



South Coast Water District

Water/Wastewater Planning
Presentation

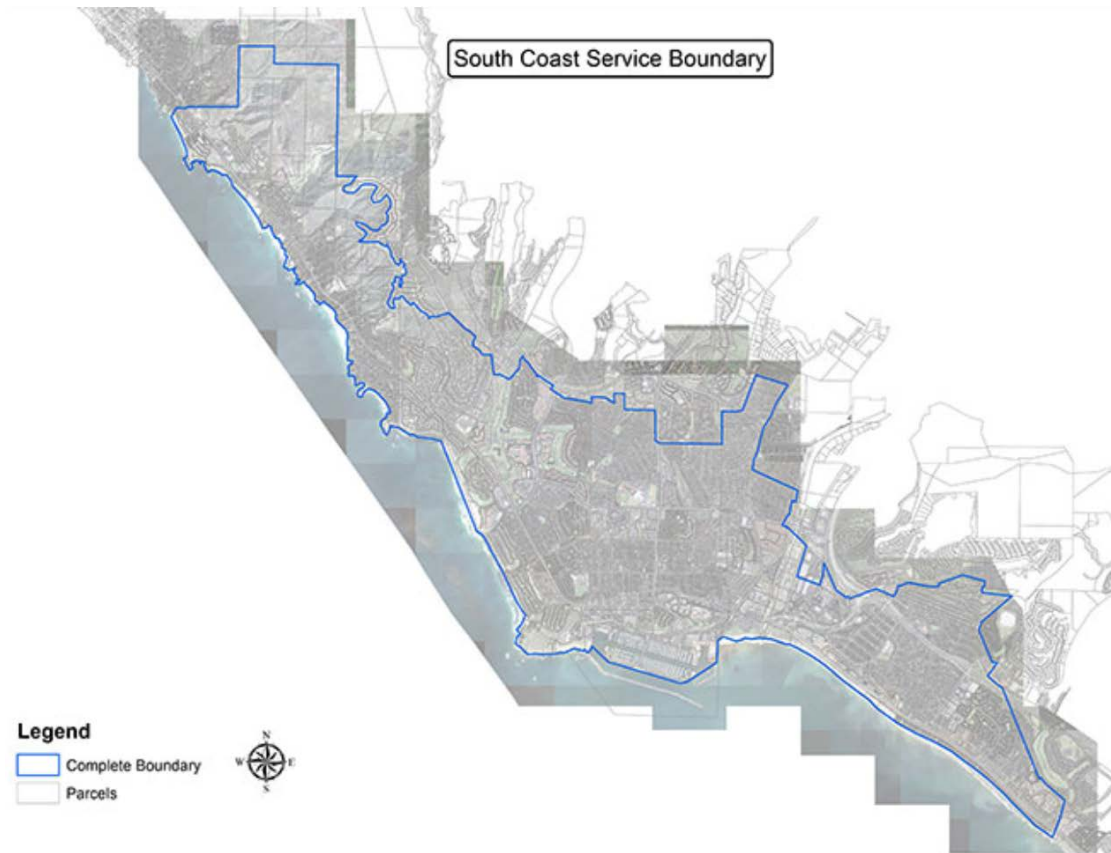
SOCWA BOARD MEETING
FEBRUARY 4, 2021

Agenda

- SCWD basics
- Recycled Water System
- Water Demand Forecast
- Planned Utilization of SOCWA Treatment Plants
 - Coastal Treatment Plant
 - JB Latham
 - Regional Treatment Plant (solids)

SCWD Service Area

- 8.3 square miles
- 12,553 water service connections
- Water and wastewater service
- Includes:
 - South Laguna Beach
 - Dana Point
 - Areas of San Clemente
 - Areas of San Juan Capistrano
- Also operates the Joint Regional Water Supply System



