

Integrated Resources Planning Committee
Item #4b

Subject: IRP Update Technical Process Draft Results

Purpose: The purpose of this oral report is to inform the IRP Committee of results from the IRP Technical Update process

IRP Committee/October 27, 2015

Integrated Resources Planning Committee

Item #4b

This oral report provides technical recommendations from the IRP Update Technical process, and a discussion of reliability in the IRP.



IRP Update Technical Process Draft Results

Integrated Resources Planning Committee
Item 4b
October 27, 2015

Presentation Overview

- Technical Recommendations
- Reliability Discussion
- Next Steps

Technical Recommendations



Summary of Key Technical Findings

- Additional local supply and conservation development is needed to mitigate SWP risk
 - 200 TAF total per year in conservation and local resources
 - Need additional policy discussion on how to ensure local supply target is reached (accounting for risk)
- Stabilizing imported supplies continues to be critical
 - Provide every-year core supplies
 - Maximize use of regional storage resources
- A comprehensive water transfer approach can address shorter-term reliability challenges
- Implementation policy and approach to developing local supplies and conservation is key

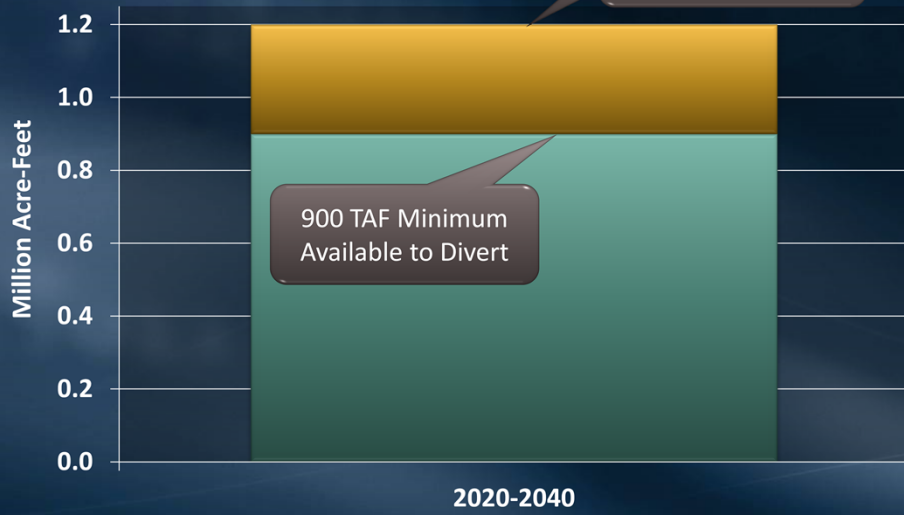
IRP Technical Recommendations

Colorado River Aqueduct

- Stabilize CRA base supplies against risks from growing demands, drought, etc.
 - Develop sufficient base supply programs to ensure 900 TAF of diversions
- Maintain flexibility in CRA dry-year programs and storage
 - Ensure access to 1.2 MAF of supplies in dry-years

Proposed IRP Target – CRA

Supplies Available for Diversion



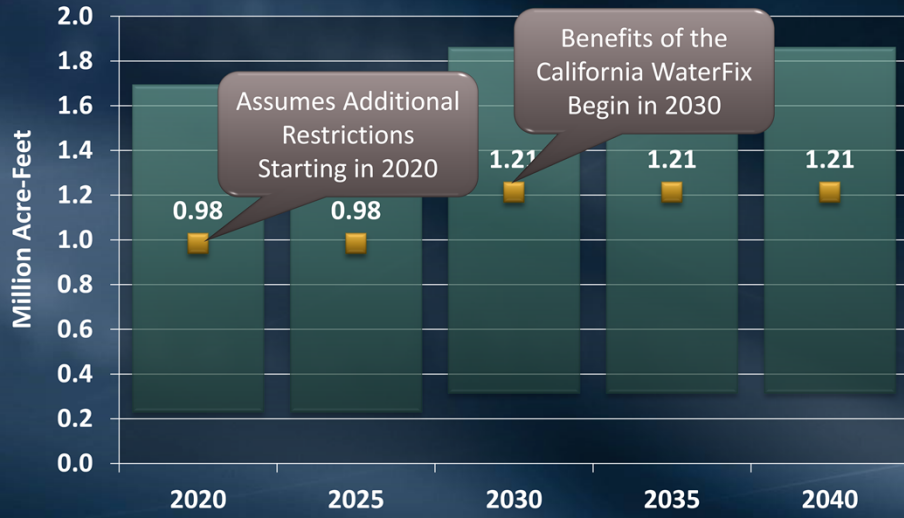
IRP Technical Recommendations

State Water Project

- Manage flow and export regulations in the near-term
 - Continue to engage in collaborative science-based approaches
- Pursue a long-term Delta solution
 - Continue active participation in the California WaterFix and the California EcoRestore efforts

