



Subcommittee on Pure Water Southern California  
and Regional Conveyance

# Regional Benefits of Pure Water Southern California

Item 3b

January 22, 2025

## Item 3b

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### Subject

Regional Benefits of Pure Water Southern California

### Purpose

Inform the committee about the need, regional benefits, and alignment of supply and demand for Pure Water Southern California

### Next Steps

Continue planning and design efforts to determine program demands and regional benefits

# Need for Pure Water Southern California

Risk of Shortage &  
Water Supply  
Allocation Plan  
(WSAP)

- Up to 1.22 MAF of net shortage by 2045
  - Would require up to 650 TAF of additional core supply
  - Needs primarily in the SWP-dependent areas
- Net Shortage of up to 66% of the time
- 2% chance that storage would go below 1 MAF

Declining  
Groundwater  
Levels

- Despite favorable hydrologic conditions the past 2 years, 48 percent of the groundwater basins are still below their established operating ranges
- Loss of groundwater production by as much as 10 percent by 2040

Slow Development  
of Local Supplies

- Despite significant investment in local supplies, the potential shortfall in development remains at ~ 400,000 AF

# Regional Benefits of Pure Water

Reduces Risk of  
Net Shortage by  
up to 14%

Reduces Risk of  
WSAP by up to  
50%

Reduces Reliance  
on SWP and  
Colorado River

Improves  
Groundwater  
Sustainability

Improves Local  
Supply  
Development

Increases  
Available Supply  
During Seismic  
Emergency by 15%

Increases  
Operational  
Flexibility

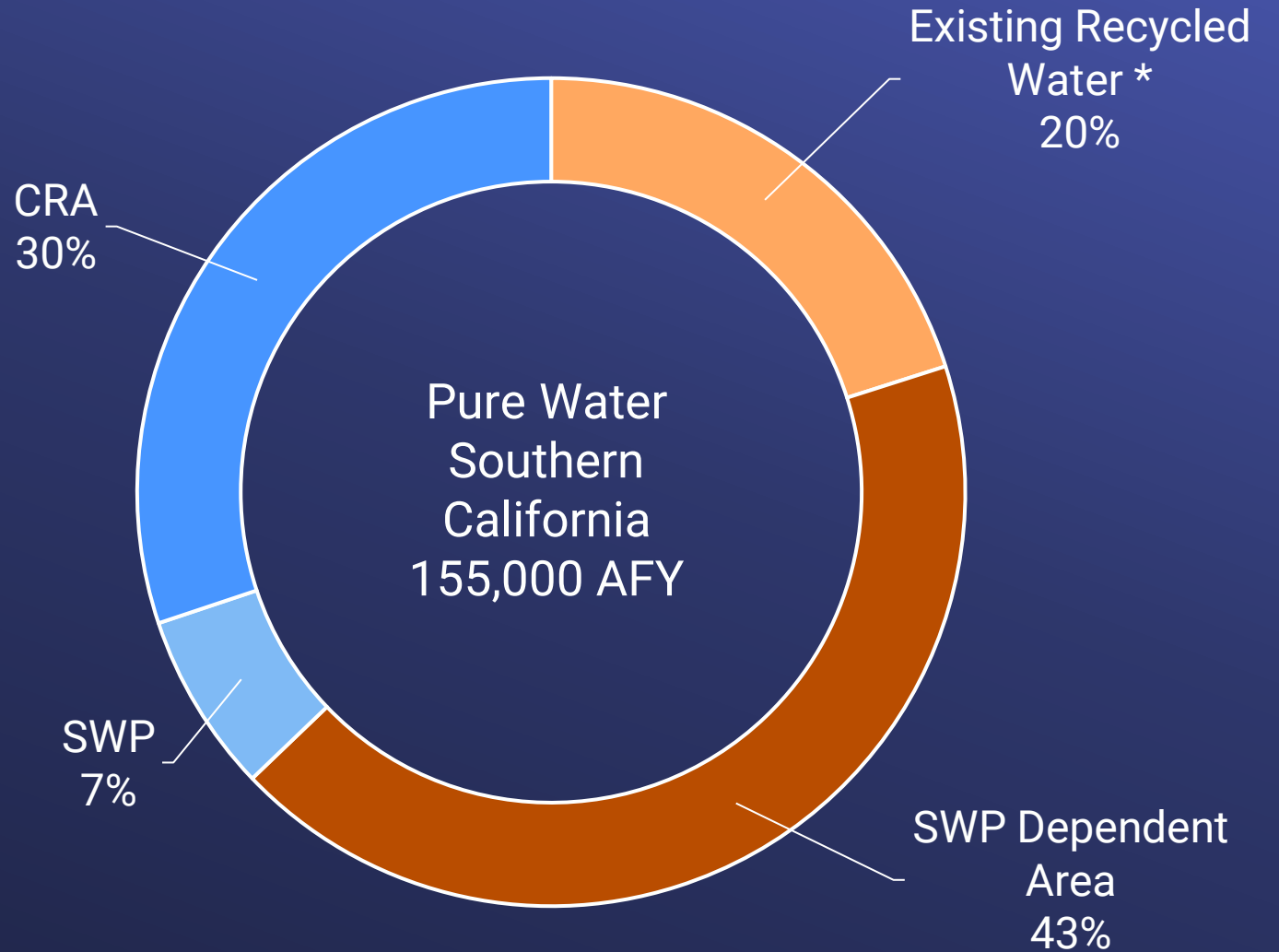
Generates up to  
50,000 New Jobs

# Pure Water Southern California Offsets SWP and CRA

Pure Water Southern California production reduces reliance on imported water sources:

- 80% of PWSC reduces reliance on SWP & CRA
- 20% of PWSC replaces existing recycled water use

\* The existing West Basin recycled water may be used by the City of Los Angeles to reduce reliance on SWPDA



# Member Agency Discussions



Meetings  
(April-  
December  
2024)



Refinement of  
MA Demands



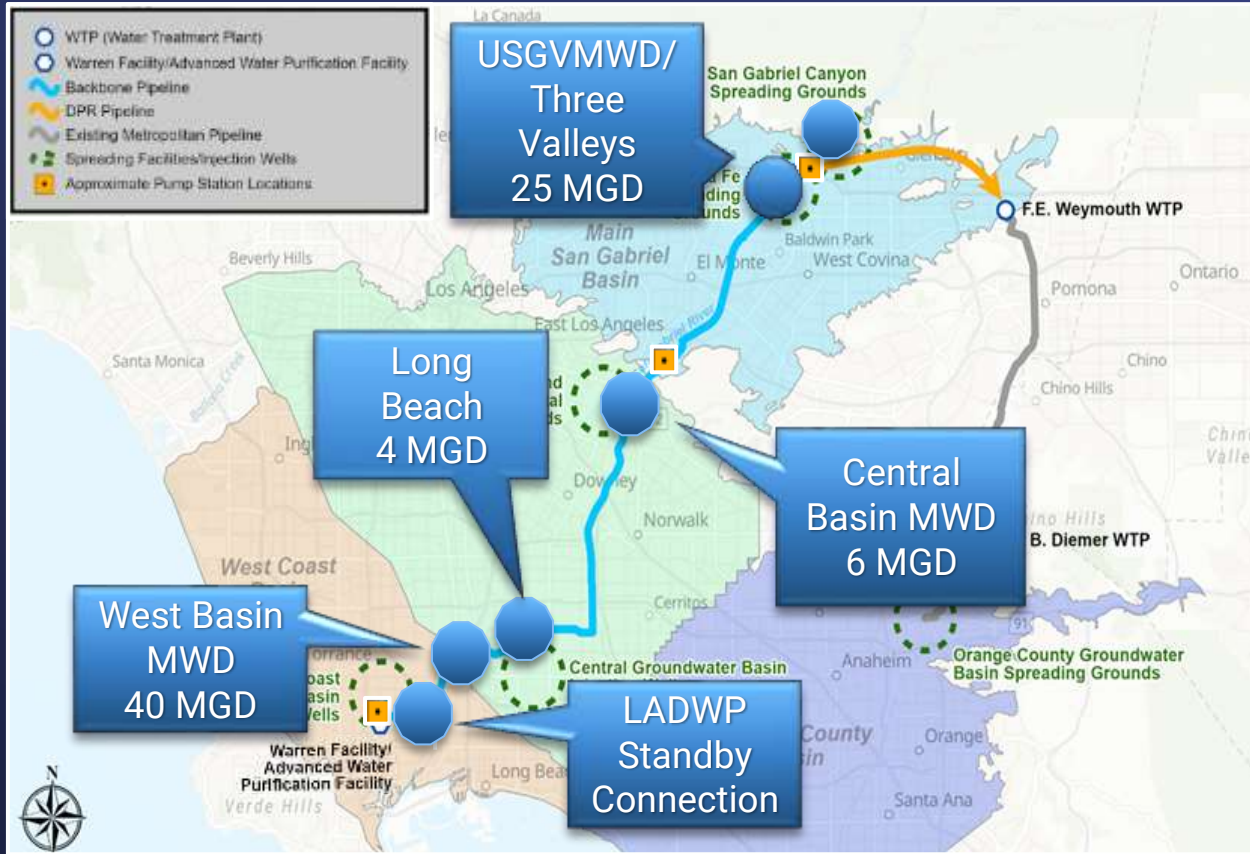
Development  
of Preliminary  
Term Sheets  
for Purchase  
and Delivery  
of Pure Water

