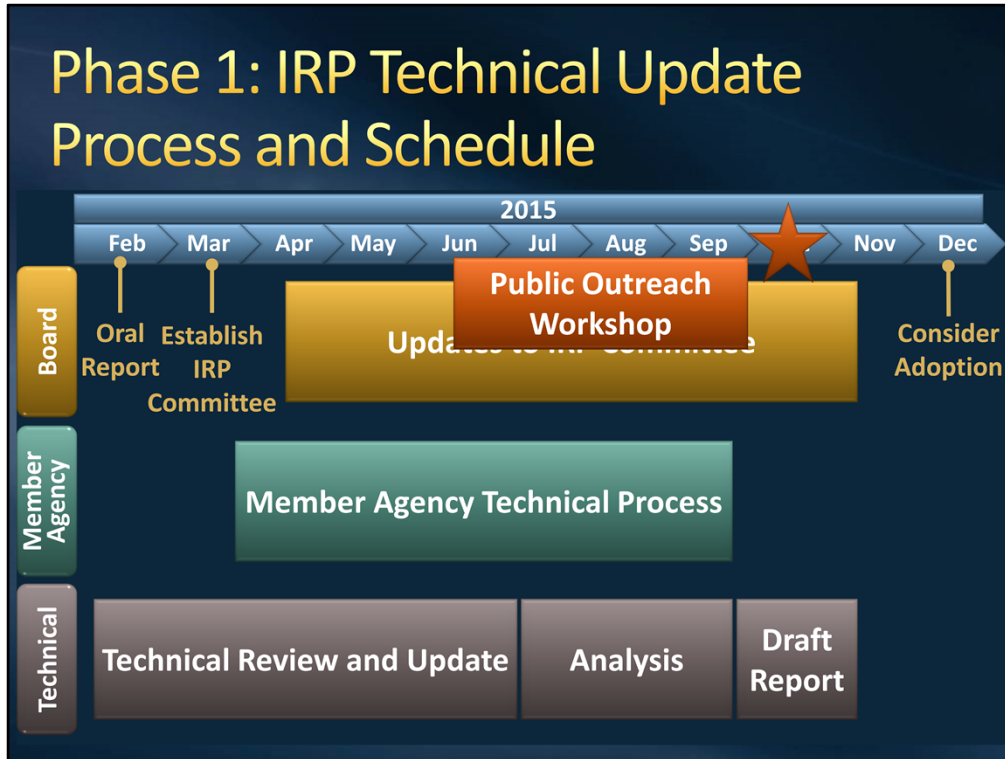




2015 IRP Technical Process Draft Results

Southern California Water Dialogue
September 23, 2015

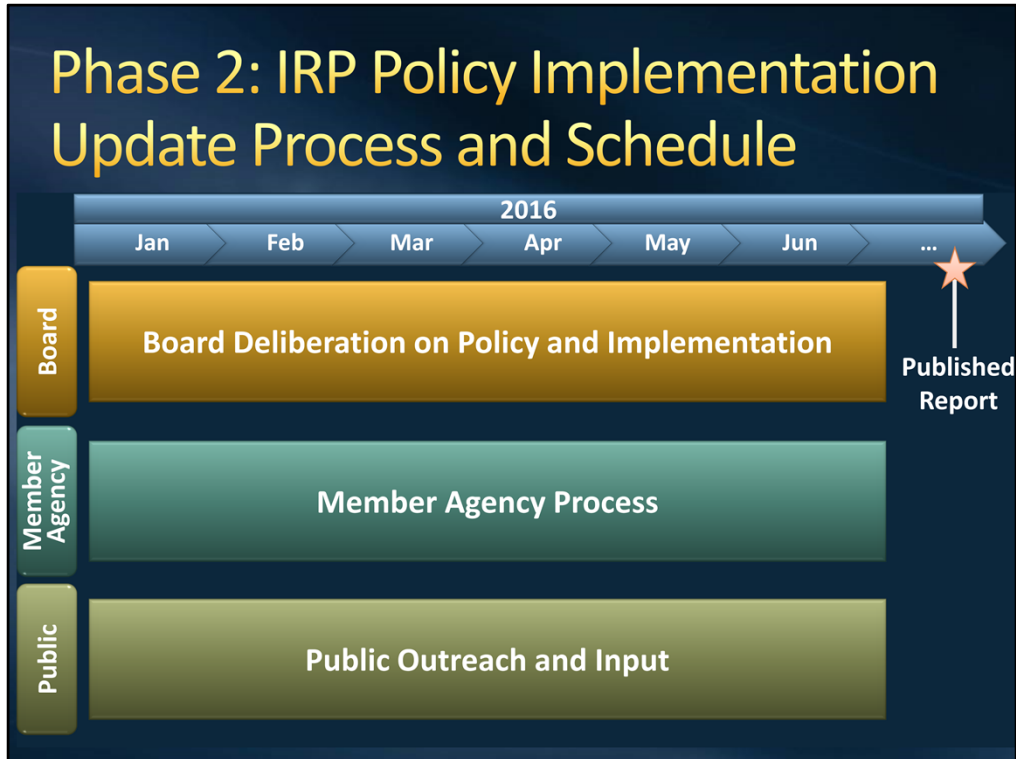


Internal Process –
Ongoing

MA Technical Process –
MA workgroup meetings twice a month April through August, as needed through October
WUE meetings monthly standing meeting April through July

Board –
Reporting in Feb and March (IRP Committee)
Monthly Updates from MA tech process
