



**AGENDA  
REGULAR WORKSHOP OF THE  
BOARD OF DIRECTORS**

**WEDNESDAY, JULY 1, 2020  
10:00 A.M.**

**INLAND EMPIRE UTILITIES AGENCY\*  
Telecon: (415) 856-9169/Conference ID: 440 187 404#**

PURSUANT TO THE PROVISIONS OF EXECUTIVE ORDER N-25-20 ISSUED BY GOVERNOR GAVIN NEWSOM ON MARCH 12, 2020, AND EXECUTIVE ORDER N-29-20 ISSUED BY GOVERNOR GAVIN NEWSOM ON MARCH 17, 2020 ANY BOARD MEMBER MAY CALL INTO THE BOARD MEETING WITHOUT OTHERWISE COMPLYING WITH ALL BROWN ACT'S TELECONFERENCE REQUIREMENTS.

**TELECONFERENCE ACCESSIBILITY FOR THE GENERAL PUBLIC:**

In all efforts to prevent the spread of COVID-19, until further notice, the Inland Empire Utilities Agency will be holding all Board and Committee meetings by teleconferencing.

The meeting will be accessible at: (415) 856-9169 / Conf Code: 440 187 404#

This meeting is being conducted virtually by video and audio conferencing. There will be no public location available to attend the meeting; however, the public may participate and provide public comment during the meeting by calling into the number provided above. The public may also view the meeting live through the Agency's website. Alternatively, you may email your public comments to the Interim Board Secretary/Office Manager Laura Mantilla at [lmantilla@ieua.org](mailto:lmantilla@ieua.org) no later than 24 hours prior to the scheduled meeting time. Your comments will then be read into the record during the meeting.

**CALL TO ORDER OF THE INLAND EMPIRE UTILITIES AGENCY BOARD OF DIRECTORS MEETING**

**FLAG SALUTE**

**PUBLIC COMMENT**

Members of the public may address the Board on any item that is within the jurisdiction of the Board; however, no action may be taken on any item not appearing on the agenda unless the action is otherwise authorized by Subdivision (b) of Section 54954.2 of the Government Code. Those persons wishing to address the Board on any matter, whether or not it appears on the agenda, are requested to email the Board Secretary no later than 24 hours prior to the scheduled meeting time or address the Board during the public comments section of the meeting. Comments will be limited to three minutes per speaker. Thank you.

## **ADDITIONS TO THE AGENDA**

In accordance with Section 54954.2 of the Government Code (Brown Act), additions to the agenda require two-thirds vote of the legislative body, or, if less than two-thirds of the members are present, a unanimous vote of those members present, that there is a need to take immediate action and that the need for action came to the attention of the local agency subsequent to the agenda being posted.

### **1. CONSENT ITEMS**

**NOTICE:** All matters listed under the Consent Calendar are considered to be routine and non-controversial and will be acted upon by the Board by one motion in the form listed below. There will be no separate discussion on these items prior to the time the Board votes unless any Board members, staff or the public requests specific items be discussed and/or removed from the Consent Calendar for separate action.

#### **A. ADOPTION OF RESOLUTION NO. 2020-7-14, HONORING THE LIFE AND SERVICE OF WESTERN MUNICIPAL WATER DISTRICT DIRECTOR ROBERT STOCKTON**

Staff recommends that the Board adopt Resolution No. 2020-7-14, honoring the life and service of Director Robert “Bob” Stockton from Western Municipal Water District.

### **2. WORKSHOP**

#### **A. TECHNOLOGY MASTER PLAN INITIATIVES**

#### **B. CHINO BASIN PROGRAM UPDATE – ECONOMIC ANALYSIS**

### **3. GENERAL MANAGER’S COMMENTS**

### **4. BOARD OF DIRECTORS’ REQUESTED FUTURE AGENDA ITEMS**

### **5. DIRECTORS’ COMMENTS**

### **6. ADJOURN**

\*A Municipal Water District

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Board Secretary (909) 993-1944, 48 hours prior to the scheduled meeting so that the Agency can make reasonable arrangements.

Proofed by:    jhw   

### **Declaration of Posting**

I, Laura Mantilla, Interim Board Secretary/Office Manager of the Inland Empire Utilities Agency\*, A Municipal Water District, hereby certify that a copy of this agenda has been posted by 5:30 p.m. at the Agency’s main office, 6075 Kimball Avenue, Building A, Chino, CA on Thursday, June 25, 2020.



Laura Mantilla

**CONSENT  
CALENDAR  
ITEM**

**1A**



**Date:** July 1, 2020

**To:** The Honorable Board of Directors

**From:** Shivaji Deshmukh, General Manager

**Committee:**

**Executive Contact:** Shivaji Deshmukh, General Manager

**Subject:** Adopt Resolution No. 2020-7-14, Honoring the Life and Service of Western Municipal Water District Director Robert "Bob" Stockton

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**Executive Summary:**

Robert “Bob” Stockton served on the Western Municipal Water District (WMWD) Board of Directors (Board) since December 2014 to represent Division 1. He served as a member of the Riverside and Murrieta Advisory Committees, was the representative for the Chino Desalter Authority, the alternate representative for Chino Basin Watermaster Board, and served on the District Joint Committees for Eastern Municipal Water District and Rancho California Water District. Director Stockton recently served as WMWD’s Board President in 2019 and served as an avid supporter of regional water access and sustainability for the entire service area. He had more than 41 years of experience designing infrastructure projects as a certified civil engineer and had been the principal-in-charge at Rick Engineering’s Riverside office for more than 30 years. In 2012, Governor Brown appointed him to the California Board for Professional Engineers, Land Surveyors and Geologists. Director Stockton volunteered as the President of the Board for Path of Life Ministries, was a past Chairman of the Board for the Greater Riverside Chambers of Commerce, a past Chair for the Riverside Public Utilities Board, a Board Member of the Riverside YWCA Board, and a member of the California Baptist University School of Engineering Advisory Committee. Director Stockton passed away on May 13, 2020, but his lasting impact to the Riverside community will not be forgotten.

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**Staff's Recommendation:**

Adopt Resolution No. 2020-7-14, honoring the life and service of Director Robert "Bob" Stockton from Western Municipal Water District.

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**Budget Impact** *Budgeted* (Y/N): N *Amendment* (Y/N): Y *Amount for Requested Approval:*

*Account/Project Name:*

*Fiscal Impact* (explain if not budgeted):

**Prior Board Action:**

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**Environmental Determination:**

Not Applicable

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**Business Goal:**

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**Attachments:**

Attachment 1 - Resolution No. 2020-7-14

## **RESOLUTION NO. 2020-7-14**

### **A RESOLUTION OF THE BOARD OF DIRECTORS OF THE INLAND EMPIRE UTILITIES AGENCY\*, SAN BERNARDINO COUNTY, CALIFORNIA, HONORING THE LIFE AND SERVICE OF DIRECTOR ROBERT STOCKTON.**

**WHEREAS**, Robert “Bob” Stockton was elected to the Western Municipal Water District (WMWD) Board of Directors (Board) in December 2014 to represent Division 1, which includes a portion of the City of Riverside; and

**WHEREAS**, in his elected official role on behalf of WMWD, Director Stockton served as a member of the Riverside and Murrieta Advisory Committees, the representative for the Chino Desalter Authority, the alternate representative for Chino Basin Watermaster Board, and served on the District Joint Committees for Eastern Municipal Water District and Rancho California Water District; and

**WHEREAS**, Director Stockton had recently served as WMWD’s Board President for the year of 2019 and served as an avid supporter of regional water access and sustainability for the entire service area while always considering the voice of the district he served; and

**WHEREAS**, Director Stockton had more than 41 years of experience designing infrastructure projects as a certified civil engineer and had been the principal-in-charge at Rick Engineering’s Riverside office for more than 30 years; and

**WHEREAS**, in 2012, Governor Brown appointed him to the California Board for Professional Engineers, Land Surveyors and Geologists; and

**WHEREAS**, Director Stockton volunteered as the President of the Board for Path of Life Ministries, was a past Chairman of the Board for the Greater Riverside Chambers of Commerce, a past Chair for the Riverside Public Utilities Board, a Board Member of the Riverside YWCA Board, and a member of the California Baptist University School of Engineering Advisory Committee; and

**WHEREAS**, Director Stockton also served as a Planning Commissioner for the City of Riverside, was a past Chair of the Leadership Riverside program, and was the Chair of the Monday Morning Group of Western Riverside County’s Water Committee; and

**WHEREAS**, Director Stockton held a bachelor’s degree in construction engineering from California State Polytechnic University, Pomona, was a registered civil engineer in both California and Arizona, and held LEED accreditation; and

**WHEREAS**, Director Stockton passed away on May 13, 2020, but his lasting impact to the Riverside community will not be forgotten.

**NOW, THEREFORE BE IT RESOLVED**, on this 1<sup>st</sup> day of July, 2020, that the Inland Empire Utilities Agency Board of Directors hereby recognizes Director Stockton's life and service to not only WMWD, but to the greater Riverside community; and

**BE IT FURTHER RESOLVED**, that the Inland Empire Utilities Agency's Board of Directors gives their most sincere condolences to Director Stockton's family and friends, as he has touched the lives of so many people throughout his life and career of serving others, including those within his family at WMWD.