# Potential Demand: ~45 mgd



Member Agency	Average Demand	Existing or New Demand
LACSD	<1 mgd	Existing effluent
LADWP	Standby	Existing recycled water
West Basin	40 mgd	Existing recycled / imported
Long Beach	4 mgd	New augmentation
<b>Total</b>	<b>~45 mgd</b>	—

# Potential Demand: ~75 mgd



\* Meets minimum demand for Main San Gabriel Basin.

Member Agency	Average Demand	Existing or New Demand
LACSD	<1 mgd	Existing effluent
LADWP	Standby	Existing recycled water
West Basin	40 mgd	Existing recycled / imported
Long Beach	4 mgd	New augmentation
Central Basin	6 mgd	Existing imported
USGVMWD	21 mgd *	Existing imported
Three Valleys	4 mgd *	New augmentation
<b>Total</b>	<b>75 mgd</b>	<b>—</b>



# Alignment of Supply and Demand Goals



Ability to meet production goals without storage (2019-2023 Daily Hydrology)



Account for downtime and maintenance



Account for spreading basin availability in Central and Main San Gabriel Basin



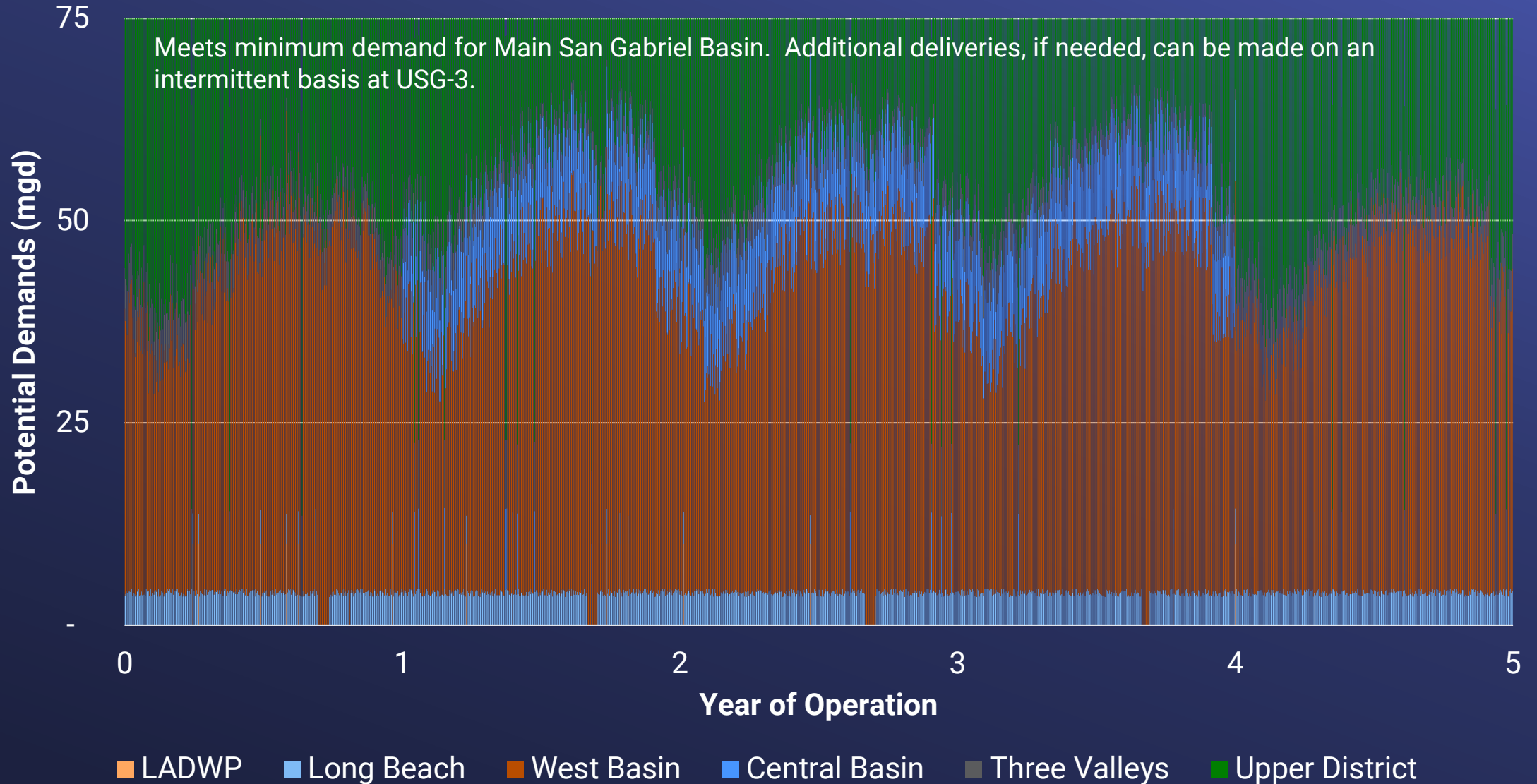
Account for range in expected demand (diurnal, peaking, and average demand)

