



CUSTOMERS FIRST

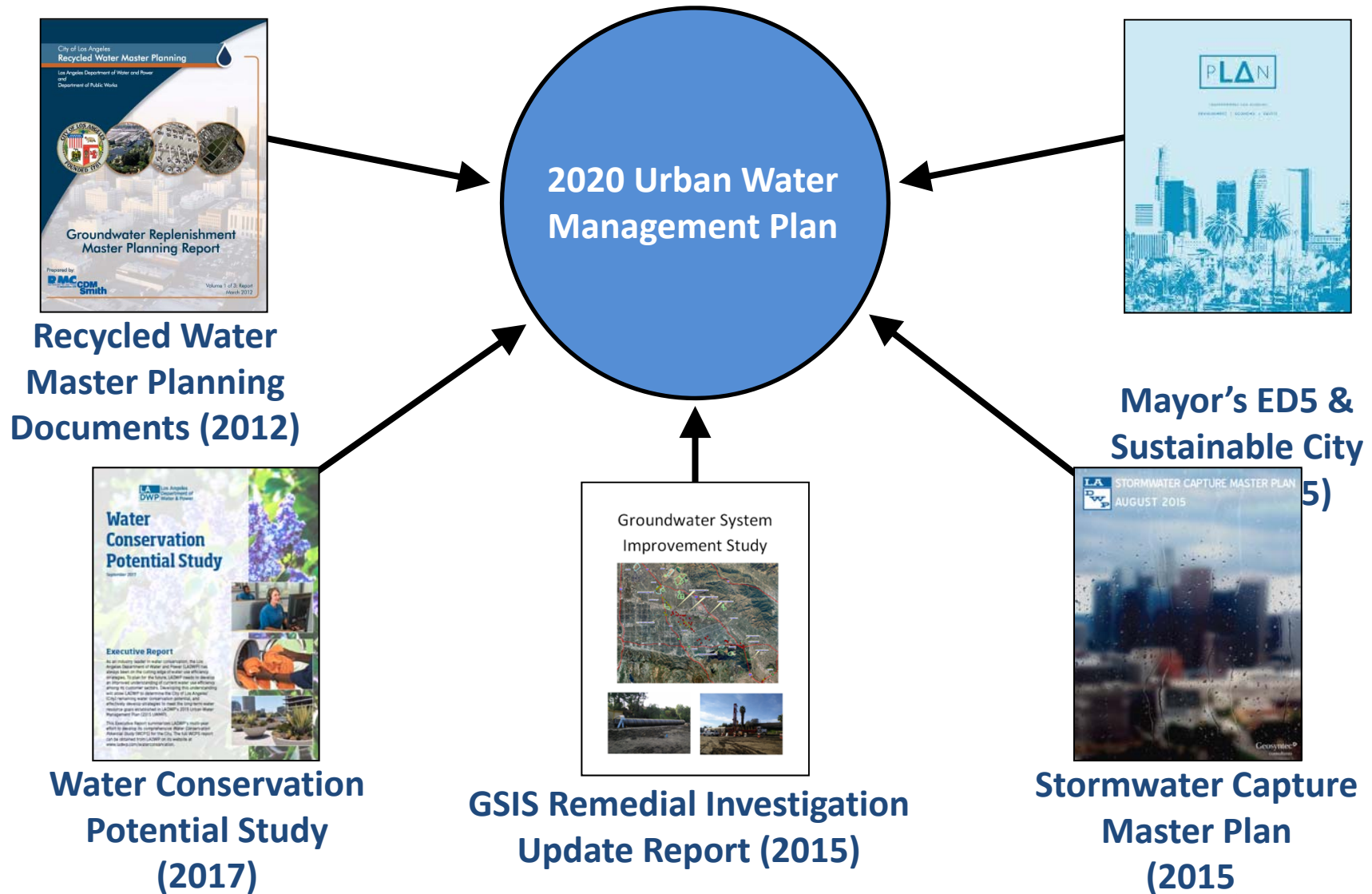
Hyperion Reuse and Groundwater Development Program

