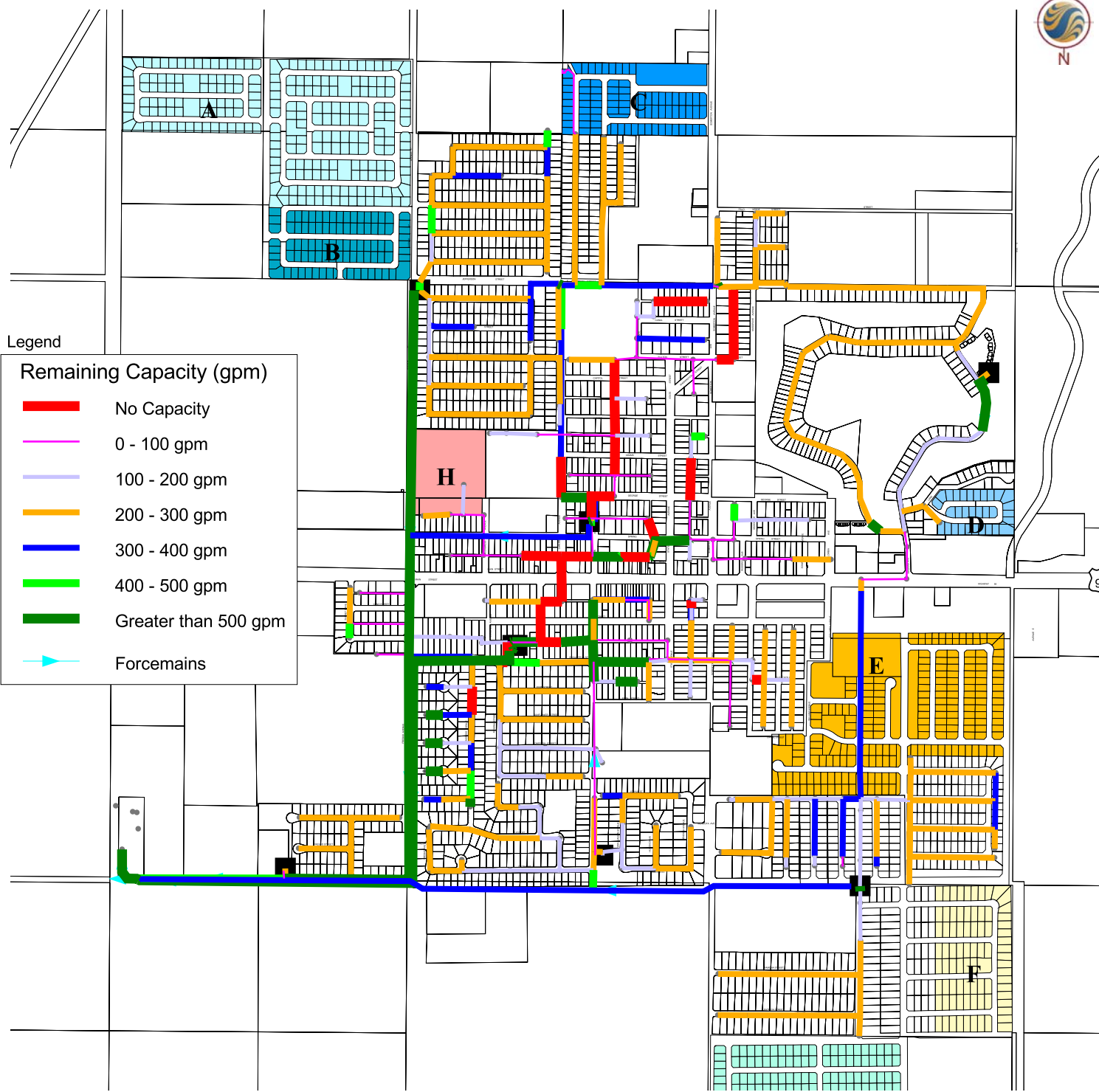


# **APPENDICES**



**Appendix A – Excerpts from City of Somerton  
Wastewater Master Plan**





Legend

Remaining Capacity (gpm)

- █ No Capacity
- █ 0 - 100 gpm
- █ 100 - 200 gpm
- █ 200 - 300 gpm
- █ 300 - 400 gpm
- █ 400 - 500 gpm
- █ Greater than 500 gpm
- ▶ Forcemains

