

Proposition 1 Water Storage Investment Program Inland Empire Utilities Agency

Chino Basin Conjunctive Use Environmental Water Storage/Exchange Program

# **QUARTERLY REPORT #9**

July through September 2020

Progress Report to the California Water Commission October 30, 2020



# 1. Purpose and Introduction

This Quarterly Report is to inform the California Water Commission (Commission) of changes and updates to the project, schedule, and status of the Inland Empire Utilities Agency (IEUA) Chino Basin Conjunctive Use Environmental Water Storage/Exchange Program, hereafter referred to as the Chino Basin Program (CBP), occurring during the most recent quarter of July through September 2020. The report contents are based on guidance provided by Commission staff and document progress that IEUA is making toward complying with conditions required to enter a funding agreement with the Commission for implementation of the CBP.

The report is organized into the following sections:

- 1. Purpose and Introduction
- 2. Project Planning Update
- 3. Project Schedule Update
- 4. Project Cost and Financing Update
- Attachment 1 Table 1. Project Schedule
- Attachment 2 Table 2. Quarterly Reporting Items for Commission Hearing on Final Awards

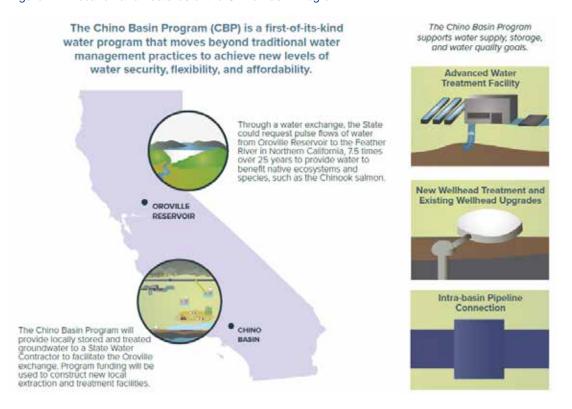
### 2. Project Planning Update

The Project Planning Update is a narrative summary update of the project. This summary provides a description of the status of IEUA meeting the requirements and milestones identified by the Commission (see Attachments 1 and 2, respectively). Issues or concerns that have, will, or could affect milestones or requirements are also provided here.

IEUA continues to work diligently with its local stakeholders to address key questions and to complete preliminary design and analysis of CBP alternatives (see **Figure 2-1**). The support of our constituents and regional partners in the design of a program that strikes the right balance with benefits to the State, our region, and our local communities is foundational to the success of the CBP.

Since our last quarterly progress report IEUA has progressed the preliminary design of the program and the analysis of alternative configurations of the various infrastructure components, as well as the economic evaluation and comparison of preferred alternatives configurations. The collective outcome from these efforts is informing coordination and collaboration with local agency partners and coordination with State resource agencies. This information will also be used to support future steps of the program, including environmental planning and compliance, permitting, monitoring and operational plans, and financial planning. Provided below is additional information on core activities during the most recent quarter.

Figure 2-1. Location and Features of the Chino Basin Program



#### **Water Sources**

Planning efforts continue to define water sources for advanced water purification to produce 15,000 acre-feet per year of advanced treated water. As reported in the last quarterly report, IEUA continues to work with its partners to further refine the efforts and are continuing on further refinement of the operational conditions and associated delivery of water sources for the CBP. These efforts will inform principles and terms and conditions that will shape long-term agreements for securing these supplies. Key to these principles is balancing the needs of the CBP with that of IEUA agencies' and related Chino Basin obligations. These long-term agreements are being developed with full awareness to other regional water management agreements also under development. Opportunities to align similar concepts appearing in these collective agreements will provide for greater success and opportunity for expanded and coordinated water management in the region.

#### **Preliminary Design**

Preliminary design of the CBP is continuing. Over the last several months, IEUA has conducted multiple staff and manager-level meetings with stakeholders to obtain input on proposed CBP alternatives and their associated components and operational configurations. These meetings were held both individually and in groups settings. Input from these discussions was factored into the alternatives development and evaluation, and associated revisions and refinements made to the alternatives.