Top Priority: Water Use Efficiency and Recycled Water

Water Use Efficiency

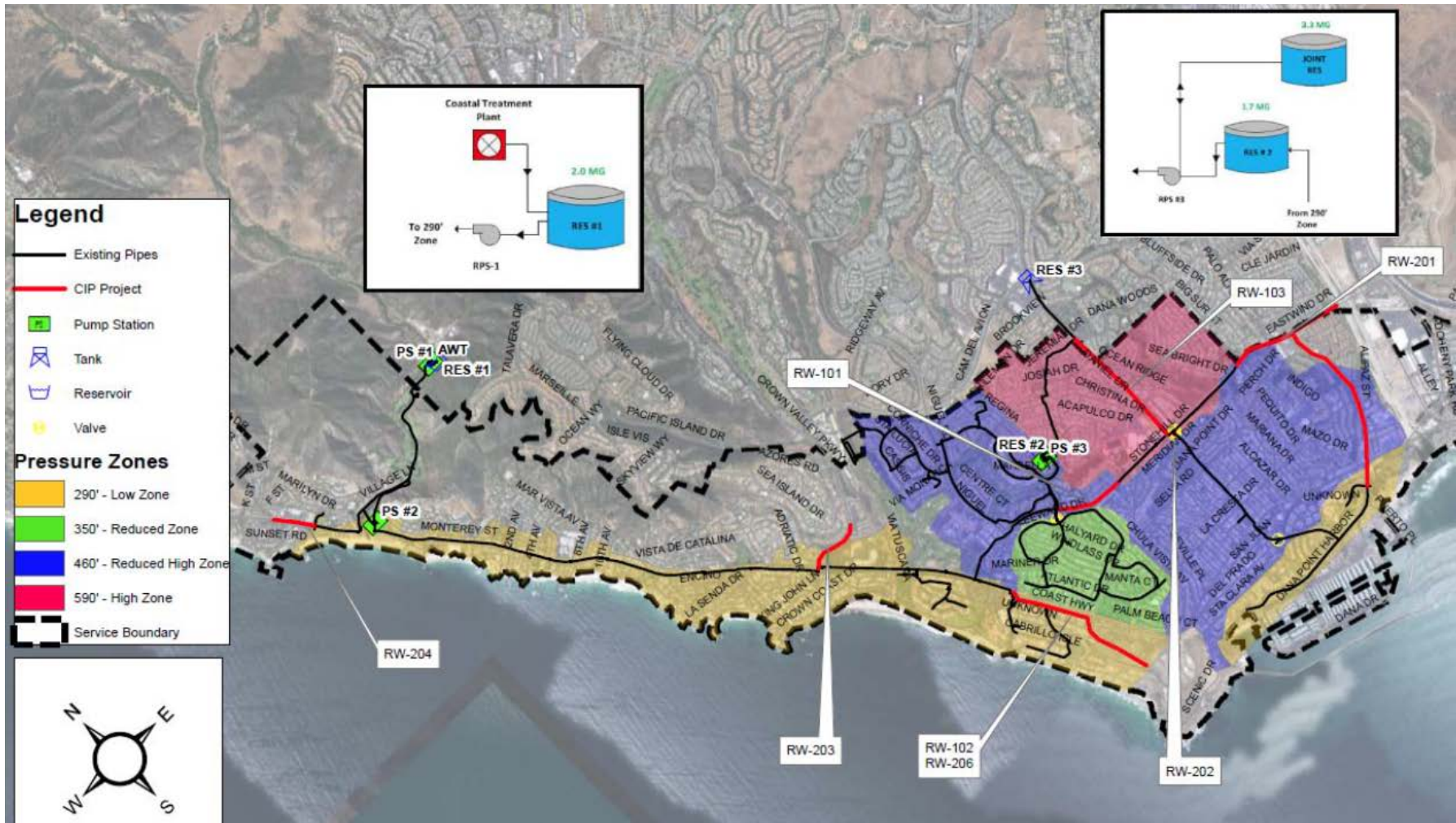
- Achieved over 30% water conservation during last drought
- “Daily Per Capita Potable Water Demand” is 141 gallons per capita per day
 - State target 150 gpcd in 2020
 - Includes water use from 2 million visitors
- 2 to 4% water system loss is among best in State
- Automated Meter Reading (AMR) fully implemented and utilized to minimize Customer Water Leaks

Recycled Water

SCWD Advanced Water Treatment Facilities at Coastal Wastewater Treatment Plant (CTP)

- 70% Utilization of SCWD CTP Sewage Influent TODAY
- Capital Improvement Plans to Maximize Recycled Water to 100% Utilization of SCWD CTP Sewage Influent

