



2020 Urban Water Management Plan Results & Findings Update

April 28, 2021

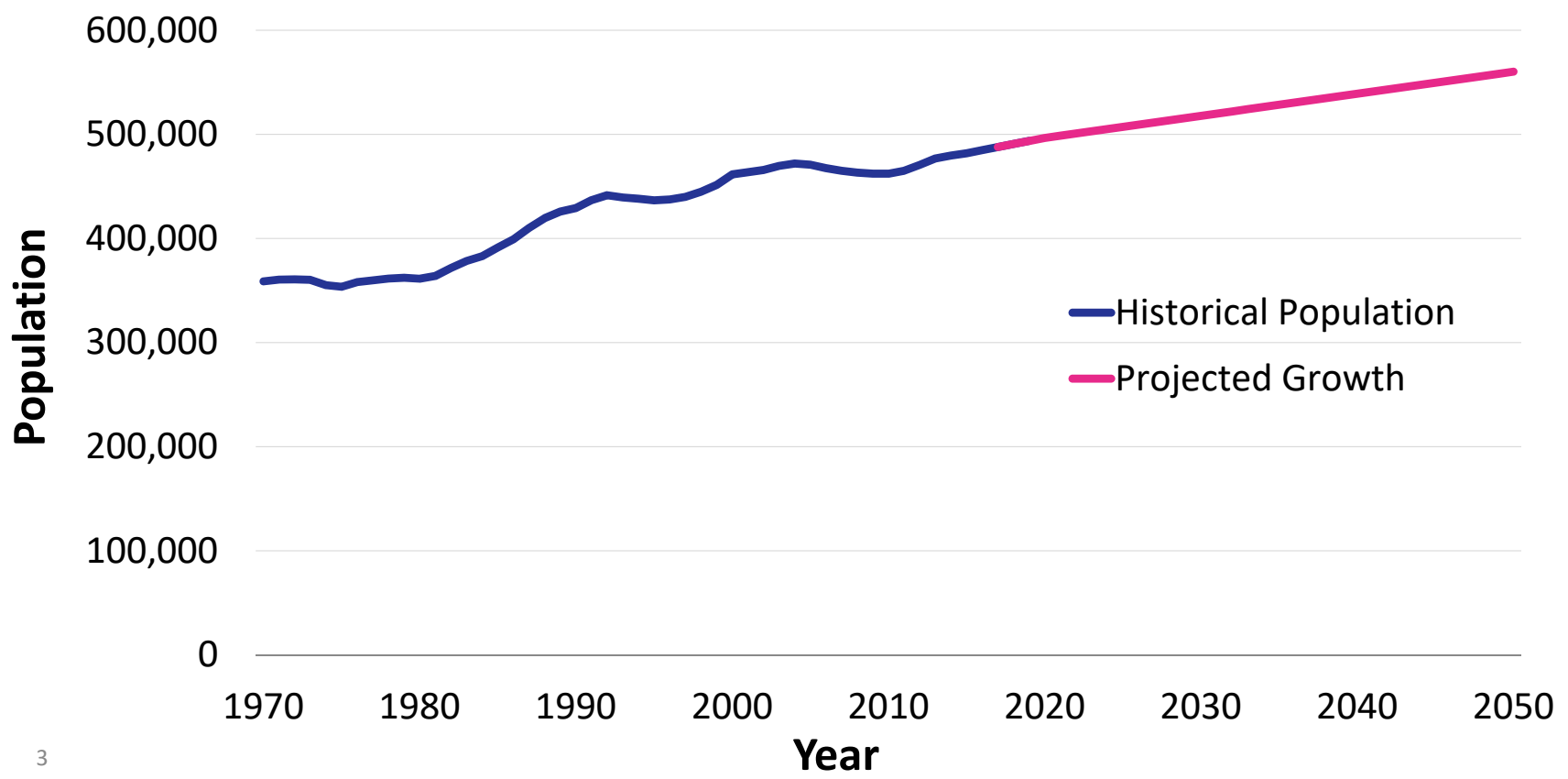


2020 UWMP Organization

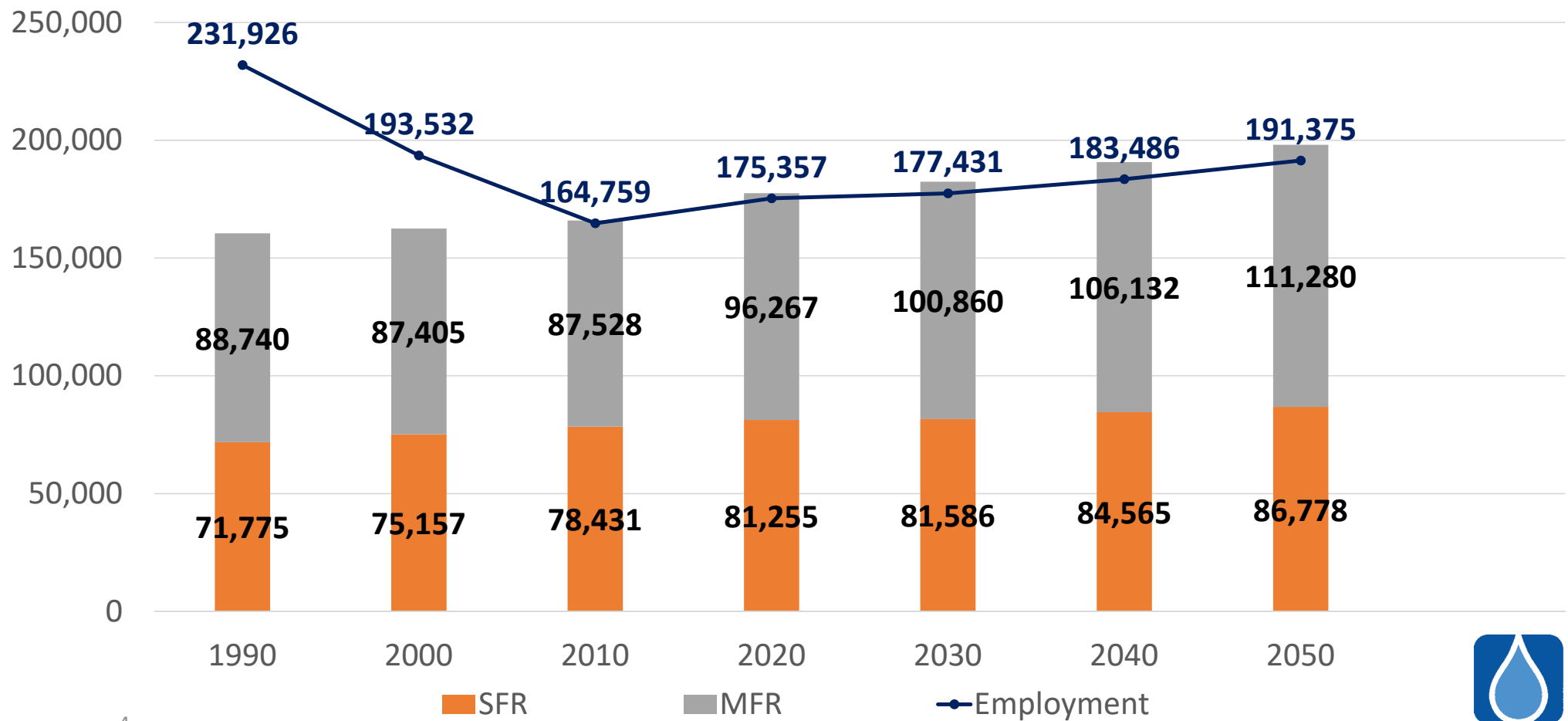
- 1 – Introduction and Lay Description
- 2 – Plan Preparation
- 3 – System Description
- 4 – Customer Water Use
- 5 – Conservation Target Compliance
- 6 – System Supplies
- 7 – Water System Reliability
- 8 – Water Shortage Contingency Plan
- 9 – Demand Management Measures
- 10 – Plan Adoption, Submittal, and Implementation