Proposed IRP Target – SWP

Table A + Article 21 Supplies



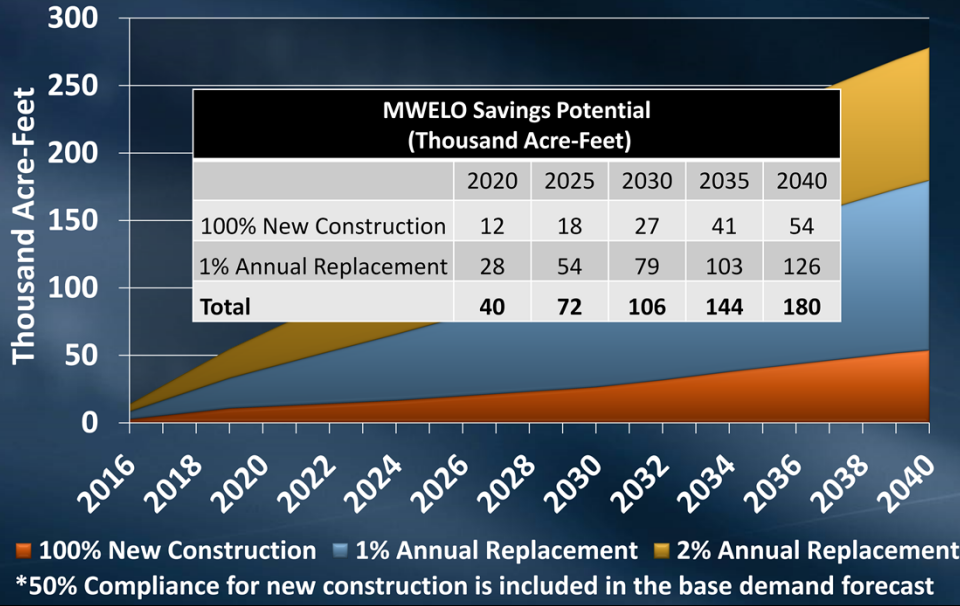
IRP Technical Recommendations

Conservation

- Meet regional 20x2020 GPCD reduction
- Pursue additional conservation in support of the State's Model Water Efficient Landscape Ordinance
 - Attain 100% compliance for new construction
 - 1% annual replacement rate for existing homes and businesses
- Continue device-based programs for residential, commercial and industrial