CBP alternatives are formed around two main categories of facilities: PUT, the components to recharge purified water to the Chino Basin, and TAKE, the components to extract groundwater and convey potable water supply. The PUT and TAKE components are summarized in **Table 2-1**. The CBP team completed preliminary evaluation of six PUT alternatives and eight TAKE alternatives (48 combinations in total). Capital costs and operation and maintenance (O&M) costs were developed for each PUT and TAKE alternative. A multi-criterion evaluation process, developed with stakeholder input, uses these costs and other weighted criterion developed around program objectives to score alternatives. PUT and TAKE alternatives are evaluated based on their individual score and combinations of PUT and TAKE configurations that form "program-level" alternatives.

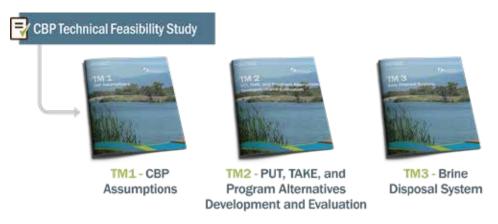
Table 2-1. Summary of PUT and TAKE Components

PUT Components	TAKE Components			
<ul> <li>Tertiary recycled water supply and conveyance</li> <li>Advanced water purification facility (AWPF)</li> <li>Purified water pumping and conveyance</li> <li>Groundwater recharge (injection wells and/or recharge basins)</li> </ul>	<ul> <li>Groundwater extraction and treatment</li> <li>Potable water pumping and conveyance</li> <li>Potable water usage (MWDSC pump back or in lieu)</li> </ul>			
The CBP will comprise both PUT and TAKE components				

Findings from these efforts were presented at workshops in July with agency partners and smaller group meetings focused on specific service area details. This included distribution of draft preliminary design report technical memorandums for review and comment (see **Figure 2-2**).

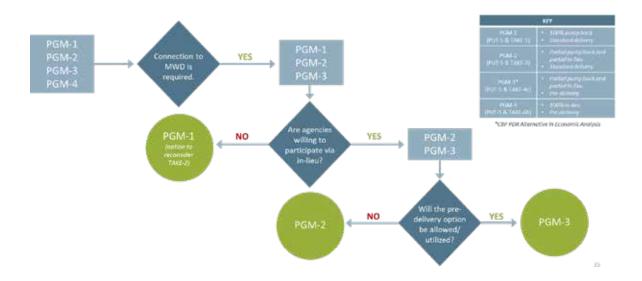
The July workshops featured presentations of the alternatives development and evaluation described above. Questions and input provided during these workshops are also informing refinements to PUT and TAKE components and identification of the preferred program alternative.

Figure 2-2. CBP Preliminary Design Documents



The next steps in the alternatives evaluation process are underway and involve completing additional modeling analyses of recommended program alternatives to confirm Chino Groundwater Basin operating constraints are met and preparing conceptual level design drawings for major components. The identification and evaluation process for program-level CBP alternatives is shown conceptually in **Figure 2-3**. IEUA is following this decision analysis process to identify the highest ranking CBP alternatives derived from the 48 PUT/TAKE combinations. As part of next steps IEUA is working with agency partners to obtain review and feedback during this decision analysis process.

Figure 2-3. CBP Program Alternatives Decision Flow



#### **Economic and Financial Analysis**

Using information developed through the preliminary design effort and input obtained through agency partner engagement efforts, an economic evaluation was performed on CBP program alternatives and compared with regional planning alternatives. This required development of an integrated decision-support tool combining banking and exchange operations and a benefits and costs net present value (NPV) calculator. This tool, shown conceptually in **Figure 2-4**, has the capability to incorporate and/or address changes in input and key assumptions as requested by agency partners. The tool provides a relative economic comparison of alternatives using cashflow and NPV life cycle costs to consider the economic feasibility of alternatives and effects on ratepayers.

Benefits and costs of alternatives compared to baseline conditions, and compared to one another, provides information about the relative costs and benefits to the region. Preliminary findings were documented in a draft economics analysis technical memorandum that was shared with agency partners for review and input. The preliminary findings were also presented to agency partners at a workshop in July. Questions and comments shared during these review efforts were captured by the CBP team. This input is helping shape further refinement and evaluation of the alternatives. The economic evaluation will also help inform financial analysis that will be performed for the alternatives to describe projected cash flow conditions and effects on rate payers.

