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 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: JH

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

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.

Staff's Recommendation:

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

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:

Environmental Determination:
Not Applicable

Business Goal:

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 1st 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 1st day of July 2020.

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

ATTEST:

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

*A Municipal Water District
I, Steven J. Elie, Secretary/Treasurer of the Inland Empire Utilities Agency*, DO HEREBY CERTIFY that the foregoing Resolution being No. 2020-7-14, was adopted at a regular meeting on July 1, 2020, of said Agency by the following vote:

AYES:

NOES:

ABSTAIN:

ABSENT:

Kati Parker
Secretary/Treasurer of the Inland Empire Utilities Agency* and of the Board of Directors thereof
2A
Technology Master Plan Initiatives
Background

Technology Master Plan updated every 5 years

Comprehensive analysis includes technology, structure, and business systems review

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

Executive Manager of Operations

New (ISS + BIS)

SCADA
Infrastructure
Application
SAP & Lean

OR

Executive Manager of Operations

Integrated Systems Services (ISS)

SCADA

Executive Manager of Finance & Admin

Business Information Services (BIS)

Infrastructure
Application
SAP & Lean
Perform ERP Assessment

Enterprise Resources & Planning (ERP) = SAP

- ERP Assessment
- Planning & Implementation*
- End of SAP Support
- End of SAP Extended Support
- 3rd-Party Extended Support

*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

<table>
<thead>
<tr>
<th>Internal Audit</th>
<th>Accounting</th>
<th>Contracts &amp; Procurement</th>
<th>O&amp;M</th>
<th>Agency Management</th>
<th>Government Relations/External Affairs</th>
<th>Planning &amp; Environmental Resources</th>
<th>Engineering &amp; Construction Management</th>
<th>Operations &amp; Maintenance</th>
<th>Laboratory</th>
<th>Safety</th>
<th>Human Resources</th>
<th>Records Management</th>
<th>Executive Management</th>
</tr>
</thead>
</table>

*Note: The diagram shows various software tools and systems used by the Inland Empire Utilities Agency for different departments and functions.*
• 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*

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

* Completed
2B
Economic Analysis
IEUA Board Workshop

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
- **Recycled Water Feasibility**: 2002
- **Facilities Master Plan**: 2002
- **Basin Plan Amendment (Maximum Benefit)**: 2004
Now is the Time to Make Every Drop Count

Recycled Water Implementation Plan 2005


Water Use Efficiency Business Plan Updates 2010, 2015

Basin Plan Amendment (Maximum Benefit) 2004

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

Recharge Master Plan Updates 2010, 2013, 2018

Integrated Water Resources Plan (IRP) 2015

Facilities Master Plan Update 2015

Recycled Water Program Strategy 2015

Building on our Past Successes
Building on our Past Successes

2000
- Optimum Basin Management Program 2000
- Recycled Water Feasibility 2002
- Facilities Master Plan 2002

2005
- Salinity Management Plan 2002
- Organics Management Strategy 2002
- Recycled Water Implementation Plan 2005
- Basin Plan Amendment (Maximum Benefit) 2004

2010
- Water Use Efficiency Business Plan Updates 2010, 2015
- Recharge Master Plan Updates 2010, 2013, 2018
- Recharge Master Plan Updates 2010, 2013, 2018
- Integrated Water Resources Plan (IRP) 2015

2015
- Facilities Master Plan Update 2015
- Recycled Water Program Strategy 2015

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

Chino Basin Water Bank Joint Powers Authority created 2017
Chino Basin Program application 2017
Now is the Time to Make Every Drop Count

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
Now is the Time to Make Every Drop Count

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:**
  - 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 + 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?