SCWD's Recycled Water Service System



Recycled Water System Demands

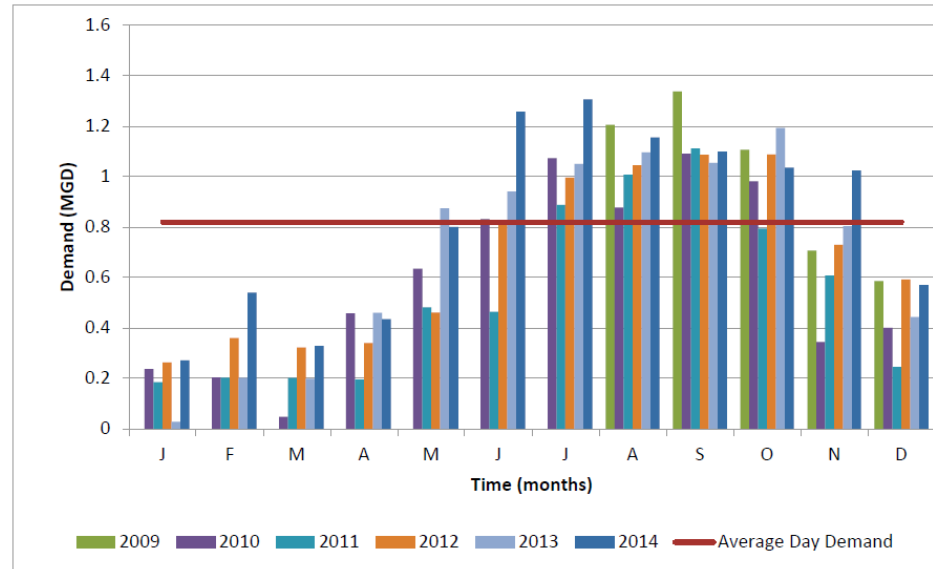


Figure 6-3 Monthly Recycled Water Demand 2009-2014

– CY 2014 Demands

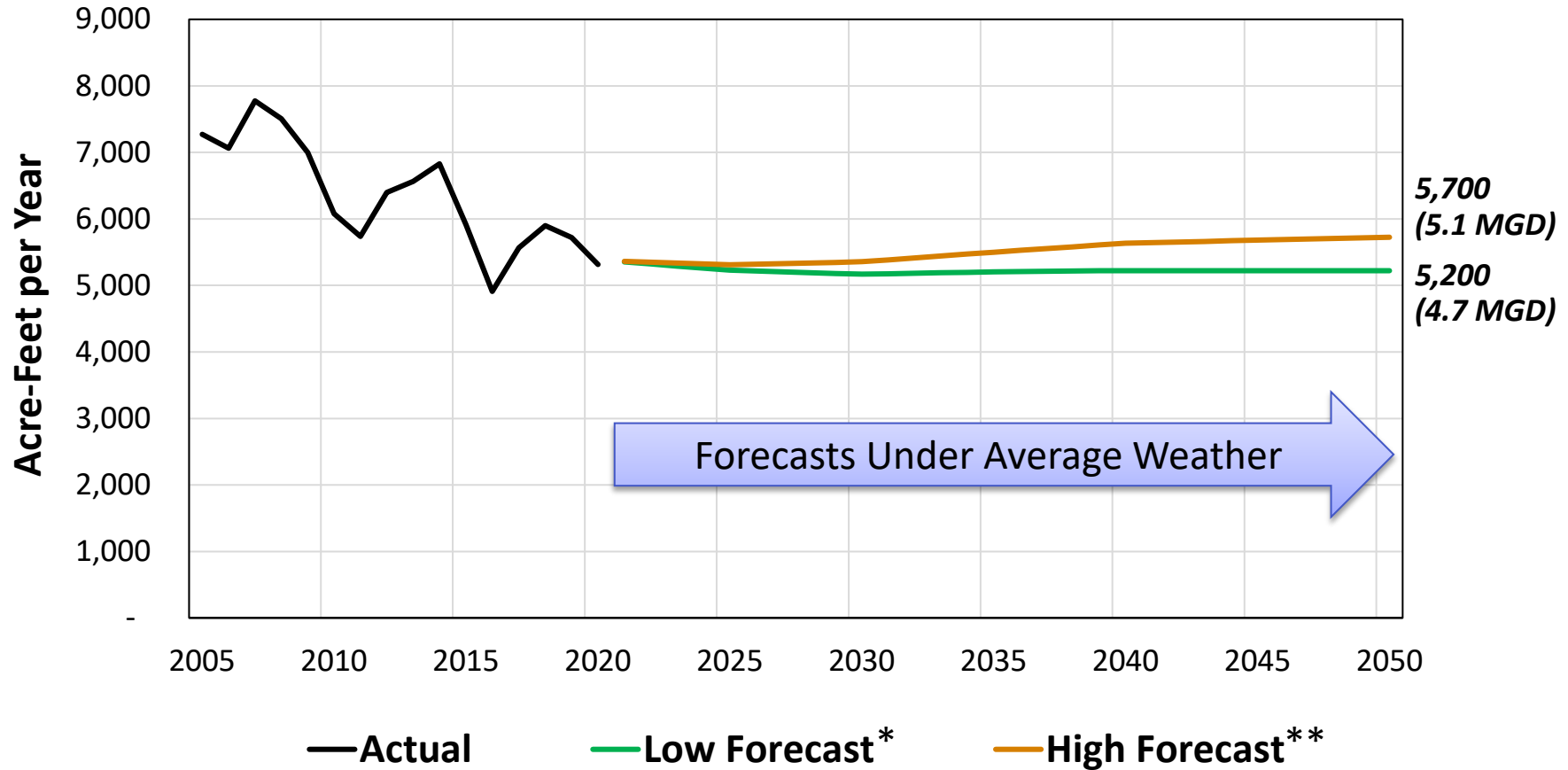
- Average Day Demand (ADD) = 570 gpm = 0.81 MGD = 907 AFY
- Max Day Demand (MDD) = 1.7 X ADD = 969 gpm = 1.38 MGD
- Peak Hour Demand (PHD) = 5 X ADD = 2,850 gpm = 4.05 MGD