**ADOPTED** this 1<sup>st</sup> day of July 2020.

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Kati Parker  
President of the Inland Empire  
Utilities Agency\* and the Board  
of Directors thereof

ATTEST:

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Steven J. Elie  
Secretary/Treasurer of the Inland Empire  
Utilities Agency\* and the Board  
of Directors thereof

\*A Municipal Water District





**WORKSHOP  
ITEM**

**2A**

# Technology Master Plan Initiatives



# Background



**Technology  
Master Plan**

Technology Master Plan  
updated every 5 years



**Technology  
Assessment**

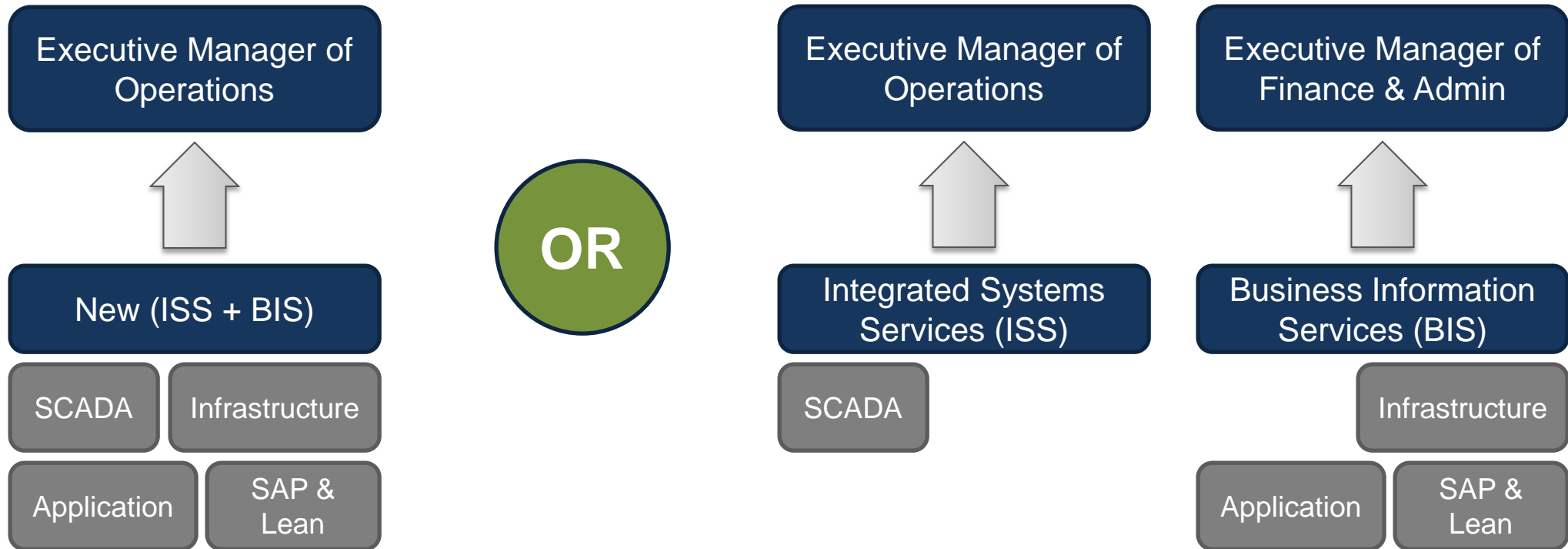
Comprehensive analysis includes  
technology, structure, and business  
systems review



**Onsite  
Workshops**

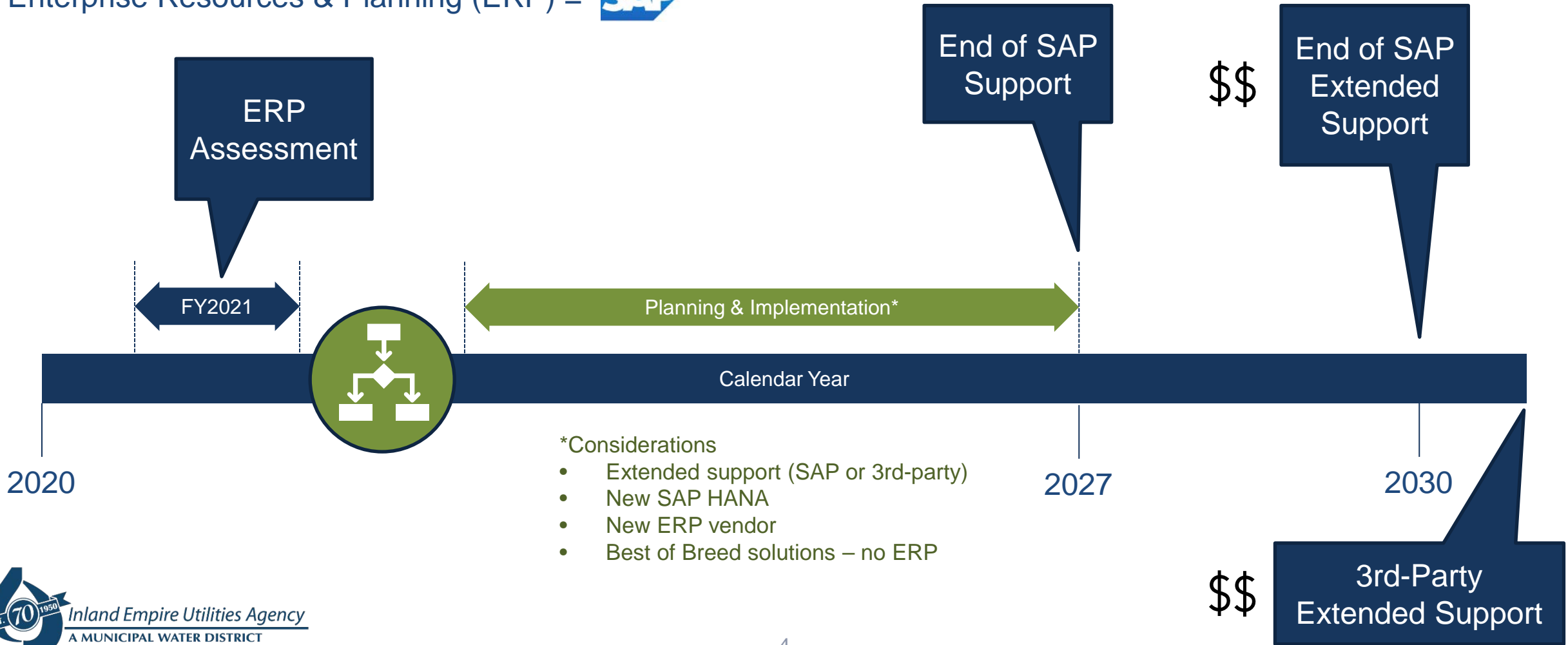
3 days on-site interview  
workshops with 69 staff  
members representing all  
Agency departments

# IT Organizational Structure



# Perform ERP Assessment

Enterprise Resources & Planning (ERP) = 



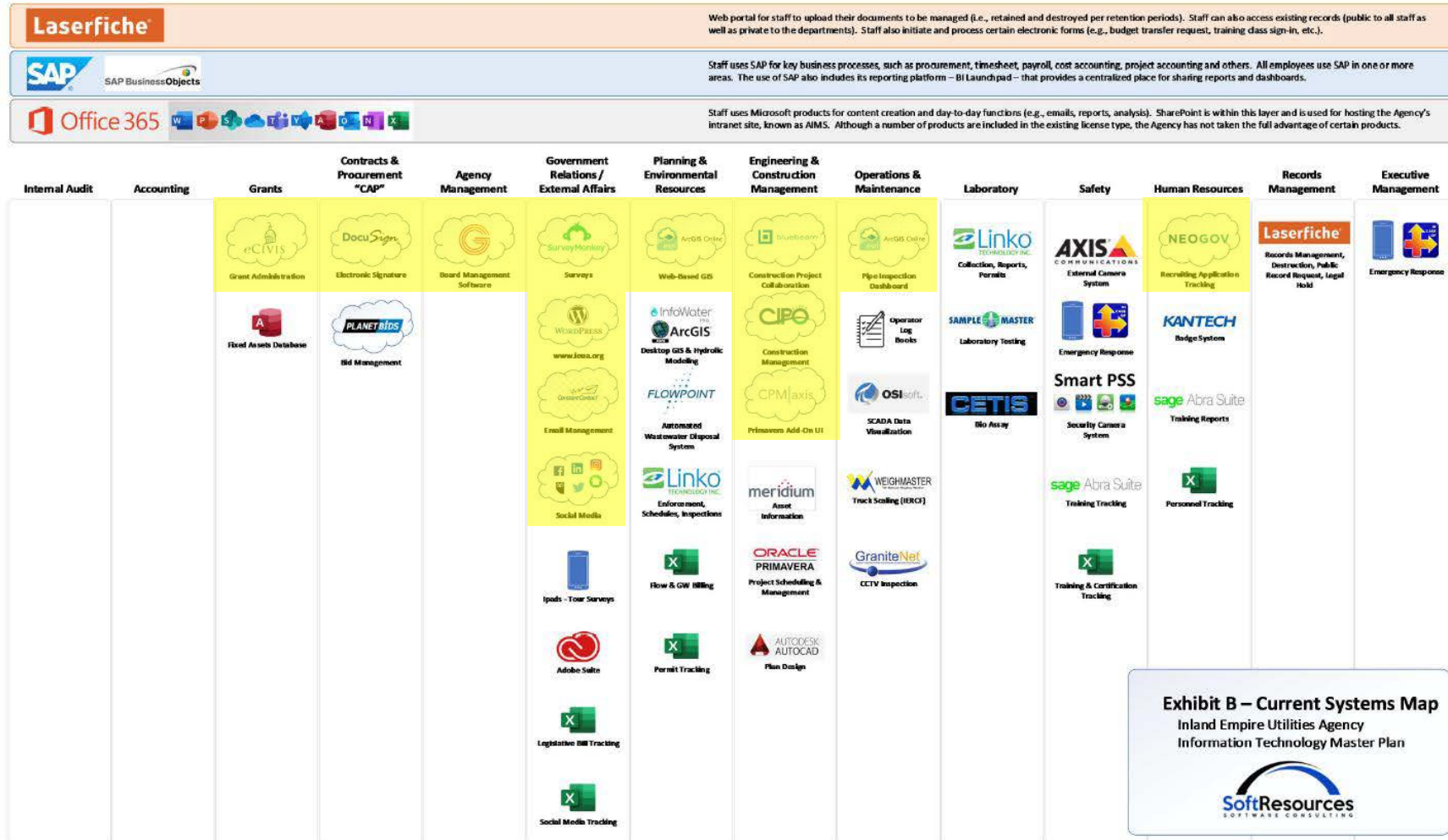
- \*Considerations
- Extended support (SAP or 3rd-party)
  - New SAP HANA
  - New ERP vendor
  - Best of Breed solutions – no ERP

