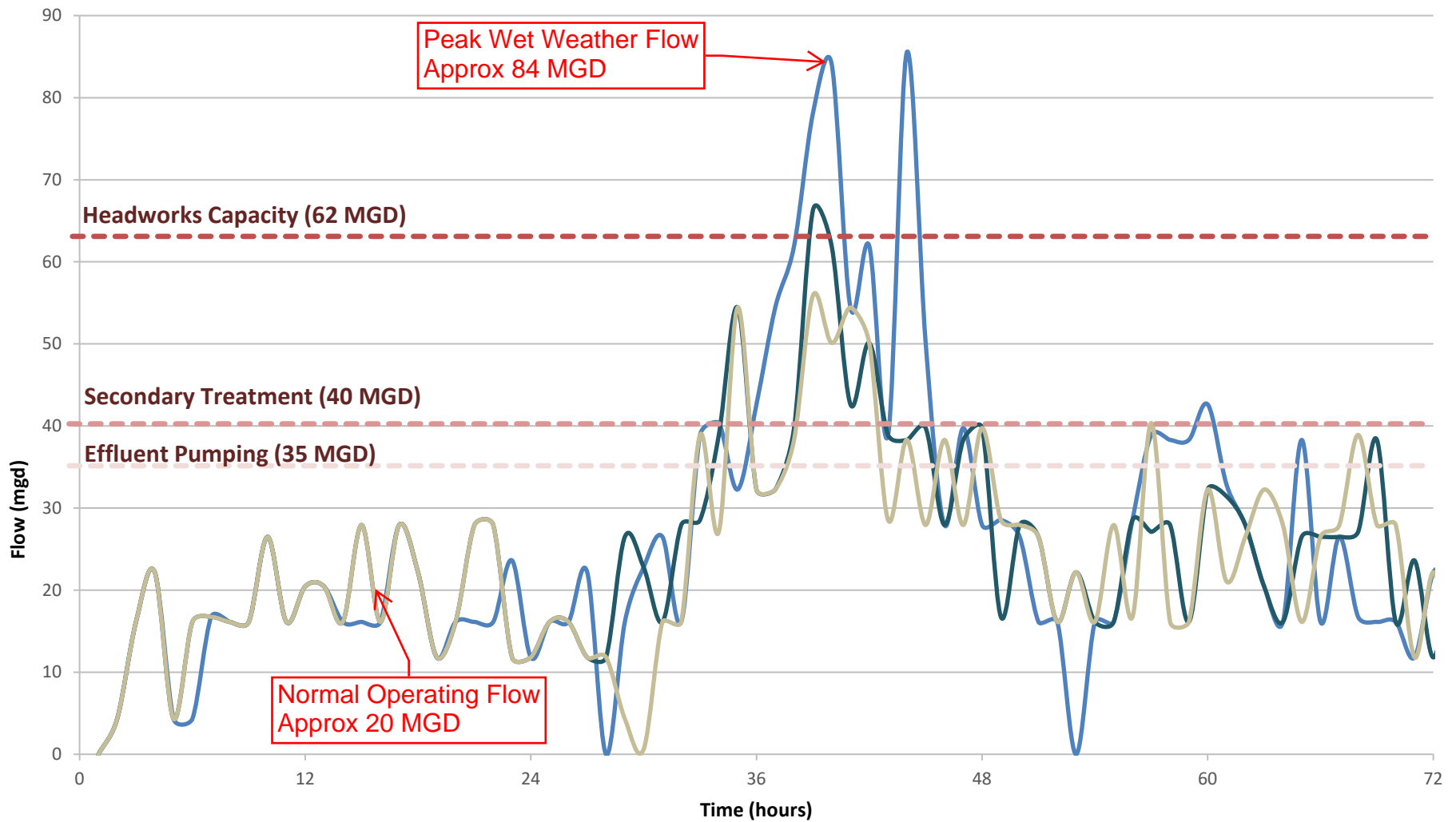


ATTACHMENT 4

CITYWIDE SEWER MASTER PLAN EXCERPTS



LEGEND

WQCP Process

- 10-Year 24-Hour Base Storm
- 10-Year 24-Hour (20% I/I Reduction)
- 10-Year 24-Hour (40% I/I Reduction)

