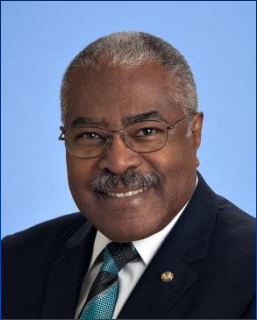


West Basin Municipal Water District Local Resources Development

DBIA Los Angeles
January 20, 2015

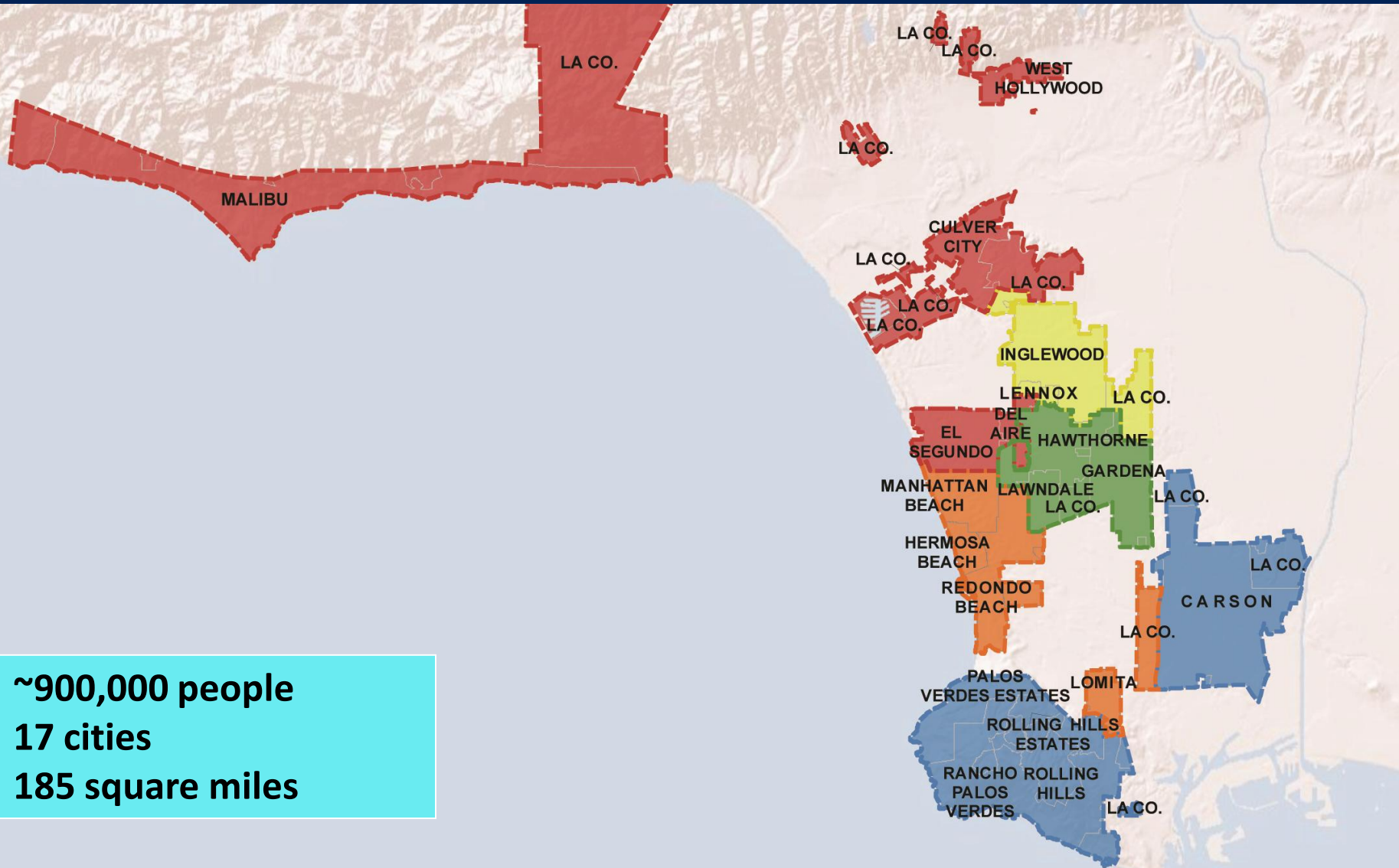


West Basin Leadership



- **Five person Board of elected Directors**
 - Division I Director Harold C. Williams
 - Division II Gloria D. Gray
 - Division III Carol W. Kwan
 - Division IV Director Scott Houston
 - Division V Donald L. Dear
- **Director Dear is the current President**
- **Elected to four year term by the people**

West Basin Service Area



Unprecedented Conditions



- WY 2012- 2013
average runoff
- CY 2013
on record
- Jan 2014
snowpack
- WY 2014
lowest runoff
- 2014 SWP Allocation
5% - lowest
- 2014 Temps
high

