SASD 2020 SYSTEM CAPACITY PLAN EXPANSION TRUNK SHEDS

LA ELK GROVE SOI TRUNK SHED

Area Description

The LA Elk Grove SOI expansion trunk shed is located outside of the current Urban Services Boundary (USB) in the southern portion of the Sacramento County, south of Elk Grove.

The shed is bounded by Kammerer Road to the north, Highway 99 to the east, and east of Rau Road. The southern boundary generally aligns with Eschinger Road.

Trunk System Facilities

The Elk Grove SOI expansion shed is planned to be served by a major trunk sewer, a smaller connecting trunk, and a trunk pump station**.** *A significant downstream gravity sewer (downstream of the SOI pump station force main) would be required for the construction of the SOI pump station.*

The main gravity trunk will drain from the east to the west in the central portion of the Elk Grove SOI shed, and a smaller trunk will connect in the eastern portion of the shed.

The major trunk that serves the SOI shed would continue to travel west along Kammerer Road until discharging to the SOI trunk pump station that will be located near Kammerer and Bruceville Roads.

The SOI pump station force main would use the Bruceville Road/Bilby Road/Willard Parkway alignment until reaching Franklin Boulevard. A large gravity sewer would provide conveyance from Franklin Boulevard and Whitelock Parkway north to the Regional San's Laguna Interceptor connection manhole N39-MH0006A.

SASD plans a series of pump station force main rehabilitation projects once the future SOI pump station and its downstream gravity sewer are constructed. The purpose of these force main reconfigurations is to reallocate system flows to improve overall system performance.

The pump stations that are planned for force main reconfiguration are listed below:

1) Pump Station S111 – The force main would be modified to connect to the new gravity sewer. This would be done to shorten the force main.
2) Pump Station S012 – The force main would be shortened by connecting to the future SOI pump station.

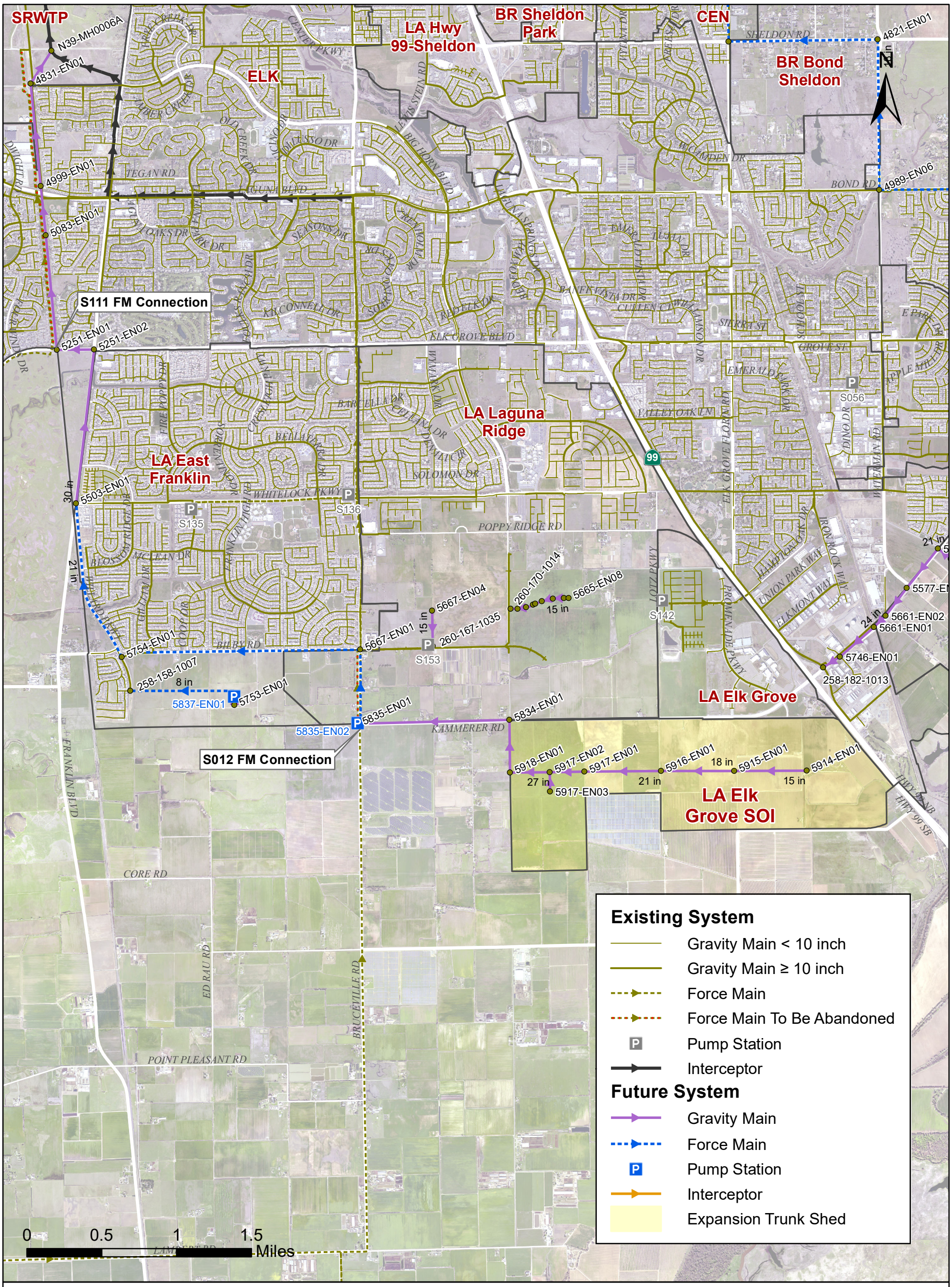
In addition to the two planned pump station force main reconfigurations identified in the list above, a new S135 force main is being considered to connect to the future gravity sewer that will be located in Franklin Boulevard downstream of the SOI pump station force main.

