



# 2015 IRP Technical Process Draft Results

Southern California Water Dialogue  
September 23, 2015

# Phase 1: IRP Technical Update Process and Schedule



# Phase 2: IRP Policy Implementation Update Process and Schedule



# Four Key Framing Questions

- What is our current outlook on supplies and demands?
- What happens if we do nothing?
- What happens if we continue developing the current 2010 IRP targets?
- What potential changes to the current 2010 IRP targets are needed?

What is Our Current Outlook  
on Supplies and Demands?

# Conservation Savings

# Conservation Savings\*

Projected on 1990 Base Year



\*Does not include conservation from Price Effect

# Retail Demands



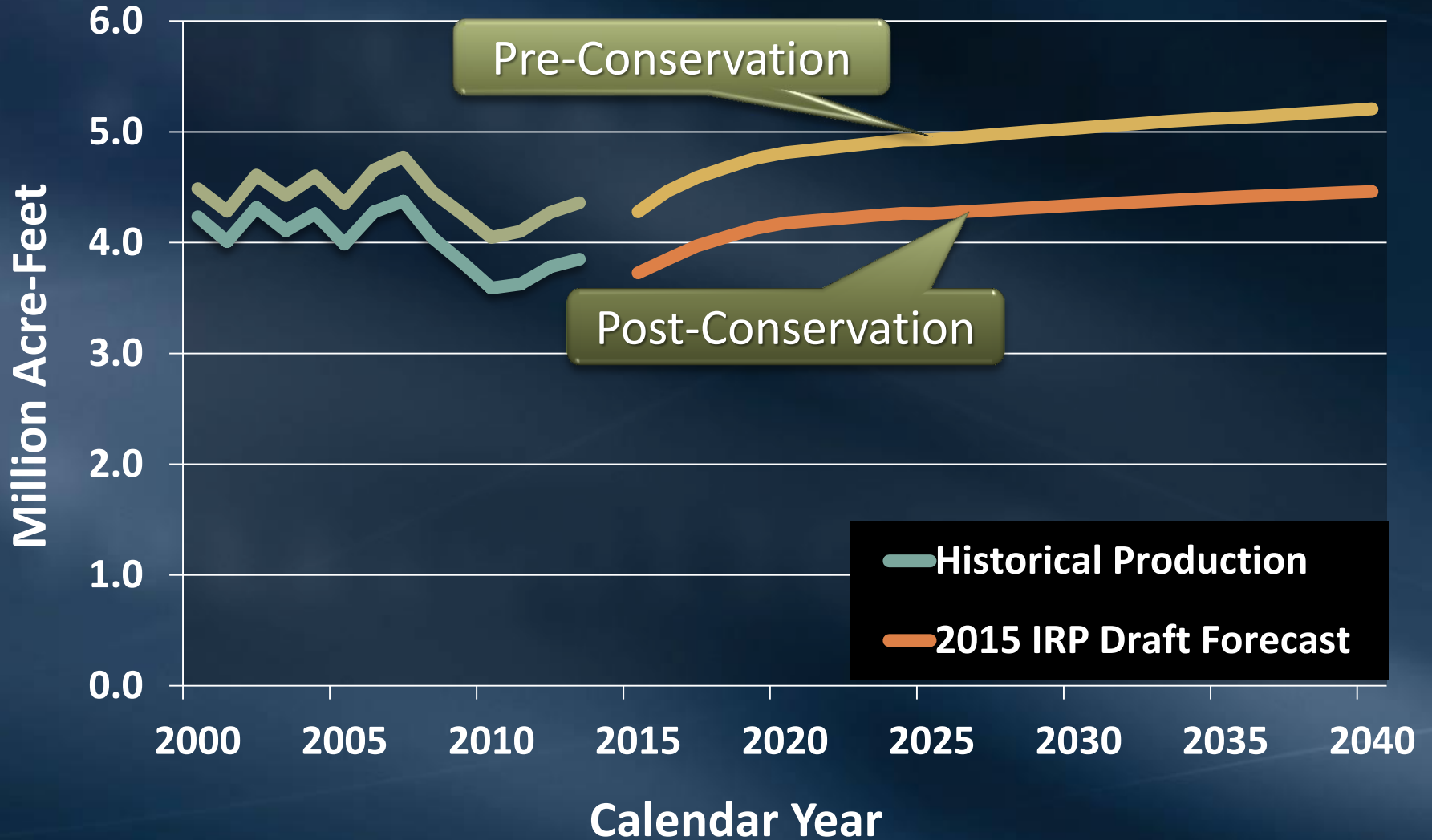
# Total Retail Demands

## Key Assumptions

- Updated demographic forecasts
  - SCAG RTP 12
  - SANDAG Series 13
- Retail M&I Demand
  - New econometric model
- Agency provided demand forecasts
  - Agricultural
  - Seawater Barrier
  - Replenishment