Below

Driest

Lowest

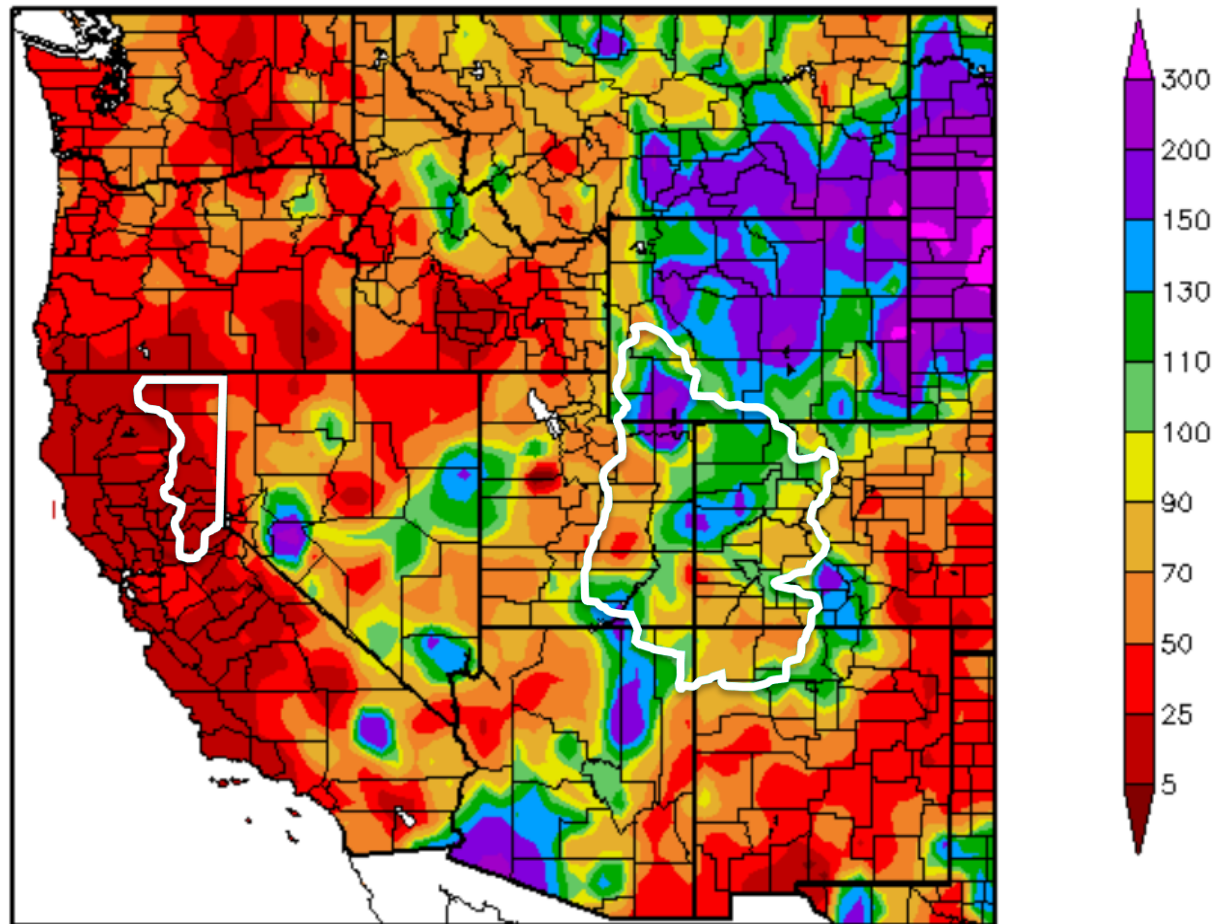
3rd

Record

Poor Start To WY 2013