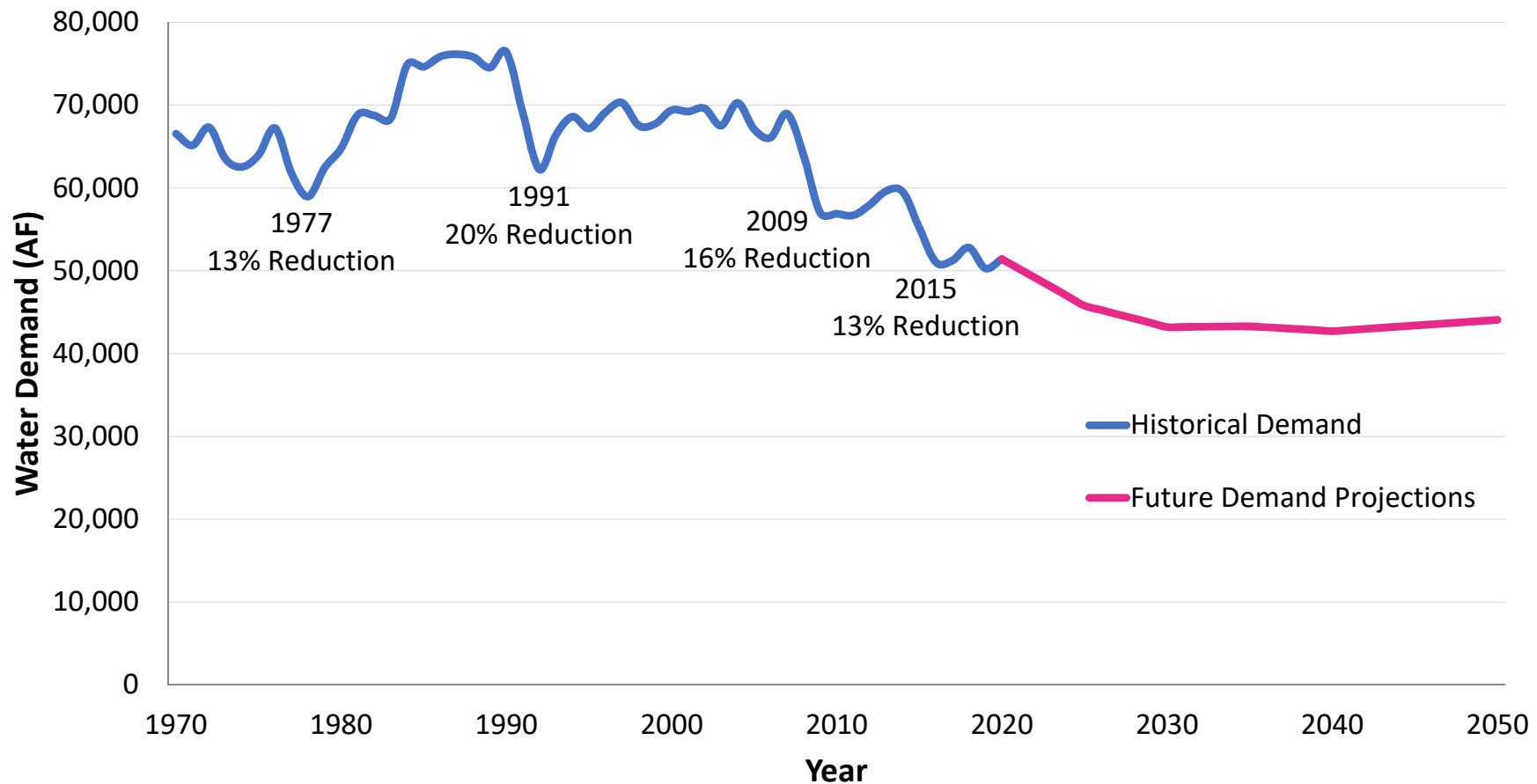
4 – Population Projection



4 – Housing and Employment Projection



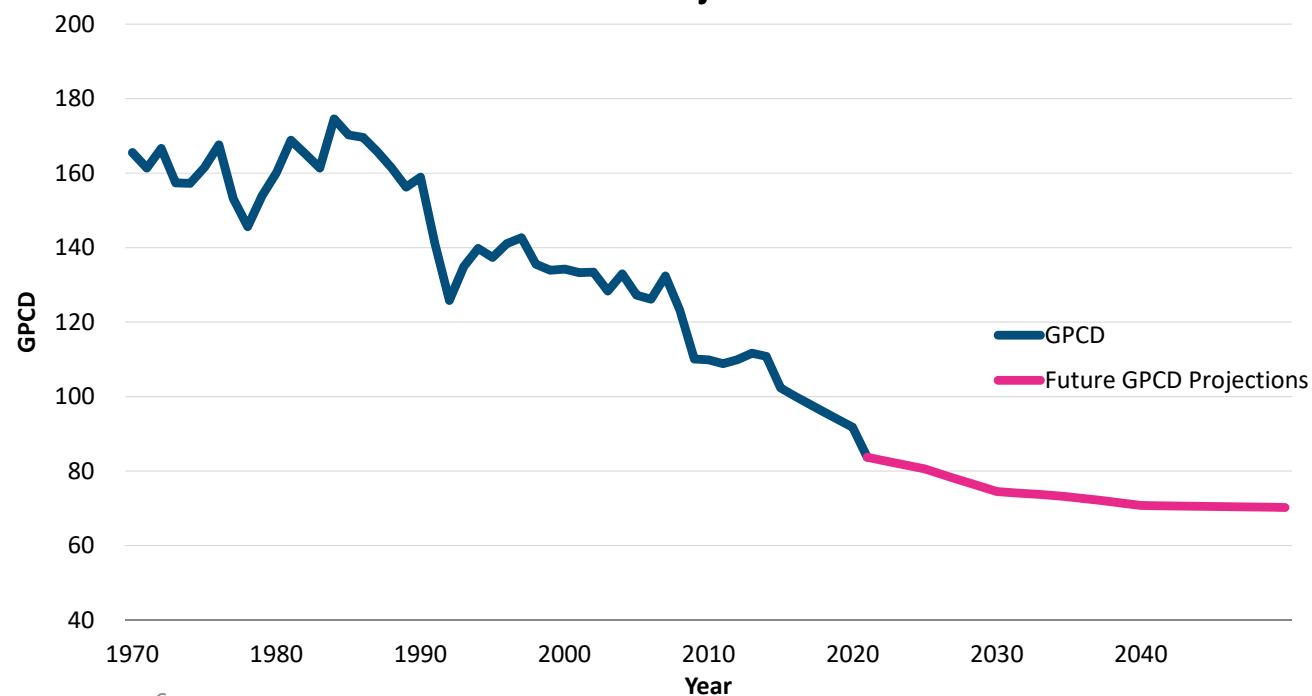
4 – Demand Projection



5 – SB-7x7 Baselines and Targets

Water Conservation Act of 2009 (SBx7-7) : Statewide Goal to reduce urban water use by 20% by 2020

