2018/07/22 20:46	3.27	424.65	4.78
2018/07/22 21:01	3.27	425.14	4.78
2018/07/22 21:16	3.27	424.65	4.78
2018/07/22 21:31	3.27	424.65	4.78
2018/07/22 21:46	3.27	424.65	4.78
2018/07/22 22:01	3.26	413.75	4.68
2018/07/22 22:16	3.26	413.75	4.68
2018/07/22 22:31	3.26	416.60	4.72
2018/07/22 22:46	3.23	407.98	4.68
2018/07/22 23:01	3.26	416.60	4.72
2018/07/22 23:16	3.29	429.30	4.80
2018/07/22 23:31	3.29	429.30	4.80
2018/07/22 23:46	3.25	413.82	4.71
2018/07/23 00:01	3.25	413.82	4.71
2018/07/23 00:16	3.22	397.98	4.59
2018/07/23 00:31	3.02	357.64	4.51
2018/07/23 00:46	2.89	326.32	4.40
2018/07/23 01:01	2.82	309.30	4.32
2018/07/23 01:16	2.80	304.24	4.28
2018/07/23 01:31	2.71	272.99	4.04
2018/07/23 01:46	2.62	255.07	3.95
2018/07/23 02:01	2.55	245.07	3.94
2018/07/23 02:16	2.33	203.89	3.74
2018/07/23 02:31	2.21	178.89	3.55
2018/07/23 02:46	2.18	172.64	3.49
2018/07/23 03:01	2.18	168.40	3.41
2018/07/23 03:16	2.18	168.40	3.41
2018/07/23 03:31	2.18	168.40	3.41
2018/07/23 03:46	2.14	160.97	3.35
2018/07/23 04:01	2.14	160.97	3.35
2018/07/23 04:16	2.00	142.85	3.28
2018/07/23 04:31	1.98	141.39	3.28
2018/07/23 04:46	1.94	136.32	3.26
2018/07/23 05:01	1.94	135.00	3.23
2018/07/23 05:16	1.93	130.76	3.16
2018/07/23 05:31	1.93	130.76	3.16
2018/07/23 05:46	1.90	127.15	3.14
2018/07/23 06:01	1.93	130.76	3.16
2018/07/23 06:16	1.93	130.35	3.15
2018/07/23 06:31	1.93	130.35	3.15

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/23 06:46	1.93	133.12	3.22
2018/07/23 07:01	2.11	160.07	3.40
2018/07/23 07:16	2.16	166.74	3.41
2018/07/23 07:31	2.23	188.68	3.68
2018/07/23 07:46	2.39	216.32	3.83
2018/07/23 08:01	2.71	276.53	4.09
2018/07/23 08:16	2.89	327.64	4.42
2018/07/23 08:31	3.19	394.17	4.60
2018/07/23 08:46	3.25	407.71	4.64
2018/07/23 09:01	3.47	468.61	4.86
2018/07/23 09:16	3.52	492.01	4.99
2018/07/23 09:31	3.59	515.62	5.08
2018/07/23 09:46	3.75	563.05	5.23
2018/07/23 10:01	3.75	569.30	5.29
2018/07/23 10:16	3.75	569.30	5.29
2018/07/23 10:31	3.72	557.15	5.23
2018/07/23 10:46	3.72	557.15	5.23
2018/07/23 11:01	3.69	555.28	5.27
2018/07/23 11:16	3.69	546.39	5.19
2018/07/23 11:31	3.69	555.28	5.27
2018/07/23 11:46	3.69	555.28	5.27
2018/07/23 12:01	3.64	531.87	5.16
2018/07/23 12:16	3.59	512.08	5.05
2018/07/23 12:31	3.64	528.26	5.12
2018/07/23 12:46	3.59	512.08	5.05
2018/07/23 13:01	3.52	490.28	4.97
2018/07/23 13:16	3.40	455.07	4.85
2018/07/23 13:31	3.36	443.54	4.82
2018/07/23 13:46	3.36	437.98	4.75
2018/07/23 14:01	3.36	437.98	4.75
2018/07/23 14:16	3.32	430.28	4.75
2018/07/23 14:31	3.32	432.85	4.78
2018/07/23 14:46	3.33	435.62	4.79
2018/07/23 15:01	3.33	435.62	4.79
2018/07/23 15:16	3.32	432.85	4.78
2018/07/23 15:31	3.32	426.60	4.71
2018/07/23 15:46	3.27	416.04	4.68
2018/07/23 16:01	3.27	416.04	4.68
2018/07/23 16:16	3.21	400.48	4.65
2018/07/23 16:31	3.16	389.65	4.61
2018/07/23 16:46	3.14	383.75	4.59
2018/07/23 17:01	3.16	389.65	4.61
2018/07/23 17:16	3.15	387.22	4.61
2018/07/23 17:31	3.15	387.22	4.61
2018/07/23 17:46	3.14	383.75	4.59

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/23 18:01	3.15	384.93	4.58
2018/07/23 18:16	3.15	384.93	4.58
2018/07/23 18:31	3.15	384.93	4.58
2018/07/23 18:46	3.15	384.93	4.58
2018/07/23 19:01	3.15	384.93	4.58
2018/07/23 19:16	3.19	394.93	4.61
2018/07/23 19:31	3.19	394.93	4.61
2018/07/23 19:46	3.19	394.93	4.61
2018/07/23 20:01	3.30	426.94	4.75
2018/07/23 20:16	3.33	435.62	4.79
2018/07/23 20:31	3.44	467.01	4.90
2018/07/23 20:46	3.44	467.01	4.90
2018/07/23 21:01	3.44	467.01	4.90
2018/07/23 21:16	3.40	456.04	4.86
2018/07/23 21:31	3.36	445.07	4.83
2018/07/23 21:46	3.34	440.69	4.81
2018/07/23 22:01	3.33	435.62	4.79
2018/07/23 22:16	3.30	429.23	4.77
2018/07/23 22:31	3.30	429.23	4.77
2018/07/23 22:46	3.30	429.23	4.77
2018/07/23 23:01	3.30	429.23	4.77
2018/07/23 23:16	3.34	439.10	4.80
2018/07/23 23:31	3.34	439.10	4.80
2018/07/23 23:46	3.34	439.10	4.80
2018/07/24 00:01	3.30	431.32	4.80
2018/07/24 00:16	3.30	425.35	4.73
2018/07/24 00:31	3.08	371.25	4.56
2018/07/24 00:46	2.93	334.93	4.42
2018/07/24 01:01	2.79	295.21	4.18
2018/07/24 01:16	2.66	269.93	4.08
2018/07/24 01:31	2.57	244.30	3.90
2018/07/24 01:46	2.21	179.24	3.56
2018/07/24 02:01	2.21	179.24	3.56
2018/07/24 02:16	2.21	177.99	3.54
2018/07/24 02:31	2.16	171.04	3.49
2018/07/24 02:46	2.15	168.68	3.48
2018/07/24 03:01	2.12	162.50	3.41
2018/07/24 03:16	1.98	139.44	3.23
2018/07/24 03:31	1.93	130.35	3.15
2018/07/24 03:46	1.90	126.81	3.13
2018/07/24 04:01	1.90	126.81	3.13
2018/07/24 04:16	1.93	130.35	3.15
2018/07/24 04:31	1.93	131.53	3.18
2018/07/24 04:46	1.94	132.92	3.18
2018/07/24 05:01	1.94	133.26	3.19