Wrapping up around the end of the year, head into Board Policy Process

Following slides breakdown activities at Board and MA levels



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Four Key Framing Questions

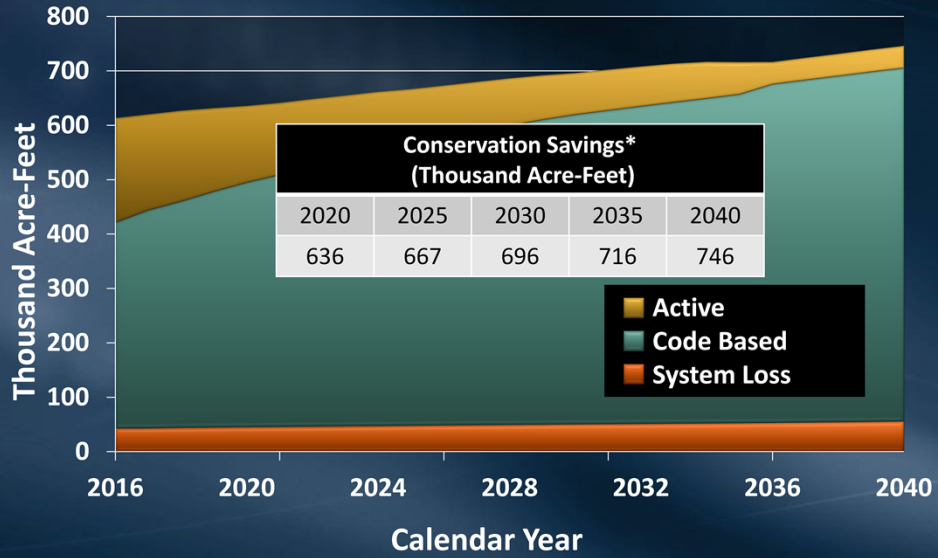
- What is our current outlook on supplies and demands?
- What happens if we do nothing?
- What happens if we continue developing the current 2010 IRP targets?
- What potential changes to the current 2010 IRP targets are needed?