Scale 1:15000 100 0 100 200 300 400 Feet



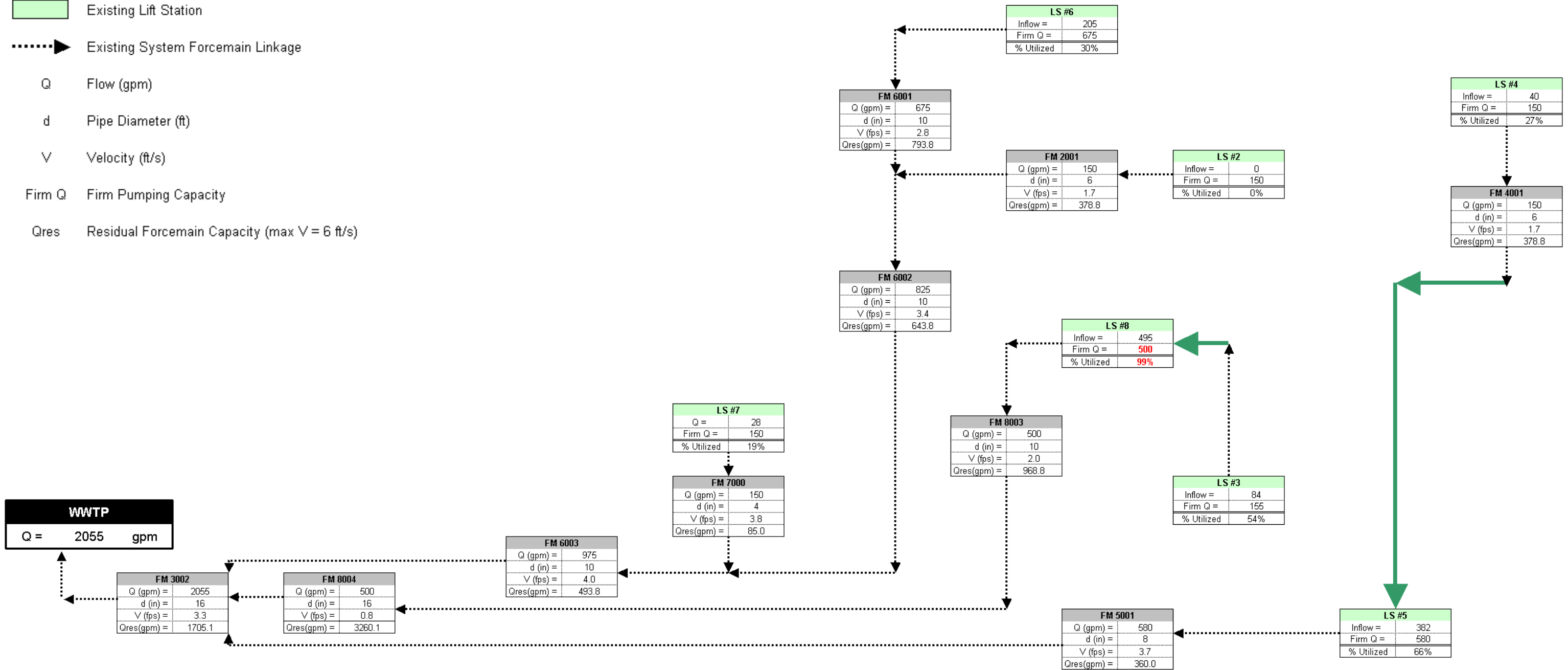
Client / Project  
**CITY OF SOMERTON**  
Wastewater Master Plan