# IRP Draft Forecast Total Retail Demand

## Historical and Projected



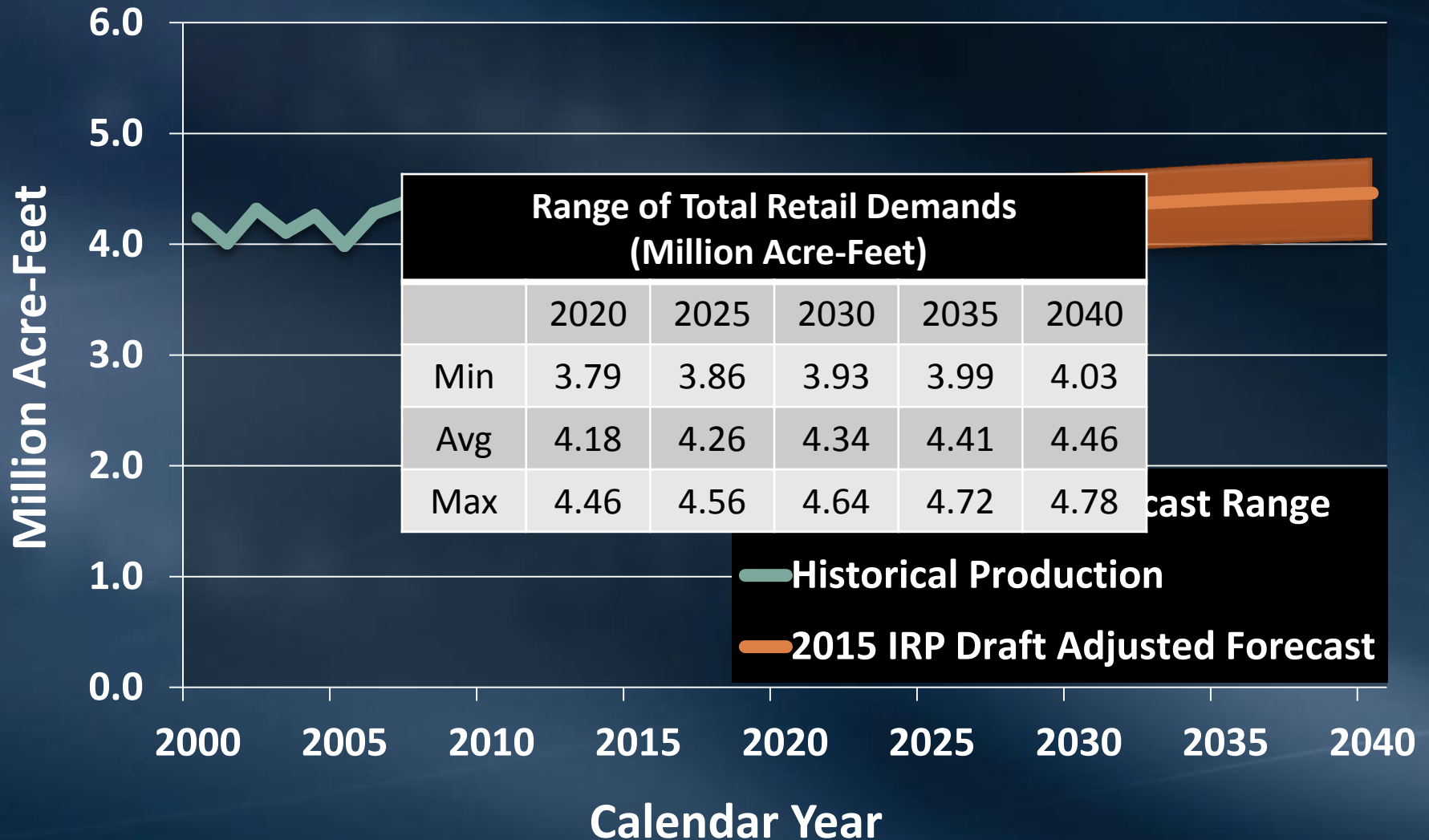
# Near-Term Demand Adjustment

## Key Assumptions

- Capture observed reduction in demand
- Estimate behavioral and structural elements
- Adjust climate effects and other conservation savings elements to avoid double-counting of reductions in the forecast