Historical and Projected GPCD



Baseline Start Year	Baseline End Year	Baseline GPCD
1996	2005	134

2020 Confirmed GPCD Target	2020 Actual GPCD
107	93

City of Long Beach has achieved 2020 Urban Water Use Target

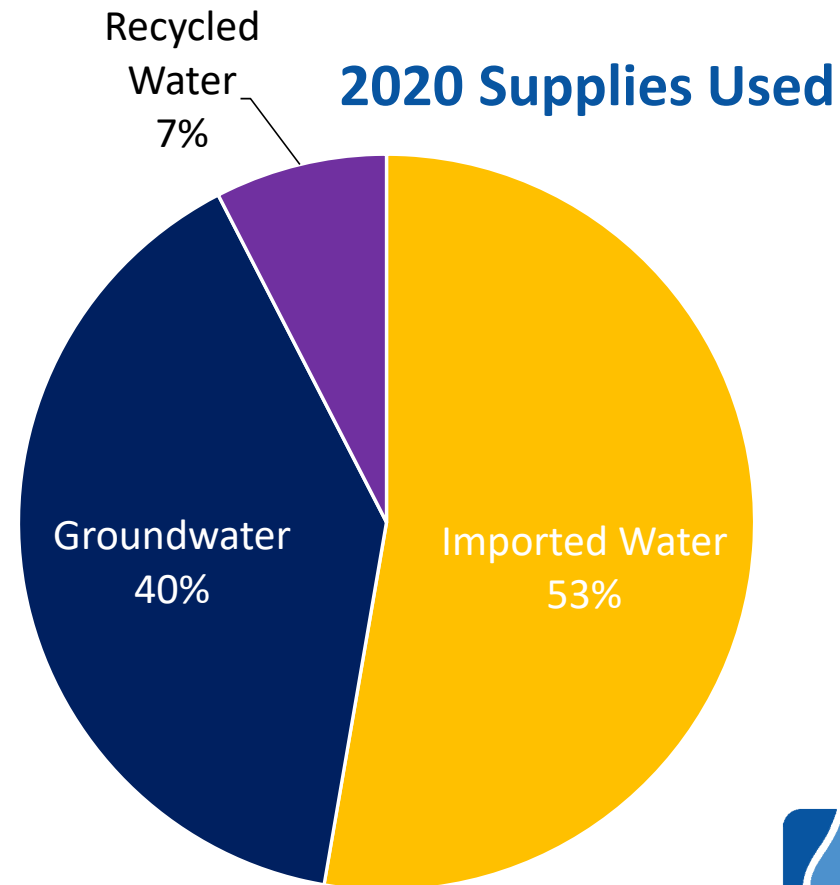
Urban Water Use Reduced by 30%



6 – 2020 Supply Use

Water Supply	Supply Used (AF)	Supply Available (AF)
Imported Water	29,108	35,100
Groundwater	21,932	32,693
Recycled Water	4,176	13,495
Total	55,216	81,288

68% of available supplies consumed



6 – 2020 Energy Intensity

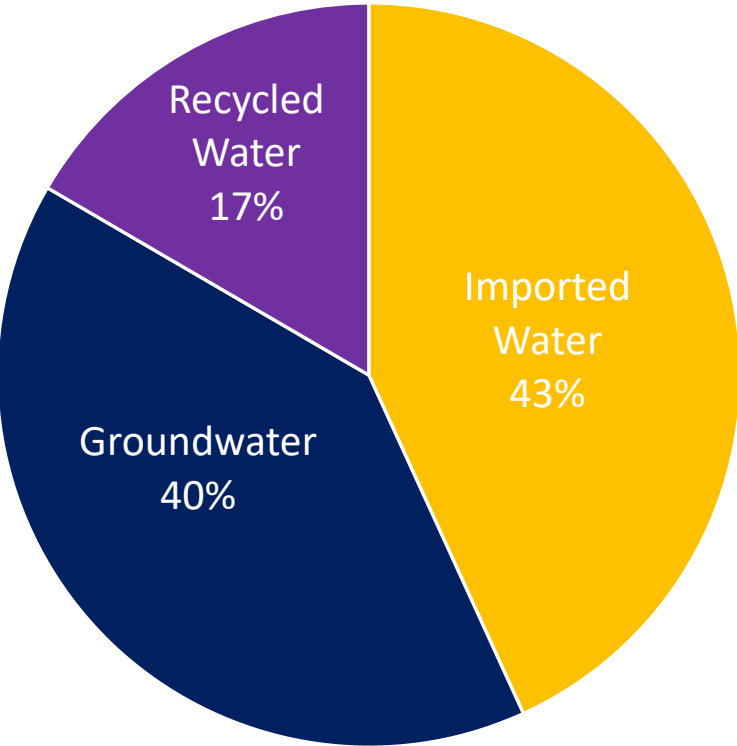
Supply	Energy Intensity (kWh/AF)	Notes
Recycled Water	280	Discharge & Distribution; Does not reflect energy from treatment processes at LBWRP
Groundwater	551	
Imported Water (MWD)	1,863	Information regarding distribution conveyance (i.e booster stations) energy consumption was not readily available and not reflected MWD treated water energy intensity is the 2013-2018 average including MWD conveyance, treatment, and distribution energy intensities

Total Energy Consumption is estimated; information and data readily available were used but are not comprehensive of entire energy consumption across the LBWD water systems