- **IEUA Master Plan + IRP + Member Agency Capital Projects**
  - Chino Basin Program:
  - Region’s Master Plan + MWD interconnection & State exchange for 25 years
  - [water quality | water supply] · 2026
### Economic Analysis Alternatives

<table>
<thead>
<tr>
<th>Infrastructure</th>
<th>IEUA Master Plan</th>
<th>Region’s Master Plans</th>
<th>CBP</th>
</tr>
</thead>
<tbody>
<tr>
<td>AWPF</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Injection</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Additional Supplies</td>
<td>_</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Wellhead Treatment</td>
<td>_</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Regional Water Pipeline</td>
<td>_</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Water Exchange with State</td>
<td>_</td>
<td>_</td>
<td>✓</td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>Infrastructure</th>
<th>IEUA Master Plan 2031</th>
<th>Region’s Master Plan 2026</th>
<th>CBP WSIP Application 2026</th>
<th>CBP PDR 2026</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost @ 2015</td>
<td>$279 M</td>
<td>$459 M</td>
<td>$385 M</td>
<td>$457 – 519 M</td>
</tr>
<tr>
<td>Cost w/ External Supplies @ 2019</td>
<td>$443 M</td>
<td>$599 M</td>
<td>$526 M</td>
<td>$598 M</td>
</tr>
</tbody>
</table>

**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.

Difference in Investment: $158 M
WSIP Funding: $207 M
### Cost Comparison | Implementation by 2026

<table>
<thead>
<tr>
<th></th>
<th>IEUA MP 2026</th>
<th>CBP 2026</th>
<th>RMP 2026</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Capital Cost 2019</strong></td>
<td>$305 M</td>
<td>$598 M</td>
<td>$599 M</td>
</tr>
<tr>
<td><strong>Annual Cost 2019</strong></td>
<td>$22.6 M</td>
<td>$28.6 M</td>
<td>$35.9 M</td>
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<tr>
<td>Capital + O&amp;M</td>
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</tbody>
</table>

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

#### Cash Flow Savings
- **$6 M/Year**
- **$7.3 M/Year**

---

**TAKE AWAY**
IF IEUA Master Plan is accelerated by five years, it will be the 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

<table>
<thead>
<tr>
<th></th>
<th>IEUA MP 2031</th>
<th>CBP 2026</th>
<th>RMP 2036</th>
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</thead>
<tbody>
<tr>
<td><strong>Capital Cost 2019</strong></td>
<td>$355 M</td>
<td>$598 M</td>
<td>$805 M</td>
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<tr>
<td><strong>Annual Cost 2019</strong></td>
<td>$26.2 M</td>
<td>$28.6 M</td>
<td>$48.2 M</td>
</tr>
</tbody>
</table>

**TAKEAWAY:**
- Annual cost for IEUA MP is 10% lower than the CBP
- Annual cost for Region’s MP (2036) is 168% more than the CBP

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

$19.6M/Year cash flow savings
Now is the Time to Make Every Drop Count

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

<table>
<thead>
<tr>
<th></th>
<th>IEUA Master Plan 2031</th>
<th>CBP 2026</th>
<th>Region’s Master Plan 2036</th>
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</thead>
<tbody>
<tr>
<td>Funding Source Assumptions</td>
<td>Wastewater &amp; Water 100%</td>
<td>Wastewater &amp; Water 50%</td>
<td>Wastewater &amp; Water 50%</td>
</tr>
<tr>
<td>Per unit (EDU</td>
<td>MEU)</td>
<td>$7.71</td>
<td>$4.21</td>
</tr>
<tr>
<td>Per household impact</td>
<td>$7.71</td>
<td>$7.19</td>
<td>$12.12</td>
</tr>
</tbody>
</table>
| Capital | O&M split | 50% | 50% | 40% | 60% | 55% | 45%
### Breakdown of Household Cost | Capital + O&M