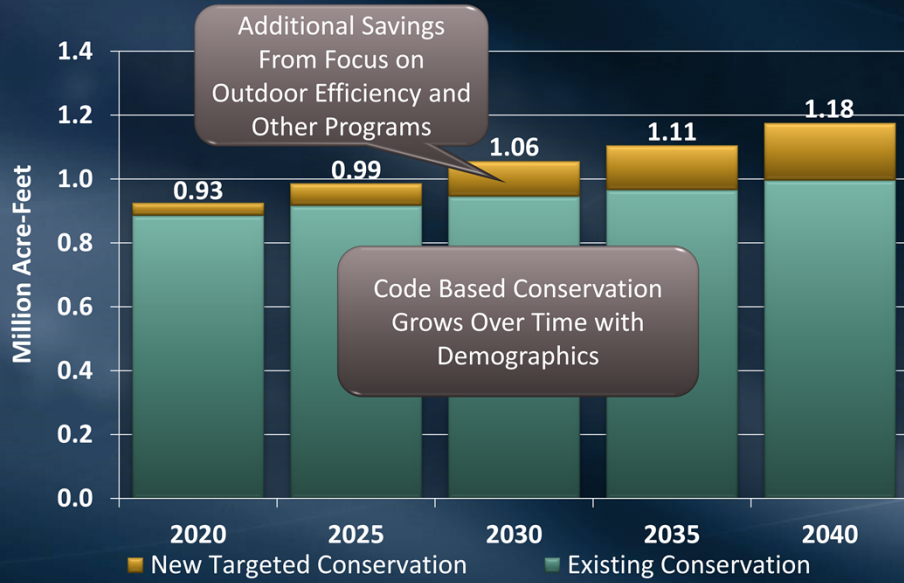
Potential MWELO Savings*

From New Construction and Existing Replacement



Proposed IRP Target - Conservation

Total Targeted Conservation Savings



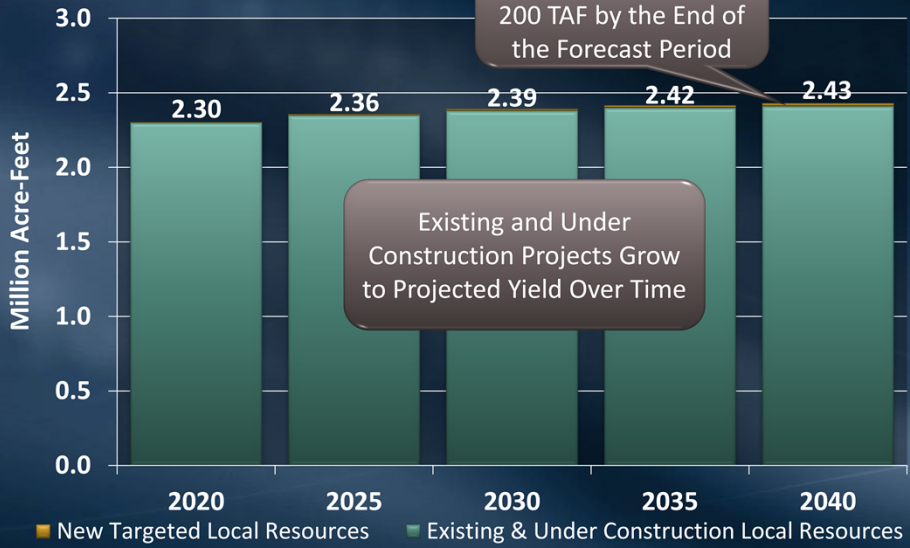
IRP Technical Recommendations

Local Resources

- Develop additional local supplies to meet growth and ensure adequate storage reserves
 - Pursue additional recycling, groundwater recovery, and seawater desalination
- Develop additional local supplies to reduce needs for imported replenishment
 - Expand opportunities for groundwater recharge from stormwater and recycling

Proposed IRP Target - Local Resources

Total Targeted Local Resources (Million Acre-Feet per Year)

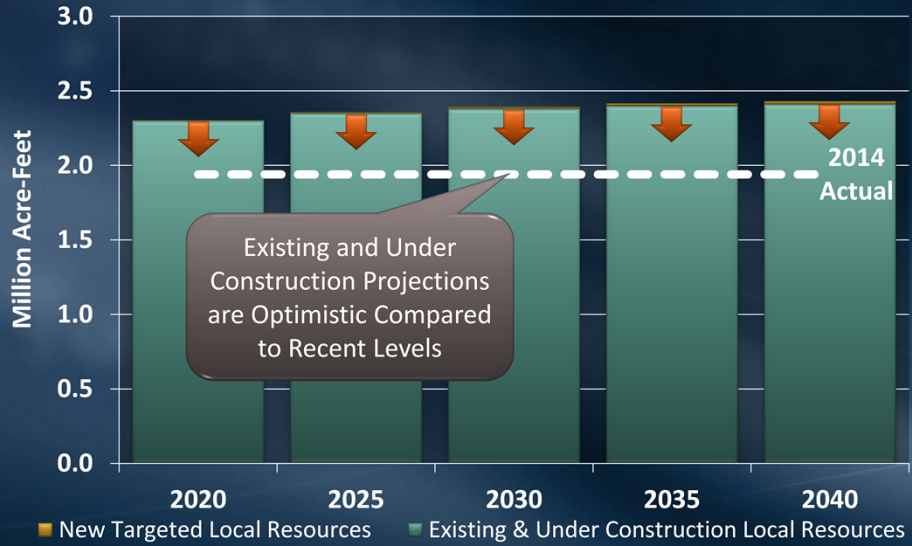


Sources of Potential Risk to Local Supplies

- Climate change impacts to groundwater recharge or surface supplies
- Water quality impacts to groundwater or other supplies
- Implementation risk to facility expansions
- Infrastructure maintenance risks