2014 SCADA information validated the PHD peaking factor



SCWD Potable Water Demand Forecast

SCWD Potable Water Demand Forecast



* Low represents slower COVID-19 recovery without climate change

** High represents faster COVID-19 recovery with climate change



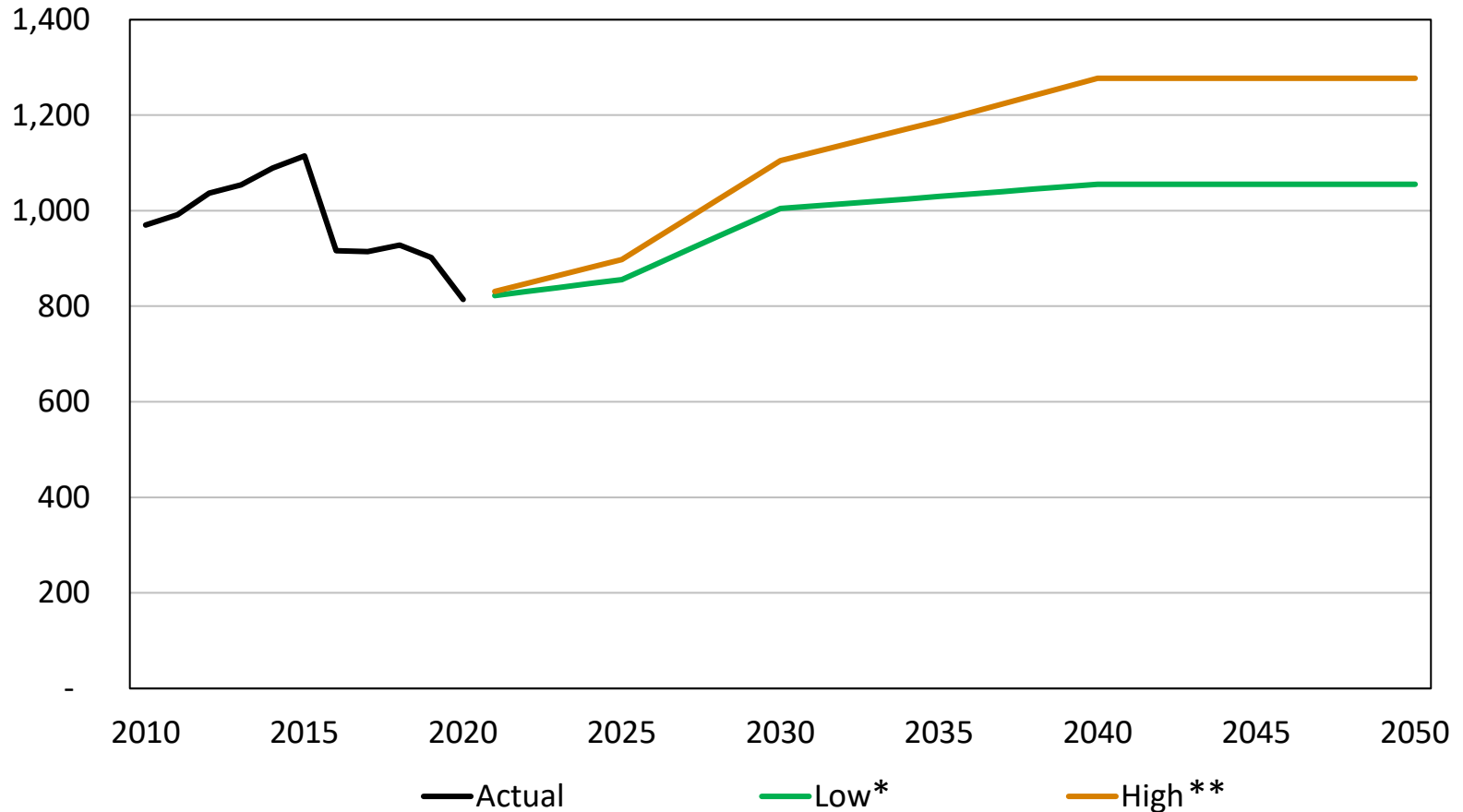
SCWD Service Area Demographic Projections

The housing forecast and persons per household are combined with plumbing fixture and landscape efficiency to estimate future residential water demands

Population and Households	2020	2025	2030	2035	2040	2045	2050	% Growth
Household Population	34,232	35,153	35,657	35,884	36,002	36,054	36,106	5.5%
Single-Family Households	9,770	9,793	9,815	9,838	9,861	9,884	9,907	1.4%
Multifamily Households	7,482	7,915	7,979	8,090	8,128	8,240	8,352	11.6%
Total Households	17,252	17,708	17,794	17,928	17,989	18,124	18,259	5.8%

Demographic Forecasts for SCWD service area from Center for Demographic Research, Cal State Fullerton (2018 Forecast)