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/24 05:16	1.94	133.89	3.20
2018/07/24 05:31	1.90	129.10	3.19
2018/07/24 05:46	1.93	131.87	3.19
2018/07/24 06:01	1.90	129.10	3.19
2018/07/24 06:16	1.93	131.87	3.19
2018/07/24 06:31	1.93	131.87	3.19
2018/07/24 06:46	1.96	135.76	3.21
2018/07/24 07:01	2.15	167.78	3.46
2018/07/24 07:16	2.18	173.19	3.51
2018/07/24 07:31	2.34	206.32	3.75
2018/07/24 07:46	2.46	227.08	3.86
2018/07/24 08:01	2.62	255.28	3.95
2018/07/24 08:16	3.11	372.92	4.52
2018/07/24 08:31	3.12	382.50	4.61
2018/07/24 08:46	3.32	429.58	4.75
2018/07/24 09:01	3.54	495.00	4.99
2018/07/24 09:16	3.59	514.72	5.08
2018/07/24 09:31	3.62	525.14	5.12
2018/07/24 09:46	3.75	564.79	5.25
2018/07/24 10:01	3.75	564.79	5.25
2018/07/24 10:16	3.75	566.04	5.26
2018/07/24 10:31	3.71	555.90	5.25
2018/07/24 10:46	3.68	543.40	5.19
2018/07/24 11:01	3.68	543.40	5.19
2018/07/24 11:16	3.65	532.15	5.13
2018/07/24 11:31	3.57	506.04	5.04
2018/07/24 11:46	3.55	501.39	5.03
2018/07/24 12:01	3.55	501.39	5.03
2018/07/24 12:16	3.51	486.53	4.96
2018/07/24 12:31	3.48	479.86	4.95
2018/07/24 12:46	3.48	479.86	4.95
2018/07/24 13:01	3.40	454.37	4.85
2018/07/24 13:16	3.29	425.00	4.75
2018/07/24 13:31	3.29	426.04	4.76
2018/07/24 13:46	3.27	422.43	4.75
2018/07/24 14:01	3.25	417.22	4.75
2018/07/24 14:16	3.25	417.22	4.75
2018/07/24 14:31	3.23	407.98	4.68
2018/07/24 14:46	3.16	391.73	4.63
2018/07/24 15:01	3.15	385.55	4.59
2018/07/24 15:16	3.15	385.55	4.59
2018/07/24 15:31	3.12	376.39	4.53
2018/07/24 15:46	3.12	376.39	4.53
2018/07/24 16:01	3.12	376.87	4.54
2018/07/24 16:16	3.15	386.25	4.59

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/24 16:31	3.15	386.25	4.59
2018/07/24 16:46	3.15	386.25	4.59
2018/07/24 17:01	3.16	390.42	4.61
2018/07/24 17:16	3.16	390.42	4.61
2018/07/24 17:31	3.07	366.25	4.53
2018/07/24 17:46	3.04	361.18	4.52
2018/07/24 18:01	3.07	365.90	4.52
2018/07/24 18:16	3.07	365.90	4.52
2018/07/24 18:31	3.07	365.90	4.52
2018/07/24 18:46	3.00	348.89	4.45
2018/07/24 19:01	3.16	390.42	4.61
2018/07/24 19:16	3.27	418.47	4.71
2018/07/24 19:31	3.23	407.98	4.68
2018/07/24 19:46	3.23	410.14	4.70
2018/07/24 20:01	3.23	410.14	4.70
2018/07/24 20:16	3.23	410.14	4.70
2018/07/24 20:31	3.23	410.14	4.70
2018/07/24 20:46	3.41	459.79	4.88
2018/07/24 21:01	3.41	459.79	4.88
2018/07/24 21:16	3.41	459.79	4.88
2018/07/24 21:31	3.41	459.79	4.88
2018/07/24 21:46	3.40	455.76	4.86
2018/07/24 22:01	3.39	451.73	4.85
2018/07/24 22:16	3.39	451.73	4.85
2018/07/24 22:31	3.40	454.37	4.85
2018/07/24 22:46	3.39	450.69	4.84
2018/07/24 23:01	3.39	450.69	4.84
2018/07/24 23:16	3.40	453.61	4.84
2018/07/24 23:31	3.40	453.61	4.84
2018/07/24 23:46	3.39	448.40	4.81
2018/07/25 00:01	3.39	448.40	4.81
2018/07/25 00:16	3.16	390.14	4.61
2018/07/25 00:31	3.15	384.30	4.57
2018/07/25 00:46	3.11	374.93	4.54
2018/07/25 01:01	2.98	348.05	4.47
2018/07/25 01:16	2.75	289.58	4.19
2018/07/25 01:31	2.71	274.79	4.06
2018/07/25 01:46	2.36	209.51	3.78
2018/07/25 02:01	2.30	199.72	3.73
2018/07/25 02:16	2.26	191.46	3.67
2018/07/25 02:31	2.18	172.85	3.50
2018/07/25 02:46	2.15	166.25	3.43
2018/07/25 03:01	1.98	141.60	3.28
2018/07/25 03:16	1.93	130.76	3.16
2018/07/25 03:31	1.93	130.28	3.15