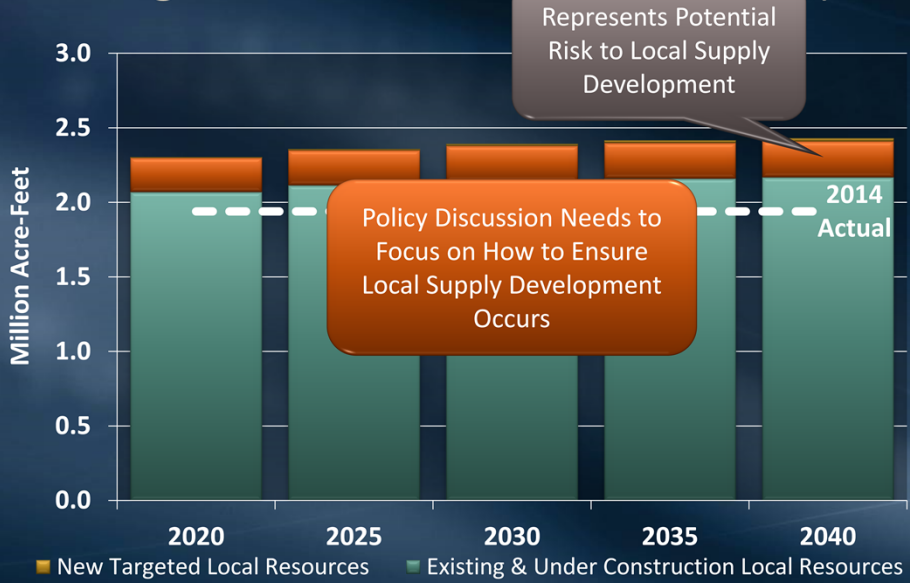
Proposed IRP Target - Local Resources

Total Targeted Local Resources (Average Year)



Proposed IRP Target - Local Resources

Total Targeted Local Resources (Average Year)



IRP Technical Recommendations

Transfers and Exchanges

- Develop a comprehensive transfers and exchanges strategy
 - Focus on obtaining additional supplies in normal and wet years
- Ensure strategy works in conjunction with Metropolitan and local storage

Reliability Discussion



What Does Reliability Mean?

Nothing comes out the tap?



Limited outdoor watering?

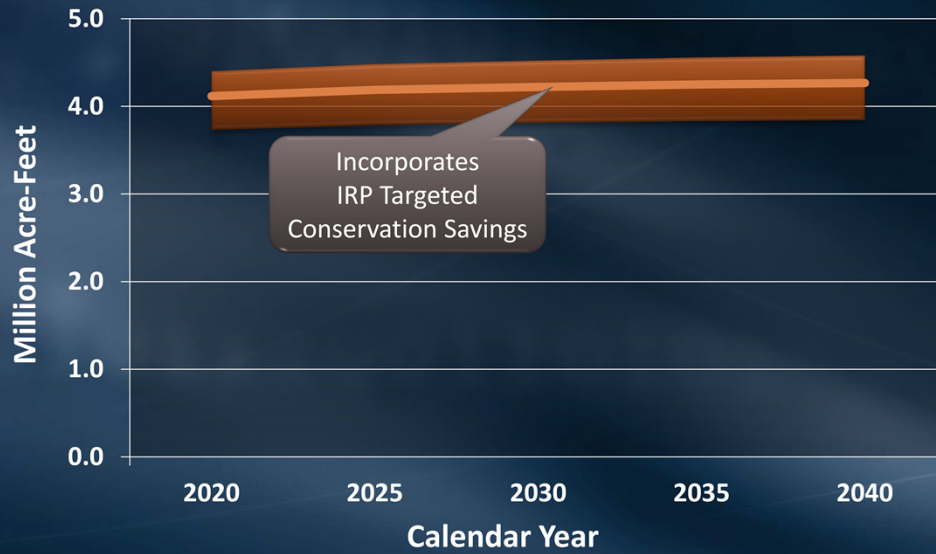


Limits enforced by fines and penalties?

What is the Purpose of Reliability Analysis?