Banking and Alternative Exchange Formulation operation Costs & Discount **Benefits** Rate Net Present Assessment Value & Cashflow Outputs Project Escalation Schedule Rates External Funding & Loan Terms

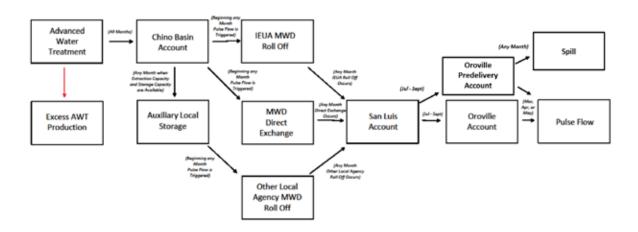
Figure 2-4 Decision Support Tool

#### **CBP Banking and Exchange Analysis**

IEUA, working with its local and State partners, continues to evaluate the potential to support pulse flows of up to 50,000 acre-feet originating in Lake Oroville during the spring of dry years designed to

improve survival rates of emigrating juvenile Chinook salmon. IEUA has developed a CBP-State Water Project (SWP) Operations Analysis tool (see schematic shown in **Figure 2-5**) to simulate the CBP banking and extraction operations under different hydrologic conditions (dry years, critically dry years, etc.) and how these stored water supplies would provide local benefit and support the exchange with the State. During this last quarter the State requested that IEUA provide a high-level presentation of how the operations analysis tool represents the banking and exchange that occurs at the local and regional level and the exchange process for the SWP and subsequent pulse flow deliveries.

Figure 2-5.CBP Operations Logic Schematic



In August and September, the CBP team participated in two California Department of Water Resources (DWR) workshops for the Water Storage Investment Program (WSIP) pulse flow projects that involve exchanges with the SWP. The workshops included representatives from the each of the three WSIP pulse flow projects, SWP operations staff, SWP contractors representatives, and California Department of Fish and Wildlife (CDFW). To support these workshops the CBP team coordinated with other WSIP pulse flow projects to review common project components and potential principles; reviewed draft concepts presented by the DWR team on decision processes and exchange mechanisms for enabling delivery of pulse flows from Lake Oroville; and facilitated discussion of environmental review and documentation needed for the projects and what the respective roles and responsibilities would be for each of parties involved in these projects.

### **CBP PEIR and Permitting Update**

IEUA continues to coordinate plans for preparation of the CBP Programmatic Environmental Impact Report (PEIR) with other regional environmental planning efforts, such as the Chino Basin Storage Framework and Optimum Basin Management Program (OBMP) Update. The Final Subsequent Environmental Impact Report (SEIR) for the 2020 OBMP has been completed and is under consideration by participating agencies within the basin. The SEIR certification of the 2020 OBMP has been delayed based on comments received to date the IEUA Board will consider adoption of the SEIR in early 2021.

#### **Design, Construction, and Operation Update**

As noted above, additional feasibility and preliminary design studies are underway and preliminary design efforts have been documented in draft technical memorandums that are currently under review by agency partners. These efforts are defining project infrastructure alternatives and operational elements needed to complete design and development of operations plans and to inform ongoing planning efforts including, economic and financial analysis and environmental planning.

#### **Communications and Engagement Update**

For successful implementation, it is critical that IEUA have strong local support for the CBP and establish an equitable and flexible partnership between all partners involved. To that end, IEUA continues to advance the CBP by working closely with agency partners and the State to review issues and concerns, with a focus towards establishing conditions that are equitable for all parties involved. IEUA outreach efforts include conducting one-on-one meetings with agency partners, providing CBP updates at IEUA technical committee and agency manager monthly meetings, and providing informational updates (as requested) to city and local agency boards. These communication efforts provide IEUA with valuable feedback on the CBP. IEUA outreach efforts also includes maintaining a program website and a media outreach strategy. Specific outreach efforts held during this last quarter is discussed further below.