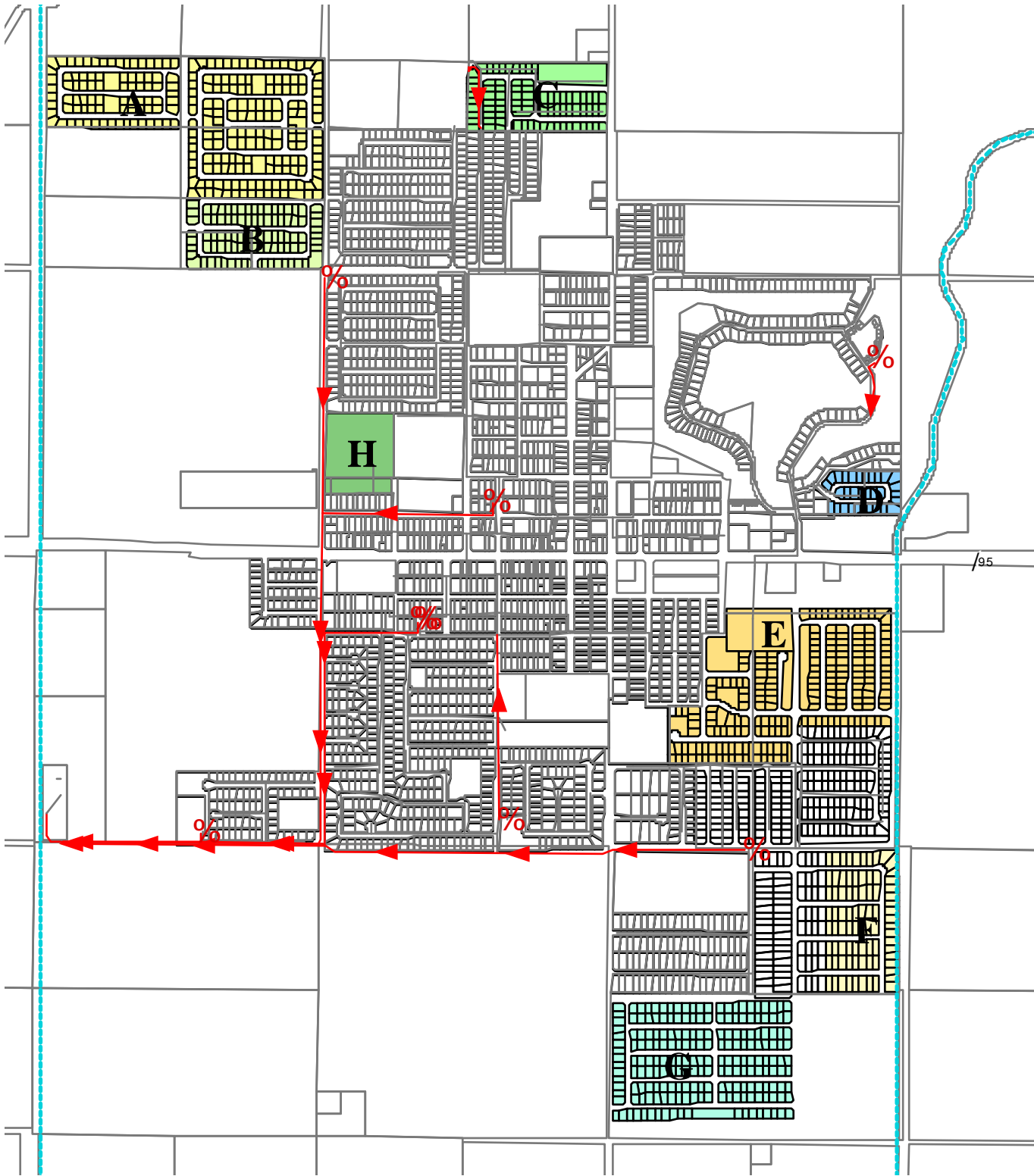
Figure No.  
**8.5**

Title  
**Short-Term Growth**  
**Residual Capacity**

**LEGEND**

- Existing Forcemain
- Existing Lift Station
- Existing System Forcemain Linkage
- Q** Flow (gpm)
- d** Pipe Diameter (ft)
- V** Velocity (ft/s)
- Firm Q** Firm Pumping Capacity
- Qres** Residual Forcemain Capacity (max V = 6 ft/s)





Legend



**Stantec**



Client/Project

**CITY OF SOMERTON**  
Wastewater Master Plan

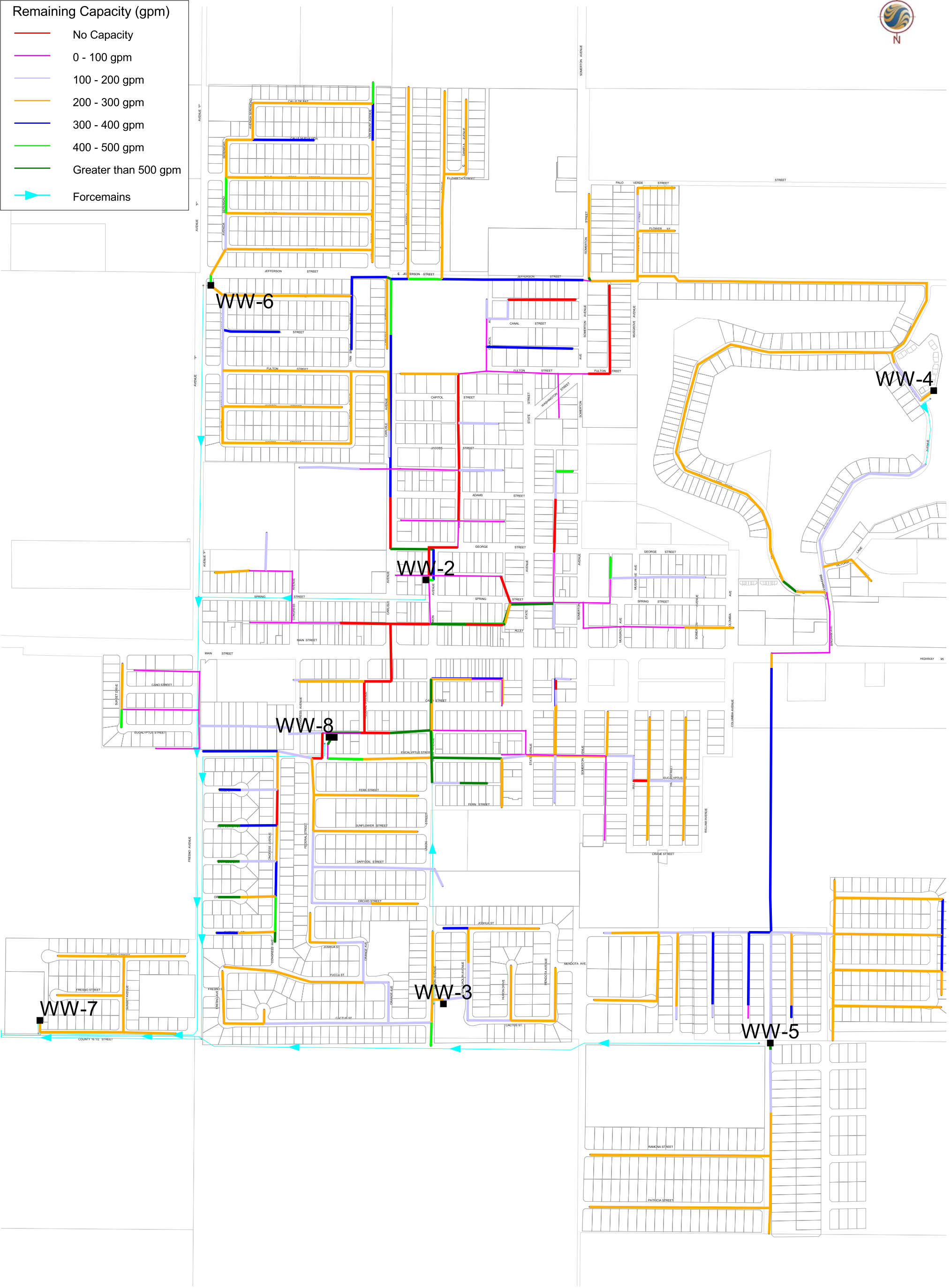
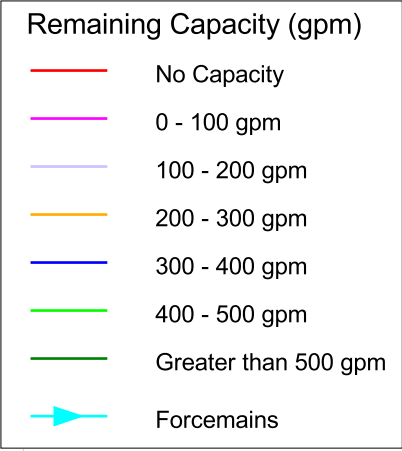
Figure No.