May 21, 2019

Water Resources Division
Water Rights and Resource Management (Groundwater)
Chris Repp, P.E., MSCE



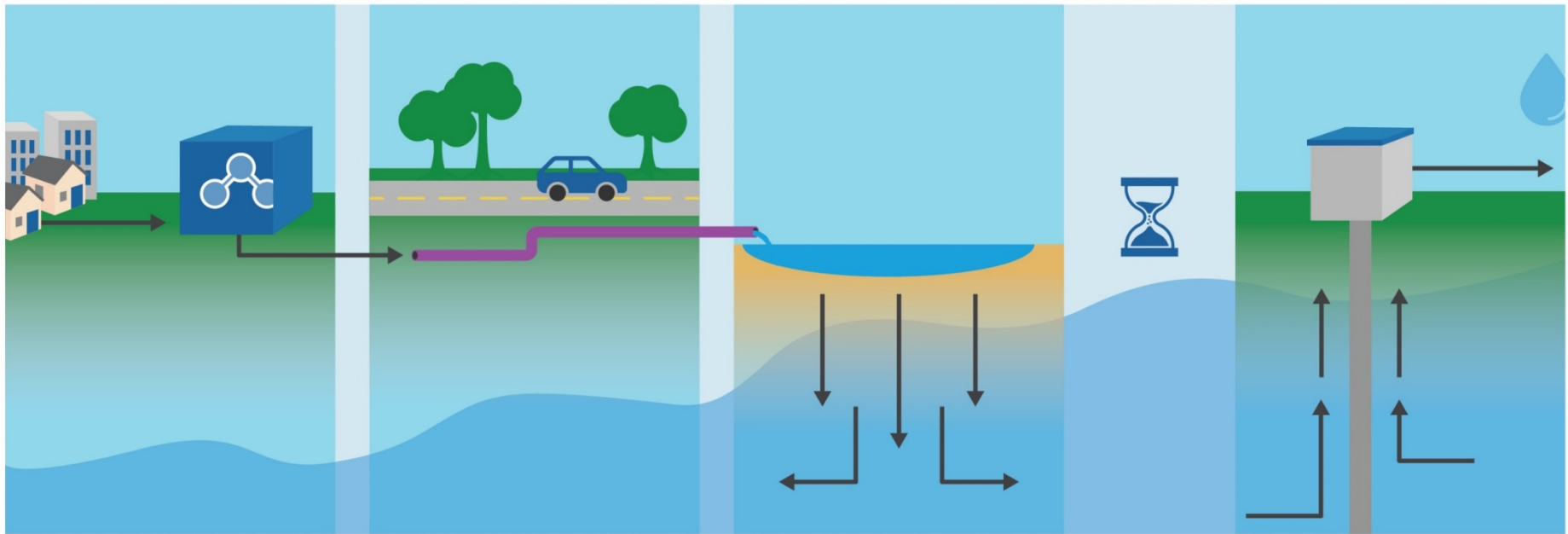
Water Supply Planning Efforts



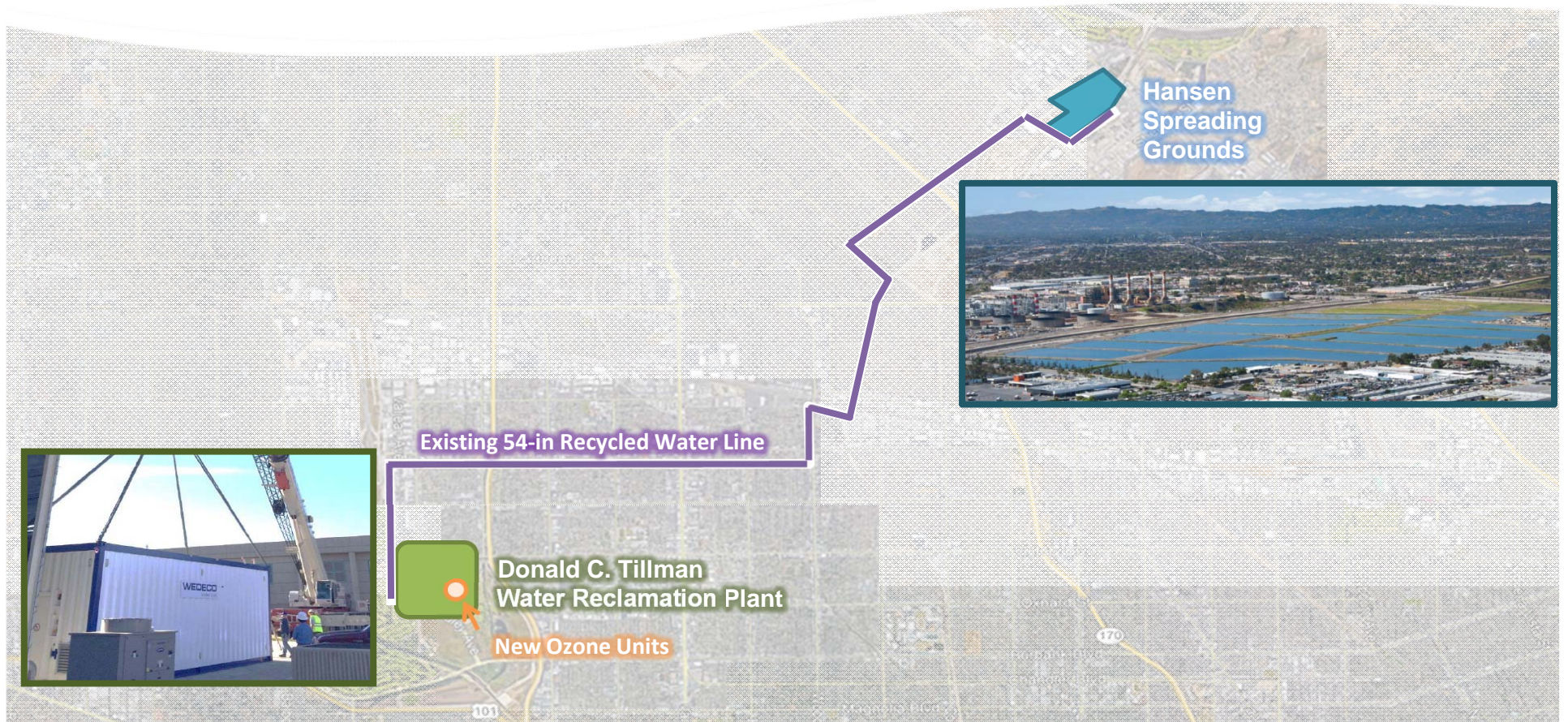
Driving Forces for Studying Hyperion

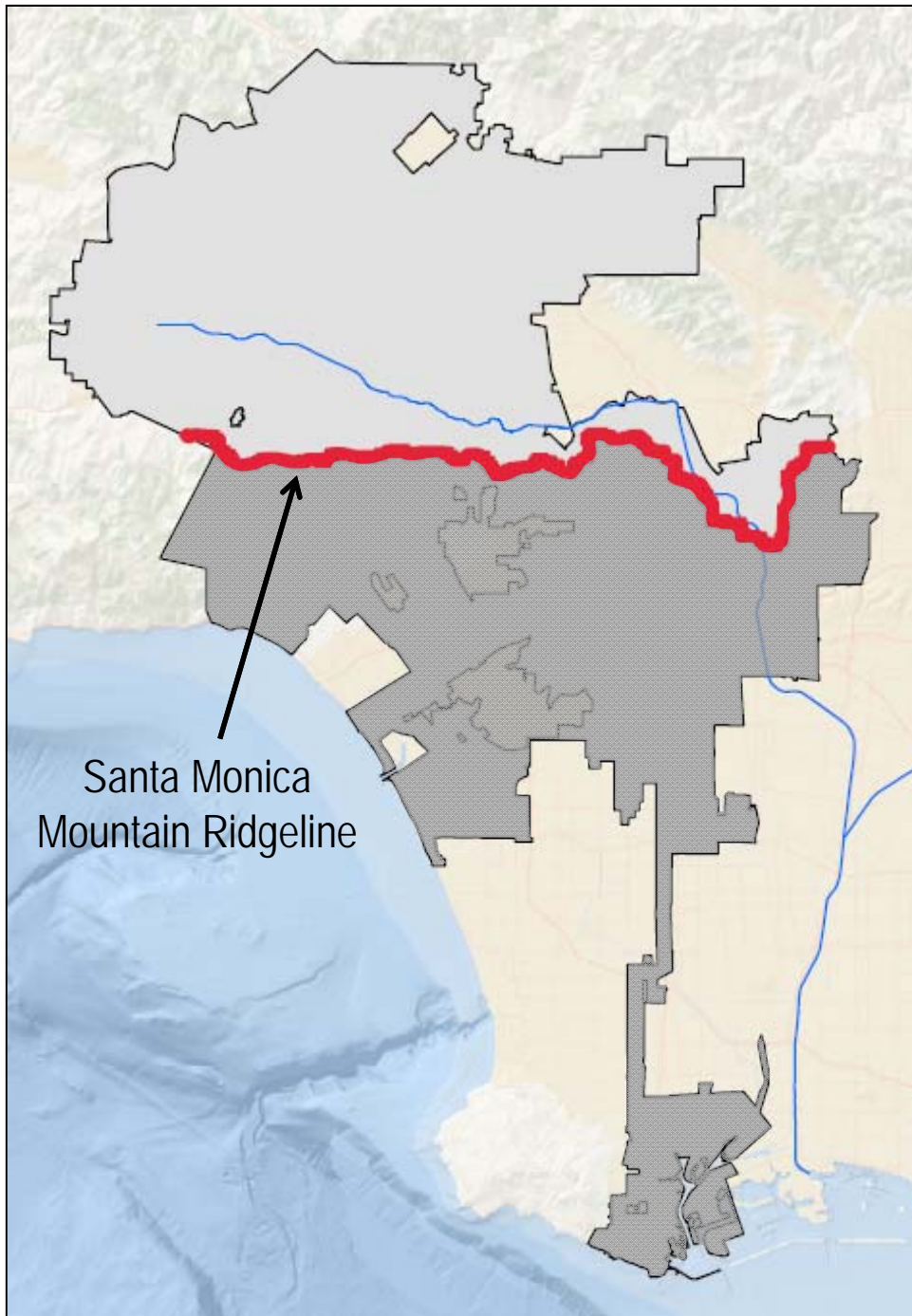
- “Creation of an integrated water strategy that increases local water supplies” - Sustainable City pLAN / Mayor’s Executive Directive #5
- “A strategic plan outlining potential full development of recycled water at Hyperion.” - FY 2019 LADWP GM Goals)
- “Conduct a conceptual analysis for serving customer demands south of Santa Monica Mountains with groundwater to maximize production and recharge in the Central and West Coast Basins.”
- Water System Six-Month Strategic Goals
- Mayor Garcetti’s Hyperion Announcement (February 21, 2019)
- pLAN Update / Green New Deal (April 6, 2019)