#### CBP Workgroup

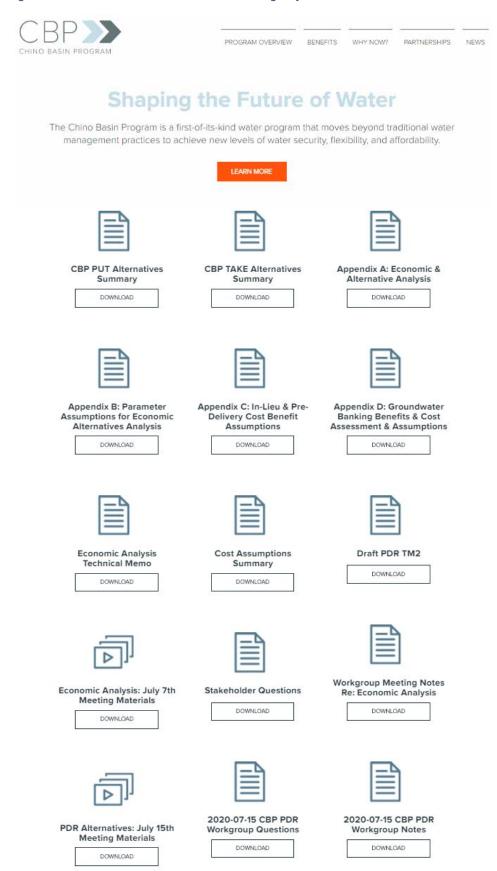
As described in previous progress reports, IEUA initiated a workgroup process (the CBP Workgroup) to help develop the CBP that best achieves the objectives and provides broad mutual benefit to the region. Through the participation in CBP Workgroup workshop sessions, IEUA is working with local and regional agencies to discuss integration and coordination of local and CBP objectives and associated agreements, to obtain input, and identify questions. The CBP Workgroup workshop sessions conducted to date are summarized in **Table 2-2**.

Table 2-2. CBP Workgroup Workshops

Month	Workshop	Objectives
December 2018	CBP Workgroup	CBP overview, workgroup charter, introduce CBP Collaborative MOU for CBP participation, and identify key questions
January 2019	CBP Workgroup	CBP costs/benefits review, review questions, and present draft MOU for CBP participation
February 2019	CBP Workgroup	CBP water sources and financial analysis review, introduce CBP agreement terms, and review questions
May 2019	CBP Workgroup	IEUA rate study update, CBP alternatives development approach, CBP agreement, and review questions
June 2019	CBP Workgroup	CBP water sources update, CBP alternatives and evaluation approach, and review questions
August 2019	IEUA Water Resources Workshop	IEUA recycled water supply and additional water sources update
September 2019	IEUA Water Resources Workshop	IEUA regulatory challenges update, CBP alternatives update, and CBP economic analysis update
March 2020	CBP Workgroup	IEUA regulatory challenges review, IEUA master planning update, and CBP alternatives evaluation review
July 2020	CBP Workgroup	CBP economic analysis review (early July) CBP preliminary design review (mid-July)

IEUA held two CBP Workgroup workshops with agency partners in July to review CBP preliminary designs, economic analysis and comparison of alternatives, and to discuss questions and concerns raised in previous workshops. For these workshops IEUA posted draft technical memorandums completed for the preliminary design of alternatives and economic evaluation of alternatives (**Figure 2-6**).

Figure 2-6. CBP Documents Posted for Partner Agency Review



#### MWDSC and State Engagement

IEUA continues to coordinate with Metropolitan Water District of Southern California (MWDSC) and State agencies to evaluate the operational parameters and associated conditions for the CBP. These coordination efforts are used to review and refine operational elements and questions, discuss and develop principles and conditions that will shape institutional arrangements, and to coordinate overall roles and responsibilities.

During this past quarter the CBP team worked closely with MWDSC to develop a draft project prospectus for consideration by MWDSC executive management. This prospectus is intended to provide MWDSC with additional information needed to for the joint development of partnership principles between IEUA and MWDSC for the CBP.