**8.1**

Title

**Short-Term Growth Areas**

Legend



Scale 1:7500



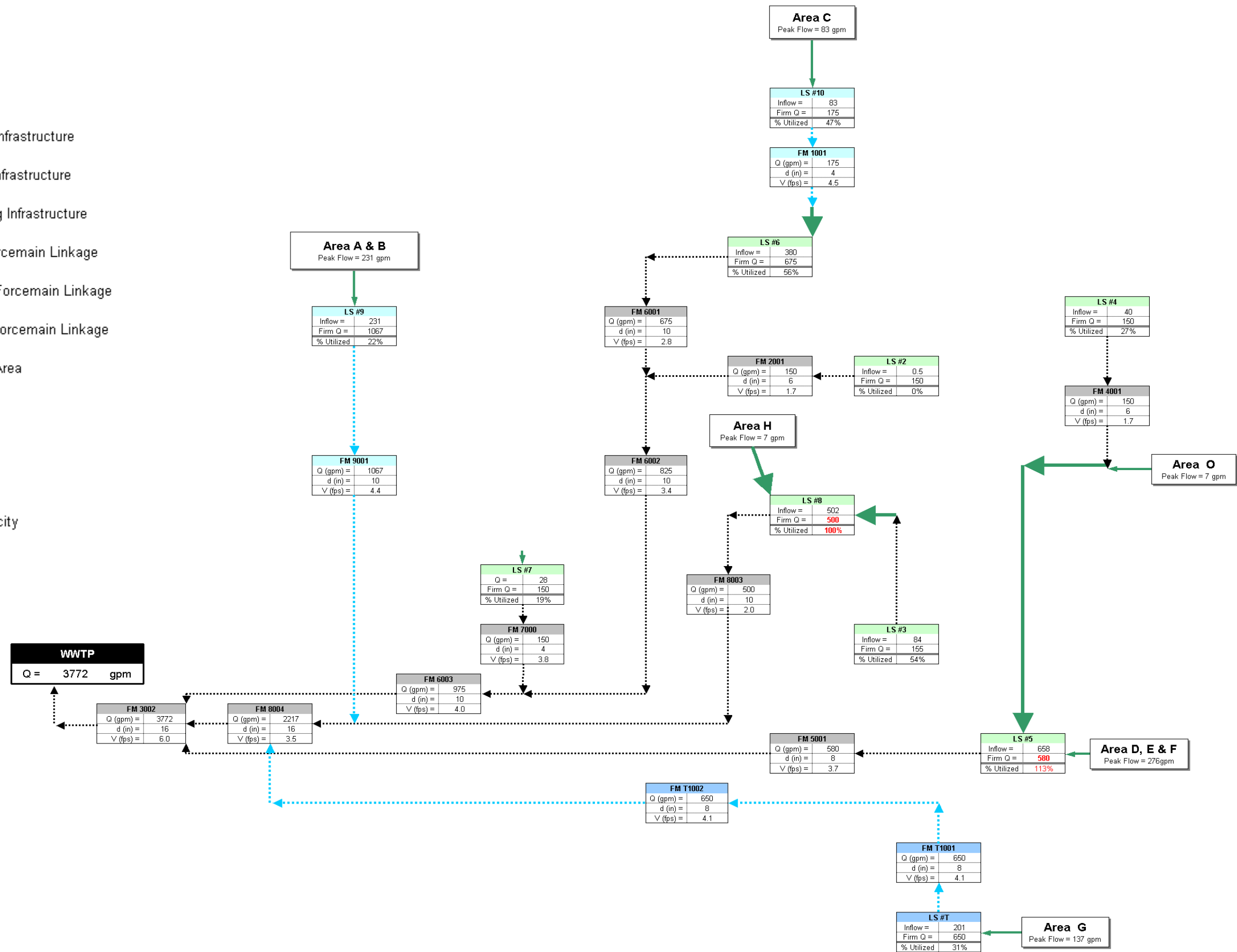
Client / Project  
 CITY OF SOMERTON  
 Wastewater Master Plan