SCWD Commercial/Institutional Water Use

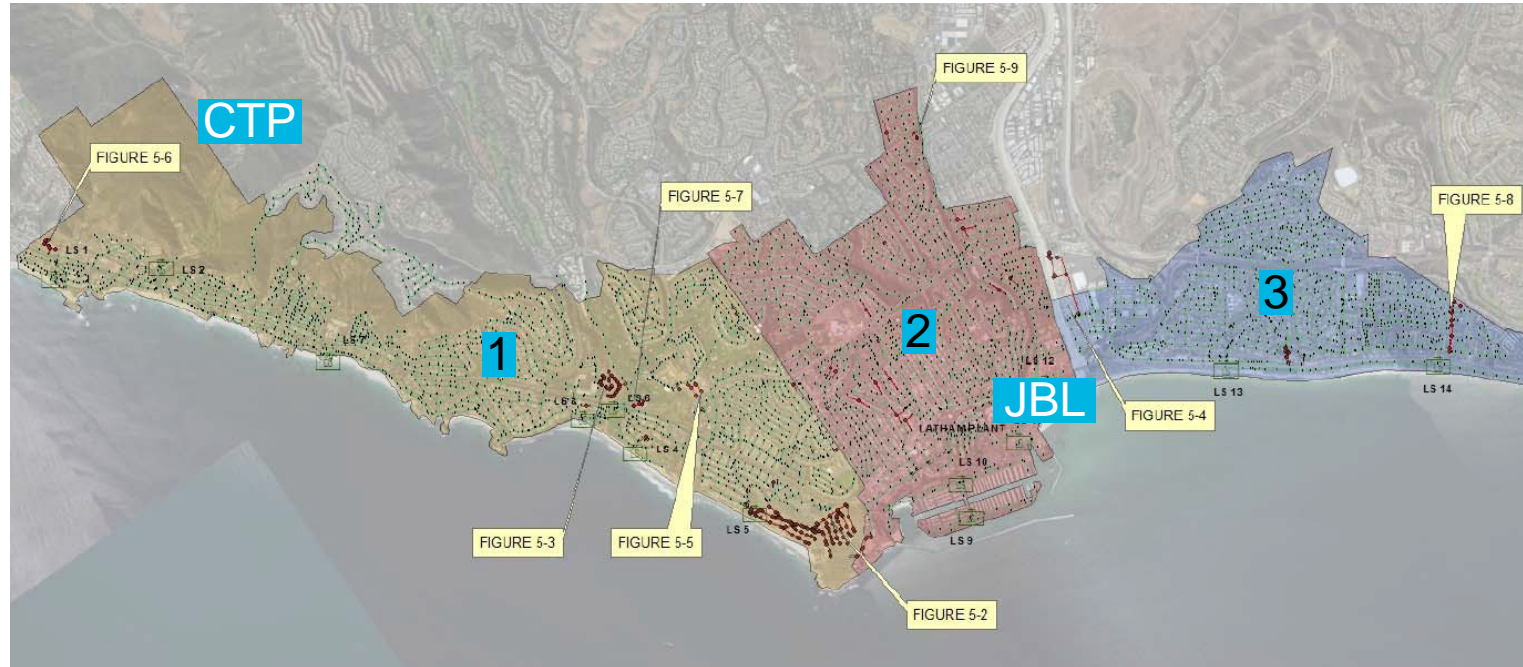


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** High represents faster COVID-19 recovery