# Adopt “Cloud Preferred” Strategy



- Aligns Agency with future software deployment methods
- Mobile access
- Decreases Agency expenses on computer hardware and physical space
- Relieves IT staff of scheduled upgrades and maintenance/backup
- Favorable experience with existing Agency cloud-based software including CIPO, PlanetBids, and DocuSign

# Adopt “Cloud Preferred” Strategy



## Lasertfiche

Web portal for staff to upload their documents to be managed (i.e., retained and destroyed per retention periods). Staff can also access existing records (public to all staff as well as private to the departments). Staff also initiate and process certain electronic forms (e.g., budget transfer request, training class sign-in, etc.).

## SAP

SAP BusinessObjects

Staff uses SAP for key business processes, such as procurement, timesheet, payroll, cost accounting, project accounting and others. All employees use SAP in one or more areas. The use of SAP also includes its reporting platform – BI Launchpad – that provides a centralized place for sharing reports and dashboards.

## Office 365

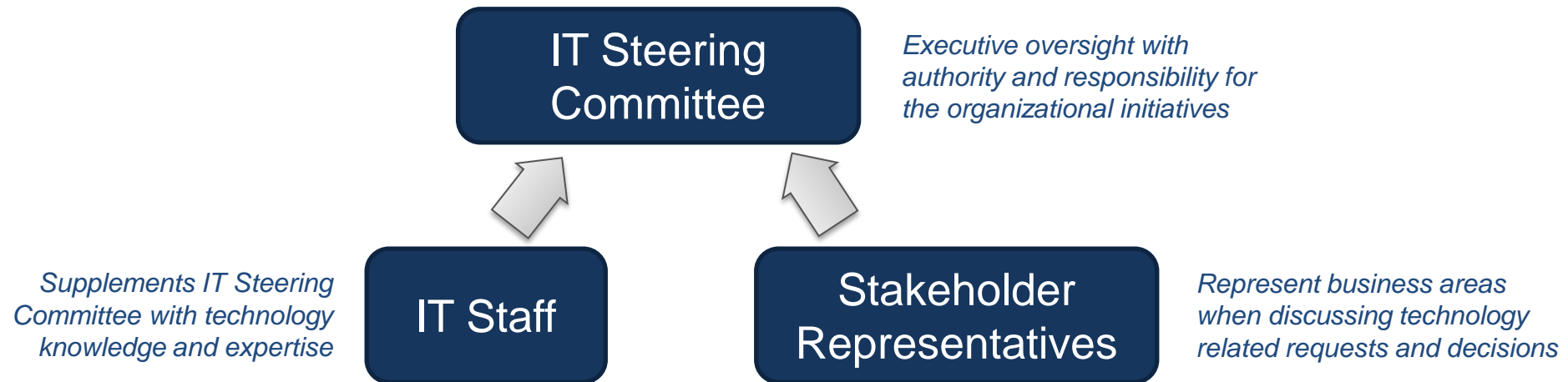
Staff uses Microsoft products for content creation and day-to-day functions (e.g., emails, reports, analysis). SharePoint is within this layer and is used for hosting the Agency's intranet site, known as AIMS. Although a number of products are included in the existing license type, the Agency has not taken the full advantage of certain products.

Exhibit B – Current Systems Map  
Inland Empire Utilities Agency  
Information Technology Master Plan



# IT Steering Committee

- Includes stakeholders from all departments
- Ensures IT initiatives are vetted to ensure software/hardware solutions align with IT strategic direction at the Agency





# Other Initiatives

## Key Application Projects

- Expand Granicus for Board meeting preparation
- Digitization of paper forms
- Acquire legislative tracking software
- Maximize use of records management tool - Laserfiche
- *Implement electronic signature (DocuSign)\**
- *Refresh Agency's website\**

*\* Completed*

## Key Infrastructure Projects

- 3-year mobile device replacement program
- Cloud-based phone system
- Decommission desktop printers
- Upgrade Sadie Training Room equipment
- Kantech security badge implementation

# Questions



**WORKSHOP  
ITEM**

**2B**

# Economic Analysis IEUA Board Workshop

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July 1, 2020



# Agenda

- Building on our Past Successes
- Stakeholder Engagement
- Regulatory Risk & Recommendations
- Economic Analysis
- Next Steps



# Building on our Past Successes



**Optimum Basin Management Program**  
2000



Salinity Management Plan  
2002



Organics Management Strategy  
2002



Recycled Water Implementation Plan  
2005

2000

2005



Recycled Water Feasibility  
2002



Urban Water Management Plans  
2005, 2010, 2015



Facilities Master Plan  
2002



Basin Plan Amendment (Maximum Benefit)  
2004



# Building on our Past Successes



Optimum Basin Management Program  
2000



Salinity Management Plan  
2002



Organics Management Strategy  
2002



Recycled Water Implementation Plan  
2005



Recharge Master Plan Updates  
2010, 2013, 2018



Integrated Water Resources Plan (IRP)  
2015

2000

2005

2010

2015



Recycled Water Feasibility  
2002



Urban Water Management Plans  
2005, 2010, 2015



Water Use Efficiency Business Plan Updates  
2010, 2015



Facilities Master Plan Update  
2015



Facilities Master Plan  
2002



Basin Plan Amendment (Maximum Benefit)  
2004



Recycled Water Program Strategy  
2015



# Building on our Past Successes



Optimum Basin Management Program 2000



Salinity Management Plan 2002



Organics Management Strategy 2002



Recycled Water Implementation Plan 2005



Recharge Master Plan Updates 2010, 2013, 2018



Integrated Water Resources Plan (IRP) 2015

Preliminary Design Report for Region's Master Plans & Chino Basin Program concept 2020



2000

2005

2010

2015

2020



Recycled Water Feasibility 2002



Urban Water Management Plans 2005, 2010, 2015



Water Use Efficiency Business Plan Updates 2010, 2015



Facilities Master Plan Update 2015



Chino Basin Water Bank Joint Powers Authority created 2017



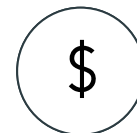
Facilities Master Plan 2002



Basin Plan Amendment (Maximum Benefit) 2004



Recycled Water Program Strategy 2015



Chino Basin Program application 2017



# Stakeholder Engagement

- 20+ Recycled Water salinity management workshops from 2014 – 2020
- Since June 2019 ...
  - ✓ One-on-One - Met with all fourteen agencies that signed the MOU
  - ✓ GM Meetings – Held monthly since January 2020
  - Workshops
    - Nine CBP Workgroup meetings
    - Regulatory Challenges Workshop
    - CBP Economic Analysis
      - One-on-One IEUA Member Agency Meetings
      - Focused Workshops scheduled in July 2020
    - Multiple meetings with California Water Commission to discuss local concerns with State requirements



# Regulatory Risk & Recommendations



Recycled water NPDES TDS permit limit projected to be exceeded by 2030



Drought and climate change may expedite TDS exceedance



Recycled water recharge regulatory MCL exceeded for 1,2,3-TCP and NL for PFAS



Ambient TDS water quality increasing trends demonstrates reduced assimilative capacity

## Recommendations

Continue pursuit of permit modification

Purchase supplemental low TDS water

AWPF online by 2030

Develop local water supplies



# Economic Analysis Definitions

What do we have to do to meet compliance?

**IEUA Master Plan:**  
*Ten Year Forecast*

15,000 AFY of AWPf recycled water + 16 AWPf injection wells + 8 miles of pipeline  
**[water quality] · 2031**

What if we keep the water for ourselves?  
(no exchange with the State)

**Region's Master Plan:**  
*IEUA Master Plan + IRP + Member Agency Capital Projects*

**IEUA Master Plan + 9 wells capacity of 26,700 AFY + 30 miles of pipeline + new external water supply**  
**[water quality | water supply] · 2036+**

What do we need to build to get the \$207M WSIP funding?