Figure No.  
**7.9**

Title  
**Residual Pipe Capacity  
 Design Case (100gpcpd)**

**Legend**

- Existing Forcemain
- Existing Lift Station
- Short-Term Growth Infrastructure
- Long-Term Growth Infrastructure
- Upgrades to Existing Infrastructure
- Existing System Forcemain Linkage
- Short-Term Growth Forcemain Linkage
- Long Term Growth Forcemain Linkage
- Flows from Growth Area
- Q Flow (gpm)
- d Pipe Diameter (ft)
- V Velocity (ft/s)
- Firm Q Firm Pumping Capacity



**Appendix B – Excerpts from City of Somerton  
Sanitary Sewer Model Calibration Manual**

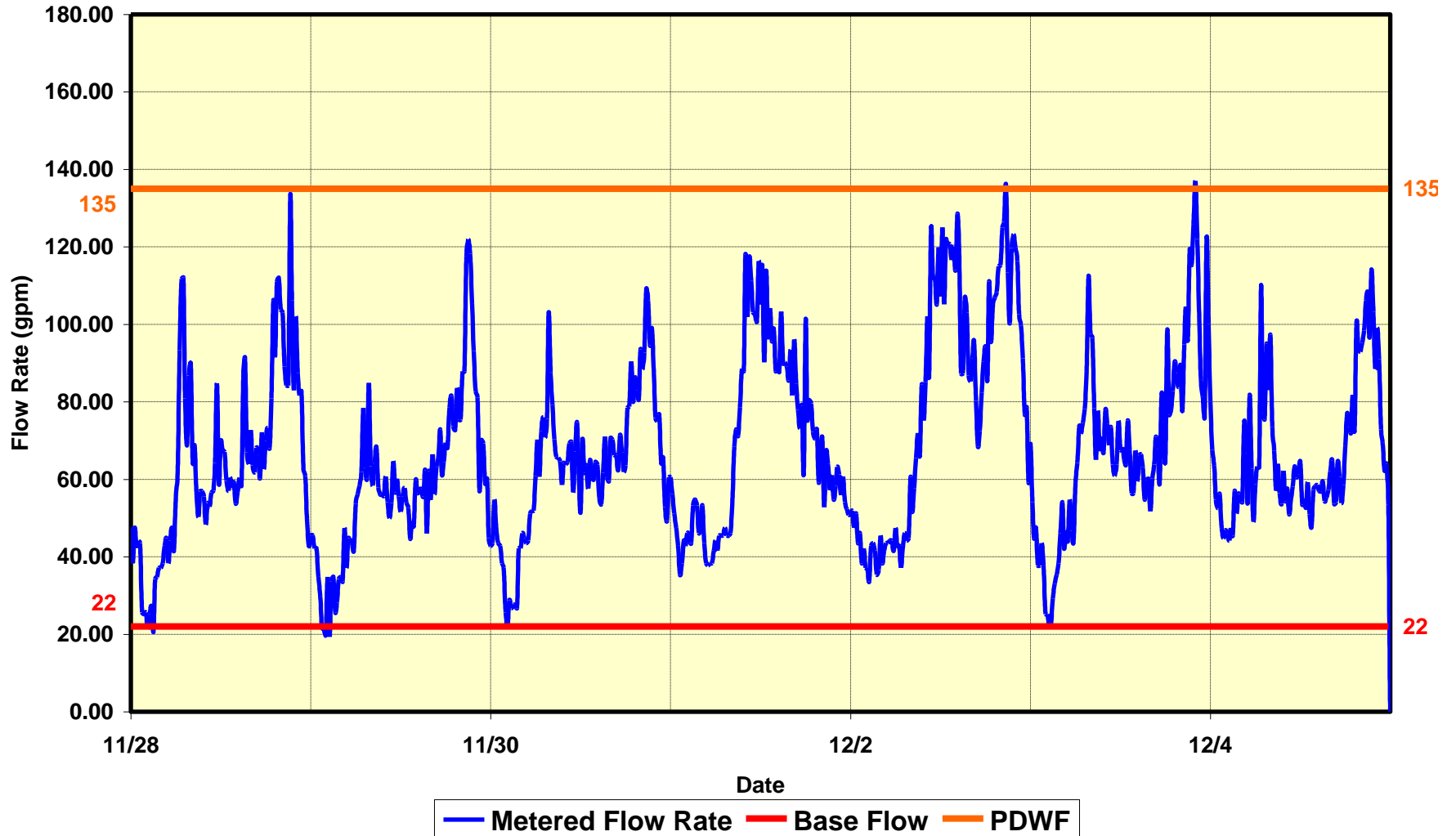


Flow Monitoring  
August 20, 2009

Table 2.7 - Flow Monitoring Location Pattern Multipliers												
Time Step	MH 111		MH 132		MH 386		PS5		MH 979		MH 981	
	Flow (gpm)	Mult.	Flow (gpm)	Mult.	Flow (gpm)	Mult.	Flow (gpm)	Mult.	Flow (gpm)	Mult.	Flow (gpm)	Mult.
1	45	0.59	16	0.56	48	0.74	16	0.58	79	0.59	37	0.59
2	32	0.41	12	0.42	37	0.58	12	0.42	55	0.41	26	0.41
3	30	0.38	11	0.39	32	0.50	10	0.36	51	0.38	24	0.38
4	29	0.37	14	0.46	37	0.57	14	0.51	50	0.37	24	0.37
5	37	0.48	16	0.54	42	0.65	16	0.59	65	0.48	31	0.48
6	45	0.58	20	0.67	43	0.67	15	0.54	78	0.58	37	0.58
7	79	1.02	29	0.98	53	0.82	33	1.18	137	1.02	65	1.02
8	87	1.12	31	1.06	64	1.00	39	1.39	151	1.12	71	1.12
9	98	1.26	31	1.06	66	1.02	36	1.31	169	1.26	80	1.26
10	108	1.40	32	1.09	65	1.01	30	1.10	187	1.40	89	1.40
11	93	1.21	32	1.10	72	1.12	35	1.26	162	1.21	77	1.21
12	87	1.12	35	1.20	79	1.24	35	1.27	151	1.12	71	1.12
13	91	1.18	35	1.19	82	1.28	35	1.25	158	1.18	75	1.18
14	96	1.24	34	1.16	71	1.10	29	1.04	167	1.24	79	1.24
15	82	1.06	32	1.09	66	1.03	25	0.90	142	1.06	68	1.06
16	83	1.08	33	1.11	71	1.10	23	0.84	145	1.08	69	1.08
17	83	1.08	36	1.21	70	1.09	23	0.82	145	1.08	69	1.08
18	88	1.14	37	1.25	66	1.03	23	0.85	153	1.14	72	1.14
19	91	1.18	38	1.30	76	1.19	29	1.06	158	1.18	75	1.18
20	99	1.28	42	1.42	83	1.30	36	1.32	172	1.28	81	1.28
21	105	1.36	42	1.42	90	1.40	42	1.52	183	1.36	87	1.36
22	110	1.42	42	1.41	92	1.43	43	1.57	191	1.42	90	1.42
23	91	1.18	35	1.17	75	1.17	38	1.39	158	1.18	75	1.18
24	66	0.85	22	0.75	56	0.88	26	0.93	115	0.85	54	0.85

# Somerton, AZ

## MH 386: Selected Data Window w/Corrected Flow Data



Legend



Stantec



Client/Project  
CITY OF SOMERTON  
Wastewater Model Calibration  
Figure No.  
**2.19**  
Title  
**MH 386: Selected Data**

**Appendix C – Communications with City of Somerton  
Regarding Smith Way Sewer Project**