Planned Utilization of SOCWA Treatment Plants

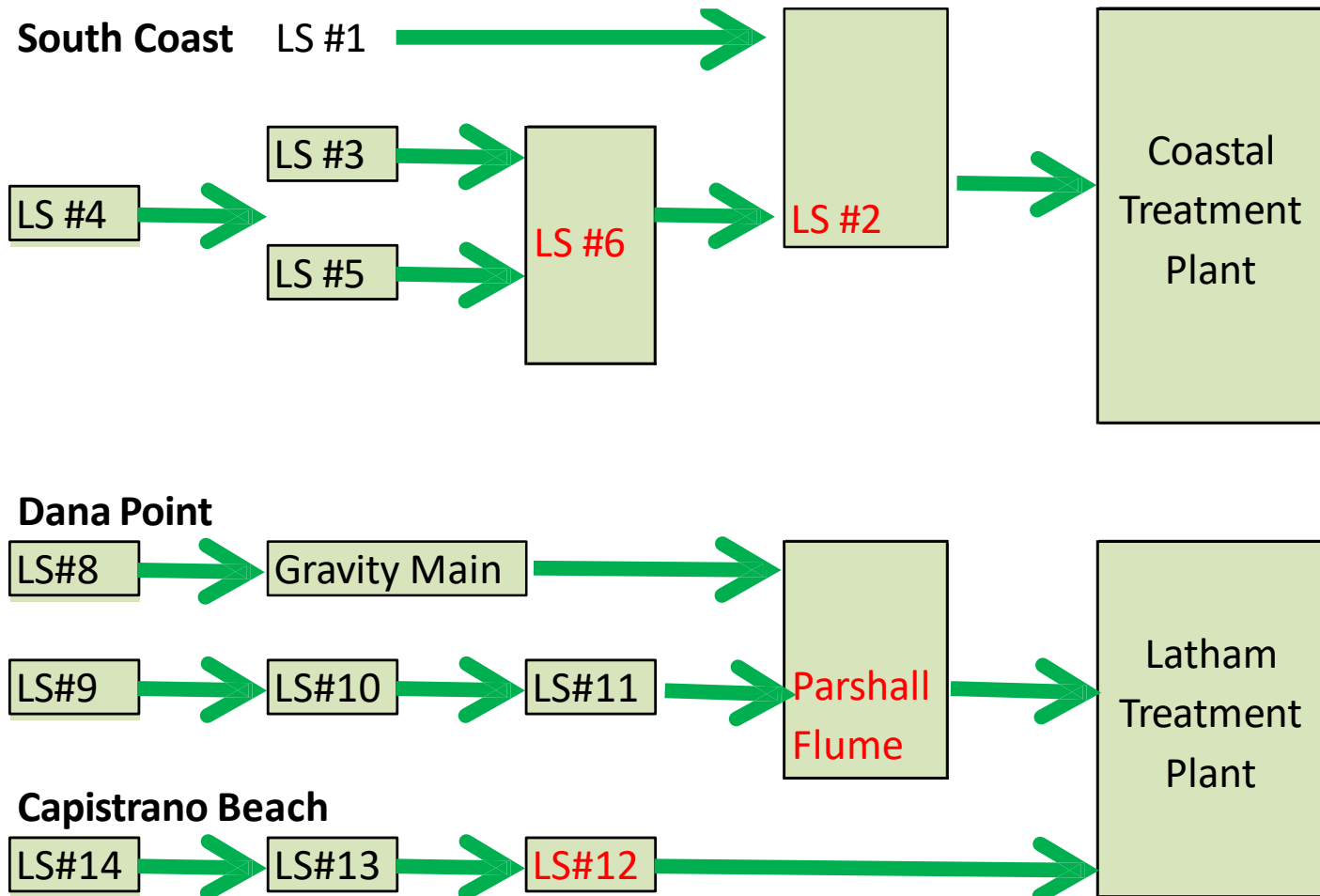
Wastewater System Overview



– 3 Service Areas

- South Coast System **1** → Coastal Treatment Plant **CTP**
- Dana Point System **2** → JB Latham Treatment Plant **JBL**
- Capistrano Beach System **3** → JB Latham Treatment Plant **JBL**

Wastewater System Overview



Wastewater Flows – Total SCWD

Date	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Jan	3.7	4.2	3.7	4.8	4.6	5.0	5.2	3.5	3.2	3.0
Feb	3.9	3.6	3.8	4.7	4.7	5.1	3.5	3.4	3.2	3.0
Mar	3.8	3.7	3.8	4.6	4.8	4.5	3.6	3.4	3.2	3.1
Apr	5.0	3.7	3.7	4.4	4.7	3.7	3.6	3.4	3.2	3.0
May	3.9	3.7	3.8	4.4	4.8	3.6	3.6	3.5	3.2	3.1
Jun	3.9	3.7	3.9	4.5	4.8	3.8	3.6	3.5	3.4	3.1
Jul	4.3	4.2	4.0	4.5	4.9	3.9	3.8	3.6	3.5	2.9
Aug	4.4	4.0	3.9	4.6	4.9	4.6	3.8	3.5	3.4	2.5
Sep	4.0	3.8	3.7	4.4	4.8	3.7	3.8	3.4	3.2	2.4
Oct	4.5	4.3	4.3	4.8	4.8	3.8	3.6	3.2	3.1	3.0
Nov	4.8	4.6	4.6	4.3	4.9	3.6	3.6	3.1	3.0	2.9
Dec	4.8	3.7	4.7	4.6	4.9	4.1	3.5	3.1	3.0	3.0
Average	4.3	3.9	4.0	4.6	4.8	4.1	3.8	3.4	3.2	2.9
Maximum	5.0	4.6	4.7	4.8	4.9	5.1	5.2	3.6	3.5	3.1
Minimum	3.7	3.6	3.7	4.3	4.6	3.6	3.5	3.1	3.0	2.4

Wastewater System Capital Improvements

Table 7-3. Capital Improvement Program (CIP) - Wastewater Collection System Projects