<table>
<thead>
<tr>
<th></th>
<th>No Action 2031</th>
<th>IEUA Master Plan 2031</th>
<th>CBP 2026</th>
<th>Region’s Master Plan 2036</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Annual Cash Flow (2019$) [capital + O&amp;M]</strong></td>
<td>$31.6 M+ Permit Violations + Stranded Assets</td>
<td>$26.2M</td>
<td>$28.7M</td>
<td>$48.2 M</td>
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<tr>
<td><strong>Funding Source Assumptions</strong></td>
<td>Water Purchases</td>
<td>Wastewater &amp; Water 100%</td>
<td>Wastewater &amp; Water 50%</td>
<td>Wastewater &amp; Water 50%</td>
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<tr>
<td>**Per unit (EDU</td>
<td>MEU)**</td>
<td>$? fines</td>
<td>$7.71</td>
<td>$4.21</td>
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<tr>
<td>Per household impact</td>
<td>$6.58+</td>
<td>$7.71</td>
<td>$7.19</td>
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<tr>
<td>**Capital</td>
<td>O&amp;M split**</td>
<td>50%</td>
<td>40%</td>
<td>55%</td>
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<tr>
<td></td>
<td>50%</td>
<td>60%</td>
<td>45%</td>
<td></td>
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<tr>
<td></td>
<td>-</td>
<td>-$0.52</td>
<td>+$4.42</td>
<td></td>
</tr>
</tbody>
</table>
Life Cycle Cost Comparison | Capital + O&M

Monthly Household Impact of Programs

- **Region MP 2036**
  - Monthly Impact: $12.12
  - Baseline: $7.71
  - $4.41 cost

- **Region MP 2026**
  - Monthly Impact: $9.02
  - Baseline: $7.71
  - $1.31 cost

- **IEUA MP 2031**
  - Monthly Impact: $7.71
  - Baseline: $7.71
  - $0.52 savings

- **CBP 2026**
  - Monthly Impact: $7.19
  - Baseline: $7.71
  - $0.52 savings

**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 AF)

* 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

Now is the Time to Make Every Drop Count

- 50,000
- 100,000
- 150,000
- 200,000
- 250,000
- 300,000
- 350,000
- 400,000

AFY


Water Supply
State Exchange Water (15,000 AFY Reduction)
Demand (2015 UWMP)
Actual Use

335,000 AFY

15,000 AFY

UWMP Projections (extrapolated thru 2050)

Current Demand Trend

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
Now is the Time to Make Every Drop Count

**TAKE AWAY**

With WSIP Funding:
- Cash Flow Reduction: $7.3 million/year
- WSIP Exchange: 15,000 AF/year
  \[ \therefore \text{Unit Cost of Water: $513/AF} \]

Without WSIP Funding:
- Increase in water supply benefits of $7.5 million/year for 25 Years
- 15,000 AF/year increase in supply
  \[ \therefore \text{Incremental water value: $500/AF} \]
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
Now is the Time to Make Every Drop Count

CLOSING
Now is the Time to Make Every Drop Count

IEUA’s Master Plan

Infrastructure

<table>
<thead>
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<th>AWPF</th>
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<tr>
<td>State Water Exchange</td>
<td></td>
</tr>
</tbody>
</table>

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

OBMP management zones

1 2 3 4 5
Now is the Time to Make Every Drop Count

Region’s Master Plan

- AWPF
- Injection
- Additional Supplies
- Wellhead Treatment
- Regional Water Pipeline
- State Water Exchange

Infrastructure

**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

1 2 3 4 5

GBMP management zones

 REGION'S MASTER PLAN

- 2,000 AFY Wellhead Treatment at Chino Phillips Site
- 2,000 AFY Wellhead Treatment at Central Chino Hills Site
- CONNECT TO IEUA 990 ZONE
- CONNECT TO IEUA RP-4
- IEUA CCWRF
- IEUA RP-1
- IEUA RP-2
- IEUA RP-5
- IEUA RP-4
- PS1
- Storage Tank
-_connector
- Rialto Pipeline
- RNWTP
- LWMWTP
- CVWD Zone II
- 7,200 AFY
- FWC Highland Zone
- 4,000 AFY
- Sandhill
- Rialto WWTP
Now is the Time to Make Every Drop Count

Chino Basin Program

Infrastructure

- AWPF
- Injection
- Additional Supplies
- Wellhead Treatment
- Regional Water Pipeline
- State Water Exchange
### Program Alternatives | Benefit Cost Comparison