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

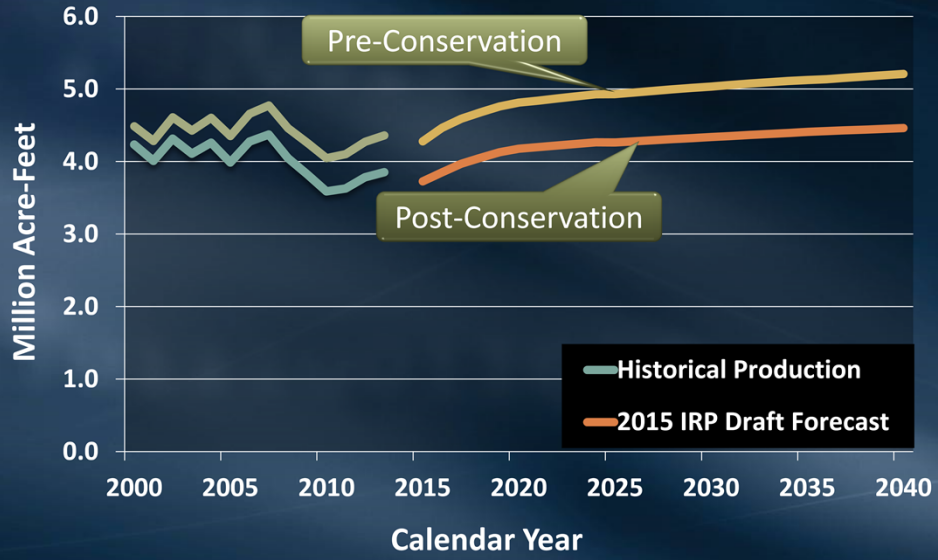
Retail Demands

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



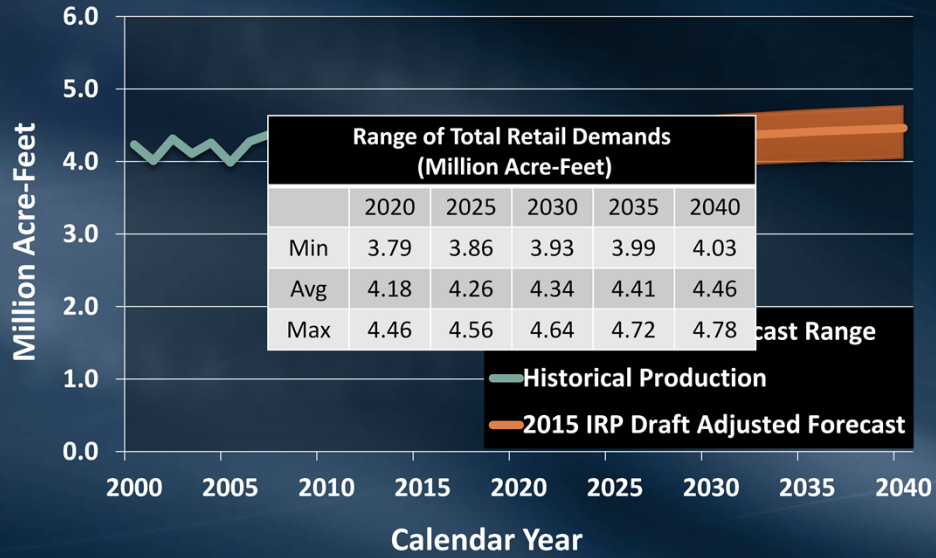
Near-Term Demand Adjustment

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

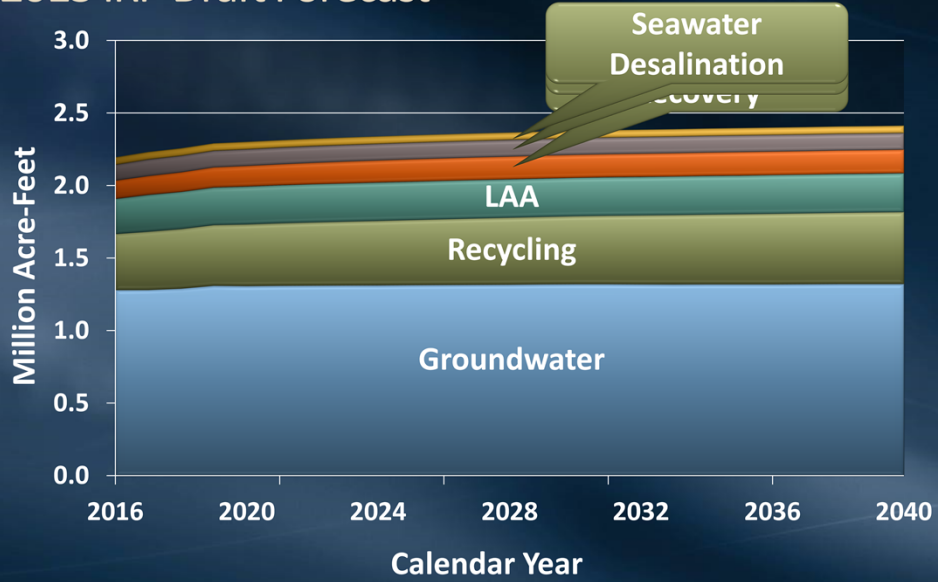
Historical and Projected



Local Supplies