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/25 03:46	1.91	128.68	3.14
2018/07/25 04:01	1.91	128.68	3.14
2018/07/25 04:16	1.91	128.68	3.14
2018/07/25 04:31	1.82	113.26	2.98
2018/07/25 04:46	1.80	110.42	2.94
2018/07/25 05:01	1.78	105.97	2.89
2018/07/25 05:16	1.78	105.97	2.89
2018/07/25 05:31	1.78	105.97	2.89
2018/07/25 05:46	1.79	109.93	2.96
2018/07/25 06:01	1.80	111.67	2.97
2018/07/25 06:16	1.90	126.46	3.12
2018/07/25 06:31	1.93	131.67	3.18
2018/07/25 06:46	1.93	133.40	3.22
2018/07/25 07:01	2.15	166.67	3.44
2018/07/25 07:16	2.18	173.19	3.51
2018/07/25 07:31	2.19	176.25	3.53
2018/07/25 07:46	2.34	204.03	3.71
2018/07/25 08:01	2.75	288.40	4.17
2018/07/25 08:16	2.82	310.76	4.34
2018/07/25 08:31	3.04	361.53	4.53
2018/07/25 08:46	3.23	406.46	4.66
2018/07/25 09:01	3.48	482.36	4.97
2018/07/25 09:16	3.66	539.86	5.18
2018/07/25 09:31	3.71	549.93	5.19
2018/07/25 09:46	3.71	552.85	5.22
2018/07/25 10:01	3.71	552.85	5.22
2018/07/25 10:16	3.71	552.85	5.22
2018/07/25 10:31	3.62	520.83	5.08
2018/07/25 10:46	3.62	520.83	5.08
2018/07/25 11:01	3.62	520.83	5.08
2018/07/25 11:16	3.57	509.58	5.08
2018/07/25 11:31	3.57	503.47	5.02
2018/07/25 11:46	3.57	503.47	5.02
2018/07/25 12:01	3.55	500.42	5.02
2018/07/25 12:16	3.54	495.76	5.00
2018/07/25 12:31	3.43	464.93	4.90
2018/07/25 12:46	3.43	464.93	4.90
2018/07/25 13:01	3.41	457.15	4.85
2018/07/25 13:16	3.40	454.51	4.85
2018/07/25 13:31	3.41	457.15	4.85
2018/07/25 13:46	3.40	453.82	4.84
2018/07/25 14:01	3.40	452.78	4.83
2018/07/25 14:16	3.30	421.46	4.69
2018/07/25 14:31	3.25	411.39	4.69
2018/07/25 14:46	3.19	400.00	4.67

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/25 15:01	3.12	381.04	4.59
2018/07/25 15:16	3.04	358.75	4.49
2018/07/25 15:31	3.12	381.04	4.59
2018/07/25 15:46	3.12	381.04	4.59
2018/07/25 16:01	3.15	391.39	4.65
2018/07/25 16:16	3.15	391.39	4.65
2018/07/25 16:31	3.15	391.39	4.65
2018/07/25 16:46	2.86	320.97	4.39
2018/07/25 17:01	2.86	320.97	4.39
2018/07/25 17:16	2.86	320.97	4.39
2018/07/25 17:31	2.94	337.36	4.42
2018/07/25 17:46	2.94	340.00	4.46
2018/07/25 18:01	2.94	340.00	4.46
2018/07/25 18:16	2.94	340.00	4.46
2018/07/25 18:31	3.07	369.79	4.57
2018/07/25 18:46	3.09	374.65	4.57
2018/07/25 19:01	3.09	374.58	4.57
2018/07/25 19:16	3.15	384.30	4.57
2018/07/25 19:31	3.15	384.30	4.57
2018/07/25 19:46	3.15	386.25	4.59
2018/07/25 20:01	3.21	396.04	4.59
2018/07/25 20:16	3.21	402.01	4.66
2018/07/25 20:31	3.32	426.60	4.71
2018/07/25 20:46	3.32	433.82	4.79
2018/07/25 21:01	3.39	446.73	4.79
2018/07/25 21:16	3.39	446.73	4.79
2018/07/25 21:31	3.39	447.43	4.80
2018/07/25 21:46	3.39	447.43	4.80
2018/07/25 22:01	3.34	439.37	4.80
2018/07/25 22:16	3.34	439.37	4.80
2018/07/25 22:31	3.30	431.60	4.80
2018/07/25 22:46	3.30	427.71	4.75
2018/07/25 23:01	3.23	411.80	4.72
2018/07/25 23:16	3.23	409.23	4.69
2018/07/25 23:31	3.23	409.23	4.69
2018/07/25 23:46	3.23	409.23	4.69
2018/07/26 00:01	3.21	401.53	4.66
2018/07/26 00:16	3.07	367.29	4.54
2018/07/26 00:31	2.98	352.08	4.53
2018/07/26 00:46	2.86	320.97	4.39
2018/07/26 01:01	2.82	309.51	4.32
2018/07/26 01:16	2.79	303.61	4.30
2018/07/26 01:31	2.58	247.43	3.92
2018/07/26 01:46	2.37	212.29	3.80
2018/07/26 02:01	2.36	209.72	3.78