**Chino Basin Program:**

**Region's Master Plan + MWD interconnection & State exchange for 25 years**  
**[water quality | water supply] · 2026**



# Economic Analysis Alternatives

Infrastructure	IEUA Master Plan	Region's Master Plans	CBP
AWPF	✓	✓	✓
Injection	✓	✓	✓
Additional Supplies	—	✓	✓
Wellhead Treatment	—	✓	✓
Regional Water Pipeline	—	✓	✓
Water Exchange with State	—	—	✓



# Economic Analysis Development

## Developed CBP Economic Evaluation Decision Support Tool

- Incorporated PDR detailed cost estimates for 48 program alternatives
- Identified and assessed value of program benefits
- Structured Net Present Value analysis of costs and benefits
- Allocated costs and benefits to program purposes
- Compared alternatives
- Conducted sensitivity analysis



# Economic Analysis Results

1. Costs
  - CBP Costs compared to other regional program alternatives
  - Impact of phasing local projects compared to CBP timeline of 2026
2. Value of water with WSIP funding and State performance for 25 years compared to local investments to keep water in the basin

Note: All costs shown are relative to each other; sensitivity analysis of assumptions indicate that if variables are modified, the impacts change consistently across all the program alternatives. **“They all go up or they all go down, together”**



# Capital Cost Comparison

Infrastructure	IEUA Master Plan 2031	Region's Master Plan 2026	CBP WSIP Application 2026	CBP PDR 2026
Cost @ 2015	\$279 M	\$459 M	\$385 M	\$457 – 519 M
Cost w/ External Supplies @ 2019	\$443 M	\$599 M	\$526 M	\$598 M



Difference in Investment: \$158 M  
WSIP Funding: \$207 M

**TAKE AWAY:** WSIP investment provides funds that cover 100% of CBP's additional infrastructure costs to provide the Region flexibility and reliability in water supply



# Cost Comparison | Implementation by 2026

	IEUA MP 2026	CBP 2026	RMP 2026
Capital Cost 2019	\$305 M	\$ 598 M	\$599 M
Annual Cost 2019 Capital + O&M	\$22.6 M	\$28.6 M	\$35.9 M

\$6 M/Year  
cash flow savings

\$7.3 M/Year  
cash flow savings

Net Present Value (NPV)  
capital and O&M costs  
evaluated for 50 years  
and discounted to  
2019\$

**TAKE AWAY** IF IEUA Master Plan is accelerated by five years, it will be lowest cost alternative  
IEUA MP will address regulatory challenges and not provide water reliability  
Region's MP cost with similar water reliability benefits is **26% higher** than CBP





# Cost Comparison | Phased Region's MP Implementation

	IEUA MP 2031	CBP 2026	RMP 2036
Capital Cost 2019	\$355 M	\$ 598 M	\$ 805 M
Annual Cost 2019 Capital + O&M	\$26.2 M	\$28.6 M	\$48.2 M

\$19.6M/Year  
cash flow savings

Net Present Value (NPV)  
capital and O&M costs  
evaluated for 50 years  
and discounted to  
2019\$

**TAKE AWAY:** Annual cost for IEUA MP is 10% lower than the CBP  
Annual cost for Region's MP (2036) is 168% more than the CBP



# Household Impact Assumptions

- **IEUA Master Plan**
  - Addresses wastewater treatment plant regulatory challenges
  - Paid 100% on the existing rate base as monthly sewer rates (per EDU)
- **Region's Master Plan and Chino Basin Program**
  - Addresses wastewater treatment plant regulatory challenges, provides water supply reliability and future water supplies
  - Sources of revenue would include monthly wastewater rates, connection fees, and monthly water rates (EDU + One Water Connection Fees + MEU)

Annual unit assumptions: 3,400,000 EDU and 4,800,000 MEU



# Breakdown of Household Cost | Capital + O&M

	IEUA Master Plan 2031	CBP 2026	Region's Master Plan 2036
Annual Cash Flow (2019\$) [capital + O&M]	\$26.2M	\$28.6M	\$48.2 M
Funding Source Assumptions	Wastewater & Water 100%   0%	Wastewater & Water 50%   50%	Wastewater & Water 50%   50%
Per unit (EDU   MEU)	\$7.71   -	\$4.21   \$2.98	\$7.10   \$5.03
Per household impact	\$7.71	\$7.19	\$12.12
	-	-\$0.52	+\$4.42
Capital   O&M split	50%   50%	40%   60%	55%   45%



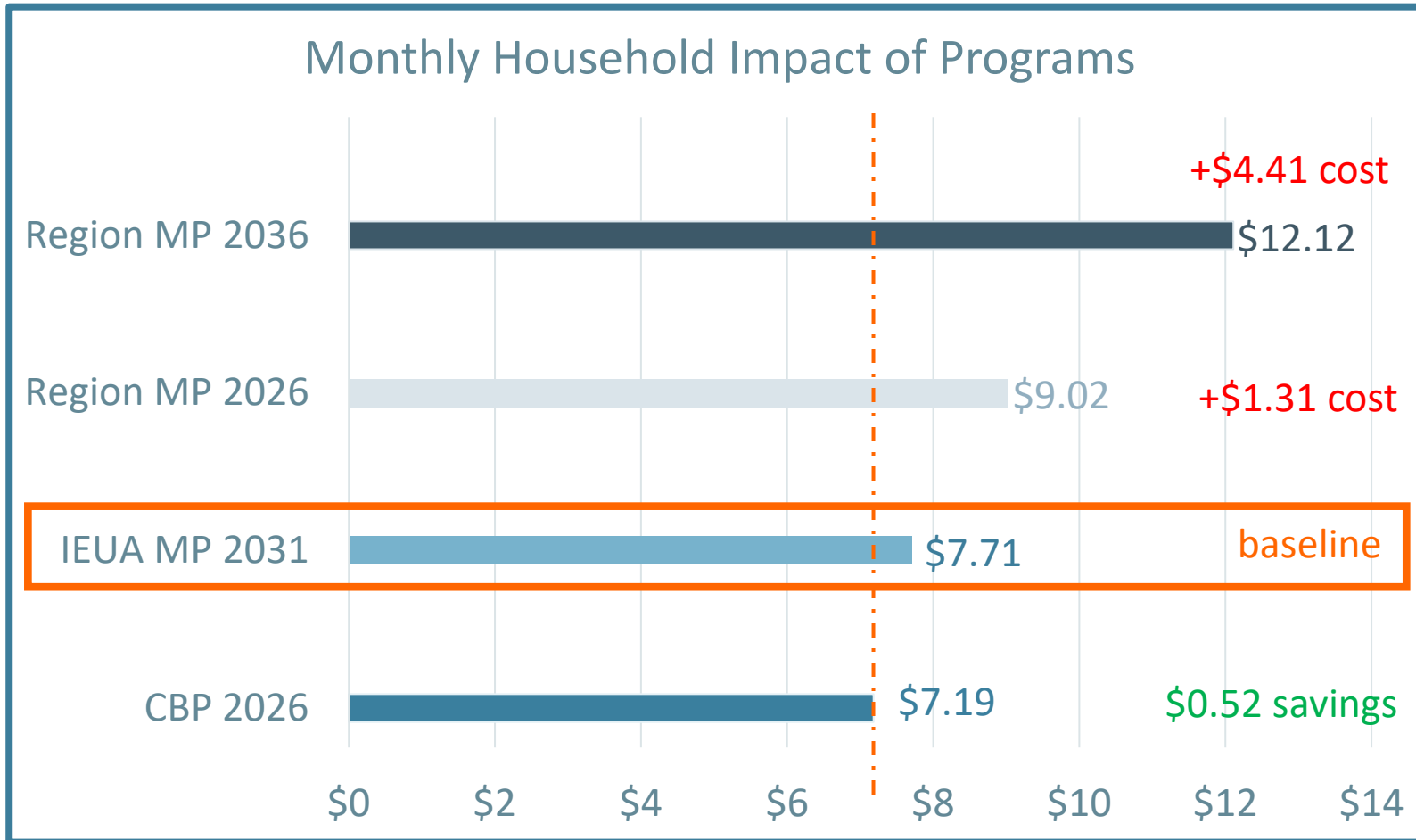


# Breakdown of Household Cost | Capital + O&M

	No Action 2031	IEUA Master Plan 2031	CBP 2026	Region's Master Plan 2036
Annual Cash Flow (2019\$) [capital + O&M]	\$31.6 M+ <b>Permit Violations + Stranded Assets</b>	\$26.2M	\$28.7M	\$48.2 M
Funding Source Assumptions	Water Purchases	Wastewater & Water 100%   0%	Wastewater & Water 50%   50%	Wastewater & Water 50%   50%
Per unit (EDU   MEU)	<b>\$? fines</b>   \$6.58	\$7.71   -	\$4.21   \$2.98	\$7.10   \$5.03
Per household impact	\$6.58+	\$7.71	\$7.19	\$12.12
		-	-\$0.52	+\$4.42
Capital   O&M split		50%   50%	40%   60%	55%   45%