LA Elk Grove SOI

Trunk Sewer Data and Model Results

Buildout **10-Year Design** Storm

US Manhole	DS Manhole	Link Type	Diameter (in)	Length (ft)	US Rim Elev. (ft)	US Invert Elev. (ft)	DS Rim Elev. (ft)	DS Invert Elev. (ft)	Slope (%)	Full Capacity (mgd)	Peak Flow (mgd)	% Full Capacity	d/D
5917-EN03	5917-EN02	Gravity Main	15	678	30.5	5.4	31.4	4.2	0.18	1.8	1.1	60	0.56
5914-EN01	5915-EN01	Gravity Main	15	2553	46.0	18.1	41.1	13.5	0.18	1.8	1.1	60	0.58
5915-EN01	5916-EN01	Gravity Main	18	2573	41.1	13.3	36.0	9.6	0.14	2.5	1.9	75	0.65
5916-EN01	5917-EN01	Gravity Main	21	2697	36.0	9.4	32.1	6.2	0.12	3.6	2.9	82	0.83
5917-EN01	5917-EN02	Gravity Main	21	1222	32.1	6.2	31.4	4.7	0.12	3.6	3.6	101	0.82
5917-EN02	5918-EN01	Gravity Main	27	1402	31.4	3.2	30.0	1.8	0.10	6.3	4.6	73	0.65
5918-EN01	5834-EN01	Gravity Main	27	1850	30.0	1.8	32.0	-0.1	0.10	6.3	4.6	72	0.67
5834-EN01	5835-EN01	Gravity Main	27	5349	32.0	-0.1	24.0	-5.4	0.10	6.3	4.9	77	0.67
5835-EN01	5835-EN02	Gravity Main	30	28	24.0	-5.7	22.0	-5.7	0.24	12.9	7.5	58	0.7
5835-EN02	5835-EN03	Pump									7.4		
5835-EN03	5503-EN01	Force Main	21	16849	22.0	8.0	22.0	11.1			7.4		
5503-EN01	5251-EN02	Gravity Main	30	5459	22.0	11.1	20.0	5.7	0.10	8.4	7.4	88	0.85
5251-EN02	5251-EN01	Gravity Main	30	1314	20.0	5.7	24.0	4.3	0.10	8.4	7.4	89	0.96
5251-EN01	5083-EN01	Gravity Main	30	4045	24.0	4.3	20.0	0.3	0.10	8.4	8.8	105	0.93
5083-EN01	4999-EN01	Gravity Main	30	1750	20.0	0.3	18.0	-1.5	0.10	8.4	8.3	98	0.85
4999-EN01	4831-EN01	Gravity Main	30	3626	18.0	-1.5	18.0	-5.1	0.10	8.4	8.2	98	0.83
4831-EN01	N39-MH0006A	Gravity Main	30	1362	18.0	-5.1	19.6	-6.5	0.10	8.4	8.2	98	0.77