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/26 02:16	2.33	201.25	3.69
2018/07/26 02:31	2.21	174.24	3.46
2018/07/26 02:46	2.16	169.51	3.46
2018/07/26 03:01	2.16	169.51	3.46
2018/07/26 03:16	2.09	158.82	3.40
2018/07/26 03:31	2.05	150.97	3.33
2018/07/26 03:46	2.05	150.97	3.33
2018/07/26 04:01	2.05	150.97	3.33
2018/07/26 04:16	2.03	147.36	3.31
2018/07/26 04:31	2.03	147.36	3.31
2018/07/26 04:46	1.90	128.47	3.17
2018/07/26 05:01	2.03	146.25	3.29
2018/07/26 05:16	1.90	128.47	3.17
2018/07/26 05:31	1.90	128.47	3.17
2018/07/26 05:46	1.93	132.08	3.19
2018/07/26 06:01	1.94	134.24	3.21
2018/07/26 06:16	1.94	134.24	3.21
2018/07/26 06:31	1.97	139.03	3.26
2018/07/26 06:46	2.05	152.36	3.36
2018/07/26 07:01	2.11	170.56	3.62
2018/07/26 07:16	2.28	192.57	3.66
2018/07/26 07:31	2.29	195.49	3.68
2018/07/26 07:46	2.55	243.33	3.91
2018/07/26 08:01	2.72	279.24	4.10
2018/07/26 08:16	2.97	343.61	4.45
2018/07/26 08:31	3.14	385.14	4.61
2018/07/26 08:46	3.41	457.98	4.86
2018/07/26 09:01	3.48	484.03	4.99
2018/07/26 09:16	3.65	531.60	5.13
2018/07/26 09:31	3.68	537.91	5.13
2018/07/26 09:46	3.69	546.11	5.19
2018/07/26 10:01	3.77	569.44	5.24
2018/07/26 10:16	3.77	573.68	5.28
2018/07/26 10:31	3.77	574.30	5.28
2018/07/26 10:46	3.77	574.30	5.28
2018/07/26 11:01	3.77	574.30	5.28
2018/07/26 11:16	3.62	527.92	5.15
2018/07/26 11:31	3.59	514.58	5.07
2018/07/26 11:46	3.58	511.04	5.07
2018/07/26 12:01	3.58	509.03	5.05
2018/07/26 12:16	3.58	509.03	5.05
2018/07/26 12:31	3.36	445.07	4.83
2018/07/26 12:46	3.36	445.07	4.83
2018/07/26 13:01	3.25	412.29	4.70
2018/07/26 13:16	3.30	428.47	4.76

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/26 13:31	3.30	426.25	4.74
2018/07/26 13:46	3.30	427.98	4.76
2018/07/26 14:01	3.30	427.98	4.76
2018/07/26 14:16	3.30	427.98	4.76
2018/07/26 14:31	3.27	422.36	4.75
2018/07/26 14:46	3.26	419.79	4.75
2018/07/26 15:01	3.27	422.36	4.75
2018/07/26 15:16	3.26	415.07	4.70
2018/07/26 15:31	3.26	415.07	4.70
2018/07/26 15:46	3.25	409.23	4.66
2018/07/26 16:01	3.04	362.92	4.54
2018/07/26 16:16	3.04	362.92	4.54
2018/07/26 16:31	3.05	364.72	4.54
2018/07/26 16:46	3.05	368.89	4.59
2018/07/26 17:01	3.05	364.72	4.54
2018/07/26 17:16	3.05	368.89	4.59
2018/07/26 17:31	3.05	367.85	4.58
2018/07/26 17:46	3.08	373.68	4.59
2018/07/26 18:01	3.14	387.98	4.64
2018/07/26 18:16	3.21	405.76	4.71
2018/07/26 18:31	3.21	405.76	4.71
2018/07/26 18:46	3.26	416.73	4.72
2018/07/26 19:01	3.27	419.23	4.72
2018/07/26 19:16	3.40	454.37	4.85
2018/07/26 19:31	3.40	454.37	4.85
2018/07/26 19:46	3.40	454.37	4.85
2018/07/26 20:01	3.27	425.28	4.79
2018/07/26 20:16	3.27	425.28	4.79
2018/07/26 20:31	3.26	418.75	4.74
2018/07/26 20:46	3.27	425.28	4.79
2018/07/26 21:01	3.27	425.28	4.79
2018/07/26 21:16	3.27	422.36	4.75
2018/07/26 21:31	3.23	409.65	4.69
2018/07/26 21:46	3.27	414.58	4.66
2018/07/26 22:01	3.23	407.08	4.66
2018/07/26 22:16	3.23	407.98	4.68
2018/07/26 22:31	3.23	407.98	4.68
2018/07/26 22:46	3.23	407.98	4.68
2018/07/26 23:01	3.23	411.18	4.71
2018/07/26 23:16	3.23	411.18	4.71
2018/07/26 23:31	3.22	406.11	4.68
2018/07/26 23:46	3.12	382.50	4.61
2018/07/27 00:01	3.11	375.62	4.55
2018/07/27 00:16	2.97	346.94	4.49
2018/07/27 00:31	2.91	333.75	4.44

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/27 00:46	2.86	320.35	4.38
2018/07/27 01:01	2.79	301.67	4.27
2018/07/27 01:16	2.78	296.04	4.22
2018/07/27 01:31	2.78	295.90	4.22
2018/07/27 01:46	2.53	237.22	3.87
2018/07/27 02:01	2.32	202.57	3.75
2018/07/27 02:16	2.26	190.62	3.65
2018/07/27 02:31	2.18	176.60	3.57
2018/07/27 02:46	2.18	170.76	3.46
2018/07/27 03:01	2.05	151.11	3.33
2018/07/27 03:16	2.03	147.99	3.33
2018/07/27 03:31	2.03	147.99	3.33
2018/07/27 03:46	2.00	143.54	3.29
2018/07/27 04:01	1.96	135.42	3.20
2018/07/27 04:16	1.96	135.42	3.20
2018/07/27 04:31	1.96	135.42	3.20
2018/07/27 04:46	1.90	127.71	3.15
2018/07/27 05:01	1.89	125.83	3.14
2018/07/27 05:16	1.82	117.85	3.11
2018/07/27 05:31	1.82	117.85	3.11
2018/07/27 05:46	1.84	121.81	3.14
2018/07/27 06:01	1.84	120.69	3.11
2018/07/27 06:16	1.89	126.04	3.14
2018/07/27 06:31	1.94	132.99	3.18
2018/07/27 06:46	1.96	134.93	3.19
2018/07/27 07:01	1.96	135.42	3.20
2018/07/27 07:16	2.03	147.36	3.31
2018/07/27 07:31	2.03	147.71	3.32
2018/07/27 07:46	2.48	230.14	3.85
2018/07/27 08:01	2.64	259.03	3.98
2018/07/27 08:16	2.80	298.68	4.20
2018/07/27 08:31	2.93	334.93	4.42
2018/07/27 08:46	3.15	387.15	4.60
2018/07/27 09:01	3.23	411.18	4.71
2018/07/27 09:16	3.47	469.30	4.86
2018/07/27 09:31	3.51	480.55	4.90
2018/07/27 09:46	3.58	504.58	5.00
2018/07/27 10:01	3.65	527.64	5.09
2018/07/27 10:16	3.71	542.85	5.13
2018/07/27 10:31	3.72	554.72	5.21
2018/07/27 10:46	3.72	554.72	5.21
2018/07/27 11:01	3.71	551.80	5.21
2018/07/27 11:16	3.68	537.29	5.13
2018/07/27 11:31	3.57	505.21	5.04
2018/07/27 11:46	3.57	491.11	4.90