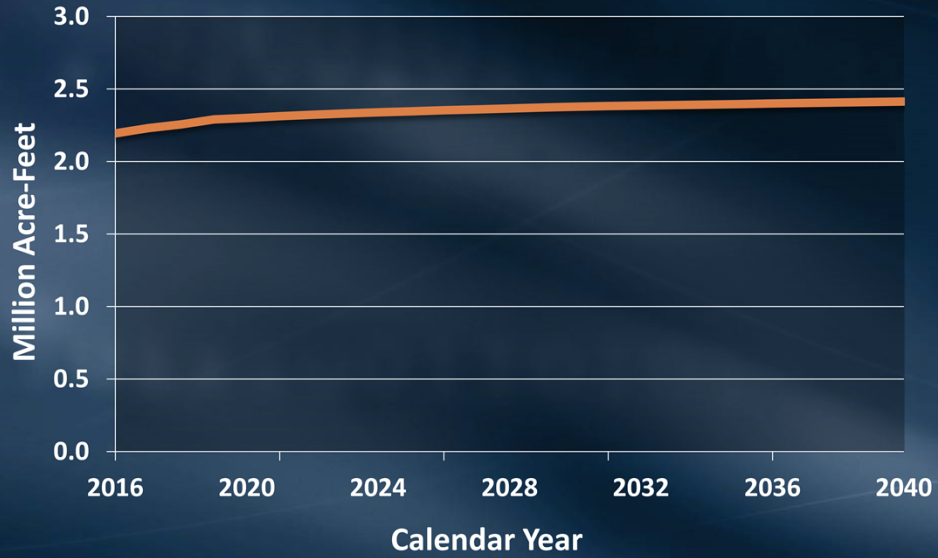
Total Average-Year Local Supplies

2015 IRP Draft Forecast



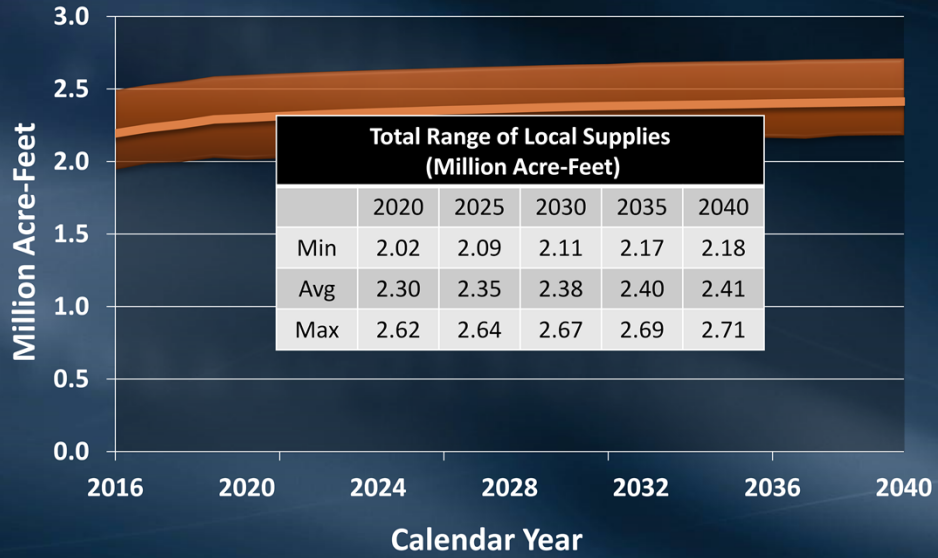
Total Average-Year Local Supplies

2015 IRP Draft Forecast



Total Range of Local Supplies

2015 IRP Draft Forecast



Imported Supplies

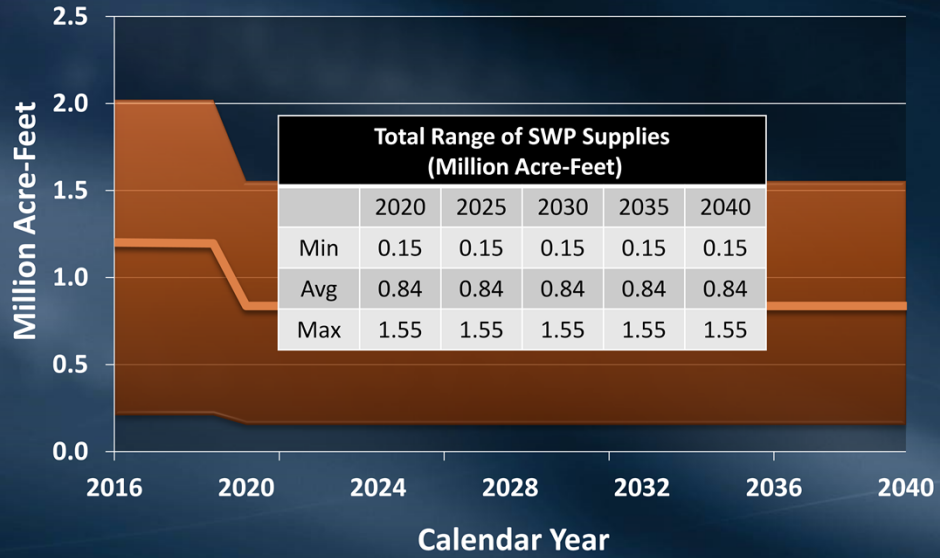
CRA Base Supply Programs

2015 IRP Draft Forecast