# Retail Demands Post-Conservation

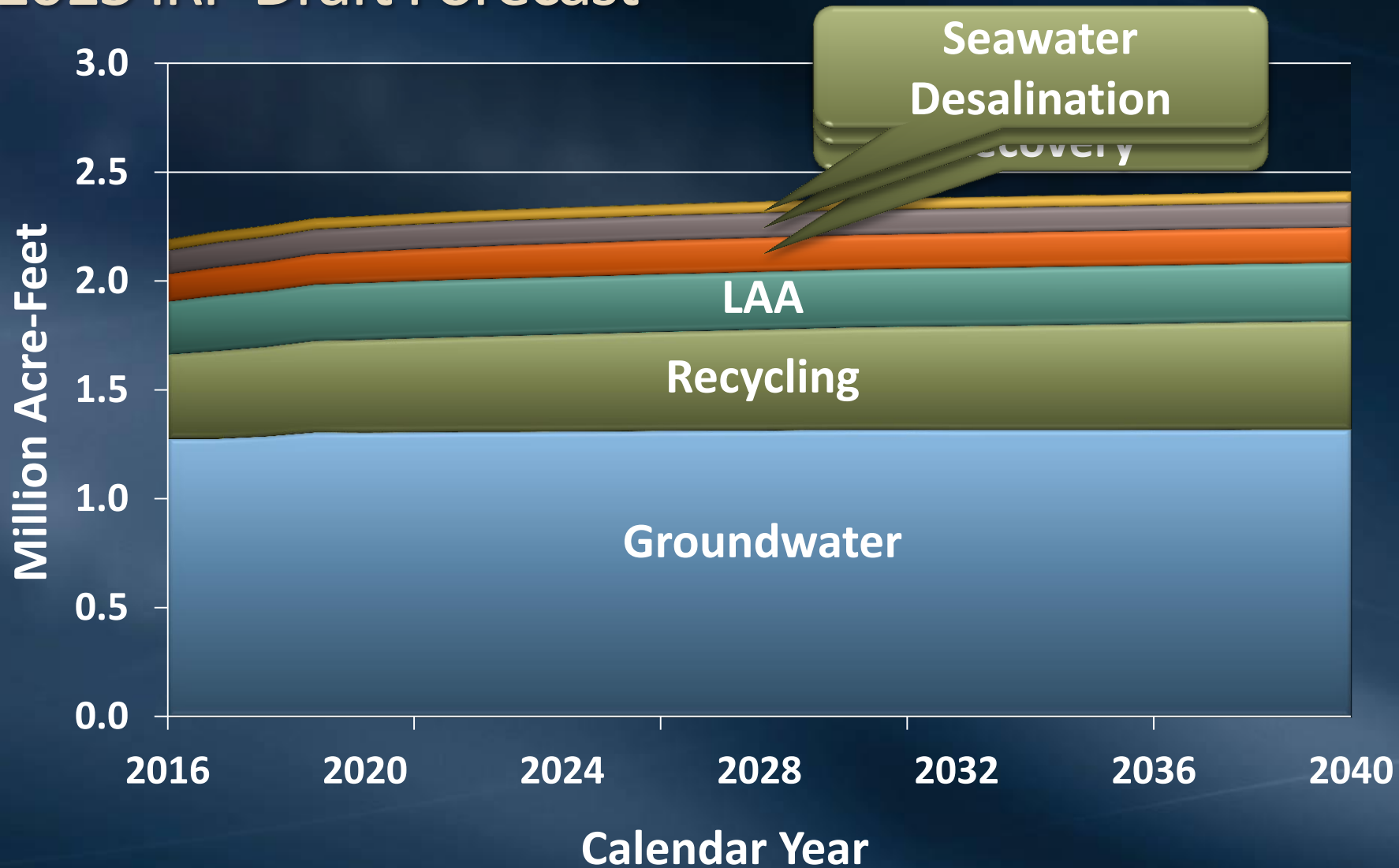
## Historical and Projected



# Local Supplies

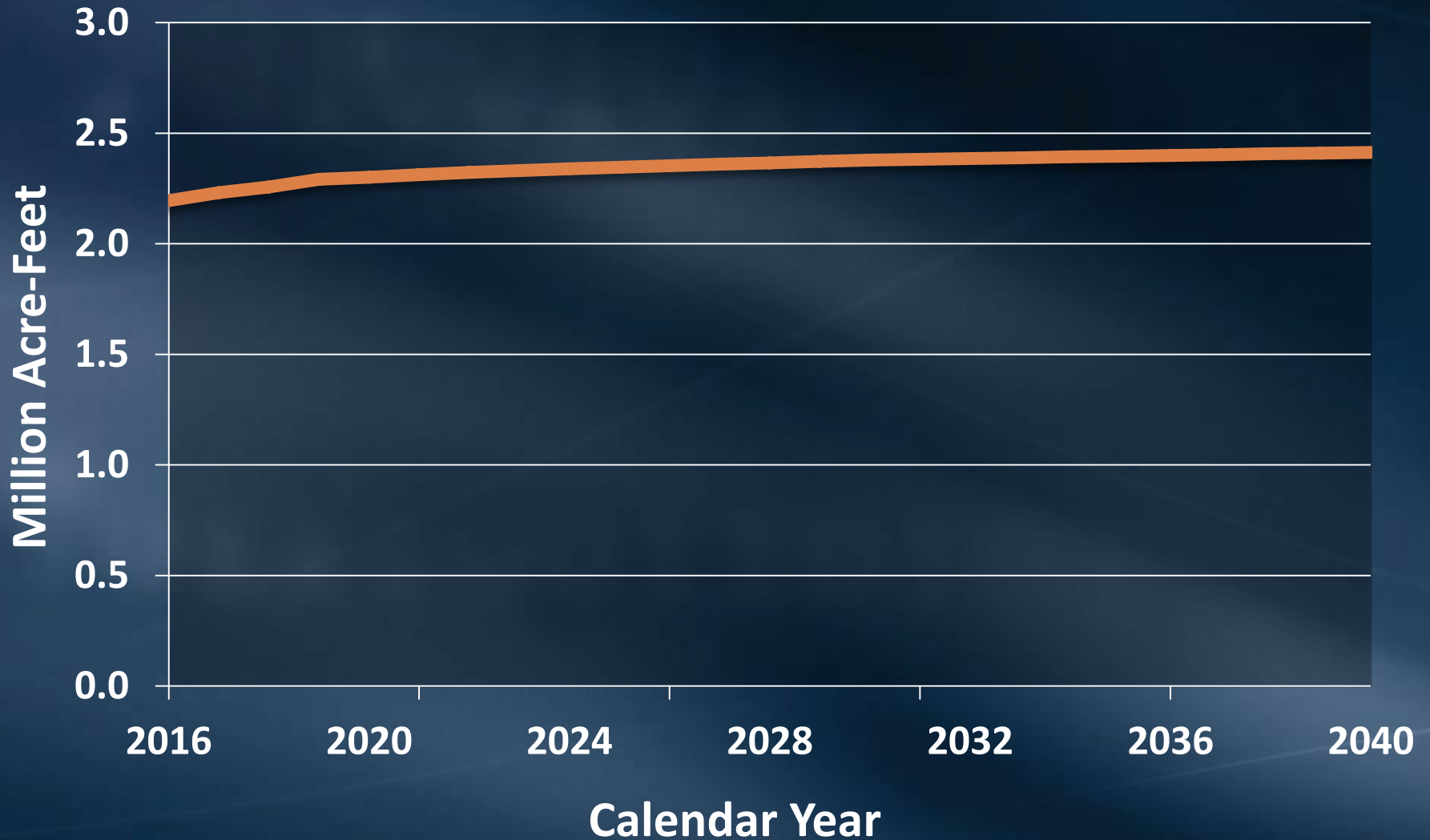
# Total Average-Year Local Supplies

2015 IRP Draft Forecast



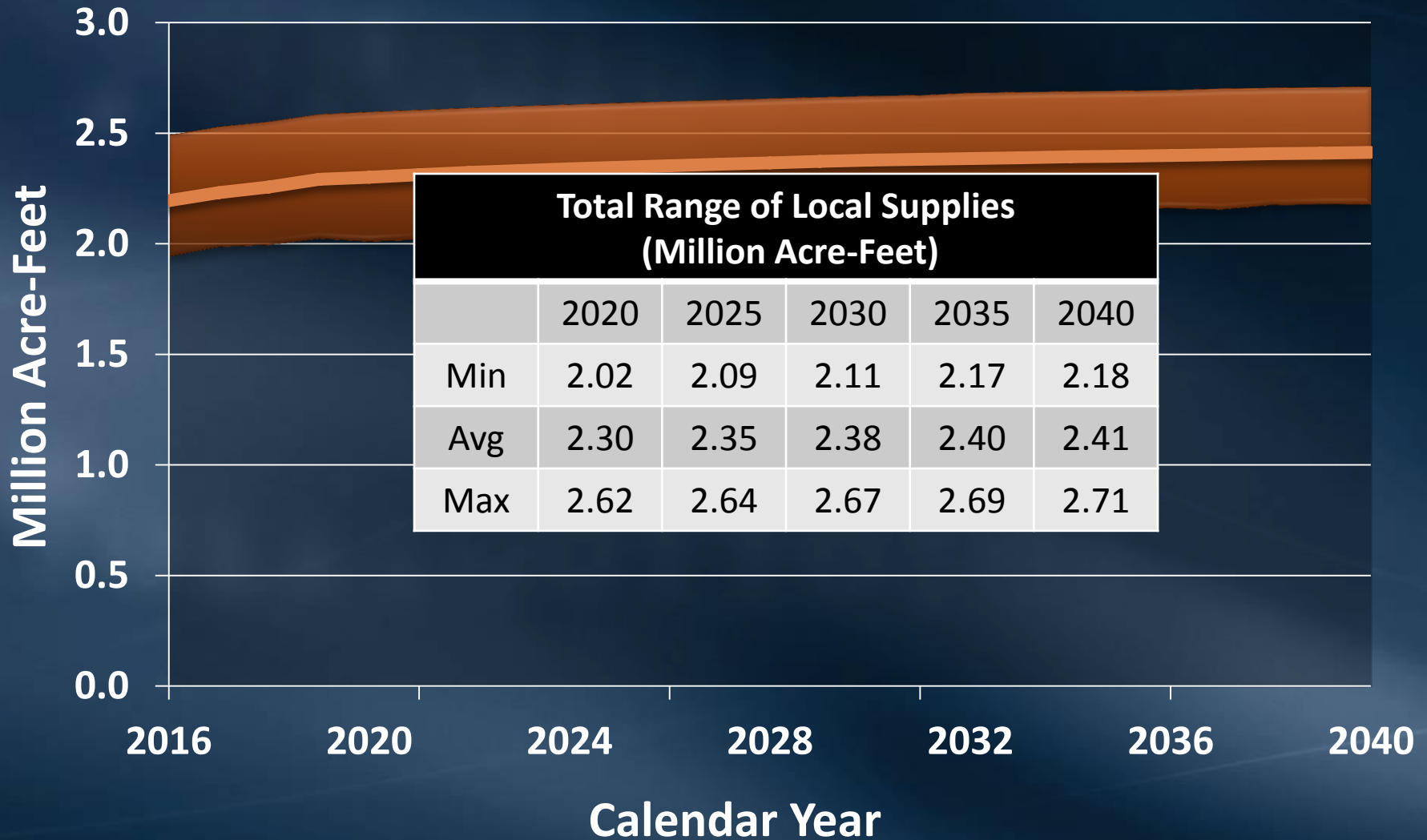
# Total Average-Year Local Supplies

2015 IRP Draft Forecast



# Total Range of Local Supplies

2015 IRP Draft Forecast





# Imported Supplies

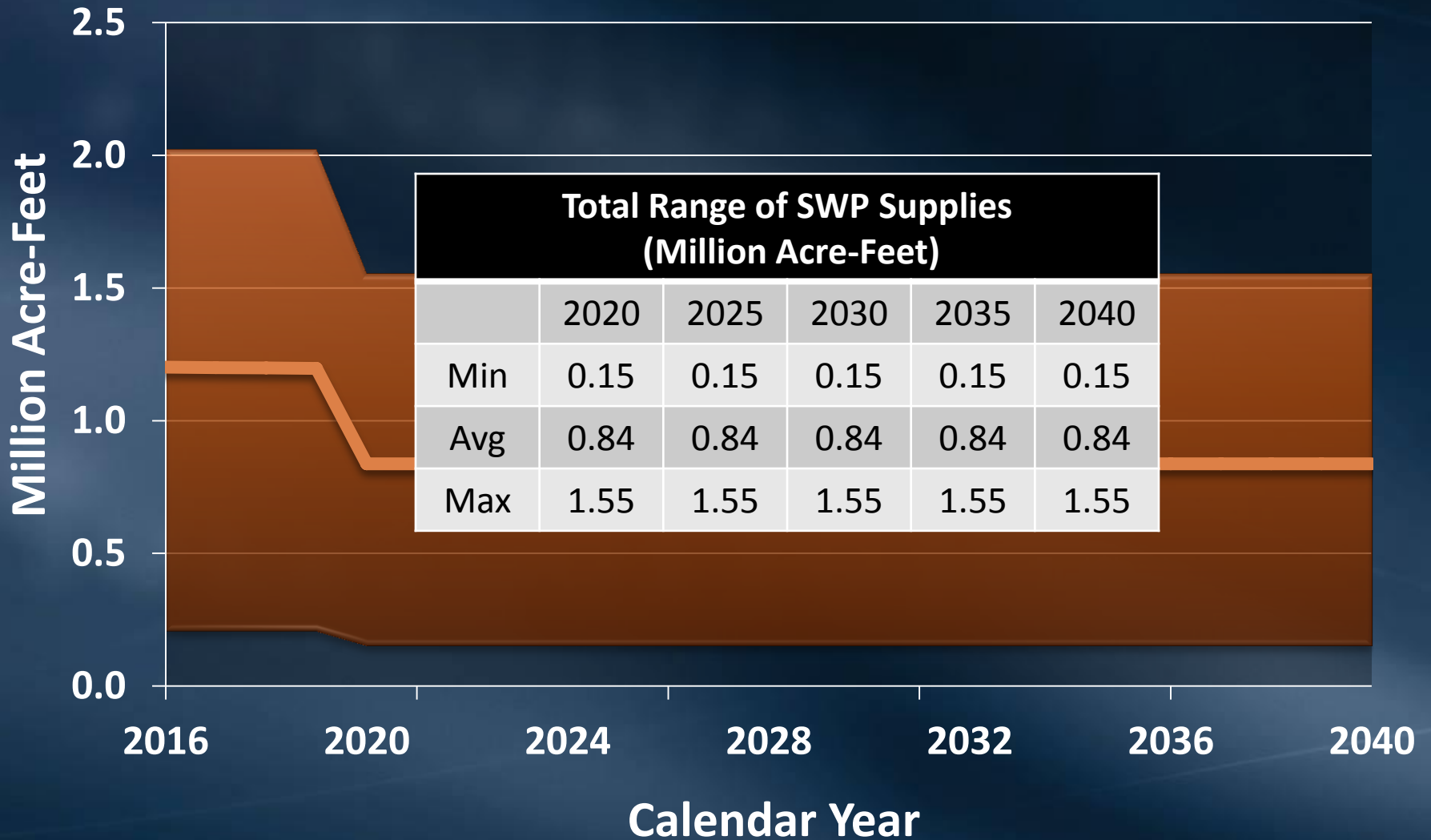