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2018/07/27 12:01	3.57	477.43	4.76
2018/07/27 12:16	3.57	464.03	4.63

Appendix D

Sewer Generation Factor (LA)

SEWERAGE FACILITIES CHARGE
SEWAGE GENERATION FACTOR FOR
RESIDENTIAL AND COMMERCIAL CATEGORIES

EFFECTIVE DATE: April 6, 2012

Line No.	**FACILITY DESCRIPTION**	**PROPOSED SGF IN GPD**	**BOD (mg/l)**	**SS (mg/l)**
1	Acupuncture Office/Clinic	120/1,000 Gr SF	265	275
2	Arcade - Video Games	50/1,000 Gr SF	265	275
3	Auditorium (a)	3/Seat	265	275
4	Auto Parking (a)	20/1,000 Gr SF	265	275
5	Auto Mfg., Service Maintenance (b)	Actual	1,260	1,165
6	Bakery	280/1,000 Gr SF	3,020	2,540
7	Bank: Headquarters	120/1,000 Gr SF	265	275
8	Bank: Branch	50/1,000 Gr SF	265	275
9	Ballroom	350/1,000 Gr SF	265	275
10	Banquet Room	350/1,000 Gr SF	265	275
11	Bar: Cocktail, Fixed Set (a) (c)	15/Seat	265	275
12	Bar: Juice, No Baking Facilities (d)	720/1,000 Gr SF	265	275
13	Bar: Juice, with Baking Facilities (d)	720/1,000 Gr SF	265	275
14	Bar: Cocktail, Public Table Area (c)	720/1,000 Gr SF	265	275
15	Barber Shop	120/1,000 Gr SF	265	275
16	Barber Shop (s)	15/Stall	265	275
17	Beauty Parlor	425/1,000 Gr SF	265	275
18	Beauty Parlor (s)	50/Stall	265	275
19	Bldg. Const/Field Office (e)	120/Office	265	275
20	Bowling Alley: Alley, Lanes & Lobby Area	50/1,000 Gr SF	265	275
21	Bowling Facility: Arcade/Bar/Restaurant/Dancing	Total	Average	Average
22	Cafeteria: Fixed Seat	30/Seat	1,000	600
23	Car Wash: Automatic (b)	Actual	265	285
24	Car Wash: Coin Operated Bays (b)	Actual	265	285
25	Car Wash: Hand Wash (b)	Actual	265	285
26	Car Wash: Counter & Sales Area	50/1,000 Gr SF	265	275
27	Chapel: Fixed Seat	3/Seat	265	275
28	Chiropractic Office	120/1,000 Gr SF	265	275
29	Church: Fixed Seat	3/Seat	265	275
30	Church School: Day Care/Elem	9/Occupant	265	275
31	Church School: One Day Use (s)	9/Occupant	265	275
32	Cocktail Lounge: Fixed Seat (f)	15/Seat	265	275
33	Coffee House: No Food Preparation (d)	720/1,000 Gr SF	265	275
34	Coffee House: Pastry Baking Only (d)	720/1,000 Gr SF	265	275
35	Coffee House: Serves Prepared Food (d)	25/Seat	1,000	600
36	Cold Storage: No Sales (g)	30/1,000 Gr SF	265	275
37	Cold Storage: Retail Sales (g)	50/1,000 Gr SF	265	275
38	Comfort Station: Public	80/Fixture	265	275
39	Commercial Use (a)	50/1,000 Gr SF	265	275

SEWERAGE FACILITIES CHARGE
SEWAGE GENERATION FACTOR FOR
RESIDENTIAL AND COMMERCIAL CATEGORIES

EFFECTIVE DATE: April 6, 2012

Line No.	FACILITY DESCRIPTION	PROPOSED SGF IN GPD	BOD (mg/l)	SS (mg/l)
40	Community Center	3/Occupant	265	275
41	Conference Room of Office Bldg.	120/1,000 Gr SF	265	275
42	Counseling Center (h)	120/1,000 Gr SF	265	275
43	Credit Union	120/1,000 Gr SF	265	275
44	Dairy	Average Flow	1,510	325
45	Dairy: Barn	Average Flow	1,510	325
46	Dairy: Retail Area	50/1,000 Gr SF	265	275
47	Dancing Area (of Bars or Nightclub) (c)	350/1,000 Gr SF	265	275
48	Dance Studio (i)	50/1,000 Gr SF	265	275
49	Dental Office/Clinic	250/1,000 Gr SF	265	275
50	Doughnut Shop	280/1,000 Gr SF	1,000	600
51	Drug Rehabilitation Center (h)	120/1,000 Gr SF	265	275
52	Equipment Booth	30/1,000 Gr SF	265	275
53	Film Processing (Retail)	50/1,000 Gr SF	265	275
54	Film Processing (Industrial)	Actual	265	275
55	Food Processing Plant (b)	Actual	2,210	1,450
56	Gas Station: Self Service	100/W.C.	265	275
57	Gas Station: Four Bays Max	430/Station	1,950	1,175
58	Golf Course Facility: Lobby/Office/Restaurant/Bar	Total	700	450
59	Gymnasium: Basketball, Volleyball (k)	200/1,000 Gr SF	265	275
60	Hanger (Aircraft)	50/1,000 Gr SF	265	275
61	Health Club/Spa (k)	650/1,000 Gr SF	265	275
62	Homeless Shelter	70/Bed	265	275
63	Hospital	70/Bed	820	1,230
64	Hospital: Convalescent (a)	70/Bed	265	275
65	Hospital: Animal	300/1,000 Gr SF	820	1,230
66	Hospital: Psychiatric	70/Bed	265	275
67	Hospital: Surgical (a)	360/Bed	265	275
68	Hotel: Use Guest Rooms Only (a)	120/Room	265	275
69	Jail	85/Inmate	265	275
70	Kennel: Dog Kennel/Open	100/1,000 Gr SF	265	275
71	Laboratory: Commercial	250/1,000 Gr SF	265	275
72	Laboratory: Industrial	Actual	265	275
73	Laundromat	185/Machine	550	370
74	Library: Public Area	50/1,000 Gr SF	265	275
75	Library: Stacks, Storage	30/1,000 Gr SF	265	275
76	Lobby of Retail Area (l)	50/1,000 Gr SF	265	275
77	Lodge Hall	3/Seat	265	275
78	Lounge (l)	50/1,000 Gr SF	265	275