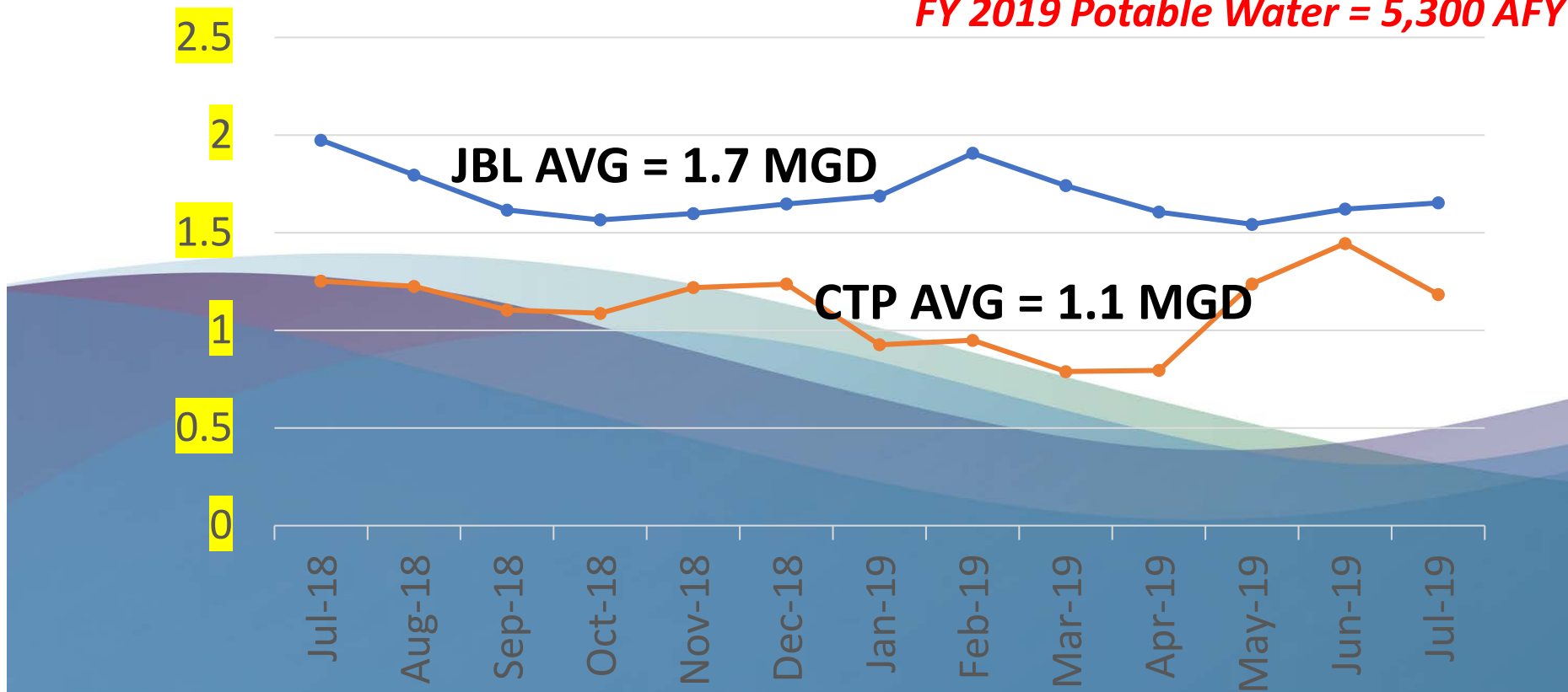
CIP #	Project Description	Estimated Quantity	Unit of Measure	Unit Cost (\$/unit)	Cost (\$)	Cost by Priority ¹ (\$)			
						I	II	III	IV
	<u>Projects to Correct System Deficiencies</u>								
S-101	Del Obispo St. from Village Rd to Lighthouse Dr - Replace approximately 2,115 feet of 12-inch pipe with 18-inch pipe	2,115	LF	\$919	\$1,944,000			\$1,944,000	
S-102	Del Obispo St South of Stonehill Dr - Replace approximately 160 feet of 12-inch pipe with 18-inch pipe.	160	LF	\$919	\$148,000			\$148,000	
S-103	South of Dana Point Harbor Dr between Island Way and Casitas Pl - Replace approximately 400 feet of 8-inch pipe with 12-inch pipe	400	LF	\$607	\$243,000		\$243,000		
S-104	Pacific Coast Hwy Downstream of LS #13 Discharge Pipe - Replace approximately 185 feet of 8-inch pipe with 18-inch pipe.	185	LF	\$919	\$171,000		\$171,000		
S-105	Lift Station 12 Improvements - Increase storage capacity and upsize pumps and discharge piping.	1	LS		\$500,000			\$500,000	
			Projects to Correct System Deficiencies Subtotal			\$0	\$414,000	\$2,592,000	\$0
	<u>Projects for System Modifications and Expansions</u>								
	None	1	LS		\$0				
			Projects for System Modifications and Expansions Subtotal			\$0	\$0	\$0	\$0
	<u>Other Projects</u>								
	None	1	LS		\$0				
			Other Projects Subtotal			\$0	\$0	\$0	\$0
Priority 1 Costs Total						\$0			
Priority 2 Costs Total							\$414,000		
Priority 3 Costs Total								\$2,592,000	
Priority 4 Costs Total									\$0

¹ Priority 1 projects are planned to be completed within the next fiscal year. Priority 2 projects are planned to be completed within the next 5 years. Priority 3 projects are planned to be completed within the next 10 years. Priority 4 projects are to be completed after the next 10 years.