# Life Cycle Cost Comparison | Capital + O&M



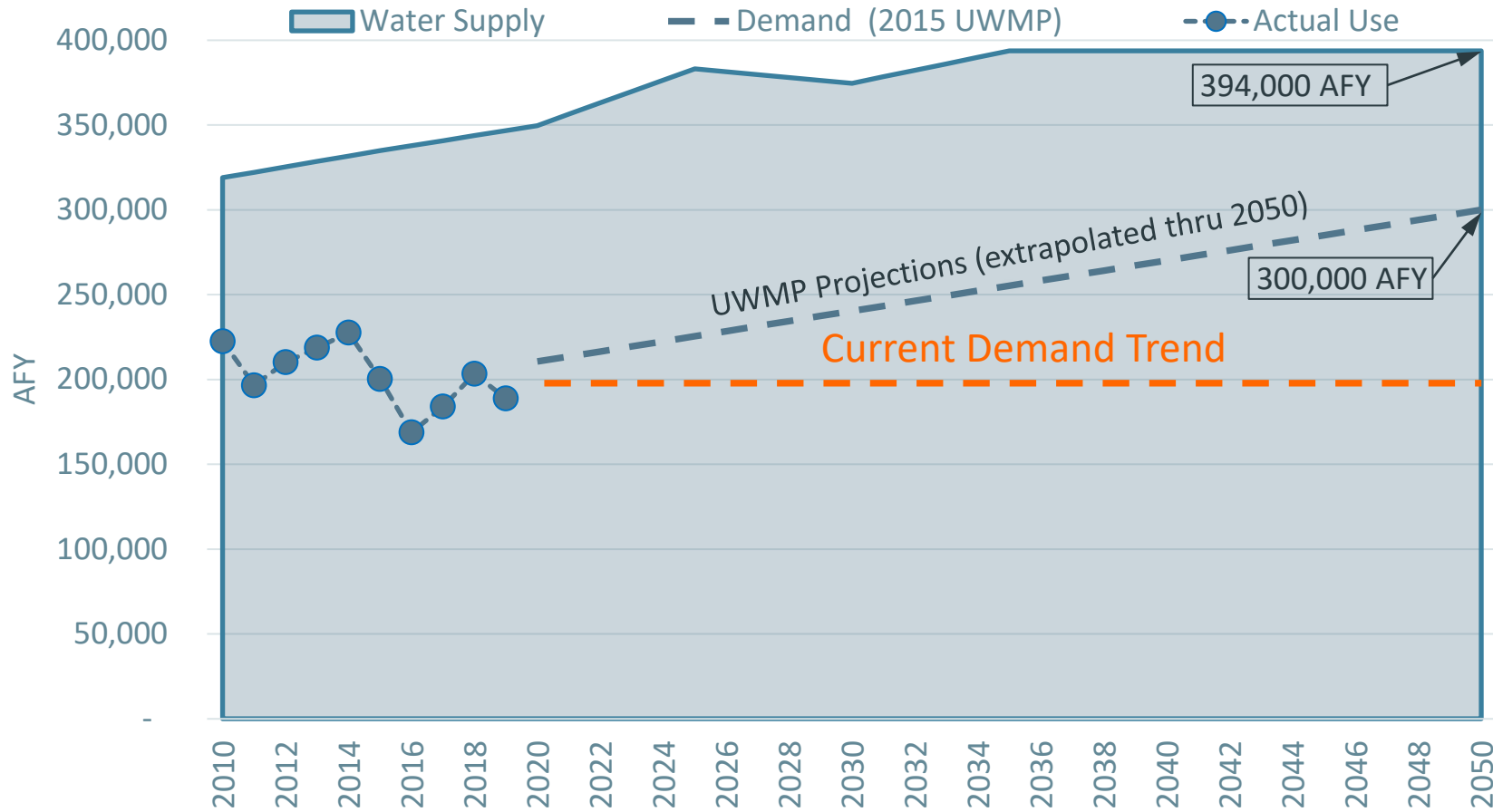
## TAKE AWAY

CBP is the lowest cost per household

Region's MP (2036) is 68% higher than CBP



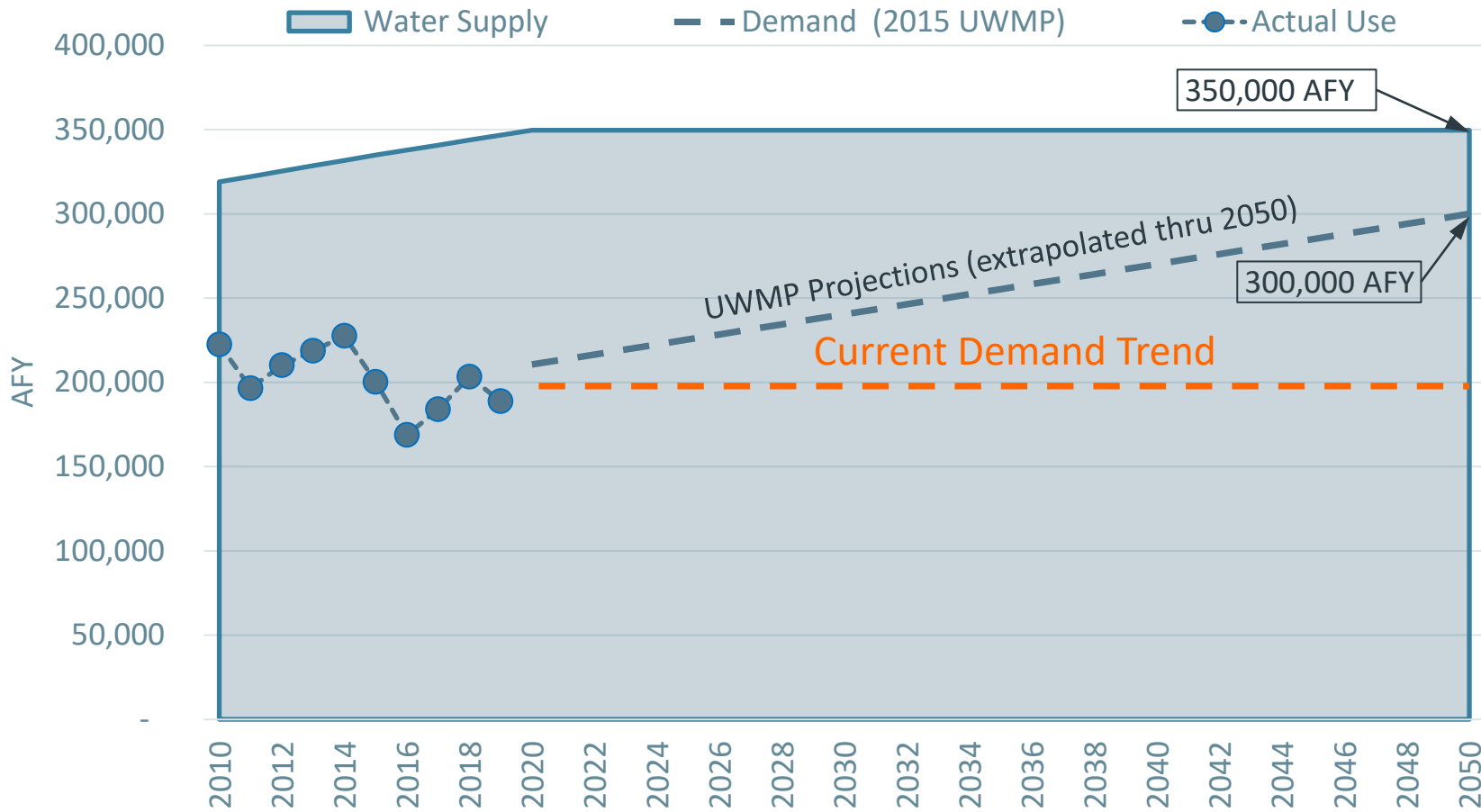
# IEUA Service Area Water Supply Needs



Total supplies from  
Customer Agency  
projections in 2015  
Urban Water  
Management Plans