LA Groundwater Replenishment Project



Initial Phase & Ozone Demonstration



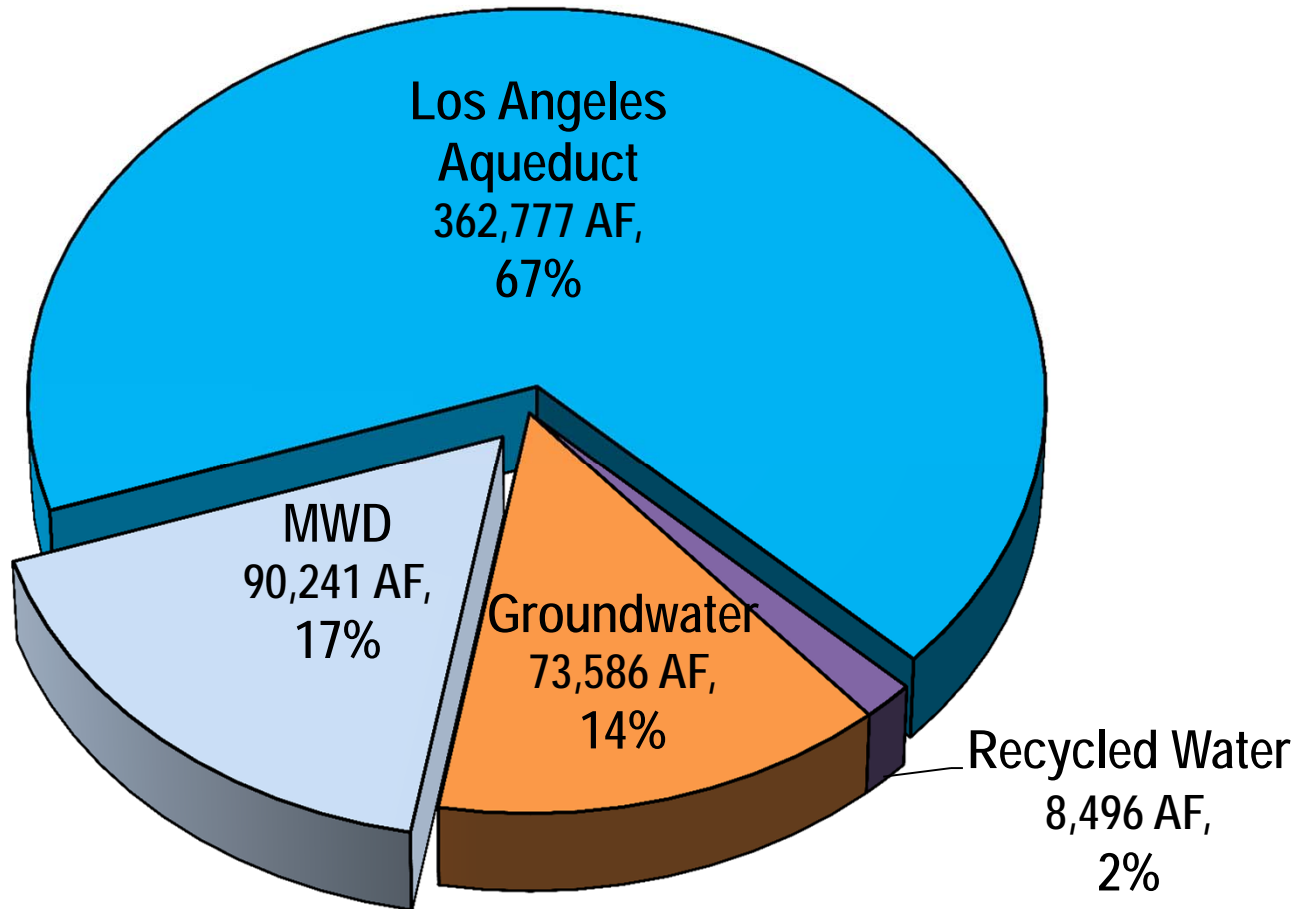


Program Objective:

Serve customer demands generally south of the Santa Monica Mountains with groundwater by maximizing production and recharge in the Central and West Coast Basins

April 2019 - March 2020 (Projected)