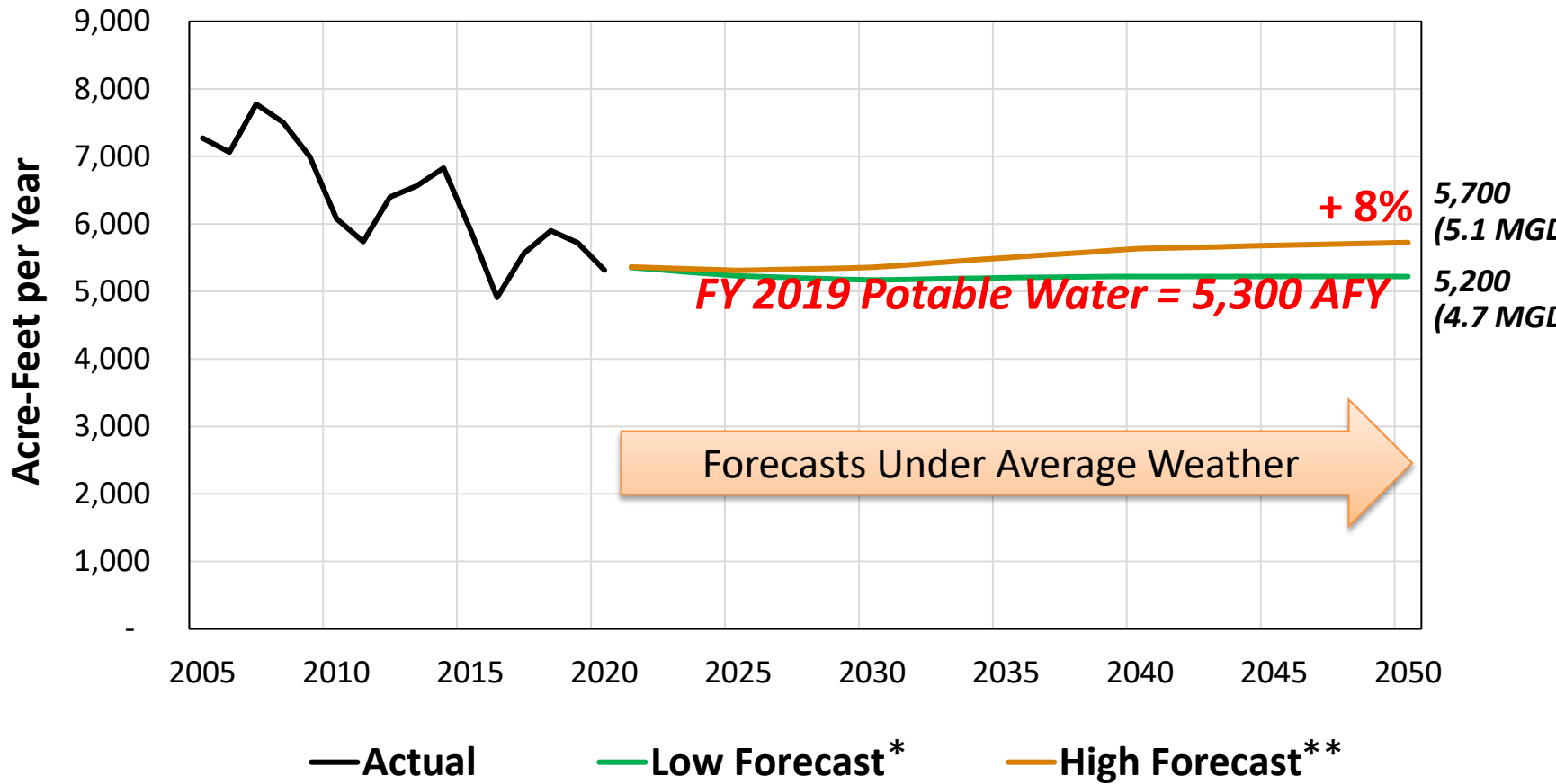


SCWD FLOWS TO CTP (ORANGE) & JBL (BLUE) FY 2019

FY 2019 Potable Water = 5,300 AFY



SCWD Potable Water Demand Forecast



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SCWD'S PLANNED UTILIZATION OF CTP & JBL

LOW

	TODAY	YEAR 2050
CTP (MGD)	1.1 MGD	1.1 MGD
JBL (MGD)	1.7 MGD	1.7 MGD
TOTAL SCWD	2.8 MGD	2.8 MGD

HIGH

	TODAY	YEAR 2050
CTP (MGD)	1.1 MGD	1.2 MGD
JBL (MGD)	1.7 MGD	1.9 MGD
TOTAL SCWD	2.8 MGD	3.1 MGD





QUESTIONS



MARC SERNA OR JOE McDIVITT



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