**From:** Wangsvick, Kiersten  
**To:** ["Bill Lee"](#)  
**Cc:** [Guercio, Noel](#); [Brady, Maria](#); ["Samuel Palacios \(samp@cityofsomerton.com\)"](#)  
**Subject:** RE: OGRMV PER Information Regarding Smith Way CIP Lineitem  
**Date:** Wednesday, March 30, 2016 12:22:00 PM  
**Attachments:** [image001.png](#)

---

Bill,

Thank you for this information about the status of the Smith Way sewer project.

We will mention this in the OGRMV PER and pass on these clarifications to USDA-RUS.

Regards,

**Kiersten Wangsvick, PE**

Project Engineer  
Stantec  
5151 E Broadway Boulevard, Suite 400 Tucson AZ 85711-3712  
Phone: 520-750-7474 ext 7411  
[kiersten.wangsvick@stantec.com](mailto:kiersten.wangsvick@stantec.com)



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**From:** Bill Lee [<mailto:billlee@somertonaz.gov>]  
**Sent:** Tuesday, March 22, 2016 5:24 PM  
**To:** Wangsvick, Kiersten  
**Cc:** Sam Palacios  
**Subject:** RE: New Email & Information Regarding Smithway CIP Lineitem

Hello Kiersten,

I have had a chance to review with Sam and I agree with his statements that the City does not have funding for the Smith Way sewer project. At this point in time we simply do not foresee connecting OGRMV sewer with residents and business located along Smith Way.

Regards,

Bill Lee

---

**From:** Wangsvick, Kiersten [<mailto:Kiersten.Wangsvick@stantec.com>]  
**Sent:** Friday, March 18, 2016 9:29 AM  
**To:** Bill Lee <[billlee@somertonaz.gov](mailto:billlee@somertonaz.gov)>  
**Subject:** RE: New Email & Information Regarding Smithway CIP Lineitem

Bill,

Thank you for your updated contact information.

I've been meaning to follow up with you regarding my correspondence to the City of Somerton about the Smith Way sewer project mentioned in the 2013 CIP. For the Orange Grove Rancho Mesa Verde (OGRMV) Preliminary Engineering report, USDA-RUS has asked for verification that construction of the Smith Way sewer is not soon expected.

When I spoke to Sam Palacios by phone in February, he indicated that:

- The City of Somerton does not have current funds for the Smith Way sewer project set aside.
- Construction of a Smith Way sewer connection project would likely be a decade or more in the future, given the current lack of funding.
- Hence, tying the OGRMV sewer into a Smith Way sewer would not be an option, since there are no imminent plans for construction of the Smith Way sewer to move forward.