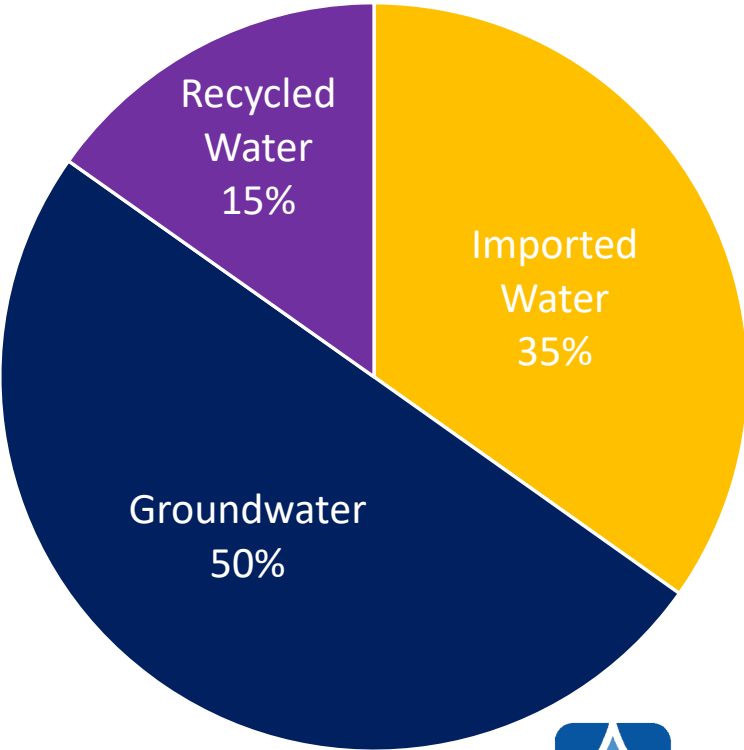
6 – Water Supply Sources

2020



Supply Sources (AF)	2020	2050
Imported Water	35,100	30,900
Groundwater	32,693	44,352
Recycled Water	13,495	13,500
Total	81,288	88,752

2050

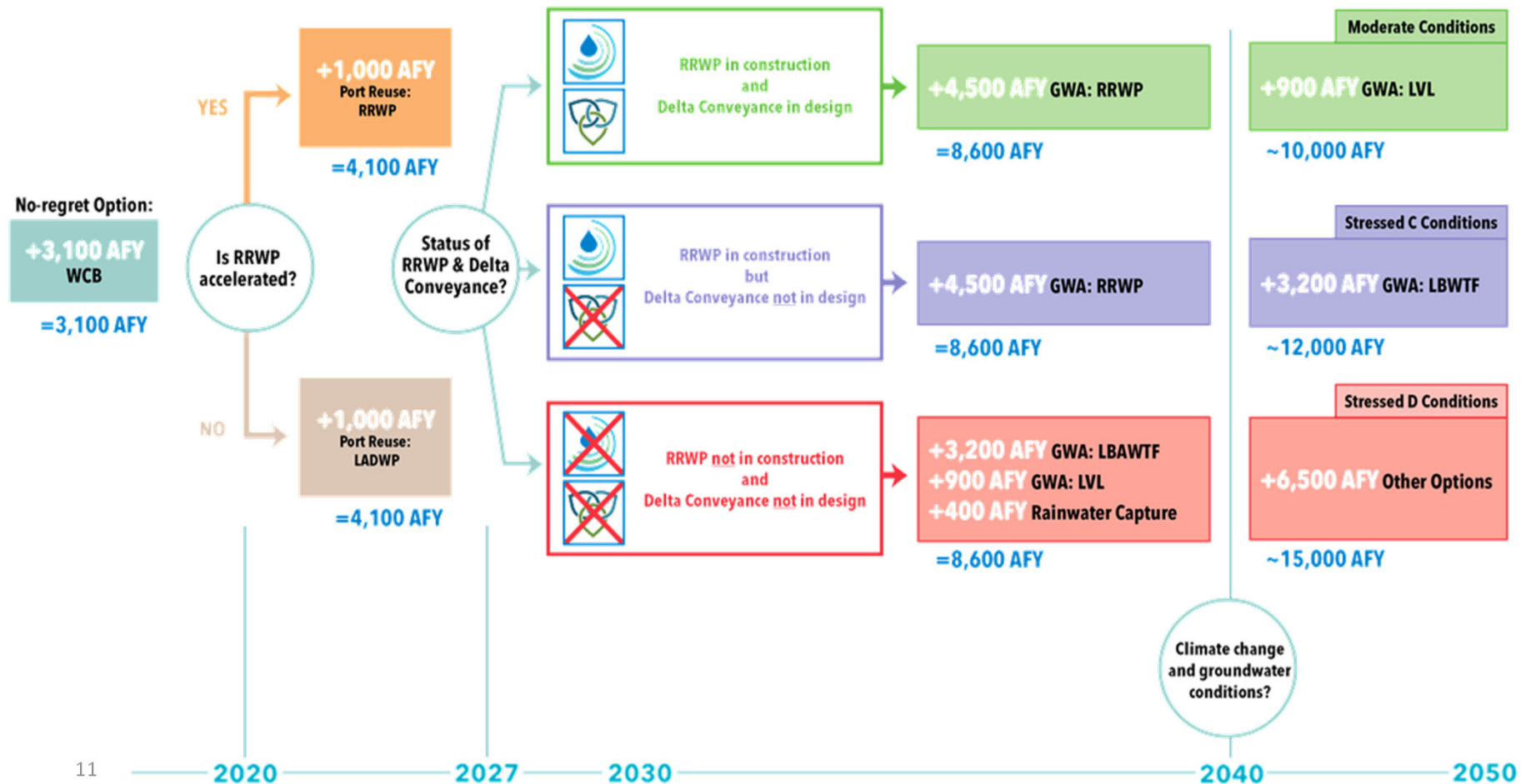


6 – Potential Future Supplies

1. West Coast Basin Development
2. Groundwater Augmentation
 - 2A. LBWRP/LVL AWTF
 - 2B. MWD RRWP
 - 2C. LBWRP/AWTF
3. Recycled Water
 - 3A. Industrial Reuse at POLB (MWD RRWP)
 - 3B. Industrial Reuse at POLB (Hyperion)
4. LB MUST
5. Rainwater Harvesting
6. Seawater Desalination