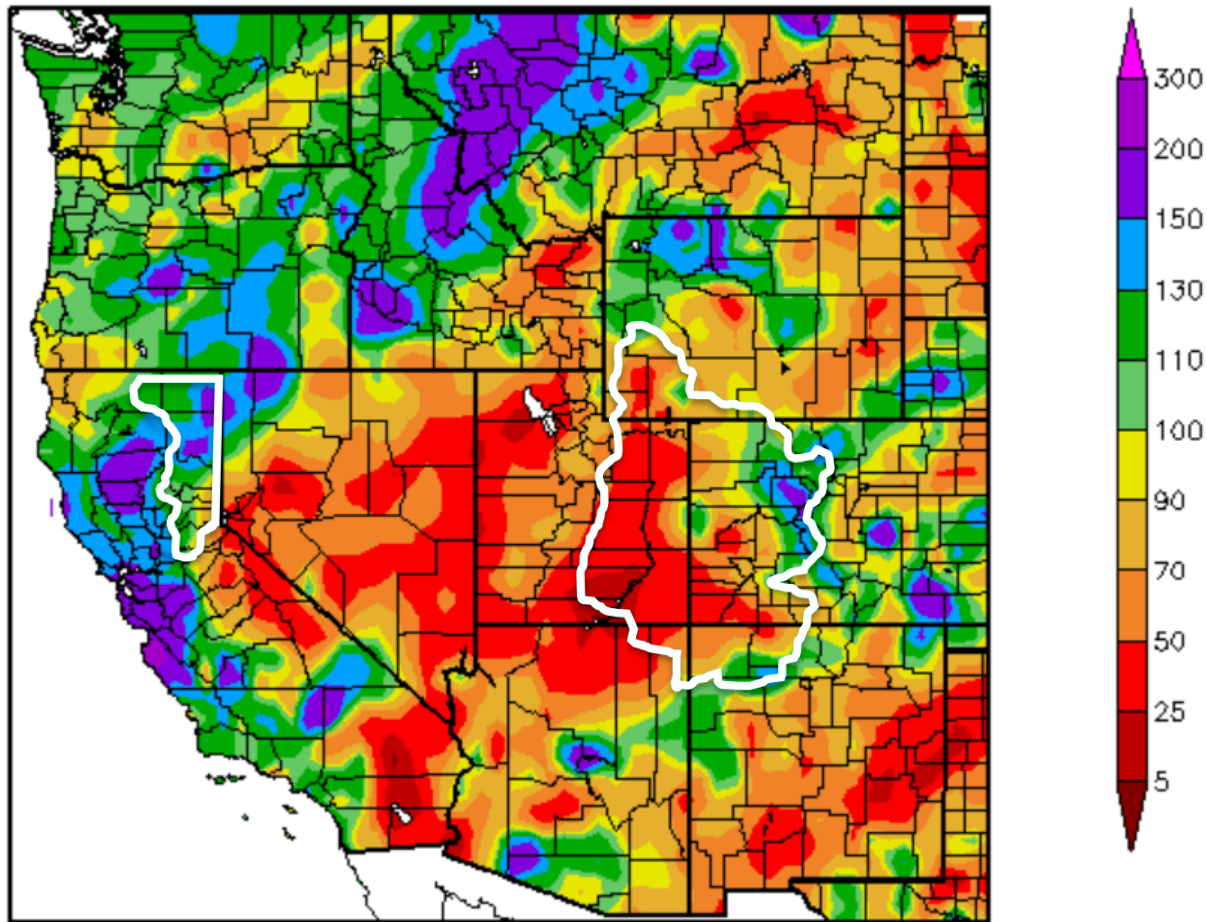
Percent of Normal Precipitation (%)
10/1/2013 – 12/31/2013