Sam Palacios mentioned he had forwarded you my email (attached) about the Smith Way sewer line item in the 2013 CIP, as he would prefer you give us this needed written verification.

A brief email response indicating our understanding above is correct, while making any needed clarifications, would be much appreciated. We'd like to include this information in the OGRMV PER, as requested by USDA-RUS.

Thank you,

**Kiersten Wangsvick, PE**

Project Engineer

Stantec

5151 E Broadway Boulevard, Suite 400 Tucson AZ 85711-3712

Phone: 520-750-7474 ext 7411

[kiersten.wangsvick@stantec.com](mailto:kiersten.wangsvick@stantec.com)



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---

**From:** Bill Lee [<mailto:BillLee@CityOfSomerton.com>]

**Sent:** Monday, March 07, 2016 7:36 AM

**To:** Wangsvick, Kiersten

**Subject:** New Email

This email is no longer valid. Please use my new email: [billlee@somertonaz.gov](mailto:billlee@somertonaz.gov).

Thank you.

Bill Lee

City Manager

P.O. Box 638

110 N. State Ave

**From:** [Wangsvick, Kiersten](#)  
**To:** "Samuel Palacios (samp@cityofsomerton.com)"  
**Cc:** [Guercio, Noel](#)  
**Subject:** OG/RMV PER--Sewer for Smithway CIP Lineitem  
**Date:** Wednesday, February 10, 2016 10:11:00 AM  
**Attachments:** [image001.png](#)  
[COS\\_2013\\_CIP.pdf](#)

---

Sam,

As I mentioned in our phone conversation, USDA-RUS would like additional information about the CIP item for "Extending the existing sewer system to Smith Way at La Mesa Area" (see attached document). Clarification about the planned timeframe of this project and available funds would help us determine whether it would be feasible to connect the Orange Grove/Rancho Mesa Verde sewer to the Smith Way sewer.

- Does the City of Somerton have current funds for this Smith Way sewer project set aside, as indicated in the CIP?
- What is the time frame for constructing this project? Has a date been set? How far in the future would this project realistically move forward?
- Alternatively, if circumstances have prevented the City of Somerton from actively moving forward with the Smith Way sewer, please describe such and the current status of this project.

Thank you,

**Kiersten Wangsvick, PE**

Project Engineer  
Stantec  
5151 E Broadway Boulevard, Suite 400 Tucson AZ 85711-3712  
Phone: 520-750-7474 ext 7411  
[kiersten.wangsvick@stantec.com](mailto:kiersten.wangsvick@stantec.com)



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**Appendix D – 2022 City of Somerton Water and Sewer Connection Fees and Monthly Service Rates**



**DEVELOPMENT IMPACT FEES SCHEDULE**

ADOPTED ON MARCH 1, 2022  
**FEES EFFECTIVE MAY 16, 2022**

**RESIDENTIAL DEVELOPMENT FEES PER HOUSING UNIT**

<b>Impact Fee</b>	<b>Single Unit</b>	<b>2 + Units</b>
Parks and Recreational Facilities	\$1,323	\$992.00
Public Safety Facilities	\$992	\$594.00
Streets Facilities	\$1,254	\$972.00
Wastewater Facilities	\$3,741	<b>Based on water meter size</b>

**Non-residential Development Fees are calculated per 1,000 square feet of Floor Area**

**Parks & Recreation**

<b>Development Type</b>	<b>Fee</b>
Industrial	\$ 225.00
Commercial	\$ 492.00
Institutional	\$ 242.00
Office and Other Services	\$ 817.00

**Public Safety**

<b>Development Type</b>	<b>Fee</b>
Industrial	\$ 125.00
Commercial	\$1,791.00
Institutional	\$ 925.00
Office and Other Services	\$ 700.00

**Transportation (Streets Facilities)**

<b>Development Type</b>	<b>Fee</b>
Industrial	\$ 113.00
Commercial	\$1,658.00
Institutional	\$ 834.00
Office and Other Services	\$ 631.00

**Citywide Fees per Meter**

<b>Utility Development Fees</b>			
<i>Per Meter</i>	<i>Water</i>	<i>Wastewater</i>	<i>Total</i>
0.75	\$1,500.00	\$1,798.00	\$3,298.00
1.00	\$2,505.00	\$3,003.00	\$5,508.00
1.50	\$4,994.00	\$5,988.00	\$10,982.00
2.00	\$7,994.00	\$9,585.00	\$17,579.00
3.00	\$16,003.00	\$19,188.00	\$35,191.00

**Northeast Area Fees per Meter – Total includes Water and Wastewater Fees**

<b>Utility Development Fees</b>				
0.75	1.00	1.50	2.00	3.00
\$3,243.00	\$5,415.00	\$10,798.00	\$17,283.00	\$34,599.00
<b>\$4,743.00</b>	<b>\$7,920.00</b>	<b>\$15,792.00</b>	<b>\$25,277.00</b>	<b>\$50,602.00</b>