# CRA Base Supply Programs

## 2015 IRP Draft Forecast



# SWP Existing Conveyance Scenario

## Draft Forecast Table A + Article 21



# Storage Portfolio

# Metropolitan's Storage Programs

## Central Valley/SWP Storage

San Luis Carryover

Semitropic

Arvin-Edison

Kern Delta

Mojave

## CRA Storage

DWCV Advance Delivery

Lake Mead ICS

## Local Storage

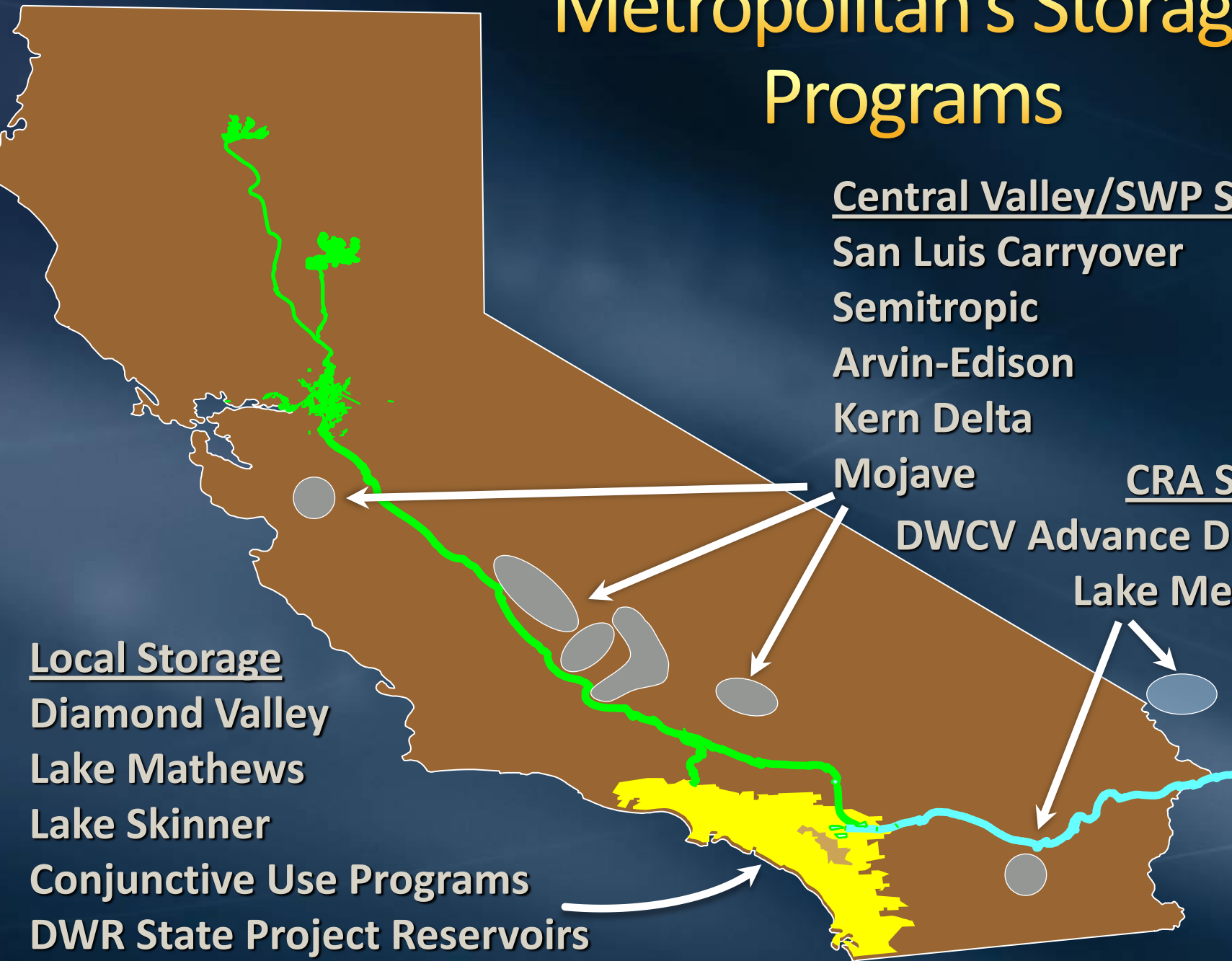
Diamond Valley

Lake Mathews

Lake Skinner

Conjunctive Use Programs

DWR State Project Reservoirs



# MWD Storage Programs Summary

Million Acre-Feet

	Storage Capacity	Put Capacity*	Take Capacity*	2016 Est. Starting
Central Valley & SWP	1.63	0.54	0.56	0.42
Colorado River	2.39	0.65	0.60	0.22
In-Region	1.30	0.90	0.94	0.14
<b>Total Dry-Year</b>	<b>5.32</b>	<b>2.09</b>	<b>2.10</b>	<b>0.77</b>
Emergency	0.63	0.63	0	0.63
<b>Total</b>	<b>5.95</b>	<b>2.72</b>	<b>2.10</b>	<b>1.40</b>

\*Shows maximum capacities, actual capacity varies based on contract terms

What Happens if We do  
Nothing?