Conditions Are Better This Year



Percent of Normal Precipitation (%)
10/1/2014 – 12/31/2014



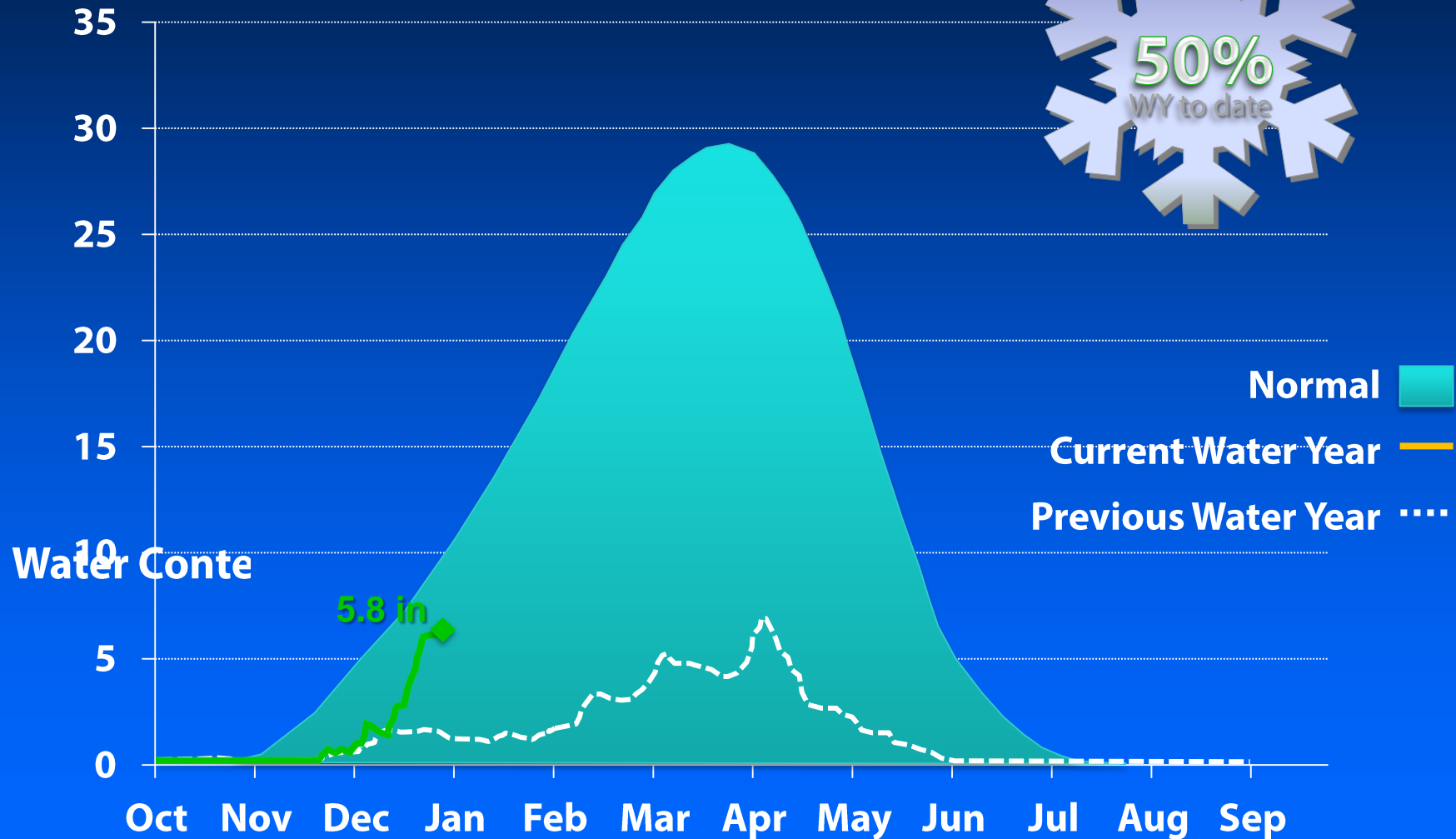


January 2014

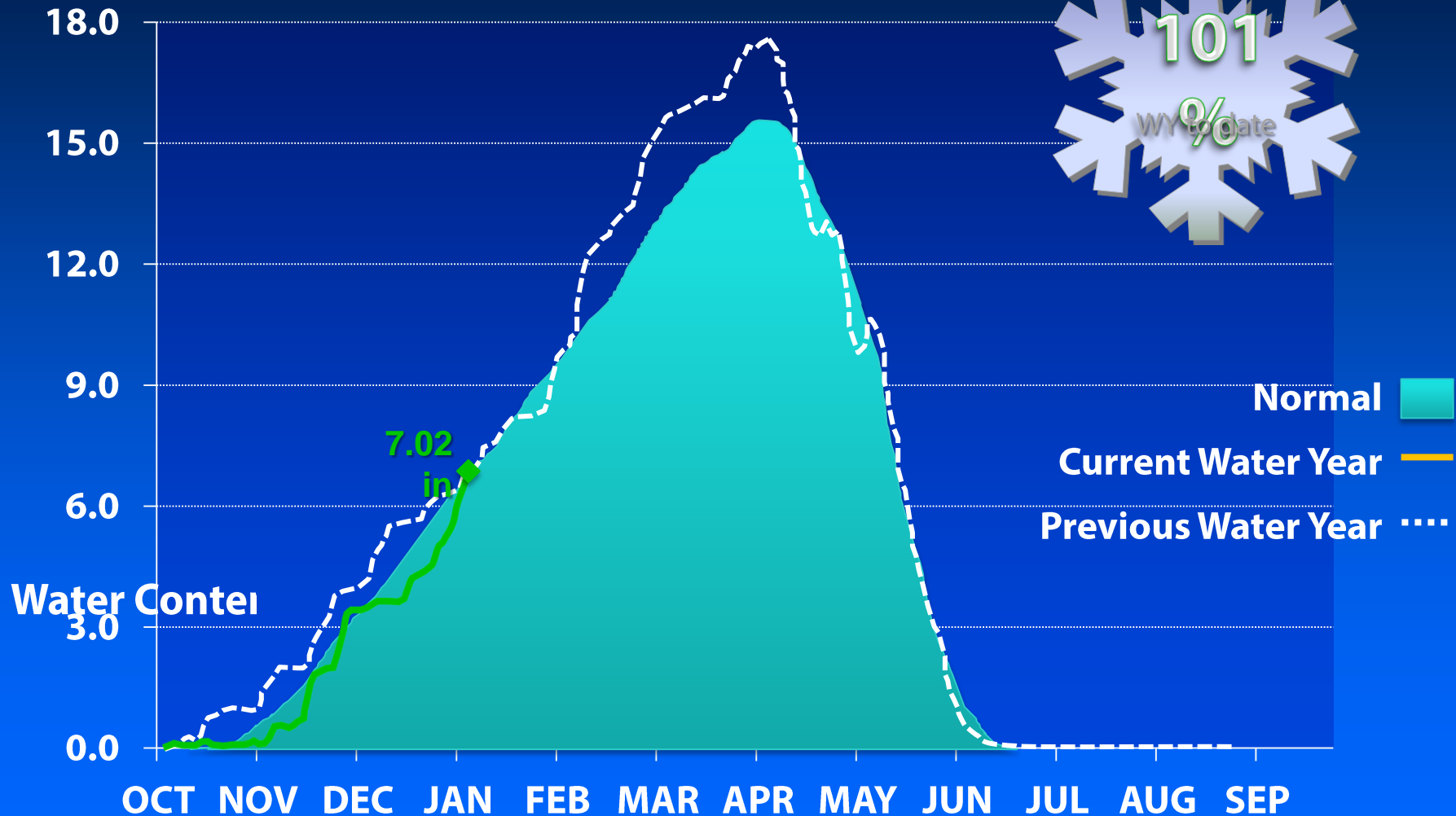