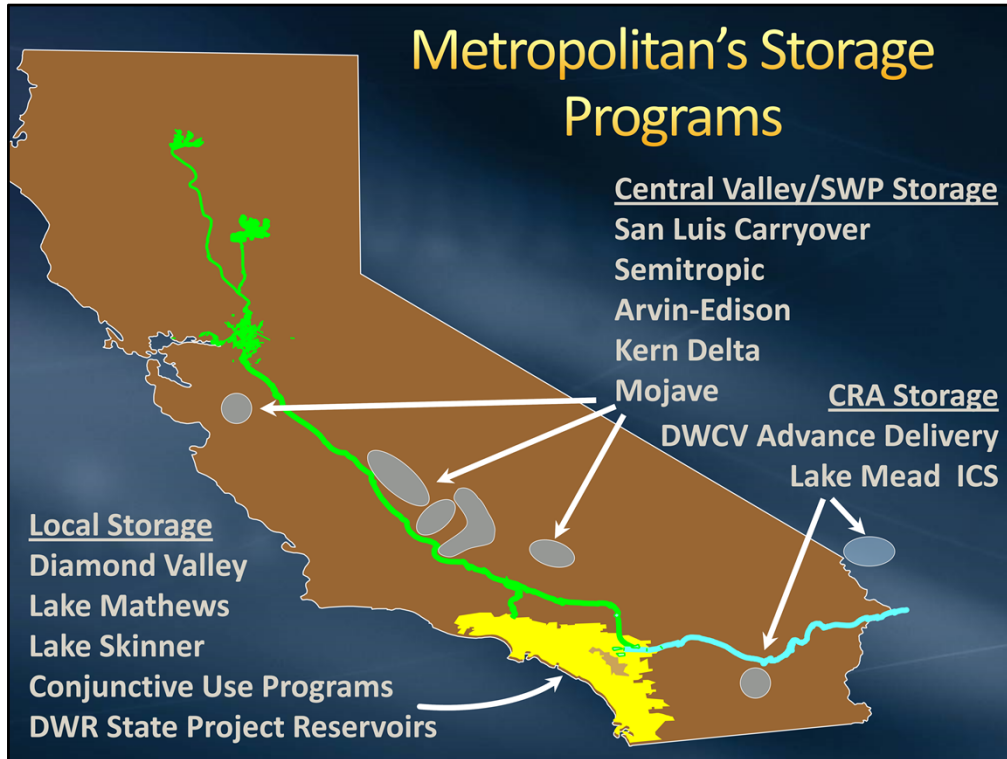
SWP Existing Conveyance Scenario

Draft Forecast Table A + Article 21



Storage Portfolio

Metropolitan's Storage Programs



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
Total Dry-Year	5.32	2.09	2.10	0.77
Emergency	0.63	0.63	0	0.63
Total	5.95	2.72	2.10	1.40

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

What Happens if We do
Nothing?