# IEUA Service Area Water Supply Needs

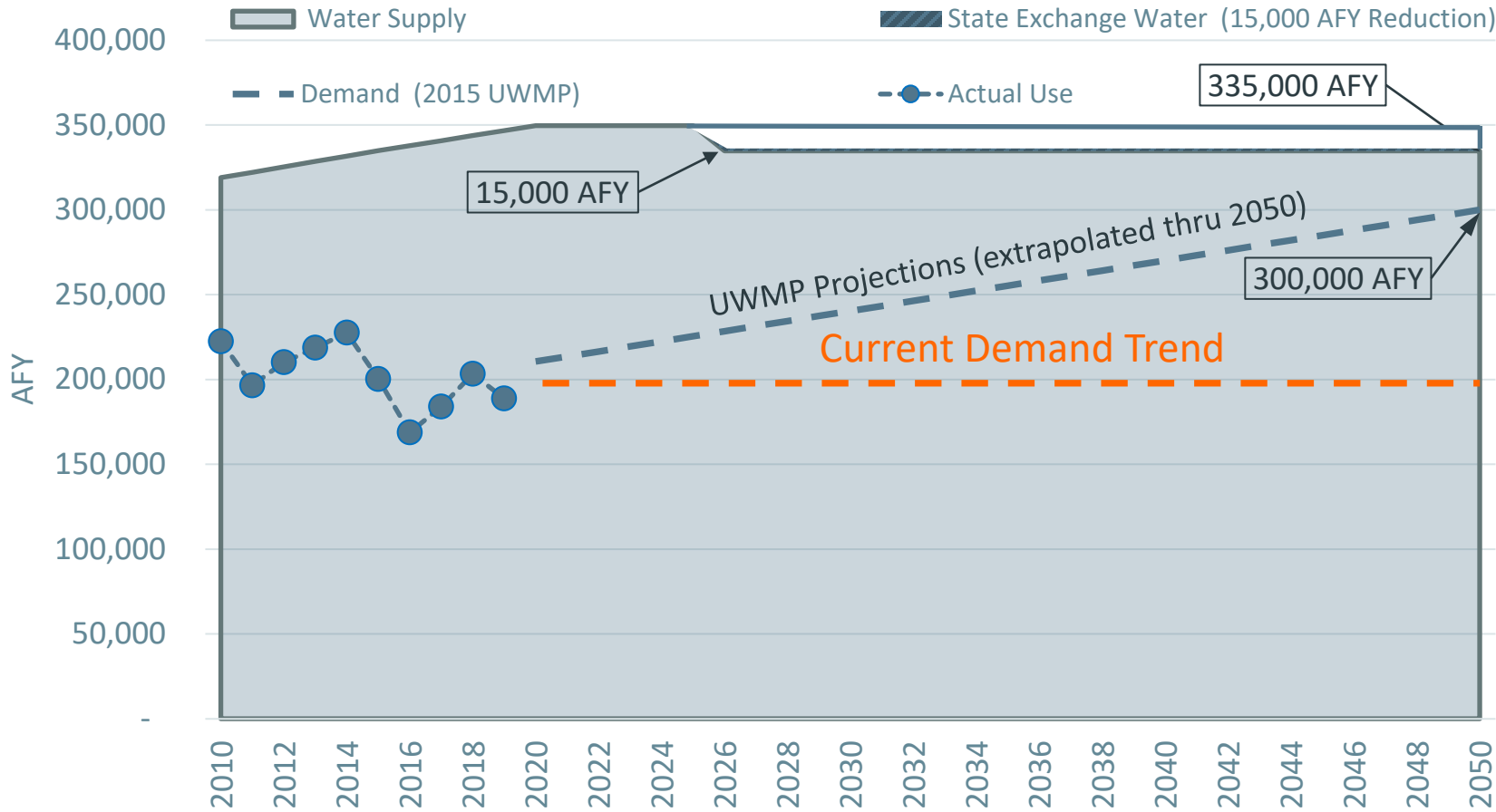


To be conservative, evaluation adjusted to show supplies held at 2020 level (~350,000 AFY)

\* Water supplies held at 2020 levels. Projection was not adjusted for CECs/unforeseen shortages. Projections will be updated as part of 2020 UWMP & IRP updates.



# IEUA Service Area Water Supply Needs



## TAKE AWAY:

- Based on 2015 UWMP, supplies available to meet demands through 2050
- Opportunity to leverage excess supplies

\* Water supplies held at 2020 levels. Projection was not adjusted for CECs/unforeseen shortages. Projections will be updated as part of 2020 UWMP & IRP updates.





# Is it better to keep the water in the basin?

- Investing smartly in infrastructure allows the region to develop valuable local supplies
- Priority is maximizing access to existing supplies and protecting against MWD supply interruptions and managing water quality challenges
- \$206.9M State investment provides the region with water infrastructure that otherwise wouldn't be feasible at the lowest household cost impact for now and the future



# Water Supply Benefit Tradeoffs

## Cash Flow and Annual Benefit Comparisons (RMP 2026 and CBP 2026)

### TAKE AWAY

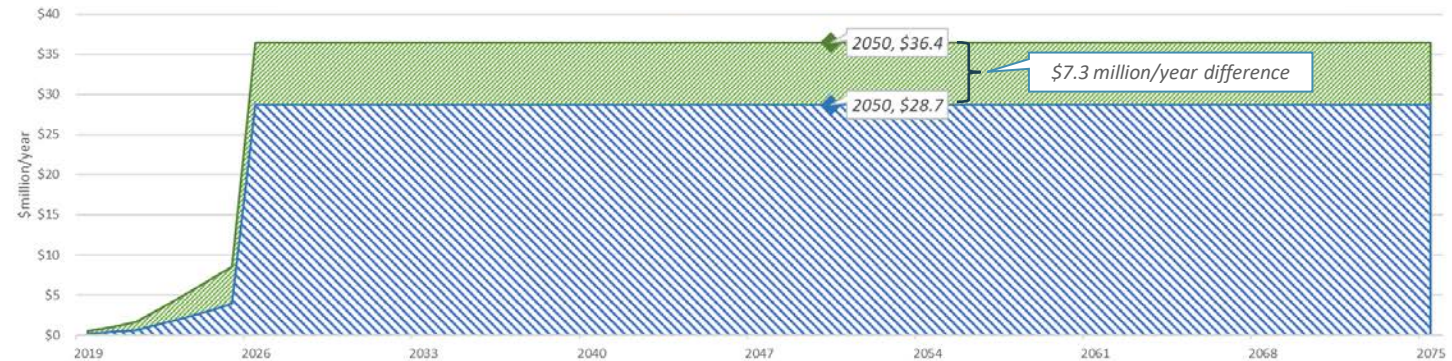
#### With WSIP Funding:

- Cash Flow Reduction: \$7.3 million/year
- WSIP Exchange: 15,000 AF/year
- ∴ Unit Cost of Water: \$513/AF

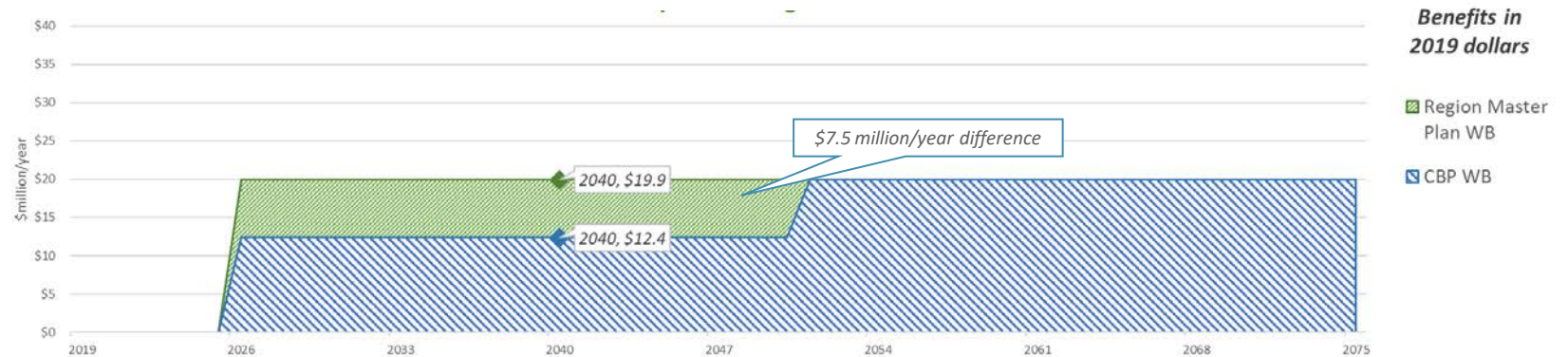
#### Without WSIP Funding:

- Increase in water supply benefits of \$7.5 million/year for 25 Years
- 15,000 AF/year increase in supply
- ∴ Incremental water value: \$500/AF

### Annual Cost Comparison: Region's MP vs. CBP



### Annual Benefit Comparison: Region's MP vs. CBP





# Stakeholder Questions

## 1. Is there a better deal than State's investment?

- State investment: 15,000 AFY @ \$550/AF for 25 years
- With the state investment, potential external supply sources are available

## 2. Parties are not in favor of exporting Chino Basin water

- External supply sources and unused/growth recycled water is the source water for the State exchange

## 3. We don't want the State to be in the Chino Basin

- California Water Commission staff is working on response to assist local agencies concerns



# Summary of Analysis

## Baseline (IEUA Master Plan)

- meets regulatory requirements
- not water supply reliability

## Region's Master Plan (CBP without State funding)

- 68% higher than the CBP
- Annual water supply benefits of \$7.5M for 25 years

## Chino Basin Program

- lowest cost impacts to households
- \$0.52 less per month than IEUA Master Plan
- Annual cash flow savings of \$7.3M for 50 years

## TAKE AWAY

Chino Basin Program  
provides higher value  
by  
meeting permit  
requirements  
and  
providing  
water supply and reliability



# Next Steps

- Staff – stakeholder communication June – July
- IEUA | CBWM Ad Hoc: June 30, 2020
- CBP Econ Analysis Workgroup: July 7, 2020
- CBP PDR Workgroup: July 15, 2020
- CBP GM Meeting: July 22, 2020
- IEUA Board Action: Aug 19, 2020