The CBP team is continuing to work closely with State resource agencies. This past quarter DWR coordinated two additional workshops (discussed previously above) among WSIP projects involving exchanges at Lake Oroville for pulse flows. The CBP team also participated in an initial coordination meeting with DWR representatives for the WSIP emergency response public benefit to discuss the administration of emergency response benefits, questions regarding emergency response obligations, and consideration of assumptions and conditions.

IEUA met with Commission staff twice during the most recent quarter to review the status of the CBP, performance and related requirements under WSIP, and questions and challenges that the CBP team and agency partners are addressing. IEUA is also considering WSIP early funding available through the Commission's recently approved emergency regulations to help alleviate some of the immediate economic hardships that IEUA and its member agencies have faced during the COVID-19 crisis and other factors.

### **Additional Funding Opportunities**

In addition to the consideration for WSIP early funding available through the Commission's recently approved emergency regulations, IEUA and agency partners continue to pursue additional funding opportunities. In July the CBP team completed the Draft CBP Feasibility Study Report (FSR) for Water Infrastructure Improvements for the Nation Act (WIIN Act) funding and submitted the report to the U.S. Bureau of Reclamation (USBR) for funding eligibility consideration. In early September, the CBP team met with USBR representatives responsible for WIIN Act funding application administration to discuss USBR initial review comments and questions. The CBP team will review these comments and questions and hold additional discussions with USBR in the next quarter.

### 3. Project Schedule Update

IEUA and agency partners continue to work together to define program elements on a schedule consistent with the proposed commitments to achieve local and statewide public benefits (see **Figure 3-1** and **Table 3-1**). December 2025 remains as the program completion date with full operation commencing in 2026. Additional details of the schedule and progress are provided in Attachments 1 and 2, respectively.

Figure 3-1. Simplified CBP Schedule



CBP milestones leading up to the Commission's WSIP conditional funding award date are shown on **Table 3-1**.

Table 3-1. CBP Funding Milestones

Date	Milestone
Fall 2020, Winter 2021	Draft agreement terms with local agencies and partners
Winter 2021	Final PDR and Draft agreement terms with resource agencies
Summer 2021	Draft CBP PEIR and Final agreement terms with local and resource agencies
Fall 2021	Commission final funding award negotiations and funding agreement execution

### **Next Steps**

As discussed in the previous progress report, IEUA will continue to work with local and regional agency partners to further develop the CBP and will continue to drive the following activities:

- **CBP Workshops**: Continue focused workshops with local agency partners to discuss the analysis of key questions about economics, financing, water sources, agreement terms and conditions, and operational and management considerations.
- Water Sources: Draft and negotiate partnership agreements.

- Preliminary Design: Refine recommended program alternatives and finalize PDR.
- Economic and Financial Analysis: Complete financial analysis and ability to pay analysis.
- Partner and State Agency Coordination: Continue to meet and coordinate with local and
  regional agency partners and State agencies to work collaboratively to advance CBP planning
  and development. Develop draft agreements with local agency partners. Engage elected officials
  to help shape policy opinion to help inform development of draft agreements. Continue regular
  coordination with the Commission to assist with discussions with State resource agencies.
  Continue coordination with State resource agencies to discuss SWP exchange processes and
  principles for consideration in proposed State agreements.
- **Communications and Outreach**: Continue to conduct meetings with local stakeholders, general manager meetings, special committee meetings, and workshops.

# 4. Project Cost and Financing Update

#### Capital Costs, Cash Flow, and Financing

IEUA is continuing its analysis of potential funding sources to help with financing of the CBP. The CBP team is completing an economic and financial life cycle analysis of the alternatives. The findings from these efforts will provide information needed to help IEUA and agency partners make decisions about CBP development, implementation, operations, and financial and operational partnership agreements.

#### **Pursuit of Additional Grant Funds**

IEUA continues to explore additional grant opportunities for the CBP, including federal grant programs (i.e., WIIN Act funding), State grant programs (i.e., Proposition 68), and State Revolving Funds programs.