“Do Nothing” Case
Draft Water Balance

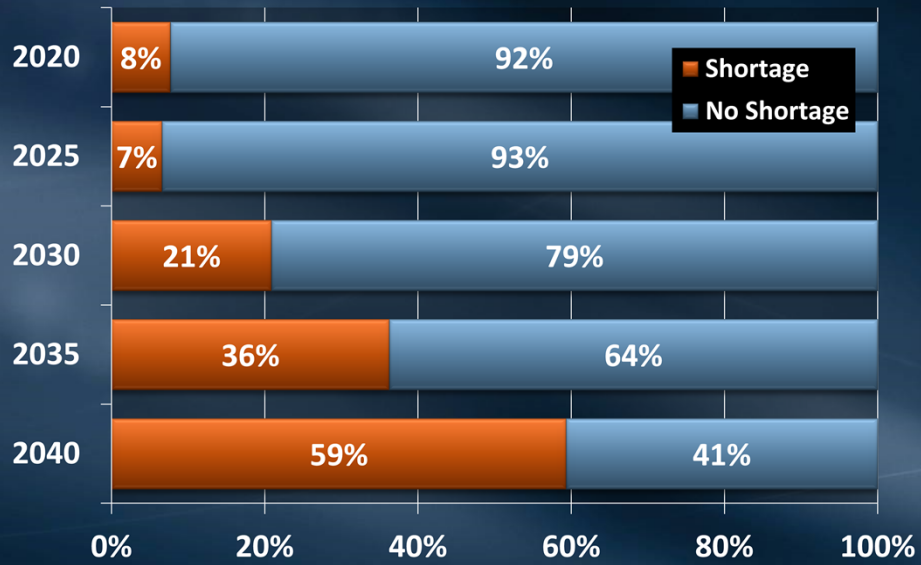
Reliability Measures

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

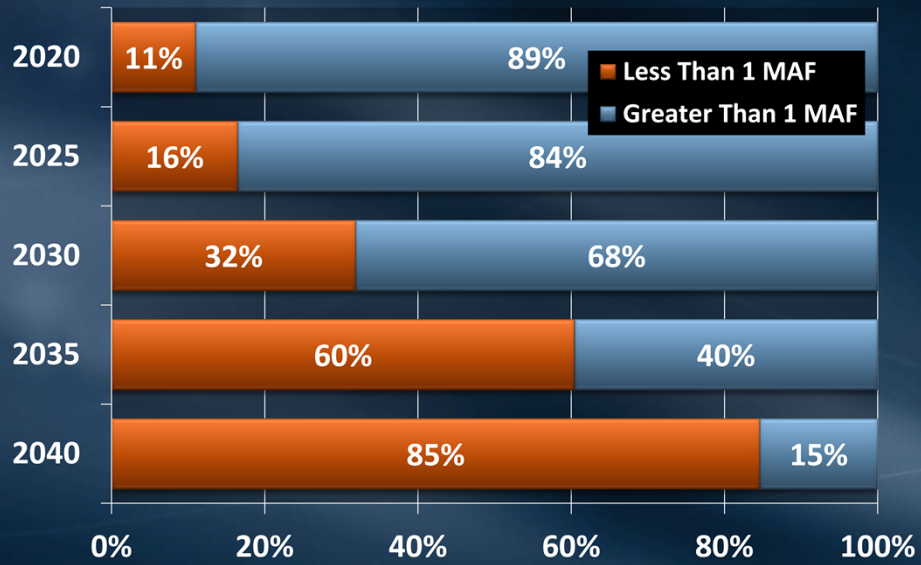
Summary of Shortage Probability

“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

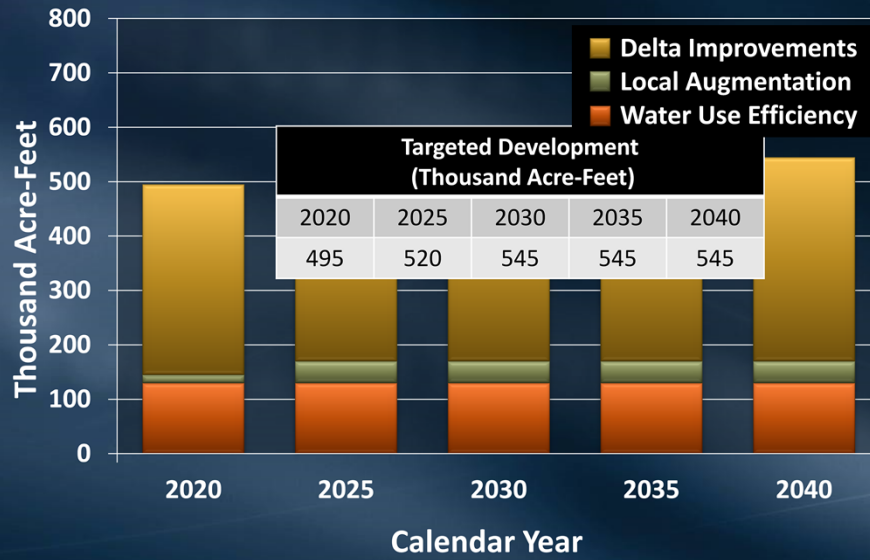
- Seek short, mid, and long-term Delta improvements