# CLOSING

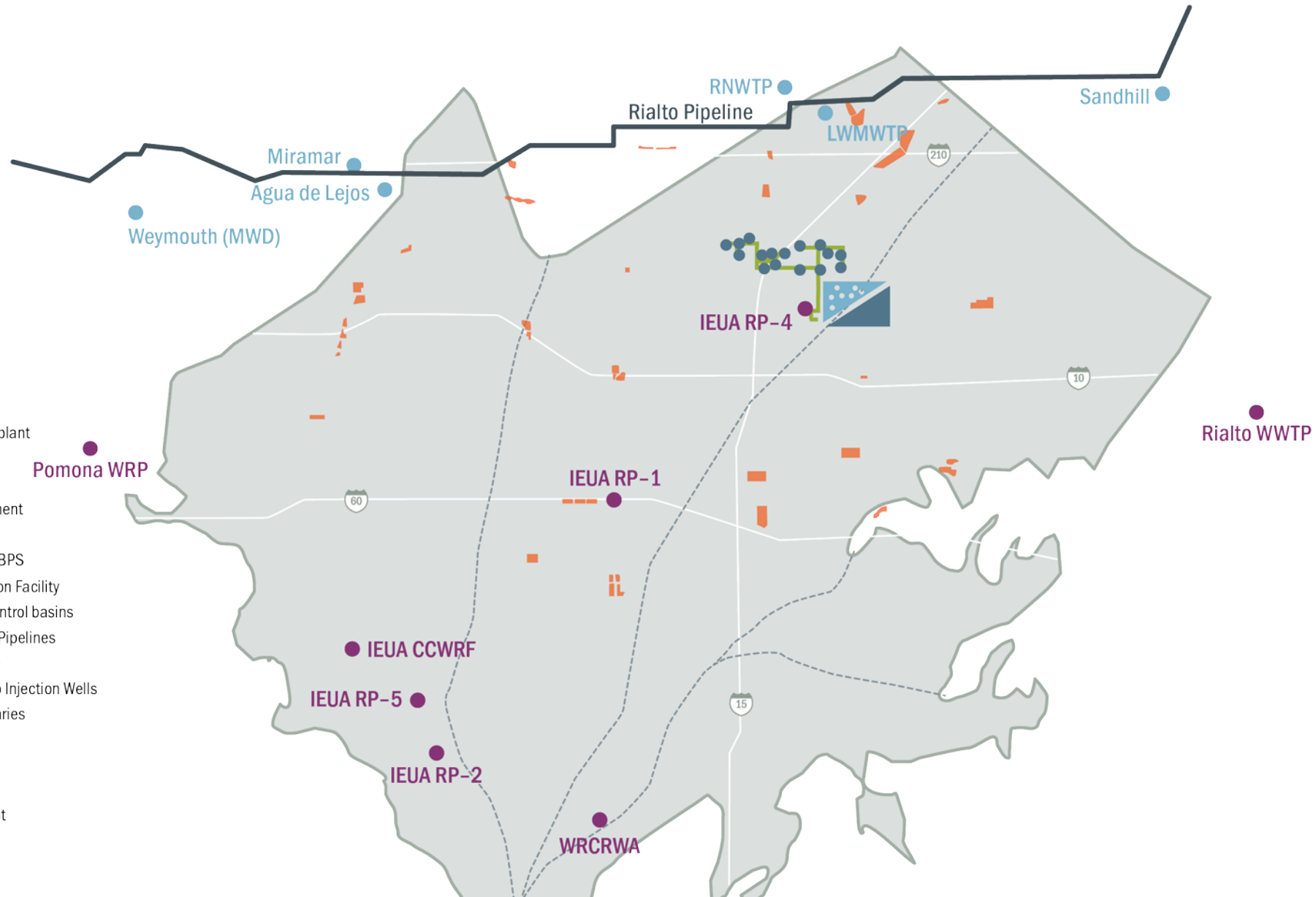
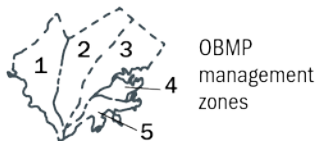
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# IEUA's Master Plan

Infrastructure	
AWPF	✓
Injection	✓
Additional Supplies	
Wellhead Treatment	
Regional Water Pipeline	
State Water Exchange	

## LEGEND

- Water treatment plant
- Recycled water treatment plant
- Extraction Wells
- Injection Wells
- Proposed Wellhead Treatment
- ★ Proposed Interconnection
- Proposed Recycled Water BPS
- ▒ Advanced Water Purification Facility
- Existing recharge/flood control basins
- Proposed Recycled Water Pipelines
- Proposed Potable Pipeline
- Proposed Purified Water to Injection Wells
- Management zone boundaries
- Chino Basin

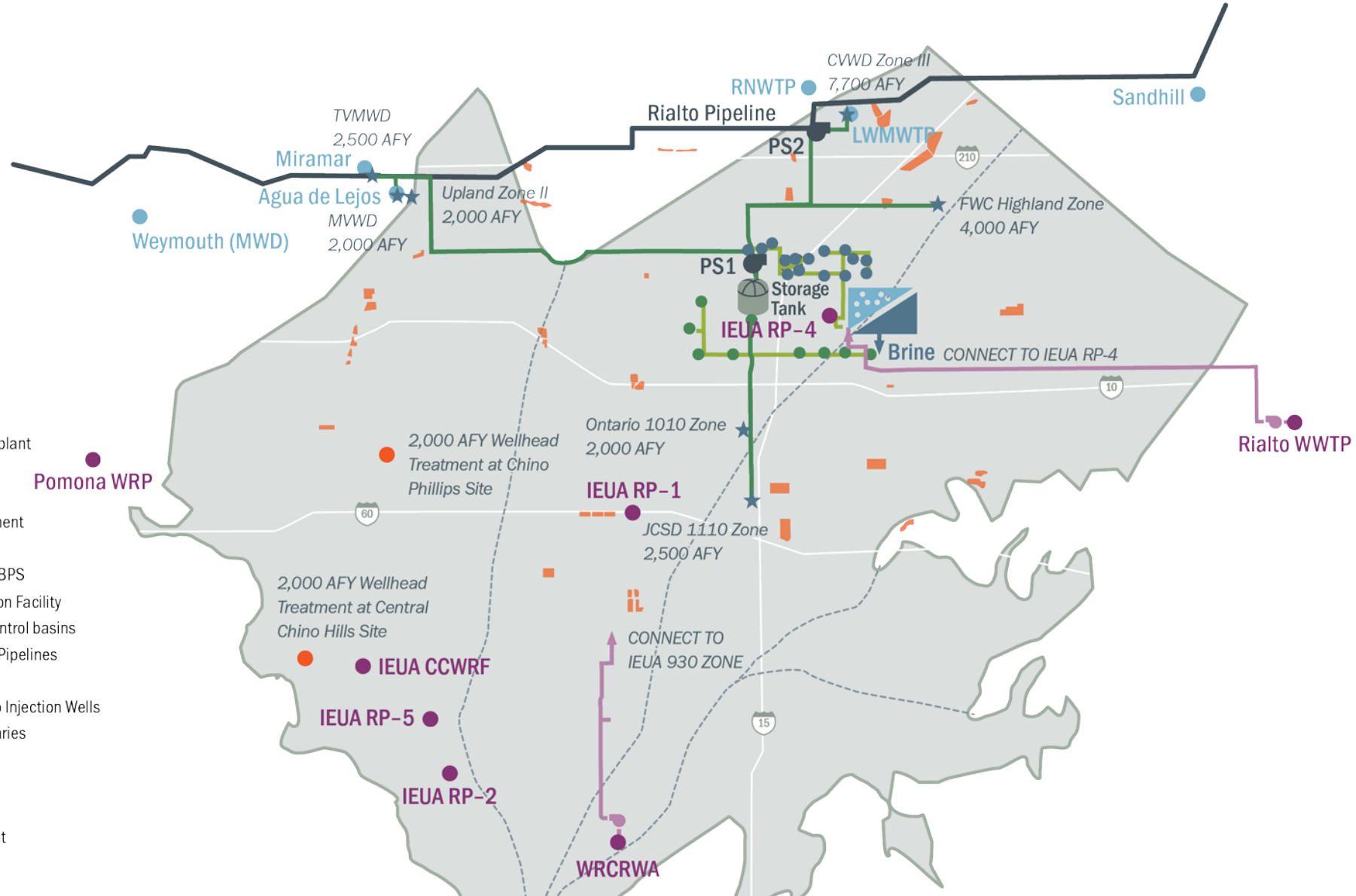
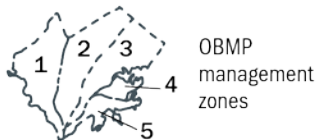


# Region's Master Plan

Infrastructure	
AWPF	✓
Injection	✓
Additional Supplies	✓
Wellhead Treatment	✓
Regional Water Pipeline	✓
State Water Exchange	

## LEGEND

- Water treatment plant
- Recycled water treatment plant
- Extraction Wells
- Injection Wells
- Proposed Wellhead Treatment
- ★ Proposed Interconnection
- Proposed Recycled Water BPS
- Advanced Water Purification Facility
- ▭ Existing recharge/flood control basins
- Proposed Recycled Water Pipelines
- Proposed Potable Pipeline
- Proposed Purified Water to Injection Wells
- Management zone boundaries
- Chino Basin