Total Supply: 532,400 AFY





**SERVICE AREA =
420 SQUARE MILES**



43 CITIES



**POPULATION
> 4 MILLION**



**550,000 ACRE FEET
USED PER YEAR**



**50% GROUNDWATER
FROM LOCAL WATER
WELLS**



50% IMPORTED WATER



**WRD SUPPLEMENTS
NATURAL GROUNDWATER
RECHARGE**



**SECURING OUR
WATER FUTURE TODAY**



@waterreplish



facebook.com/waterreplenishment

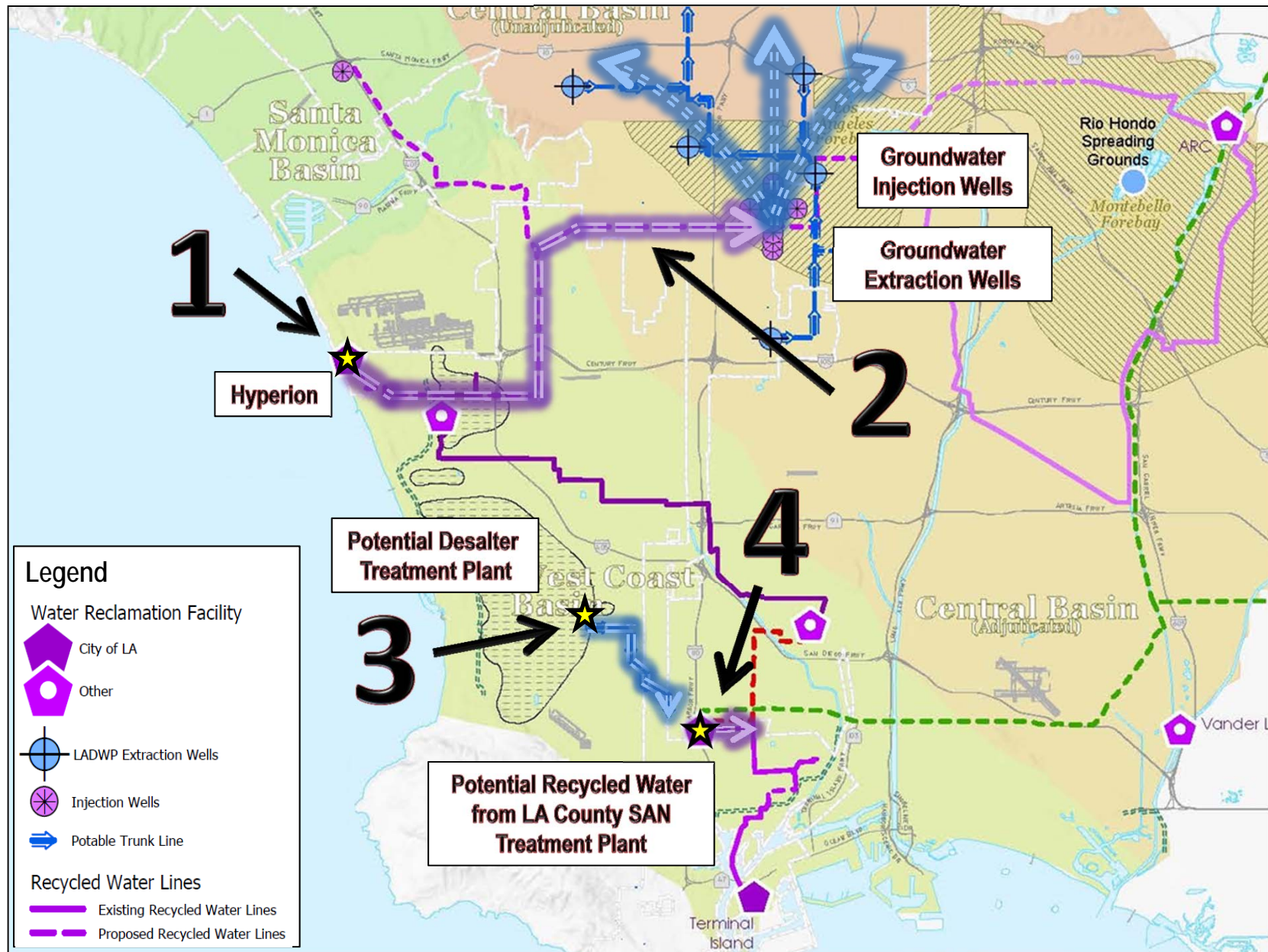


youtube.com/waterreplenishment



www.wrd.org

Potential Regional Program Components



1. Advanced Treatment at Hyperion



2. Hyperion to Central Groundwater Basin

Full Advanced Treatment (LASAN)



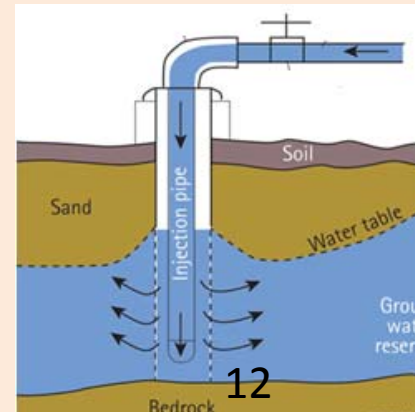
Conveyance to Central Basin (LADWP)