SEWERAGE FACILITIES CHARGE
SEWAGE GENERATION FACTOR FOR
RESIDENTIAL AND COMMERCIAL CATEGORIES

EFFECTIVE DATE: April 6, 2012

Line No.	FACILITY DESCRIPTION	PROPOSED SGF IN GPD	BOD (mg/l)	SS (mg/l)
79	Machine Shop (No Industrial Waste Permit Required) (b)	50/1,000 Gr SF	265	275
80	Machine Shop (Industrial)	Actual	265	275
81	Mfg or Industrial Facility (No IW Permit Required) (b)	50/1,000 Gr SF	265	275
82	Mfg or Industrial Facility (Industrial)	Actual	265	275
83	Massage Parlor	250/1,000 Gr SF	265	275
84	Medical Building (a)	225/1,000 Gr SF	265	275
85	Medical: Lab in Hospital	250/1,000 Gr SF	340	275
86	Medical Office/Clinic	250/1,000 Gr SF	265	275
87	Mini-Mall (No Food)	50/1,000 Gr SF	265	275
88	Mortuary: Chapel	3/Seat	265	275
89	Mortuary: Embalming	300/1,000 Gr SF	800	800
90	Mortuary: Living Area	50/1,000 Gr SF	265	275
91	Motel: Use Guest Room Only (a)	120/Room	265	275
92	Museum: All Area	30/1,000 Gr SF	265	275
93	Museum: Office Over 15%	120/1,000 Gr SF	265	275
94	Museum: Sales Area	50/1,000 Gr SF	265	275
95	Office Building (a)	120/1,000 Gr SF	265	275
96	Office Bldg w/Cooling Tower	170/1,000 Gr SF	265	275
97	Plating Plant (No IW Permit Required) (b)	50/1,000 Gr SF	265	275
98	Plating Plant (Industrial) (b)	Actual	265	275
99	Pool Hall (No Alcohol)	50/1,000 Gr SF	265	275
100	Post Office: Full Service (m)	120/1,000 Gr SF	265	275
101	Post Office: Private Mail Box Rental	50/1,000 Gr SF	265	275
102	Prisons	175/Inmate	265	275
103	Residential Dorm: College or Residential (n)	70/Student	265	275
104	Residential: Boarding House	70/Bed	265	275
105	Residential: Apt - Bachelor (a)	75/DU	265	275
106	Residential: Apt - 1 BDR (a) (o)	110/DU	265	275
107	Residential: Apt - 2 BDR (a) (o)	150/DU	265	275
108	Residential: Apt - 3 BDR (a) (o)	190/DU	265	275
109	Residential: Apt - >3 BDR (o)	40/BDR	265	275
110	Residential: Condo - 1 BDR (o)	110/DU	265	275
111	Residential: Condo - 2 BDR (o)	150/DU	265	275
112	Residential: Condo - 3 BDR (o)	190/DU	265	275
113	Residential: Condo - >3 BDR (o)	40/BDR	265	275
114	Residential: Duplex/Townhouse - 1 BR (o)	110/DU	265	275
115	Residential: Duplex/Townhouse - 2 BR (o)	150/DU	265	275
116	Residential: Duplex/Townhouse - 3 BR (o)	190/DU	265	275
117	Residential: Duplex/Townhouse - >3 BR (o)	40/BDR	265	275

SEWERAGE FACILITIES CHARGE
SEWAGE GENERATION FACTOR FOR
RESIDENTIAL AND COMMERCIAL CATEGORIES

EFFECTIVE DATE: April 6, 2012

Line No.	FACILITY DESCRIPTION	PROPOSED SGF IN GPD	BOD (mg/l)	SS (mg/l)
118	Residential: SFD - 1 BR (o)	140/DU	265	275
119	Residential: SFD - 2 BR (o)	185/DU	265	275
120	Residential: SFD - 3 BR (o)	230/DU	265	275
121	Residential: SFD - >3 BR (o)	45/BDR	265	275
122	Residential Room Addition: Bedroom (o)	45/BDR	265	275
123	Residential Room Conversion: Into a Bedroom (o)	45/BDR	265	275
124	Residential: Mobile Home	Same as Apt	265	275
125	Residential: Artist (2/3 Area)	75/DU	265	275
126	Residential: Artist Residence	75/DU	265	275
127	Residential: Guest Home w/ Kitchen	Same as Apt	265	275
128	Residential: Guest Home w/o Kitchen	45/BDR	265	275
129	Rest Home	70/Bed	555	490
130	Restaurant: Drive-In	50/Stall	1000	600
131	Restaurant: Drive-In Seating Area	25/Seat	1000	600
132	Restaurant: Fast Food Indoor Seat	25/Seat	1000	600
133	Restaurant: Fast Food Outdoor Seat	25/Seat	1000	600
134	Restaurant: Full Service Indoor Seat (a)	30/Seat	1000	600
135	Restaurant: Full Service Outdoor Seat	30/Seat	1000	600
136	Restaurant: Take Out	300/1,000 Gr SF	1000	600
137	Retail Area (greater than 100,000 SF)	50/1,000 Gr SF	265	275
138	Retail Area (less than 100,000 SF)	25/1,000 Gr SF	265	275
139	Rifle Range: Shooting Stalls/Lanes, Lobby	50/1,000 Gr SF	265	275
140	Rifle Range Facility: Bar/Restaurant	Total	Average	Average
141	School: Arts/Dancing/Music (i)	11/Student	265	275
142	School: Elementary/Jr. High (a) (p)	9/Student	265	275
143	School: High School (a) (p)	11/Student	265	275
144	School: Kindergarten (s)	9/Student	265	275
145	School: Martial Arts (i)	9/Student	265	275
146	School: Nursery-Day Care (p)	9/Child	265	275
147	School: Special Class (p)	9/Student	265	275
148	School: Trade or Vocational (p)	11/Student	265	275
149	School: Training (p)	11/Student	265	275
150	School: University/College (a) (p)	16/Student	265	275
151	School: Dormitory (a) (n)	70/Student	265	275
152	School: Stadium, Pavilion	3/Seat	265	275
153	Spa/Jacuzzi (Commercial with backwash filters)	Total	265	275
154	Storage: Building/Warehouse	30/1,000 Gr SF	265	275
155	Storage: Self-Storage Bldg	30/1,000 Gr SF	265	275
156	Store: Ice Cream/Yogurt	25/1,000 Gr SF	1000	600