# Daily Demands Vary Significantly with an Initial Delivery of ~45 mgd

## Significant Member Agency Storage Likely Required



# Daily Deliveries Vary Less with an Initial Delivery of 75 mgd Dedicated Recharge in Main San Gabriel Basin Helps Control Demand Variability



# Summary of Demand Assessment

## 45 mgd

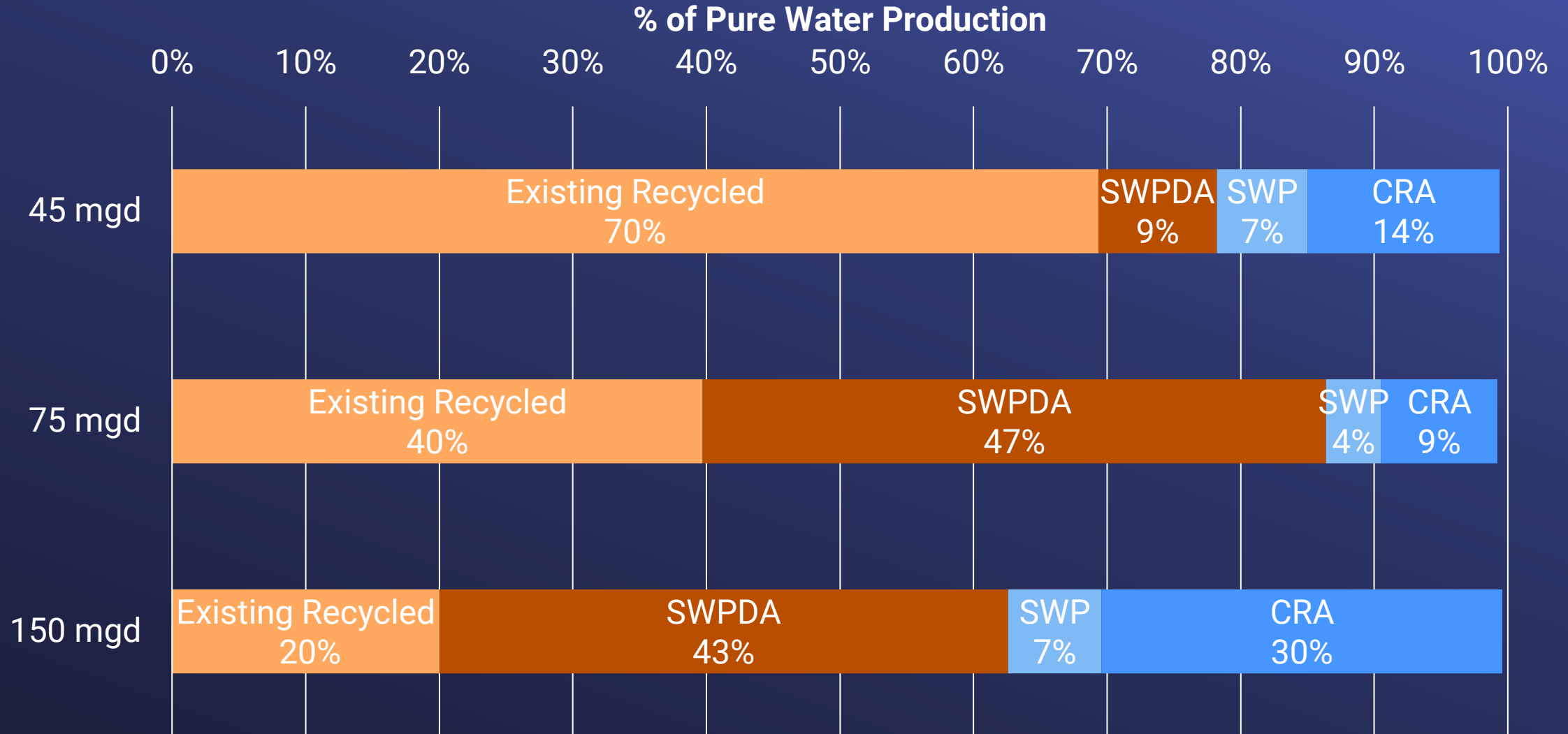
- Smaller initial construction package
- Demands vary significantly
- May require significant member agency storage to handle peaking & meet Metropolitan's goals