“Do Nothing” Case  
Draft Water Balance

# Reliability Measures

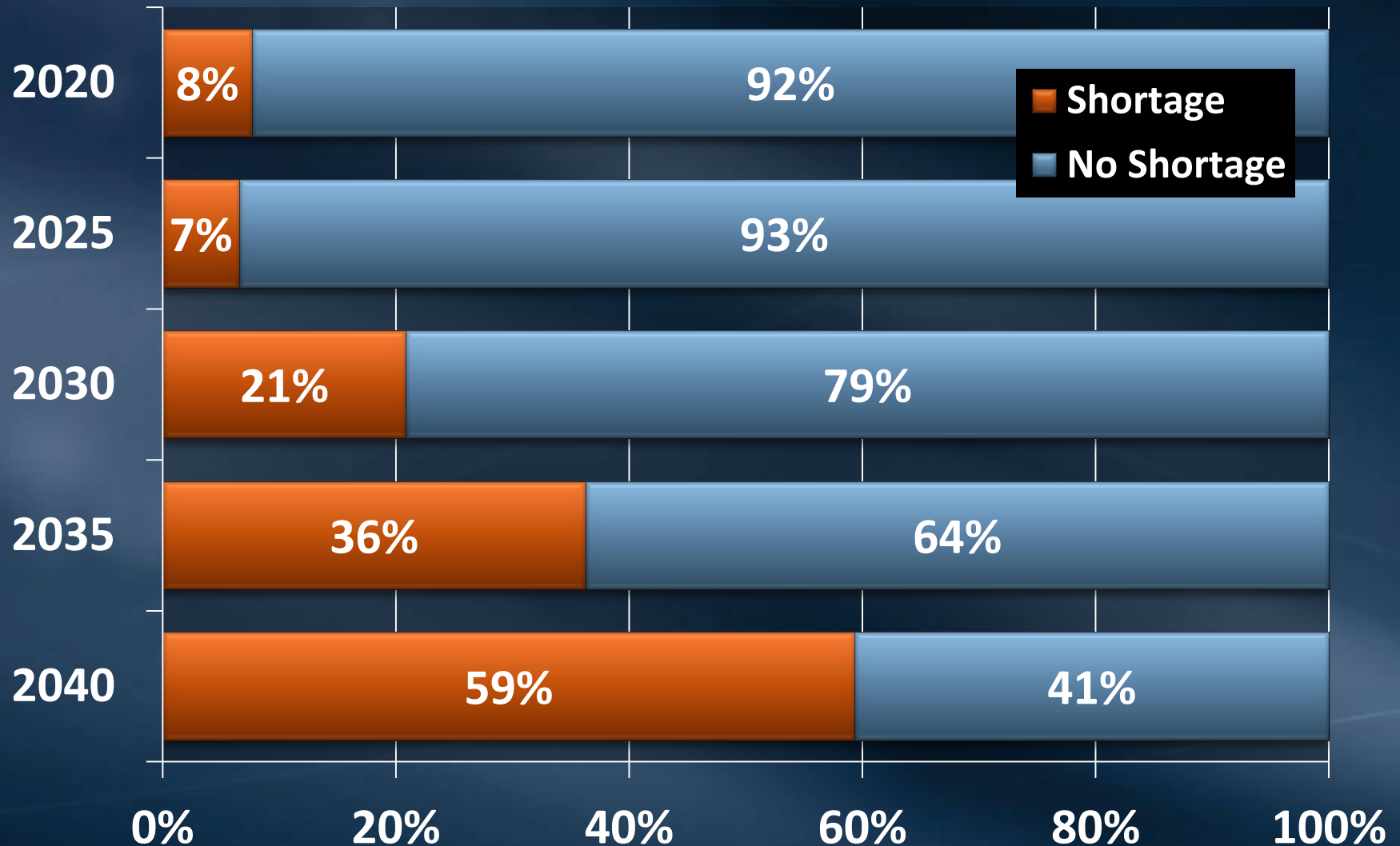


# Potential Measures of Reliability

- Supply shortages
  - Frequency of shortage (a.k.a. probability)
  - Size of shortage
  - IRP reliability goal: “100% reliability under foreseeable hydrologic conditions”
- Storage thresholds
  - Minimum storage level
  - Average storage level

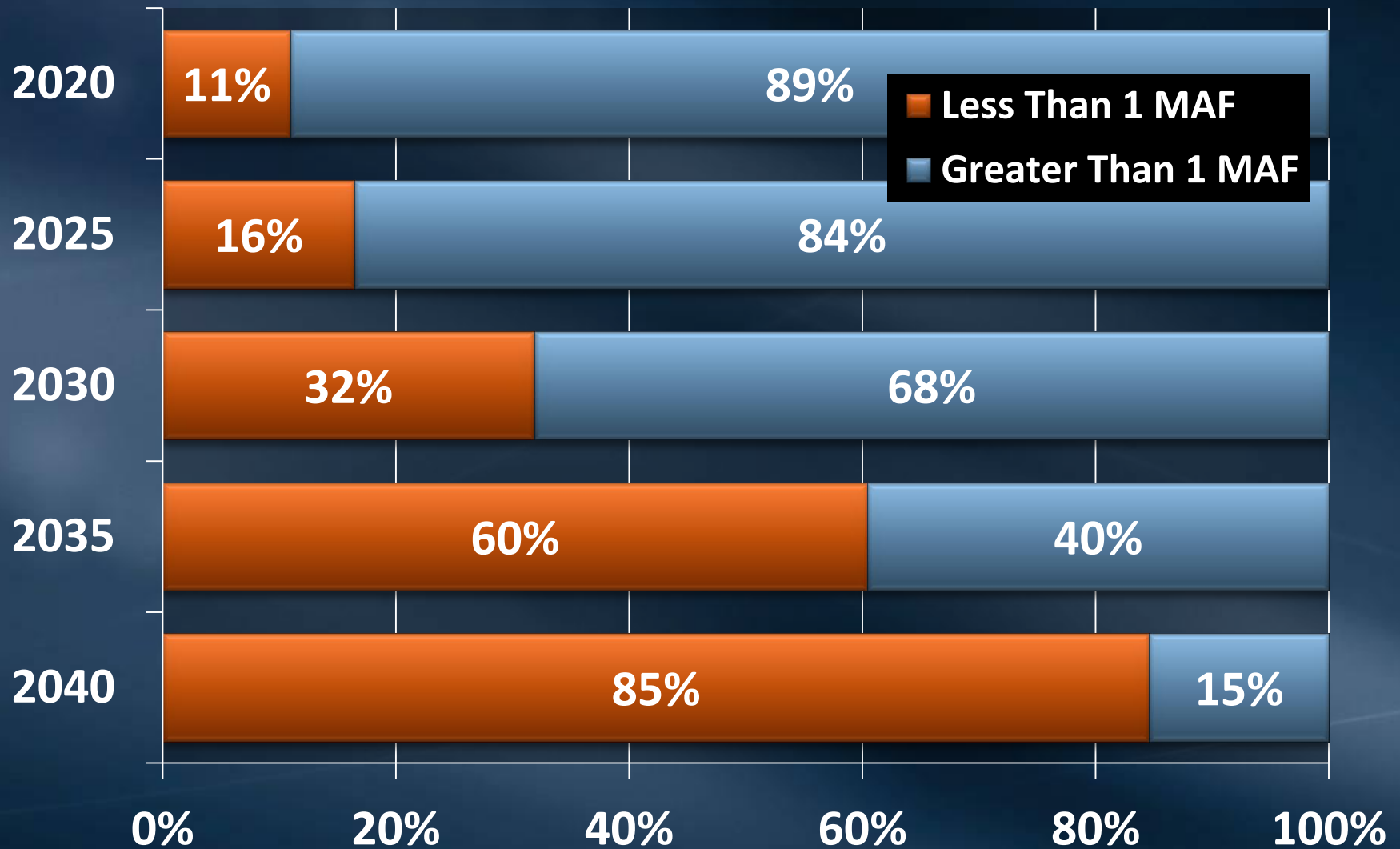
# Summary of Shortage Probability

“Do Nothing” Case Draft Water Balance



# Summary of Ending Dry-Year Storage

“Do Nothing” Case Draft Water Balance



# Observations

## “Do Nothing” Case Draft Water Balance

- The “do nothing” approach is not sustainable
- Shortage probability and size both increase over time
  - Total retail demands increase over time
  - Constant or decreasing local and imported supplies
- Storage quantity decreases over time
  - Less water to store
  - Higher needs for storage to balance supplies and demands
- Significant resource investments are needed