**Northwest Area Fees per Meter – Total includes Water and Wastewater Fees**

<b>Utility Development Fees</b>				
0.75	1.00	1.50	2.00	3.00
\$3,016.00	\$5,037.00	\$10,044.00	\$16,076.00	\$32,182.00
<b>\$4,516.00</b>	<b>\$7,542.00</b>	<b>\$15,038.00</b>	<b>\$24,070.00</b>	<b>\$48,185.00</b>



# CITY OF SOMERTON WATER RATES

## WATER

<b>SOMERTON SERVICE AREA</b>	<b>EFFECTIVE July 1, 2019</b>	<b>EFFECTIVE July 1, 2020</b>	<b>EFFECTIVE July 1, 2021</b>	<b>EFFECTIVE July 1, 2022</b>	<b>EFFECTIVE July, 2023</b>	<b>EFFECTIVE July 1, 2024</b>	<b>EFFECTIVE July 1, 2025</b>
<b>WATER RATES - RESIDENTS</b>							
Monthly Minimum Charge - All Meters	\$13.70	\$14.52	\$15.39	\$15.70	\$16.01	\$16.33	\$16.66
Volume Rate per 1,000 Gallons 5,000 Above	\$2.85	\$3.02	\$3.20	\$3.26	\$3.33	\$3.39	\$3.46
<b>WATER RATES - COMMERCIAL</b>							
Monthly Minimum Charge - All Meters	\$16.23	\$17.21	\$18.24	\$18.60	\$18.98	\$19.36	\$19.79
Volume Rate per 1,000 Gallons 5,000 Above	\$3.13	\$3.32	\$3.52	\$3.59	\$3.66	\$3.73	\$3.81
<b>WATER RATES - MULTI-FAMILY/MANUFACTURED HOME, PARK &amp; SUBDIVISION</b>							
Monthly Minimum Charge - All Meters	\$14.94	\$15.83	\$16.84	\$17.12	\$17.46	\$17.81	\$18.16
Volume Rate per 1,000 Gallons 5,000 Above	\$2.99	\$3.17	\$3.36	\$3.43	\$3.49	\$3.56	\$3.64

<b>LA MESA SERVICE AREA</b>	<b>EFFECTIVE July 1, 2019</b>	<b>EFFECTIVE July 1, 2020</b>	<b>EFFECTIVE July 1, 2021</b>	<b>EFFECTIVE July 1, 2022</b>	<b>EFFECTIVE July, 2023</b>	<b>EFFECTIVE July 1, 2024</b>	<b>EFFECTIVE July 1, 2025</b>
<b>WATER RATES - RESIDENTS</b>							
Monthly Minimum Charge - All Meters	\$13.70	\$14.52	\$15.39	\$15.70	\$16.01	\$16.33	\$16.66
Volume Rate per 1,000 Gallons							
0 3,000	\$2.38	\$2.52	\$2.68	\$2.73	\$2.78	\$2.84	\$2.90
3,001 8,000	\$3.28	\$3.47	\$3.68	\$3.83	\$3.83	\$3.91	\$3.98
8,001 Above	\$3.94	\$4.18	\$4.43	\$4.61	\$4.61	\$4.70	\$4.79
<b>WATER RATES - COMMERCIAL</b>							
Monthly Minimum Charge - All Meters	\$16.23	\$17.21	\$18.24	\$18.60	\$18.98	\$19.36	\$19.79
Volume Rate per 1,000 Gallons							
0 3,000	\$2.38	\$2.52	\$2.68	\$2.73	\$2.78	\$2.84	\$2.90
3,001 8,000	\$3.28	\$3.47	\$3.68	\$3.83	\$3.83	\$3.91	\$3.98
8,001 Above	\$3.94	\$4.18	\$4.43	\$4.61	\$4.61	\$4.70	\$4.79
<b>WATER RATES - MULTI-FAMILY/MANUFACTURED HOME, PARK &amp; SUBDIVISION</b>							
Monthly Minimum Charge - All Meters	\$14.94	\$15.83	\$16.78	\$17.12	\$17.46	\$17.81	\$18.16
Volume Rate per 1,000 Gallons							
0 3,000	\$2.38	\$2.52	\$2.68	\$2.73	\$2.78	\$2.84	\$2.90
3,001 8,000	\$3.28	\$3.47	\$3.68	\$3.83	\$3.83	\$3.91	\$3.98
8,001 Above	\$3.94	\$4.18	\$4.43	\$4.61	\$4.61	\$4.70	\$4.79

# WASTEWATER

	CURRENT	EFFECTIVE July, 2019	EFFECTIVE July, 2020	EFFECTIVE July, 2021
<b>WASTEWATER RATES - RESIDENTS</b>				
Monthly Minimum Charge - All Meters	\$36.50	\$43.47	\$46.08	\$48.85
<b>WASTEWATER RATES - COMMERCIAL</b>				
Monthly Minimum Charge - All Meters	\$19.40	\$23.11	\$24.49	\$25.96
Volume Rate per 1,000 Gallons	\$3.28	\$3.91	\$4.14	\$4.39
<b>WASTEWATER RATES - MULTI-FAMILY/MANUFACTURED HOME, PARK &amp; SUBDIVISION</b>				
Monthly Minimum Charge - All Meters	\$36.50	\$43.47	\$46.08	\$48.85



For more information please contact City of Somerton Utilities at (928) 722-7400