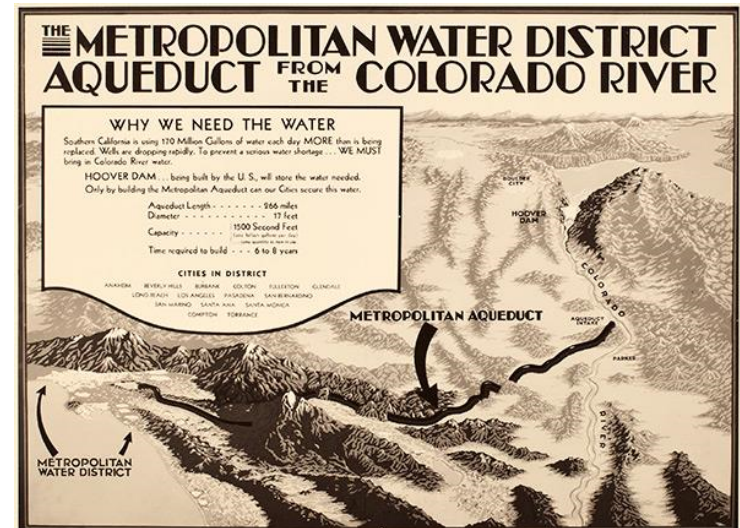


6 – Potential Future Supplies

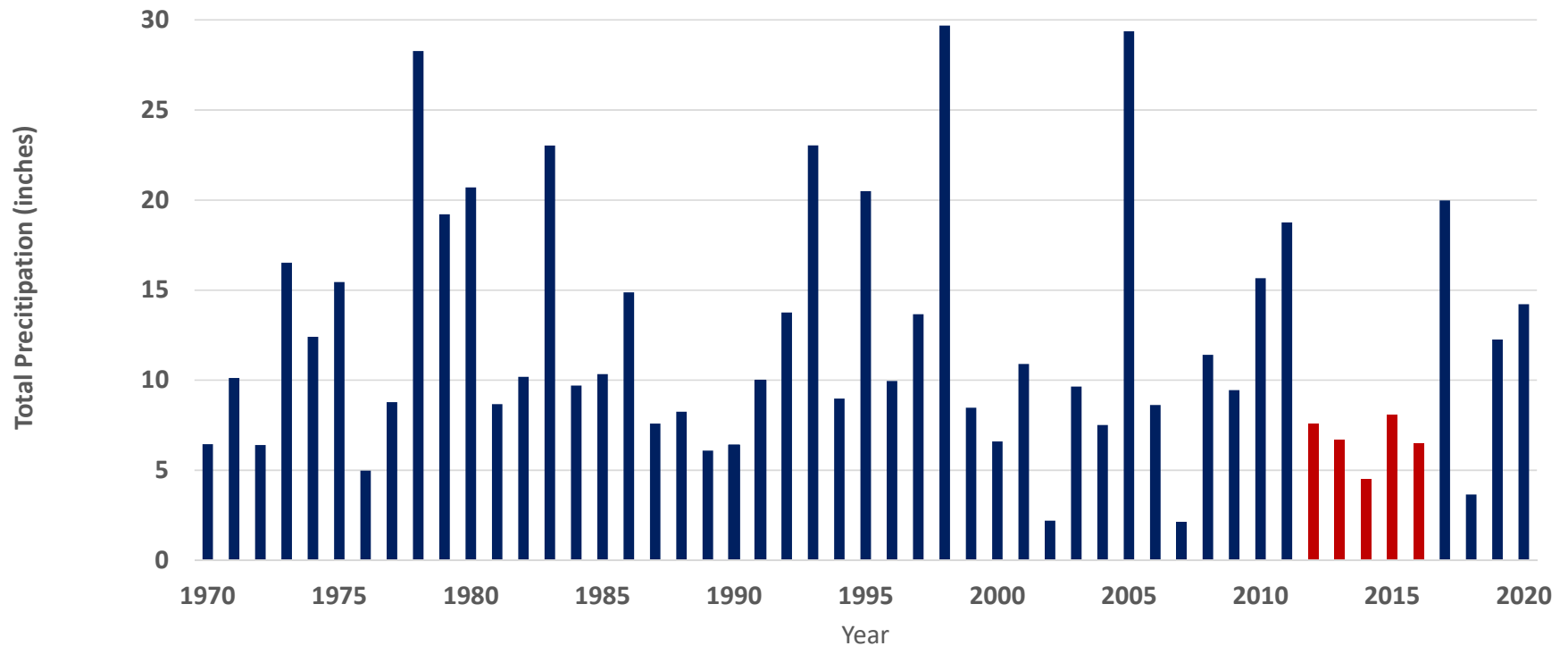


7 – Supply Reliability

- Groundwater
 - Adjudicated Basin = extraction amounts are limited
 - Reliable source of funding for replenishment
- Imported Water
 - MWD Declaration of Reliability through 2050
 - 100 GPCD Guarantee
 - Preferential Rights