January 2015

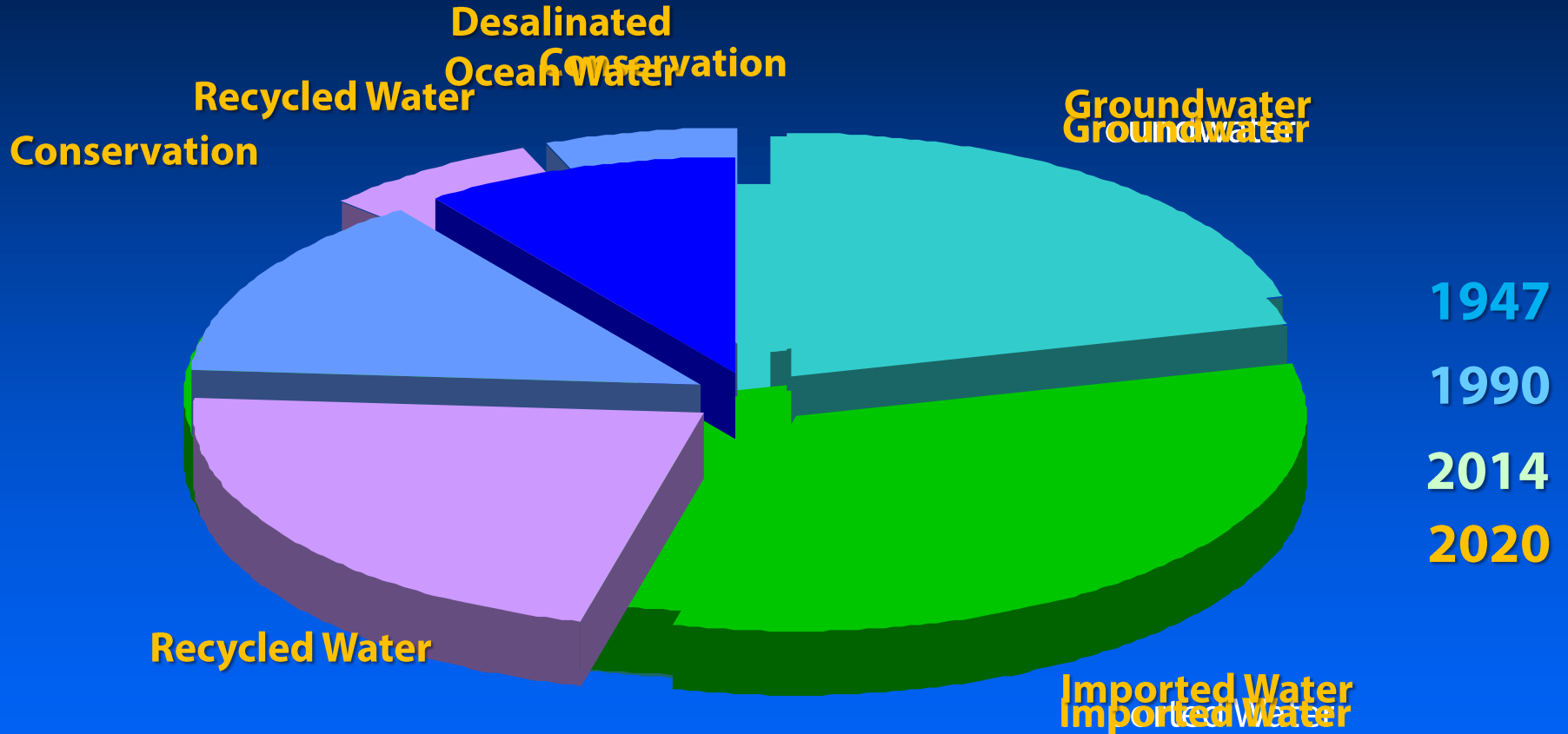
State Water Project Hydrologic Conditions