SEWERAGE FACILITIES CHARGE
SEWAGE GENERATION FACTOR FOR
RESIDENTIAL AND COMMERCIAL CATEGORIES

EFFECTIVE DATE: April 6, 2012

Line No.	FACILITY DESCRIPTION	PROPOSED SGF IN GPD	BOD (mg/l)	SS (mg/l)
157	Store: Retail (l)	50/1,000 Gr SF	265	275
158	Studio: Film/TV - Audience Viewing Room (q)	3/Seat	265	275
159	Studio: Film/TV - Regular Use Indoor Filming Area (q)	50/1,000 Gr SF	265	275
160	Studio: Film/TV - Ind. Use Film Process/Machine Shop (q)	50/1,000 Gr SF	265	275
161	Studio: Film/TV - Ind. Use Film Process/Machine Shop	Total	265	275
162	Studio: Recording	50/1,000 Gr SF	265	275
163	Swimming Pool (Commercial with backwash filters)	Total	265	275
164	Tanning Salon: Independent, No Shower (r)	50/1,000 Gr SF	265	275
165	Tanning Salon: Within a Health Spa/Club	640/1,000 Gr SF	265	275
166	Theater: Drive-In	6/Vehicle	265	275
167	Theater: Live/Music/Opera	3/Seat	265	275
168	Theater: Cinema	3/Seat	265	275
169	Tract: Commercial/Residential	1/Acre	265	275
170	Trailer: Const/Field Office (e)	120/Office	265	275
171	Veterinary Clinic/Office	250/1,000 Gr SF	265	275
172	Warehouse	30/1,000 Gr SF	265	275
173	Warehouse w/ Office	Total	265	275
174	Waste Dump: Recreational	400/Station	2650	2750
175	Wine Tasting Room: Kitchen	200/1,000 Gr SF	265	275
176	Wine Tasting Room: All Area	50/1,000 Gr SF	265	275

FOOTNOTES TO SGFs TABLE

(a) SFC rates for these facilities have historically been published in SFC ordinances.

(b) Bureau of Sanitation will determine the flow based on the information given by applicants for facilities with industrial discharge. The flow will be redetermined by Sanitation inspectors annually based on water bills. If the actual flow exceeds the previous year's determined flow, the applicants will be charged for the difference.
If this type of facility is exempt from an industrial discharge permit, only the domestic SFC will be assessed.

(c) The SFC for a bar shall be the sum of SFC's for all areas based on the SGF for each area (ex. fixed seat area, public table area, dancing area).

(d) The determination of SGF for juice bars and coffee houses previously depended on the extent of the actual food preparation in house, not by the types of food provided. Food is assumed to be prepared offsite and as such, the three prior subcategories have been consolidated.

1) SGF for no pastry baking and no food preparation is 720 gpd/1000 gr.sq.ft.
2) SGF for pastry baking only and no food preparation is 720 gpd/1000 gr.sq.ft.
3) SGF for complete food preparation is 25 gpd/seat, the same as a fast food restaurant.

Juice bars and coffee houses do not serve any alcoholic drinks.

(e) Building construction includes trailers, field offices, etc.

(f) Cocktail lounge usually does not serve prepared food.

(g) Cold storage facilities are categorized as follow:

1) No Sales - the cold storage facility is used only for temporary storage, no selling is involved. For example, cold storage facilities at the harbor temporarily store seafood until it is distributed.
2) Cold storage w/ retail sales - the primary function of this facility is to support the wholesale/retail operation of a store, such as supermarket freezers, refrigerators, etc.

(h) Counseling centers include marriage counseling centers, alcohol/drug rehabilitation /dependency centers, nutrition centers, diet centers, etc.

(i) Part-time basis schools or dance studios should be charged as retail area - 50 gpd /1000 gr.sq.ft. Full-time basis schools should be charged by the number of students.

(j) Domestic waste is estimated at 50 gpd/1,000 square feet in addition to total process flow.

(k) Bureau of Sanitation will determine if an industrial permit is needed for health spas. The first year flow is based on 650 gpd/1000 gr.sq.ft., and the Sanitation inspectors will redetermine the flow annually based on water bill from the previous year. The applicants are responsible for paying the difference of SFC.

Health club/spa includes lobby area, workout floors, aerobic rooms, swimming pools, Jacuzzi, sauna, locker rooms, showers, and restrooms. If a health club/spa has a gymnasium type of facility, this portion should be charged separately at the gymnasium SFC rate.

Gymnasiums include basketball court, volleyball court, and any other large open space with low occupancy density.

(l) Lobby of retail includes lounges, holding rooms, or waiting area, etc.

(m) Full service post offices include U.S. Postal Service, UPS, Federal Express, DHL, and etc.

(n) The SGF for a college dormitory based on student capacity also includes the SGF for the dormitory cafeterias.

(o) A bedroom is defined as an enclosed subdivision with 50 sq.ft. or more floor area in a residential building commonly used for sleeping purpose, and is partitioned off to form a habitable room.

(p) The SGF for schools based on the student capacity, covers the following facilities:

1) classrooms and lecture halls
2) professors' offices
3) administration offices
4) laboratories for classes or research
5) libraries
6) bookstores
7) student/professor lounges
8) school cafeterias
9) warehouses and storage areas
10) auditoriums
11) gymnasiums
12) restrooms

It does not include water used by schools for swimming pools. When a school files an application for addition of any of the foregoing facilities, the student population will be reassessed and the total gpd for the new facility will be based on the number of students increased since the last SFC was paid or when the City implemented the SFC for the first time. The SFC for any school facility (ex. stadium, dormitory, etc.) not listed above, will be based on the designated SGF for that category.

(q) The SFC for a TV or motion picture studio shall be the sum of SFC's for different facilities in the studio, based on the SGF for each facility. A studio may include one or more of the following facilities: audience viewing room, filming room, film processing, storage area, etc.

(r) No independent tanning salons with shower were encountered during 1996 survey.