# What Happens if We Develop the 2010 IRP Update Targets?

Current IRP Approach  
Draft Water Balance

# Current IRP Development Targets

## Water Use Efficiency

- Achieve a 20% reduction in GPCD as a region by 2020

## Local Resources

- Develop ~100 TAF through incentives and partnerships

## SWP

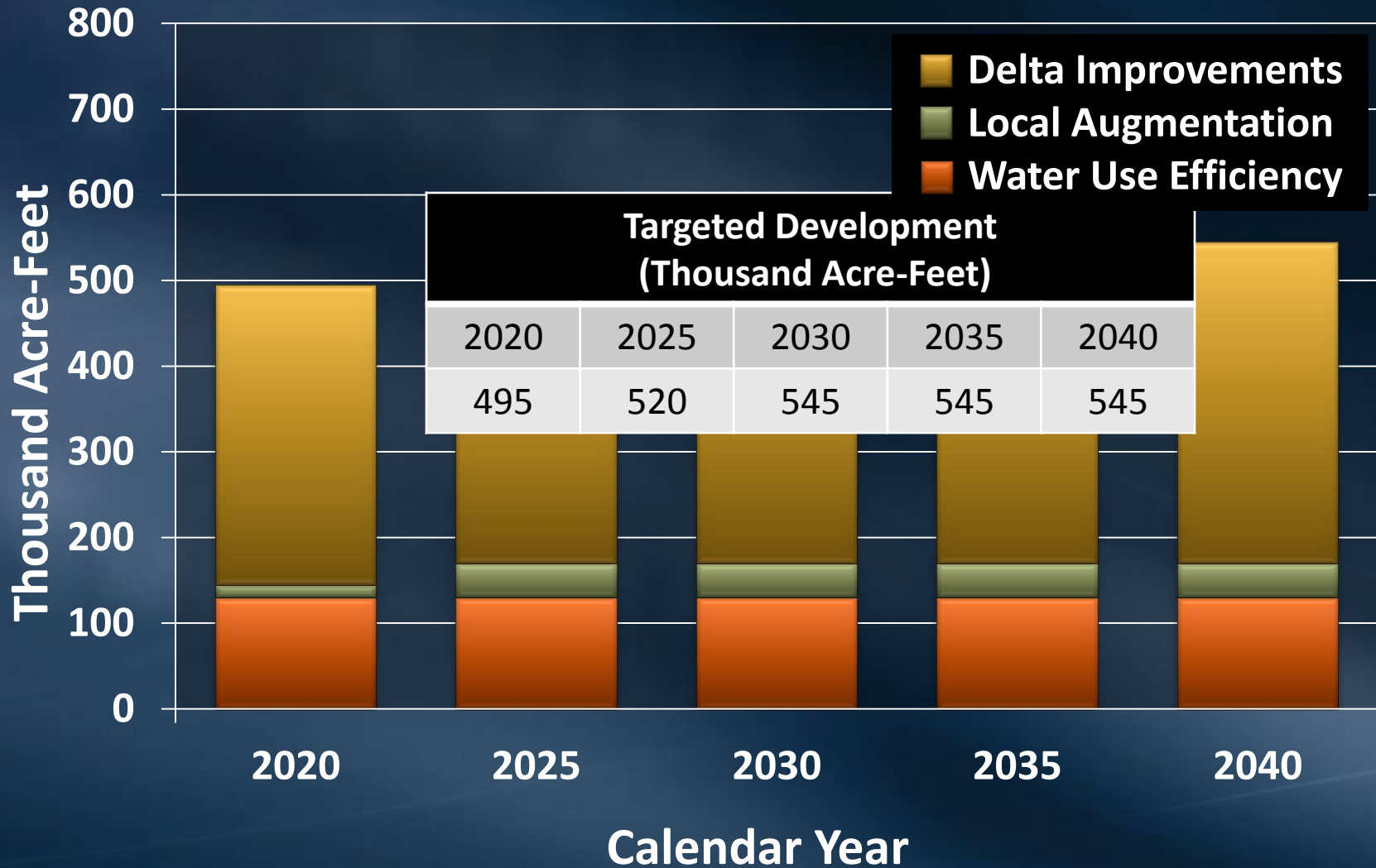
- Seek short, mid, and long-term Delta improvements