Colorado River Hydrologic Conditions



West Basin Water Supply Portfolio





Water **Reliability** 2020



- **By 2020, shift local supply from 33% to 66%**

2x



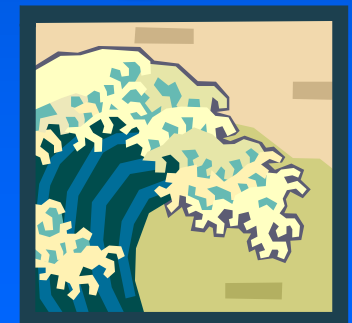
- **Avoid water supply fluctuations caused by:**

- **Environment**
- **Weather**
- **Natural disasters**
- **Competing interests**

2x



20 MGD



Conservation



Residential

Toilet Distributions
Ocean Friendly Classes
Landscape Surveys
Smart Controllers &
Rebates
Sprinkler Nozzles

Commercial & Industrial

Commercial Restroom –
Retrofit
Cash 4 Kitchens
Recirc & Save
Ocean-Safe Car Wash

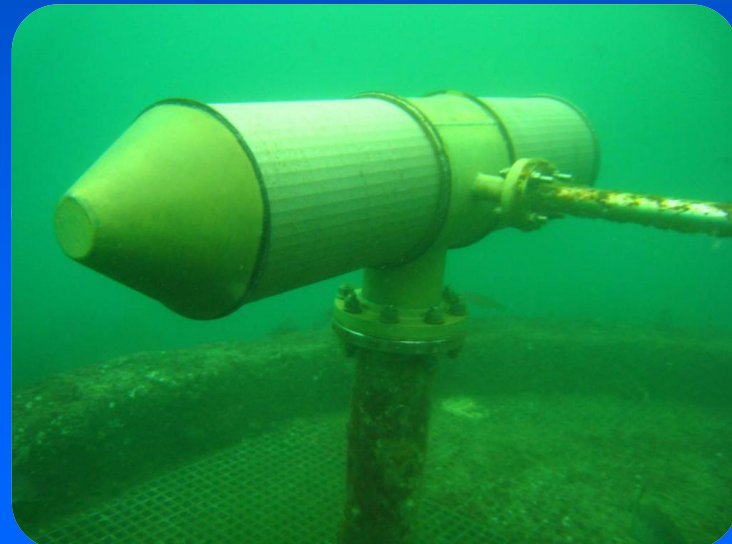
Landscape

Turf Removal
Surveys
Controller Installations
Ocean Friendly Demo
Gardens

Responsible Ocean-Water Desalination



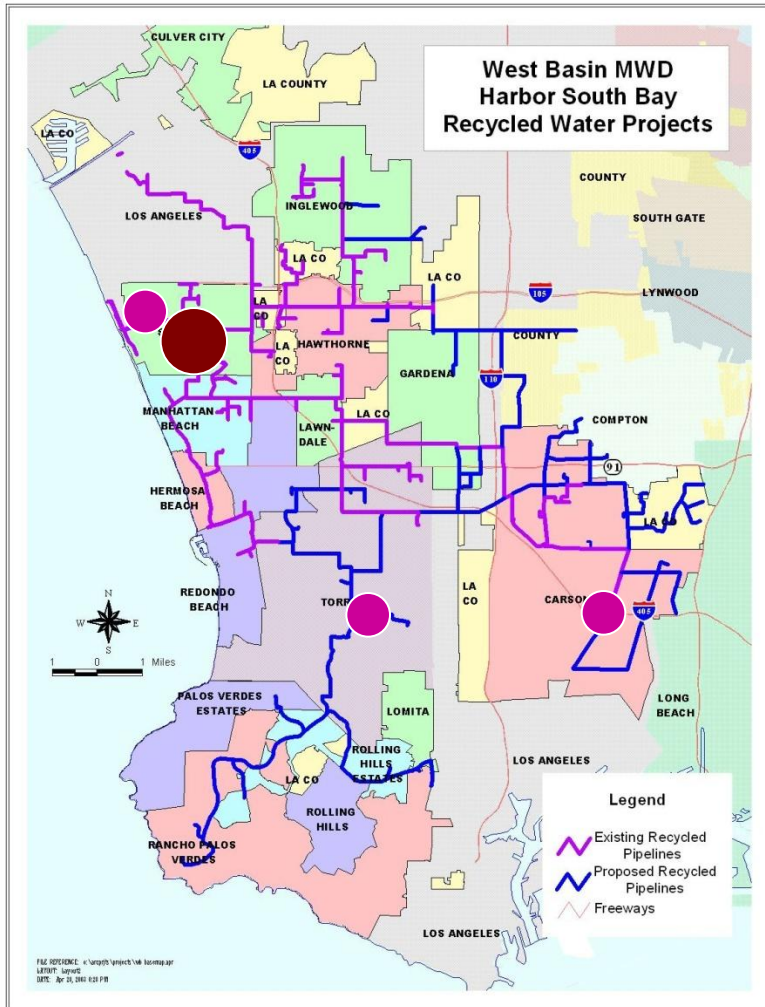
- **E**nvironment
- **E**nergy Efficiency
- **E**conomics
- **E**ducation



Edward C. Little Water Recycling Facility



Recycled Water Distribution



- 120 miles of pipeline
- Invested \$600 million in 14 years
 - 1 main plant
 - 3 satellite facilities
- Over 150 billion gallons recycled water

Designer Waters



1



Tertiary Water

2



Nitrified Water

3



Indirect Potable Reuse: Barrier

4



Reverse Osmosis: Single Pass

5



Reverse Osmosis: Double Pass



Previous Design Build Projects

- **Chevron Refinery Nitrification Plant – 1995**
- **Exxon/Mobil Refinery Nitrification Plant – 1995**
- **ECLWRF Phase II – 1997**
- **Carson Regional Water Recycling Plant – 1999**
- **ECLWRF Phase III – 2001**
- **ECLWRF Phase IV – 2007**
- **ECLWRF Phase V – 2013**



Project Delivery Considerations