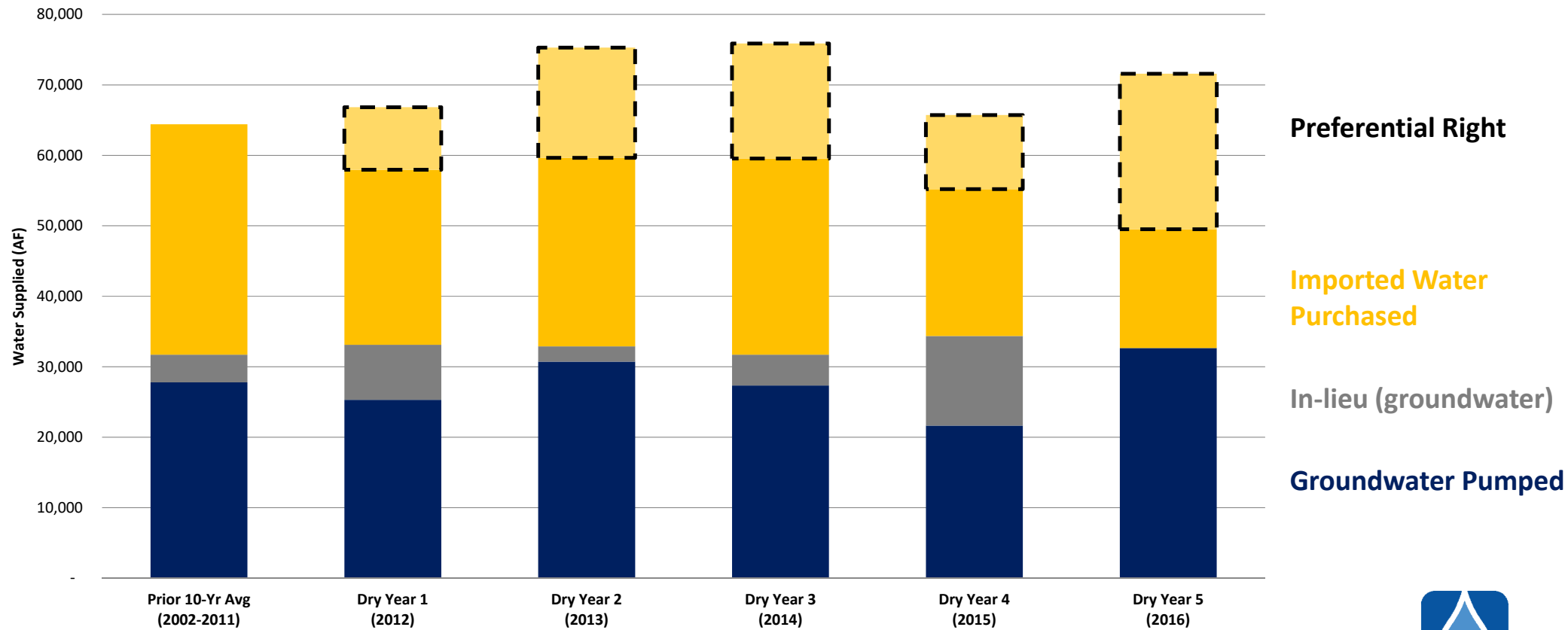
7 – Multi-Year Drought Supply Reliability



Hydrologic Condition	Year
Multi-Year Drought	2012 - 2016



7 – Multi-Year Drought Supply Reliability



7 – Supply Reliability

Available supplies exceed projected demands

	2025	2030	2035	2040	2045	2050
Total Supplies*	+84,752	+84,752	+88,752	+88,752	+88,752	+88,752
Total Demands*	-53,964	-51,861	-51,691	-51,042	-51,653	-52,520
Surplus	+30,788	+32,891	+37,061	+37,710	+37,099	+36,232