CRA

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

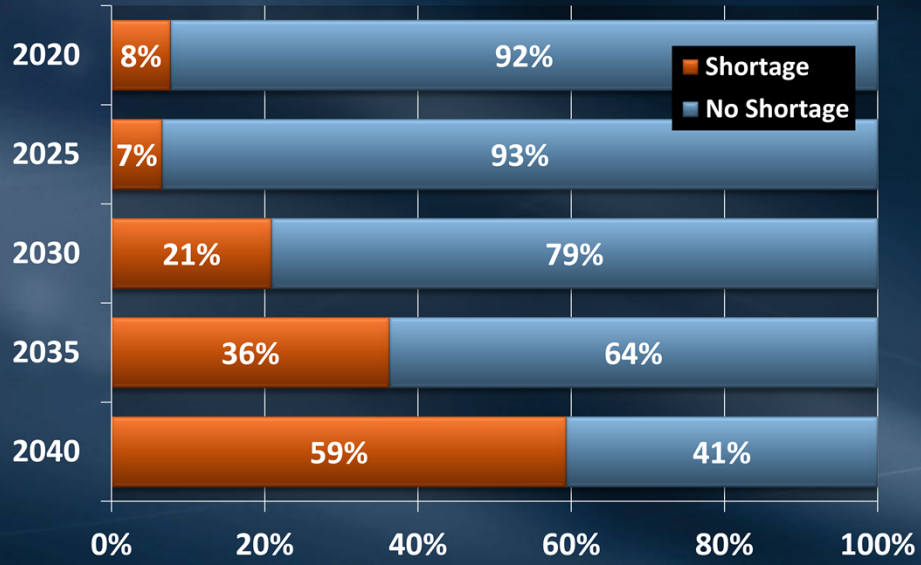
Targeted IRP Development

Current IRP Approach



Summary of Shortage Probability

“Do Nothing” Case Draft Water Balance



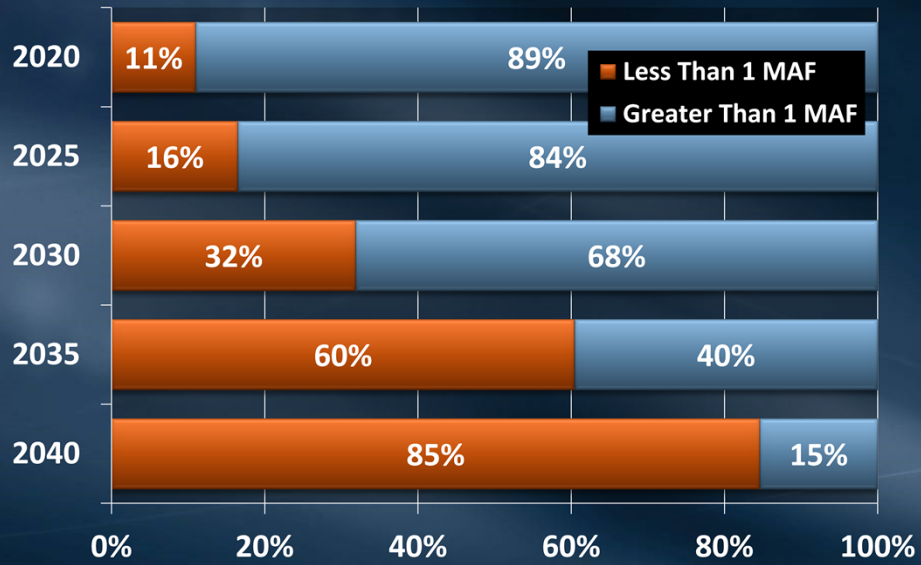
Summary of Shortage Probability

Current IRP Approach Draft Water Balance