- **Schedule Constraints - Benefits to Revenue?**
- **Project Complexity**
- **Potential for Innovation - Cost /Quality Benefits**
- **Quality Enhancement - Single Point of Responsibility?**
- **District PM & Support Staff Availability**
- **Risk Management**
- **Best Value vs. Low Bid**



Constraints / Challenges

- **24 / 7 Operations**
- **Limited Site Area**
 - **Plant Operations**
 - **Tie-ins and Utility Condition**
 - **New Facility Integration**
- **Permitting**
- **Site Tours and Public Events**

Future Project Delivery Considerations



- **24 / 7 Operations**
- **PDR – Significance to Contractual Obligations**
- **DB Responsibility for Verification**
- **Vendor Liability / Responsibilities**
- **Electrical / Power Requirements**
- **Permitting**
- **Time to Submit Proposals**
- **Stipends**
- **“Partnering” – Relationship / Goal Establishment**



What's Important to West Basin

- **DB Team Selection:**
 - Approach / Understanding
 - Impacts to Operations
 - Committed Team Members
 - Foresight to Build Flexibility into Operations
- **Full Accountability:**
 - Throughout Project Duration
 - Comprehensive Design Considerations
 - Project Participation from Start to Finish
 - Thorough Operational Knowledge Early On
- **Team Integration:**
 - Clearly Defined Roles, Responsibilities, and Objectives
 - Develop Strong Professional Relationship with Team Members
 - Vendor Responsibility and Liability



Upcoming Projects

- R&R Program
- Gardena Lateral
- Hyperion Pump Station Expansion
- Carson Regional Expansion - Tesoro
- ECLWRF Visitor Center Upgrade



Thank You!

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