Extraction & Treatment (LADWP)



Injection Wells at LA Forebay (WRD)



Preliminary Program Cost Estimate

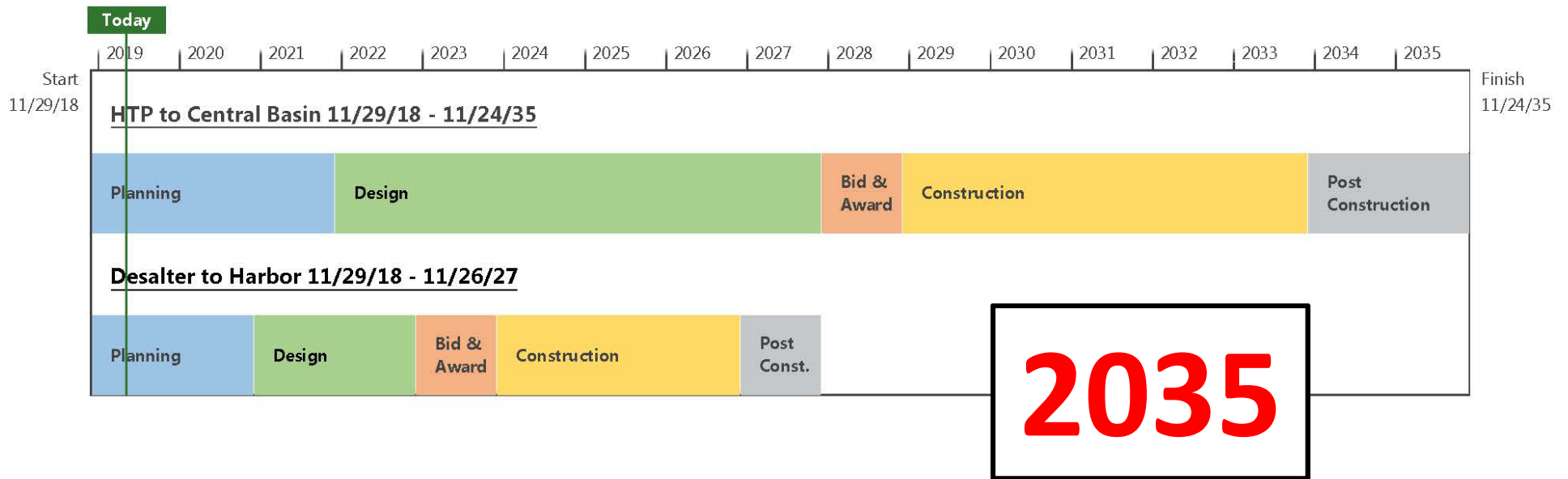
Advanced Treated Water Production	Capital Cost (\$B)	O & M Cost (\$M per year)
174 MGD / 195,000 AFY	\$8.1	\$332

\$/Acre-Ft	Life Cycle Cost
	\$1,651

Cost Breakdown

Table 4: Preliminary Cost Estimate		
Potential Component	Capital Cost (\$M)	O&M Cost (\$/year)
Advanced Treatment at Hyperion	\$2,860	\$174,500,000
Hyperion to Central Basin	\$2,444	\$95,600,000
Desalter to Harbor	\$41	\$115,000
JWPCP to Harbor	\$10	\$61,000
CRWRF to Harbor	\$48	\$181,000
L.A. River to GRIP (ARC)	\$14	\$5,200,000
Mandatory System Upgrades	\$2,645	\$56,520,000
Total Cost	\$8,062	\$332,177,000

Preliminary Program Schedule



Ongoing Efforts

- Groundwater Development and Augmentation Plan (GDAP)
- Joint Master Plan with WRD
- Program Initiated into CIP – April, 2019
- MOU between LADWP & LASAN
- Hyperion AWPf Demonstration Project
- Hyperion NdN MBR Pilot Facility
- Agency Outreach & Coordination
- Community Engagement





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