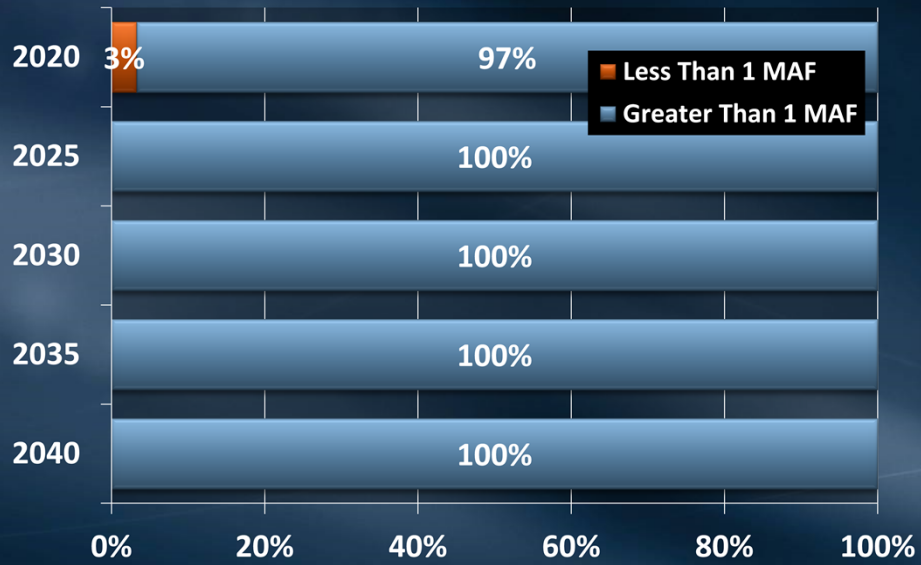
Summary of Ending Dry-Year Storage

"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 22nd
 - IRP Committee considers Technical Update adoption: December 2015
 - IRP Technical Update Final Report: Early 2016
- Phase 2: Investigate Policy Implications
 - Kick-off: Early 2016