** Totals include both potable and recycled water supplies/demands*



7 – Drought Risk Assessment

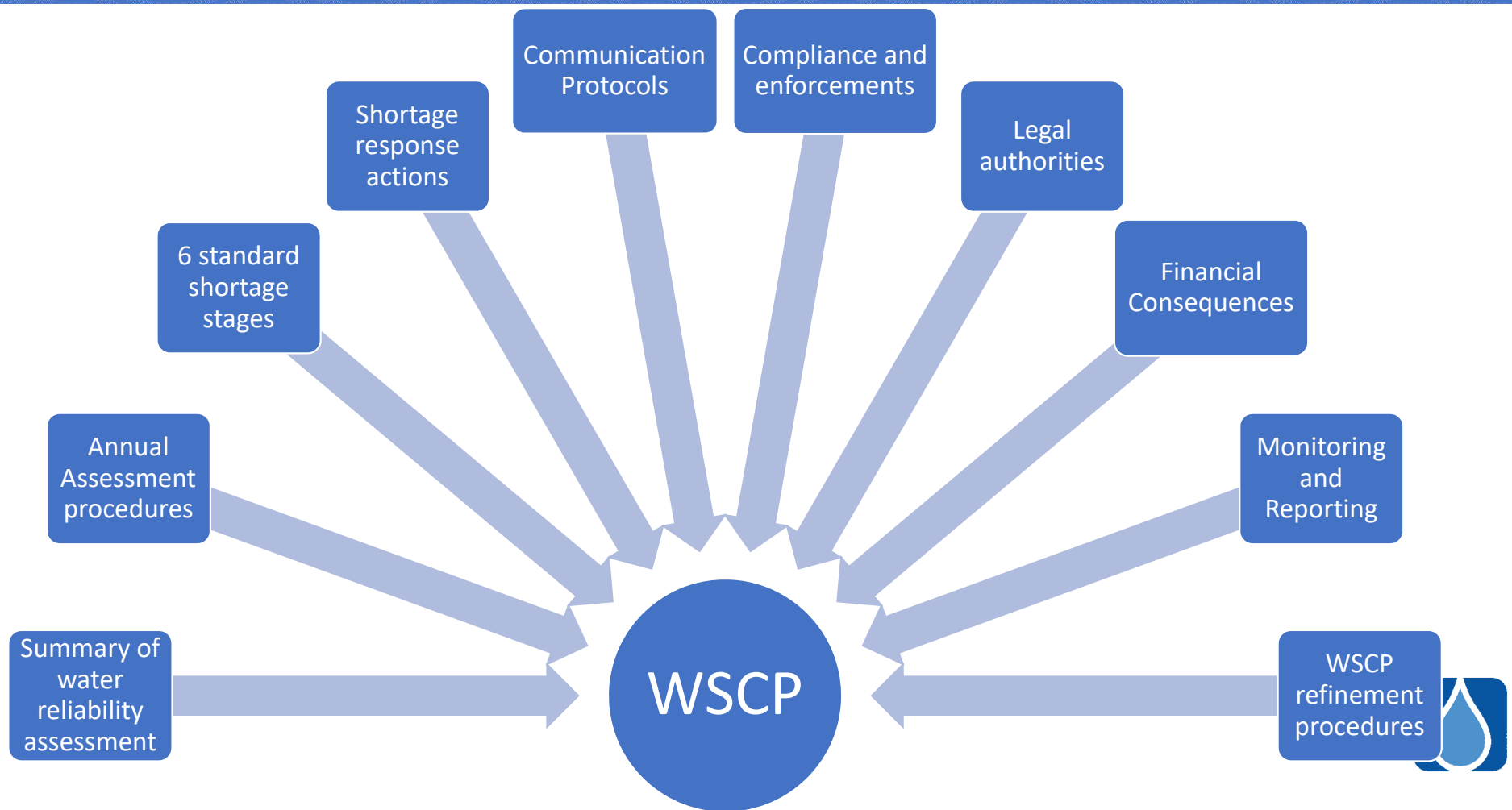
Shortage Risk for Next 5 Years

	2021	2022	2023	2024	2025
Total Supplies*	+79,426	+80,626	+83,852	+83,852	+84,752
Total Demands*	-53,854	-53,659	-53,463	-53,267	-53,964
Surplus	+25,572	+26,967	+30,389	+30,585	+30,788

** Totals include both potable and recycled water supplies/demands*



8 – Water Shortage Contingency Planning



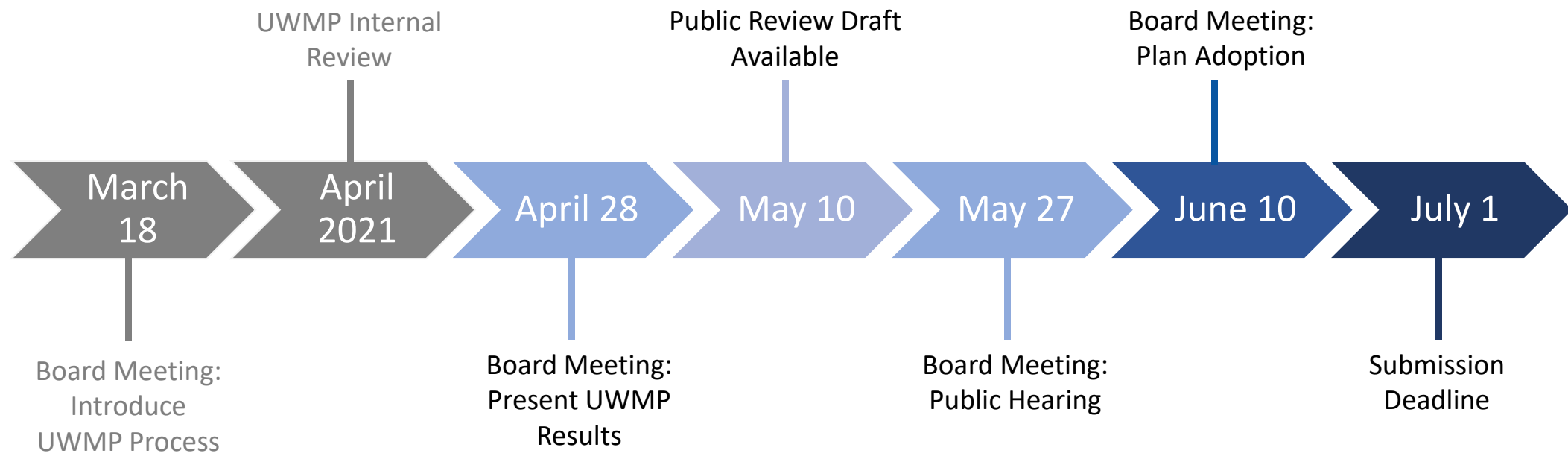
8 – Water Shortage Contingency Planning

LBWD Shortage Stage		2020 WSCP Level	Total Supply Shortage Level
Non-Shortage Conditions		1	≤ 10%
Imminent Water Supply Shortage		2	Up to 20%
Stage 1 Shortage			
Stage 2 Shortage		3	Up to 30%
		4	Up to 40%
Stage 3 Shortage		5	Up to 50%
		6	>50%

The numeric percentages shown are guidelines. LBWD has not adopted specific numeric percentage targets that in all cases trigger a shortage declaration.



Schedule



Questions?



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