<table>
<thead>
<tr>
<th></th>
<th>IEUA Master Plan 2026</th>
<th>Region’s MP NB 2026</th>
<th>Region’s MP WB 2026</th>
<th>CBP WB 2026</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(Costs in $ millions)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capital Cost (2019 $)</td>
<td>$305</td>
<td>$599</td>
<td>$599</td>
<td>$598</td>
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<tr>
<td>NPV Cost (2019 $)</td>
<td>$708</td>
<td>$1,292</td>
<td>$1,292</td>
<td>$1,198</td>
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<tr>
<td>Total Loan Payments</td>
<td>$132</td>
<td>$237</td>
<td>$237</td>
<td>$110</td>
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<tr>
<td>Total Replacement</td>
<td>$80</td>
<td>$120</td>
<td>$120</td>
<td>$122</td>
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<tr>
<td>Total O&amp;M</td>
<td>$496</td>
<td>$778</td>
<td>$778</td>
<td>$809</td>
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<tr>
<td>NPV Benefit</td>
<td>$708</td>
<td>$1,492</td>
<td>$1,732</td>
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<tr>
<td>Water Supply Benefit</td>
<td>$466</td>
<td>$706</td>
<td>$518</td>
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<tr>
<td>B:C Ratio</td>
<td>1.00</td>
<td>1.15</td>
<td>1.34</td>
<td>1.29</td>
</tr>
</tbody>
</table>

**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

<table>
<thead>
<tr>
<th>Program Alternatives</th>
<th>IEUA Master Plan 2031</th>
<th>Region's MP NB 2036</th>
<th>Region's MP WB 2036</th>
<th>CBP WB 2026</th>
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<tbody>
<tr>
<td>(Costs in $ millions)</td>
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<td></td>
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<td></td>
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<tr>
<td>Capital Cost (2019 $ w esc)</td>
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<td>$805</td>
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<td>$598</td>
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<tr>
<td>NPV Cost (2019 $)</td>
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<td>$1,205</td>
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<tr>
<td>Total Loan Payments</td>
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<td>$202</td>
<td>$202</td>
<td>$116</td>
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<tr>
<td>Total Replacement</td>
<td>$72</td>
<td>$99</td>
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<td>$122</td>
</tr>
<tr>
<td>Total O&amp;M</td>
<td>$489</td>
<td>$769</td>
<td>$769</td>
<td>$809</td>
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<tr>
<td>Recycled Water Import</td>
<td>-</td>
<td>$145</td>
<td>$145</td>
<td>$158</td>
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<tr>
<td>NPV Benefit</td>
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<td>$1,610</td>
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<tr>
<td>Water Supply Benefit</td>
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<td>$388</td>
<td>$640</td>
<td>$517</td>
</tr>
<tr>
<td>B:C Ratio</td>
<td>1.00</td>
<td>1.12</td>
<td>1.33</td>
<td>1.28</td>
</tr>
</tbody>
</table>

**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
Now is the Time to Make Every Drop Count

Region’s Master Plan

Chino Basin Program

60 Wells (also includes ASR), 70 TAFY
600,000 Feet Pipeline RW Advanced Treatment

OBMPU

IRP

New Wells & Treatment: 35 – 70 TAFY

Regional Pipeline Network

RW Advanced Treatment

Supplemental Water Sources

Member Agency Plans

New Wells & Treatment

Regional Pipeline Network

RW Advanced Treatment

Supplemental Water Sources

OBMPU

CBP

9 Wells, 26.7 TAFY
158,000 Feet Pipeline
15 TAFY, 16 Injection Wells

 nøiyort

Storøe Management

Increase Ranged Water Reability

Enhance Safe Yield

Subsistence Management

Regional Collaboration

Enhance Water Supply Reliability and Resilency

Long Term Solvency Management

Biological Use of Recycled Water

Mitigate Potential Funding Opportunities

Groundwater Recharge

Regional Infrastructure Interconnections
## Water Resources Planned Infrastructure Overview

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

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