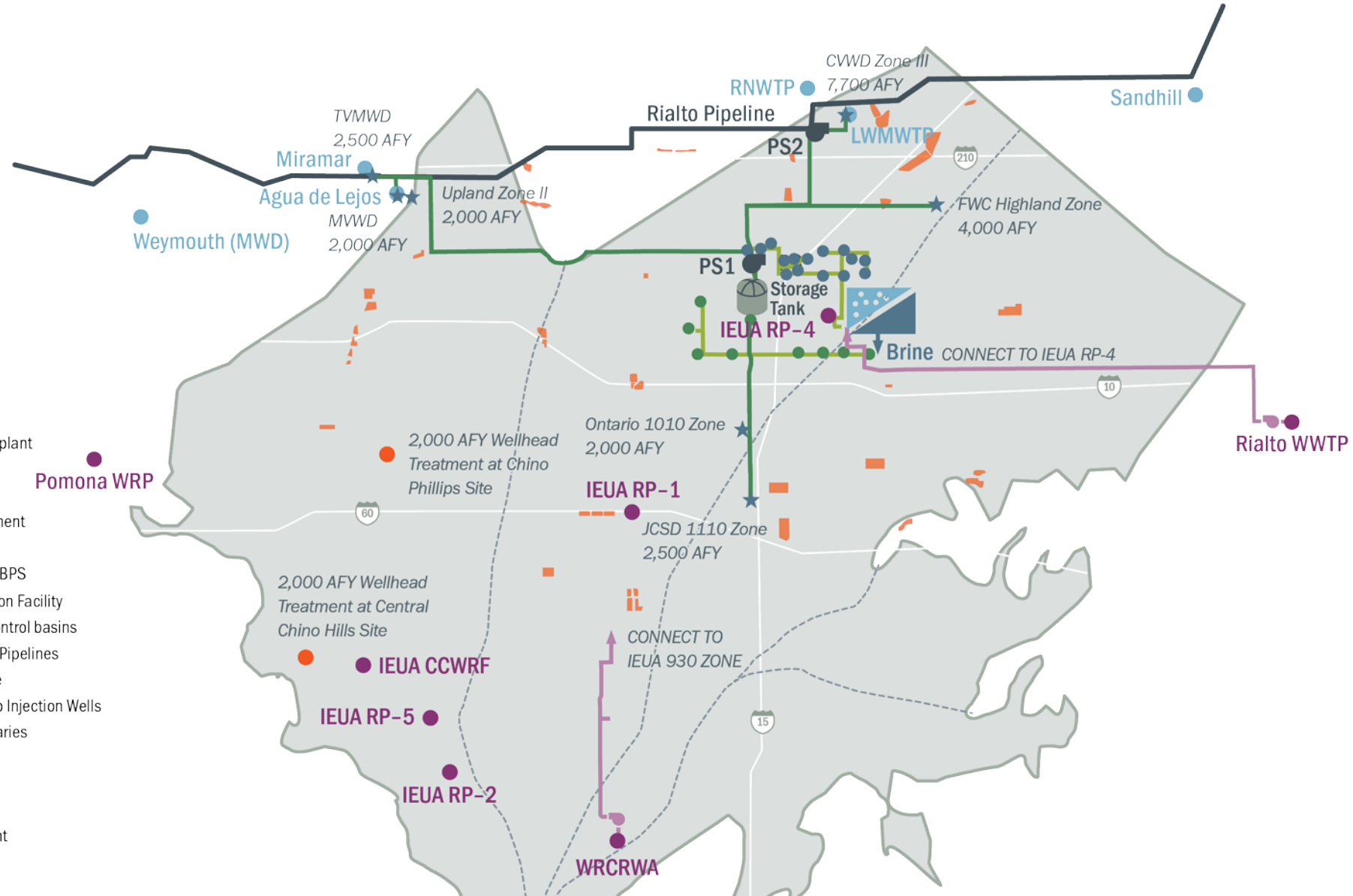
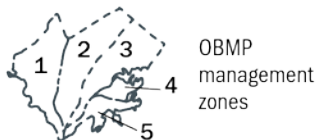


# Chino Basin Program

Infrastructure	
AWPF	✓
Injection	✓
Additional Supplies	✓
Wellhead Treatment	✓
Regional Water Pipeline	✓
State Water Exchange	✓

## LEGEND

- Water treatment plant
- Recycled water treatment plant
- Extraction Wells
- Injection Wells
- Proposed Wellhead Treatment
- ★ Proposed Interconnection
- Proposed Recycled Water BPS
- Advanced Water Purification Facility
- ▭ Existing recharge/flood control basins
- Proposed Recycled Water Pipelines
- Proposed Potable Pipeline
- Proposed Purified Water to Injection Wells
- Management zone boundaries
- Chino Basin





# Program Alternatives | Benefit Cost Comparison

	IEUA Master Plan 2026	Region's MP NB 2026	Region's MP WB 2026	CBP WB 2026
(Costs in \$ millions)				
Capital Cost (2019 \$)	\$305	\$599	\$ 599	\$598
NPV Cost (2019 \$)	\$708	\$1,292	\$1,292	\$1,198
Total Loan Payments	\$132	\$237	\$237	\$110
Total Replacement	\$80	\$120	\$120	\$122
Total O&M	\$496	\$778	\$778	\$809
NPV Benefit	\$708	\$1,492	\$1,732	\$1,543
Water Supply Benefit		\$466	\$706	\$518
B:C Ratio	1.00	1.15	1.34	1.29

*IEUA Master Plan designed to meet regulatory challenges does not increase water supply*

*Region's Master Plan with a water bank provides higher Net Present Value of Water Supply benefits at a higher project cost*

*CBP at a lower Net Present Value Cost provides a reduced water supply benefits of \$188M in exchange of WSIP funding of \$207M*



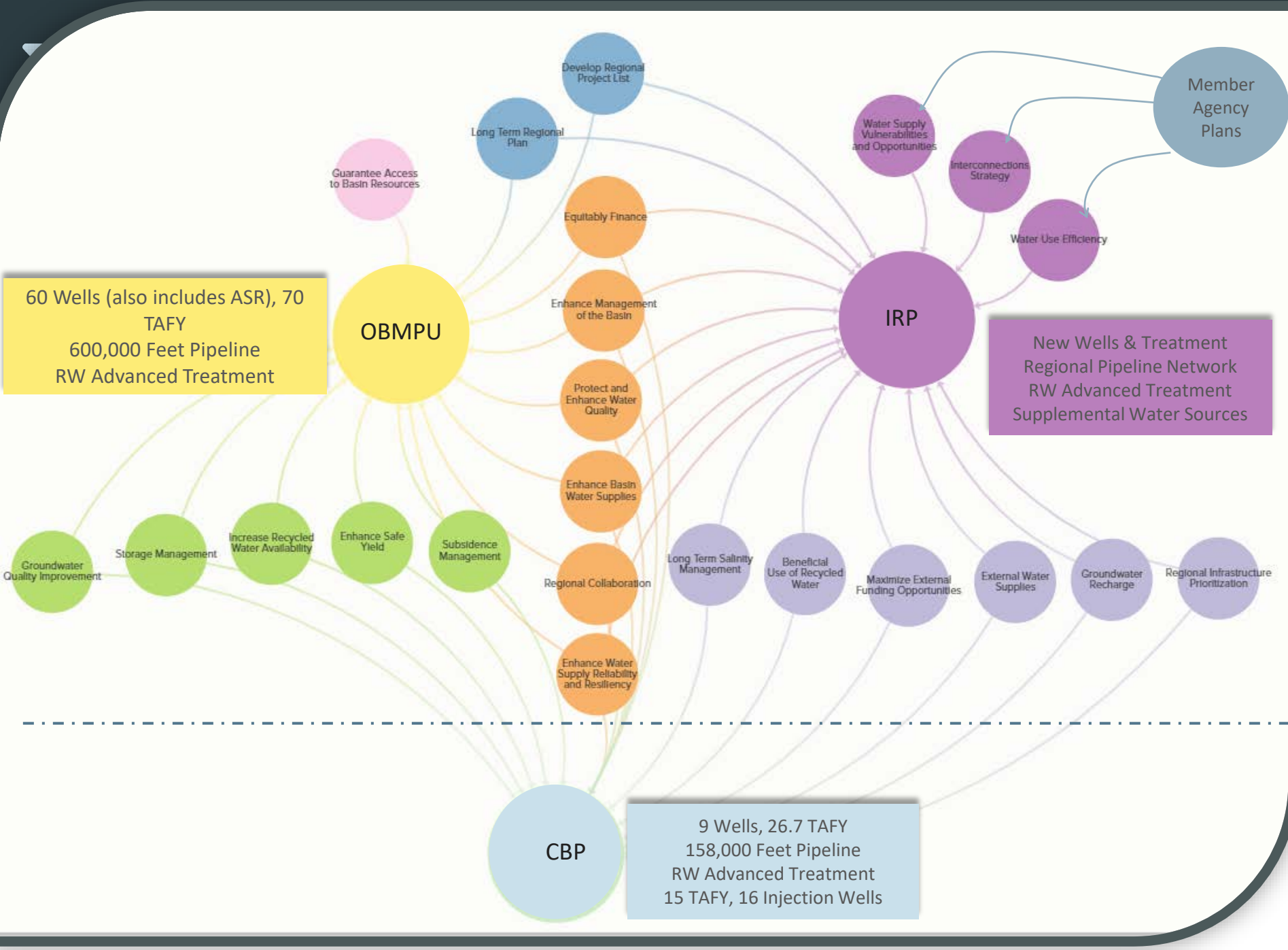
# Program Alternatives | Benefit Cost Comparison

	IEUA Master Plan 2031	Region's MP NB 2036	Region's MP WB 2036	CBP WB 2026
(Costs in \$ millions)				
Capital Cost (2019 \$ w esc)	\$355	\$805	\$805	\$598
NPV Cost (2019 \$)	\$685	\$1,214	\$1,214	\$1,205
Total Loan Payments	\$124	\$202	\$202	\$116
Total Replacement	\$72	\$99	\$99	\$122
Total O&M	\$489	\$769	\$769	\$809
Recycled Water Import	-	\$145	\$145	\$158
NPV Benefit	\$885	\$1,358	\$1,610	\$1,543
Water Supply Benefit		\$388	\$640	\$517
B:C Ratio	1.00	1.12	1.33	1.28

*IEUA Master Plan designed to meet regulatory challenges does not increase water supply*

*Region's Master Plan with a water bank provides higher Net Present Value of Water Supply benefits at a higher project cost*

*CBP at a lower Net Present Value Cost provides a reduced water supply benefits of \$188M in exchange of WSIP funding of \$207M*



New wells & Treatment: 35 – 70 TAFY  
Pipelines and Interconnections

Region's Master Plan

Chino Basin Program



# Water Resources Planned Infrastructure Overview

Infrastructure	OBMPU	CBP	Member Agencies Plan
Wells	70 TAFY (60 wells, including ASR)	26.7 TAFY (9 wells)	35-70 TAFY (vary by agency)
Treatment	AWPF	AWPF	Various
Pipelines	600,000 LF	158,000 LF	✓
Interconnections	✓	✓	✓
Groundwater Storage	800 TAF - 1 MAF	200 – 300 TAF	✓
Supplemental Water	✓	✓	✓

*\* Information is preliminary and intended to show general comparison.*