(s) Alternative basis of charge for City’s consideration. The prior square footage basis is also presented should the City decide to continue charging on that basis.

Appendix E

Sewer Flow Monitoring Location Email Correspondence with the City of Santa Monica

Mia Prieto

From: Robert Banuelos <Robert.Banuelos@SMGOV.NET>
Sent: Monday, April 02, 2018 8:28 AM
To: Mia Prieto
Cc: Adam Vorwald; Ishwar Dhungana
Subject: RE: Proposed Sanitary Sewer Manhole and Fire Hydrant Locations

Categories: Filed by Newforma

Good morning Mia,
These locations are satisfactory.

Robert Banuelos, P.E.
Water Resources Engineer
Robert.Banuelos@SMGOV.NET | (310) 458-8286

From: Mia Prieto [mailto:mia.prieto@kpff.com]
Sent: Wednesday, March 28, 2018 1:11 PM
To: Robert Banuelos <Robert.Banuelos@SMGOV.NET>
Cc: Adam Vorwald <adam.vorwald@kpff.com>; Ishwar Dhungana <Ishwar.Dhungana@kpff.com>
Subject: Proposed Sanitary Sewer Manhole and Fire Hydrant Locations

Hi Robert,

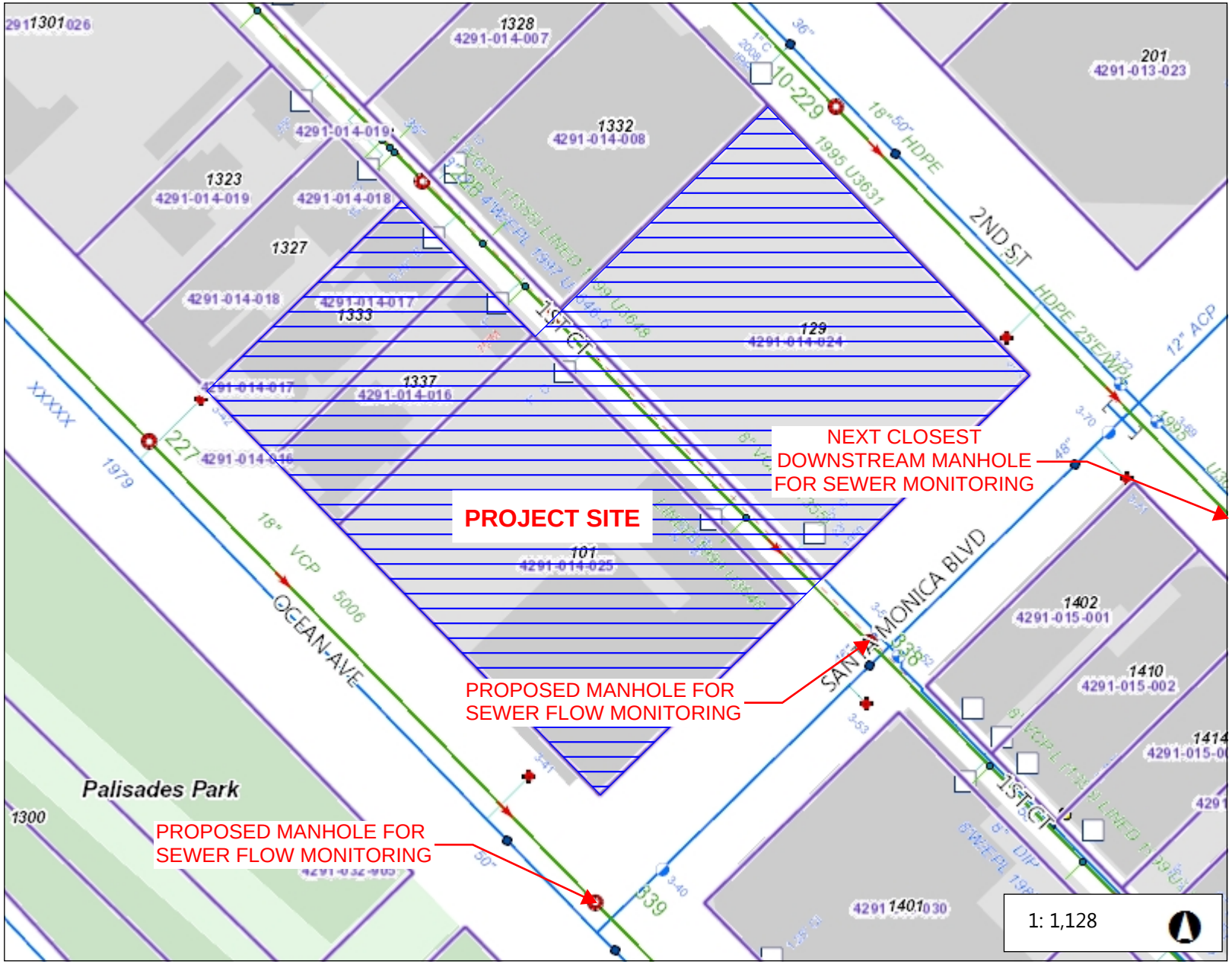
I hope you are doing well. We would like to have your input regarding our choice of Sewer Manholes and Fire Hydrants on our project on 101 Santa Monica Blvd.
Based on the two exhibits I have attached, do you anticipate any issues with our choice of Sewer Manholes and Fire Hydrants?

Thank you,

Mia Prieto, EIT

O 213.418.0201 D 213.266.5207
700 South Flower Street, Suite 2100
Los Angeles, CA 90017
mia.prieto@kpff.com

101 Santa Monica Blvd



- Parcels
- Sewer Flow
- Sewer Fittings
  - <all other values>
  - Wye
  - Tap
  - Saddle
  - Cap(Lat)
  - Coupling
  - Plug
- Sewer Manholes
- Sewer Network Structures
  - <all other values>
  - GaugingStation
  - JunctionChamber
  - PumpStation
- Sewer Abandoned
- Sewer Gravity Mains
- Sewer Lateral Lines
- wHydrant
  - Hydrant
  - Private Hydrant
  - Underground Hydrant
  - Fire Riser
  - Private Underground
- wDepth
  - Abandoned Main
  - Main
  - Service
- wFitting
  - <all other values>
  - Cap
  - Coupling

0.0 0 0.02 0.0

Miles