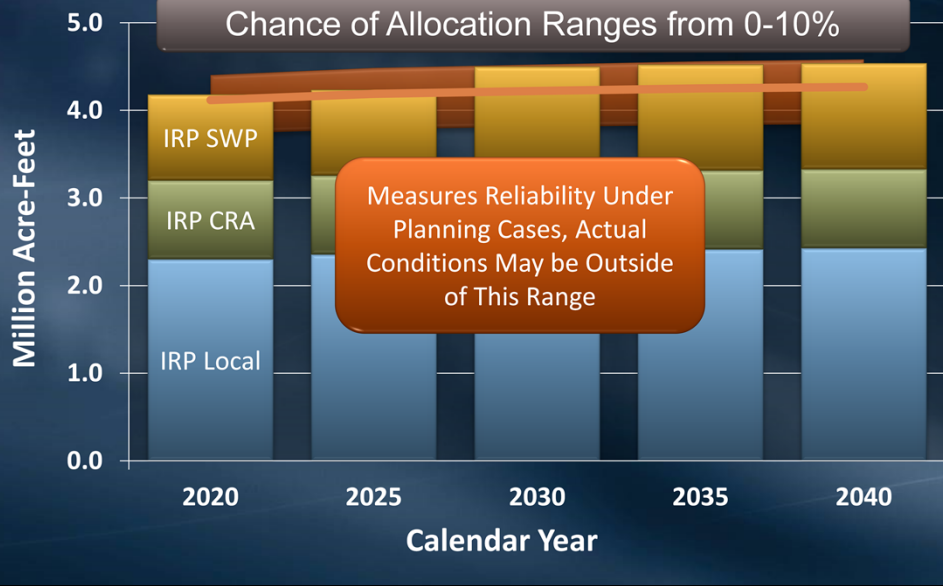
- Evaluates whether a supply mix meets demands in a manner consistent with reliability goals
- Serves as a test case
 - Tests supply and demand forecasts
 - Test ranges and variability due to climate and hydrologic factors sampled from 1922-2012
- Shows how many times out of 91 that there is no shortage, and what the resulting storage conditions are

Range of Retail Demands and IRP Targeted Supplies



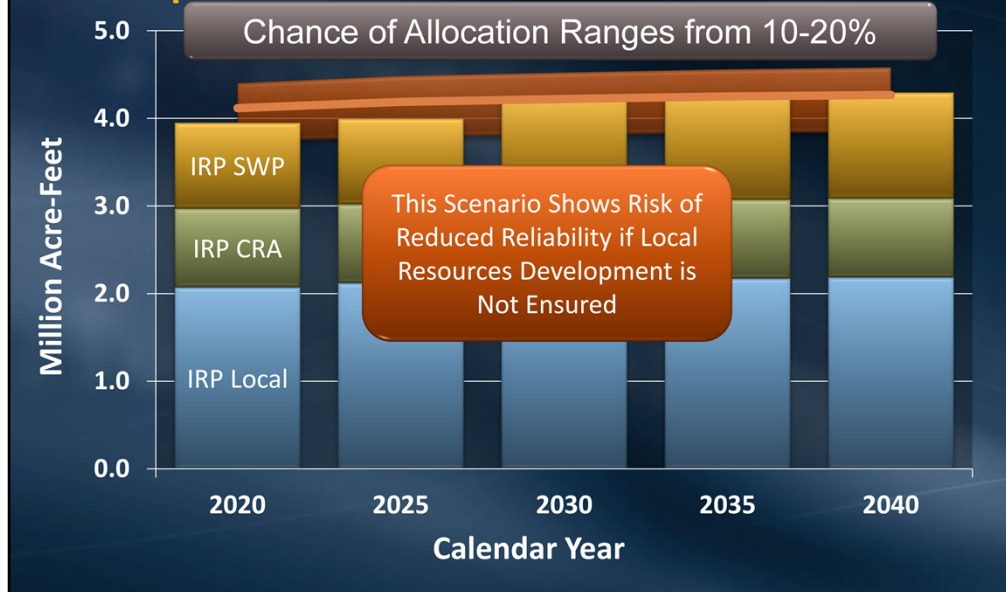
520 TAF
Level 3-5

Range of Retail Demands and IRP Targeted Supplies



820 TAF in 2020
Level 6-8

Ensuring Local Supply Target is Met is Important



Another factor is **climate impacts**, we will see this in a number of places as we go through this presentation.

Forecast is not just an average, range, not just min- max either, we look at 90 different climate effects in each year of the forecast

IRP Process Next Steps



Upcoming Technical Process Activities

November-December 2015

- IRP Technical Process - November
 - Report Drafting
- IRP Committee Meeting - December 8th
 - Consider 2015 IRP Technical Update
- IRP Committee - 2016
 - Begin policy discussion