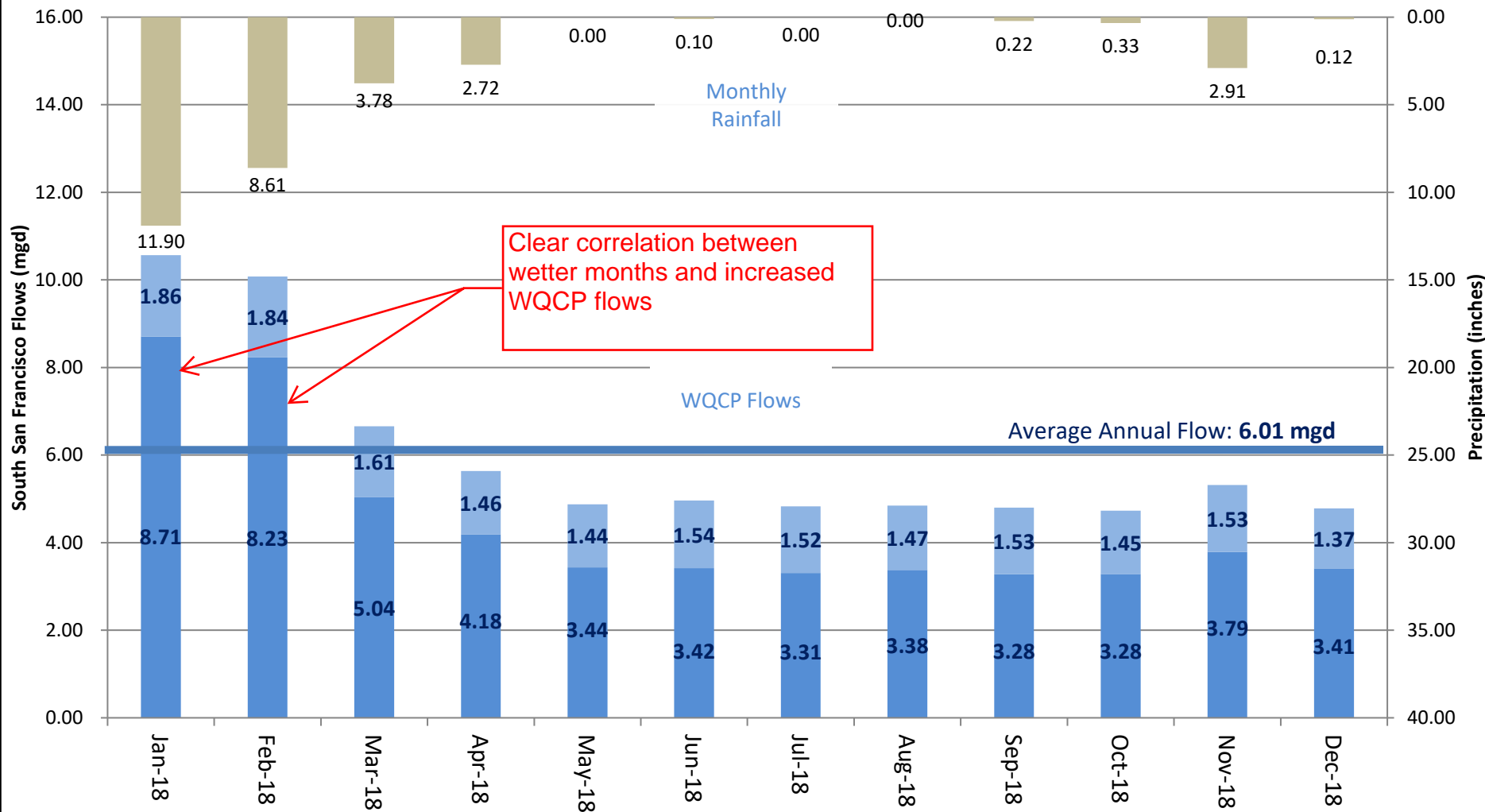
Capacities

- - - 62 mgd (Headworks Capacity)
- - - 40 mgd (Secondary Treatment Capacity)
- - - 35 mgd (Effluent Pumping Capacity)

Figure 7.6
Future WQCP PWWF
(10-Year 24-Hour Design Storm)
 City-Wide Sewer System Master Plan
 City of South San Francisco



August 20, 2020



LEGEND

- West of 101 Monthly Flows
- East of 101 Monthly Flows
- Monthly Rainfall
- 2018 Average Flow