## CRA

- Develop Dry-Year supply programs to fill the aqueduct when needed

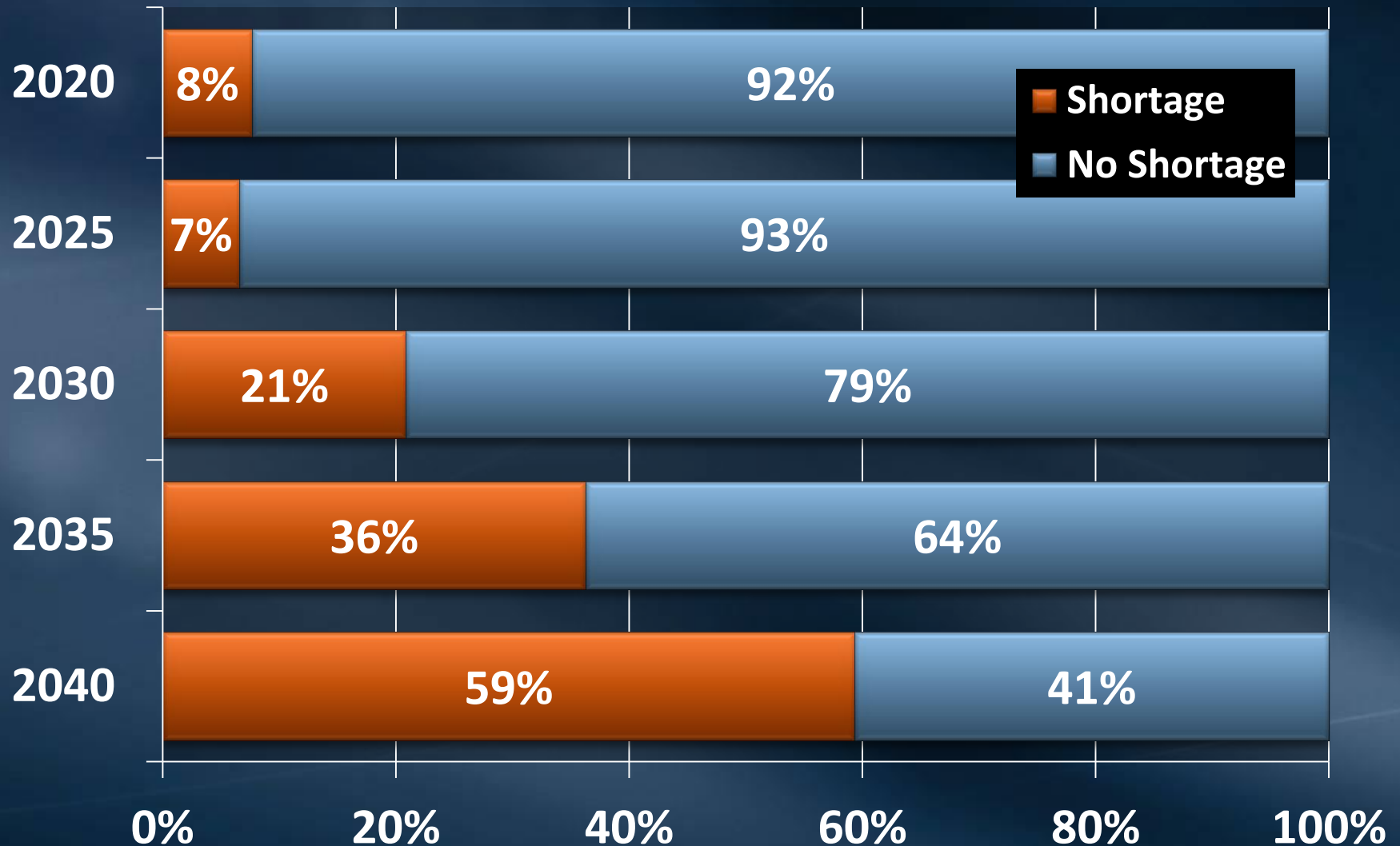
# Targeted IRP Development

## Current IRP Approach



# Summary of Shortage Probability

“Do Nothing” Case Draft Water Balance





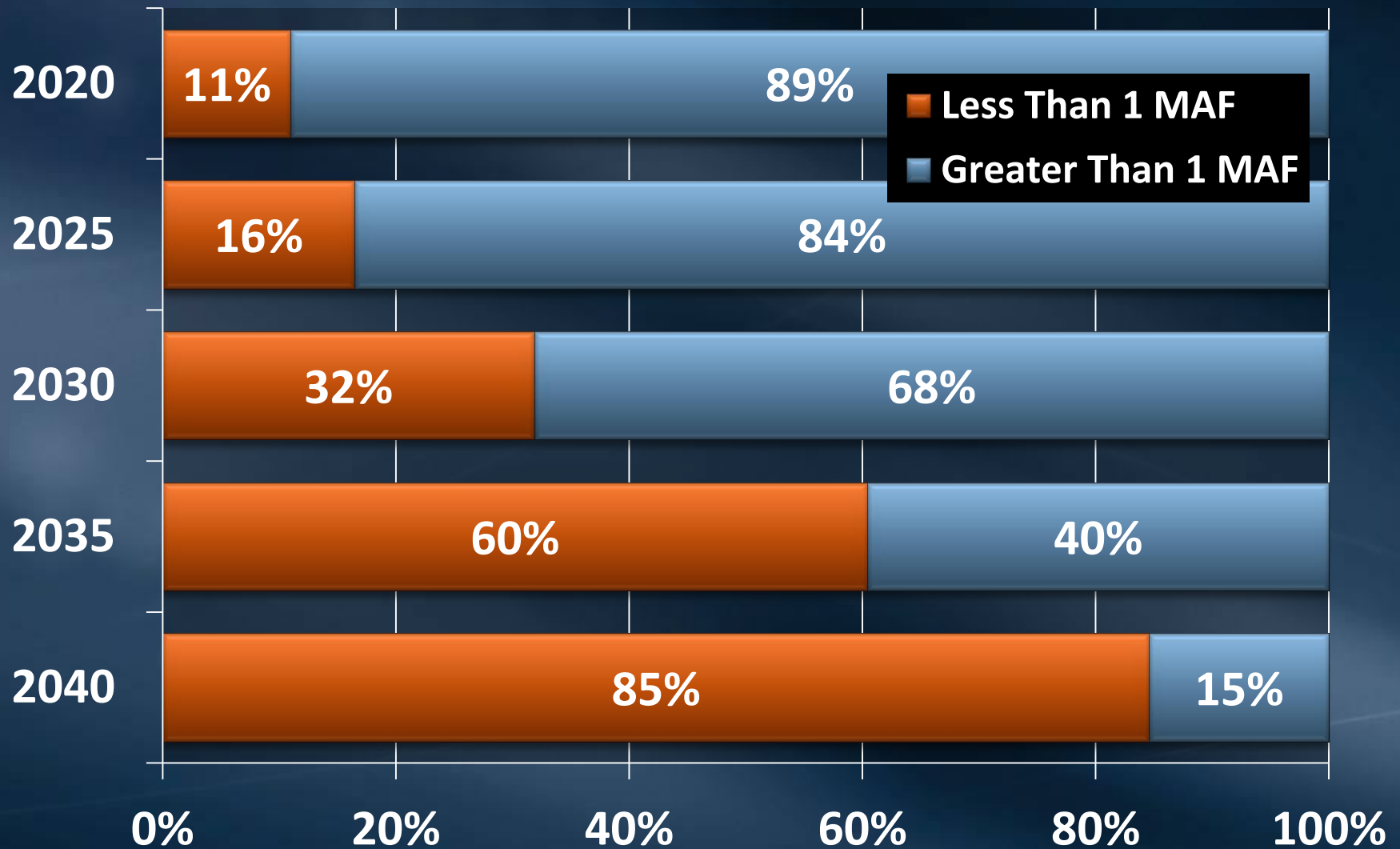
# Summary of Shortage Probability

Current IRP Approach Draft Water Balance



# Summary of Ending Dry-Year Storage

“Do Nothing” Case Draft Water Balance



# Summary of Ending Dry-Year Storage

Current IRP Approach Draft Water Balance



# Observations

## Current IRP Approach Draft Water Balance

- Significant resource investments are needed to achieve the current IRP Targets
- Existing supplies need to be maintained
  - Colorado River Aqueduct
  - Local supply production
- Compared to the “Do Nothing” Case
  - Reliability measures improve
  - Storage measures improve
  - Challenges still exist in the shorter term

# What Potential Changes to the Current IRP Targets are Needed?

- Adjust targets to address shorter term imbalances
- Adjust targets to ensure sufficient storage levels
- Ensure an adequate supply buffer
- Refine and improve implementation approaches and policy to ensure development

# Next Steps



# Next Steps – Water Tomorrow

- Phase 1: IRP Technical Update
  - Finalize Results: October 2015
  - Public Outreach Workshop: October 22<sup>nd</sup>
  - IRP Committee considers Technical Update adoption: December 2015
  - IRP Technical Update Final Report: Early 2016
- Phase 2: Investigate Policy Implications
  - Kick-off: Early 2016