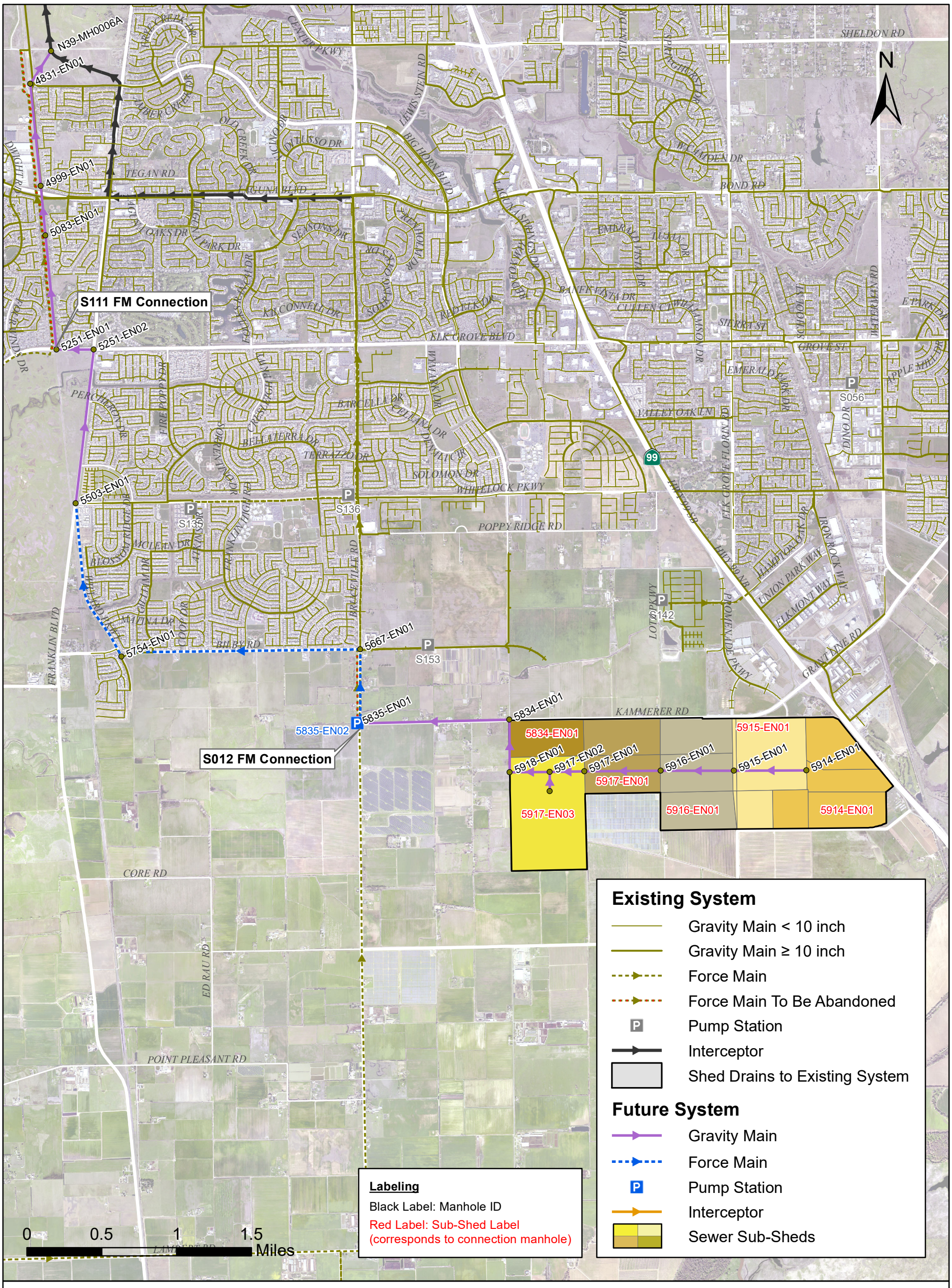


2020 SASD SYSTEM CAPACITY PLAN

SACRAMENTO AREA SEWER DISTRICT

LA Elk Grove SOI
Sewer Shed and Facilities
Buildout Expansion Plan
FIGURE A.15-1

Updated: 9/23/2020



2020 SASD SYSTEM CAPACITY PLAN

SACRAMENTO AREA SEWER DISTRICT

LA Elk Grove SOI
Sub-Sheds and Connection Manholes
Buildout Expansion Plan
FIGURE A.15-2

Updated: 9/23/2020