Note: Monthly flows shown exclude San Bruno

Figure 5.1
2018 WQCP Flows
 City-Wide Sewer System Master Plan
 City of South San Francisco



August 2, 2019

Table 5.2 Historical Flow Statistics (West of 101)

City-Wide Sewer System Master Plan
 City of South San Francisco

Year	Average Annual (mgd)	Seasonal Average		Monthly Average		Maximum Day	
		ADWF (mgd)	AWWF (mgd)	PMDWF (mgd)	PMWWF (mgd)	MDDWF (mgd)	MDWWF (mgd)
Historical Flows							
2012	4.48	3.91	4.89	3.95	6.71	5.30	18.92
2013	3.88	3.81	3.94	3.91	4.31	5.76	6.56
2014	4.31	3.88	4.63	3.95	7.51	5.38	25.25
2015	3.73	3.43	3.95	3.47	4.41	4.57	12.57
2016	4.19	3.54	4.65	3.62	5.99	4.43	15.17
2017	4.43	3.36	5.20	3.44	8.71	4.70	24.52
2018	3.89	3.57	4.12	3.67	4.60	4.76	19.21
Historical Peaking Factors (Applied to ADWF)							
2012	1.15	1.00	1.25	1.01	1.72	1.36	4.84
2013	1.02	1.00	1.03	1.03	1.13	1.51	1.72
2014	1.112	1.00	1.19	1.02	1.94	1.39	6.51
2015	1.088	1.00	1.15	1.01	1.29	1.33	3.66
2016	1.183	1.00	1.31	1.02	1.69	1.25	4.29
2017	1.318	1.00	1.55	1.02	2.59	1.40	7.29
2018	1.089	1.00	1.15	1.03	1.29	1.33	5.38
Recommended Evaluation Peaking Factor							
			1.30	1.03	2.00	1.40	6.50



2/26/2020

Notes:

1. Historical flows extracted from WQCP data received from City staff June 19, 2019.
2. Dry weather months include months from May to September.
3. Wet weather months include months from October to April.
4. Flows for the City of San Bruno are not included in the historical flows and were estimated based on Pump Station 11 inflows and flows recorded at Flow Monitor 7. An analysis of these flows indicated approximately 80% of the flows at Pump Station 11 are contributed by the City of San Bruno.

Wet Weather is 4.6 times greater than Dry Weather Peak Flows

Table 5.3 Historical Flow Statistics (East of 101)

City-Wide Sewer System Master Plan
City of South San Francisco

Year	Average Annual (mgd)	Seasonal Average		Monthly Average		Maximum Day	
		ADWF (mgd)	AWWF (mgd)	PMDWF (mgd)	PMWWF (mgd)	MDDWF (mgd)	MDWWF (mgd)
Historical Flows							
2012	1.63	1.56	1.67	1.60	1.88	1.96	3.16
2013	1.61	1.62	1.61	1.67	1.66	1.96	1.97
2014	1.63	1.58	1.67	1.61	1.94	1.89	3.17
2015	1.57	1.56	1.57	1.62	1.64	1.91	2.18
2016	1.52	1.43	1.58	1.45	1.74	1.70	2.37
2017	1.55	1.50	1.59	1.54	1.86	1.82	2.99
2018	1.34	1.27	1.40	1.31	1.53	1.53	2.48
Historical Peaking Factors (Applied to ADWF)							
2012	1.04	1.00	1.07	1.02	1.20	1.25	2.02
2013	1.00	1.00	1.00	1.03	1.03	1.22	1.22
2014	1.03	1.00	1.06	1.02	1.23	1.20	2.01
2015	1.00	1.00	1.00	1.04	1.05	1.22	1.39
2016	1.06	1.00	1.10	1.02	1.22	1.19	1.66
2017	1.03	1.00	1.06	1.03	1.24	1.22	1.99
2018	1.06	1.00	1.10	1.03	1.20	1.20	1.95
Recommended Evaluation Peaking Factor							
			1.10	1.04	1.25	1.25	2.00



Notes:

1. Historical flows extracted from WQCP data received from City staff June 19, 2019.
2. Dry weather months include months from May to September.
3. Wet weather months include months from October to April.

Wet Weather is 1.6 times greater than Dry Weather Peak Flows

1.25

2.00

2/26/2020