## 75 mgd

- Meets most of the IPR demand
- Addresses storage/peaking issues
- Will need to decide on backbone upsizing earlier

# Regional Benefits of Pure Water

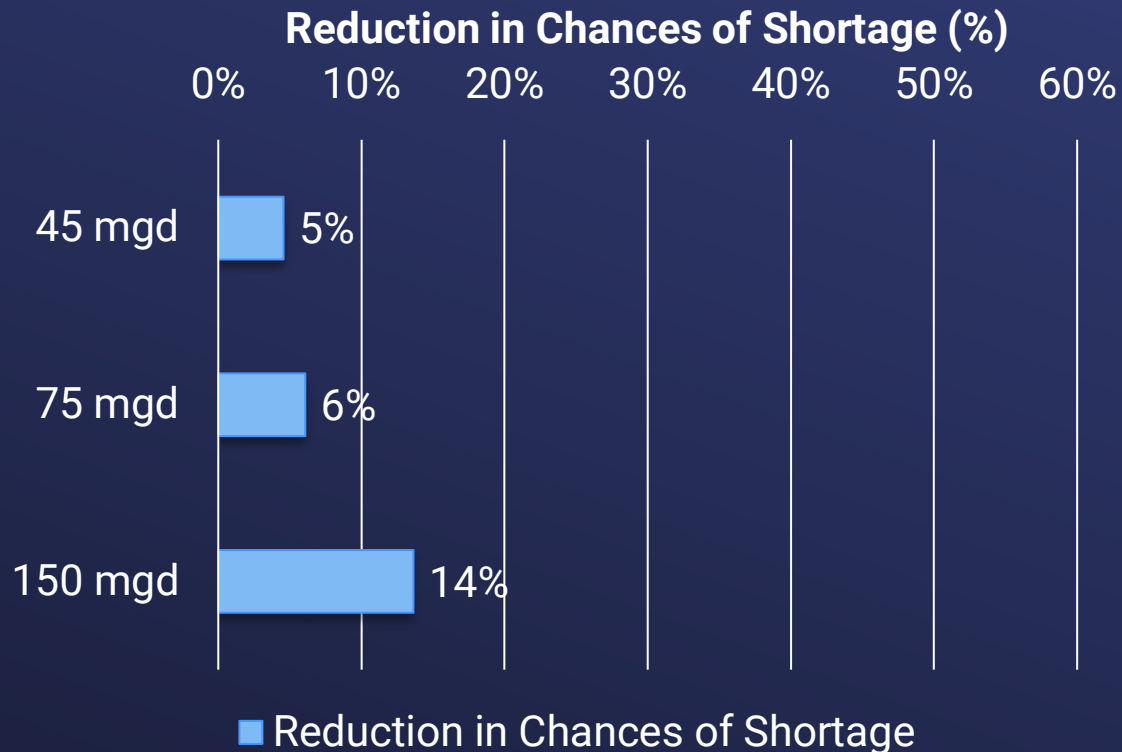
## Reduces Reliance on SWP & CRA



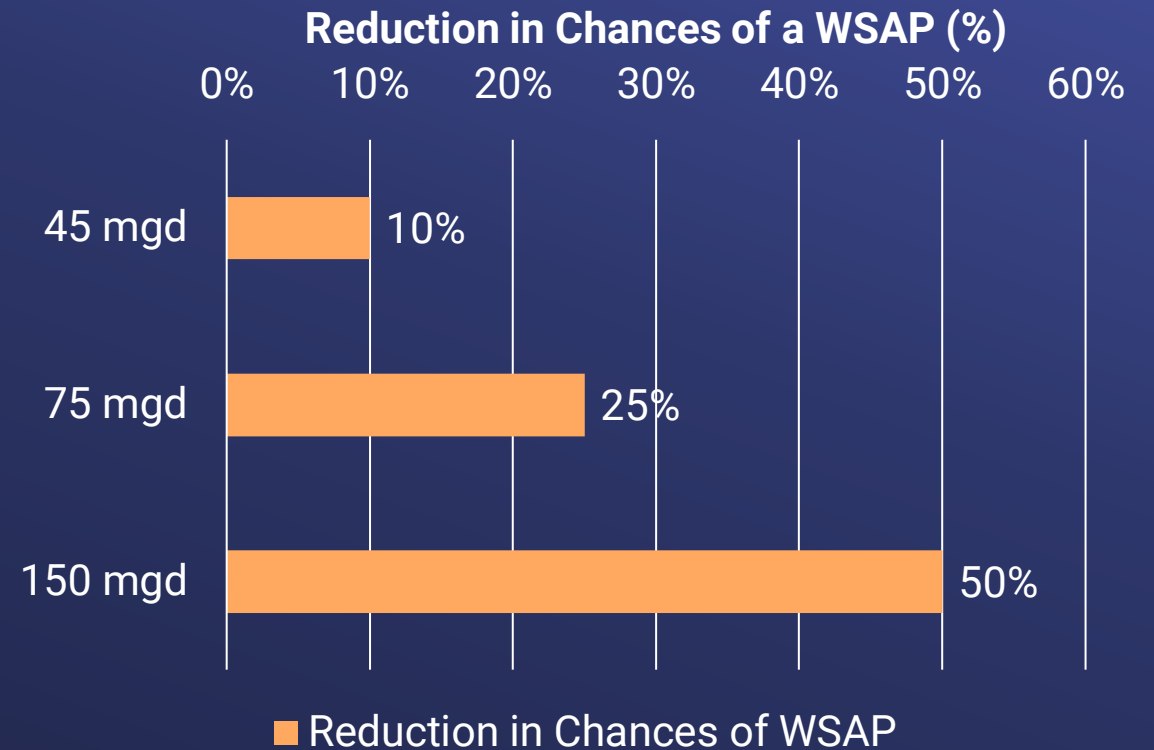
# Regional Benefits of Pure Water

## Reduces Chances of Shortage and WSAP

### % Reduction in Chances of Shortage with Pure Water



### % Reduction in Chances of a WSAP with Pure Water



# Summary

## Need for Pure Water

- Risk of shortage and WSAP
- Declining groundwater levels
- Slow development of local supplies

## Regional Benefits of Pure Water

- Reduces risk of shortage and WSAP
- Reduces reliance on SWP and Colorado River
- Improves groundwater sustainability and local supply development
- Increases operational and emergency flexibility
- Generates new jobs

## Demands

- 45 mgd: Operationally challenging to implement & doesn't meet Metropolitan goals.
- 75 mgd: Demand variations can be handled with new dedicated recharge in Main San Gabriel Basin.