# ATTACHMENT 1

Table 1. Project Schedule

Table 1. Project Schedule

Funding Agreement Milestone	Start Date	Finish Date	% Complete
Non-Public Benefits Cost-Share Contracts			
(other agreements may be required and will be included when ide	ntified)	1	
Agreements with IEUA Member Agencies	2019	2020	45%
Agreements with State Water Project Contractor	2019	2021	25%
Chino Basin Storage and Recovery Application	2019	2021	5%
Contracts for Administration of Public Benefits		,	
CDFW (ecosystem agreement)	2019	2021	15%
SWRCB (water quality)	2019	2021	5%
DWR (emergency response)	2019	2021	5%
DWR (operations agreement)	2019	2021	20%
<b>Completed Feasibility Studies</b> (includes feasibility studies related framework for the CBP, as well as CBP-specific studies)	ed to planning	g efforts that a	re the
2000 Optimum Basin Management Plan (OBMP) for Chino Basin	1995	2000	100%
2001 Chino Basin Organics Management Strategy	1998	2001	100%
2002 Recycled Water System Feasibility Study	2000	2002	100%
2002 Wastewater Facilities Master Plan	2000	2002	100%
2002 Salinity Management Plan	2000	2002	100%
2005 Urban Water Management Plan	2003	2005	100%
2005 Recycled Water Implementation Plan	2003	2005	100%
2007 Recycled Water Three Year Business Plan	2006	2007	100%
2010 Urban Water Management Plan	2009	2011	100%
2013 Recharge Master Plan Update	2011	2013	100%
2015 Energy Management Plan	2014	2015	100%
2015 Recycled Water Program Strategy	2013	2016	100%
2015 Wastewater Facilities Master Plan Update	2014	2016	100%
2015 Water Use Efficiency Business Plan Update	2014	2016	100%
2016 Feasibility Study of Recycled Water Interconnection — Pomona, Monte Vista Water District, and IEUA	2014	2016	100%
2016 Integrated Water Resources Plan	2013	2016	100%
2017 Recycled Water Intertie Study – Jurupa Community Services District and IEUA	2014	2017	100%
2018 Recharge Master Plan Update	2017	2018	100%
2020 OBMP Update for Chino Basin	2018	2020	85%
CBP Feasibility Studies and Pre-Design	2019	2021	75%
IEUA Rate Study	2019	2020	75%
Environmental Documentation		'	
(includes environmental documentation already completed that supports elements of the CBP)			P)
IEUA Facilities Master Plan PEIR	2016	2017	100%
OBMP Update for Chino Basin EIR Addendum	2016	2017	100%
OBMP Update for Chino Basin Subsequent EIR	2019	2020	75%
CBP PEIR	2019	2020	0%

Attachment 1 1

Funding Agreement Milestone	Start Date	Finish Date	% Complete
Federal, State, and Local Approvals			
Federal: Potential operations approvals w/USBR	2019	2021	0%
Federal: Potential permitting approvals w/USACE	2019	2021	0%
Federal: Other possible federal permits/approvals tbd	2019	2021	0%
State: Incidental Take Permit, if needed (w/CDFW)	2019	2021	0%
State: Section 1707 water rights change, if needed (by DWR, w/SWRCB)	2019	2021	0%
State: SWP water supply contract amendments, if needed (by SWPC, w/DWR)	2019	2021	0%
State: Other possible State permits/approvals tbd	2019	2021	0%
Local: Possible encroachment permits (w/city/county)	2019	2021	0%
Local: Storage in Chino Basin Water Bank (w/CBWM)	2019	2021	0%
Local: Other possible local permits/approvals tbd	2019	2021	0%
Funding Agreement Components			
Project Workplan	2017	2021	10%
Project Schedule	2017	2021	10%
Project Budget	2017	2021	10%
Project Design	2021	2023	0%
Construction	2023	2025	0%
Begin Operations	2026	2075	0%

Attachment 1 2

# ATTACHMENT 2

**Table 2. Quarterly Reporting Items for Commission Hearing on Final Awards** 

Table 2. Quarterly Reporting Items for Commission Hearing on Final Awards\*

Description	Estimated Completion Date	% Complete
Contracts for non- public cost-share (other agreements may be required identified)	and will be incl	uded when
Agreements with IEUA Member Agencies	2020	45%
Agreements with State Water Project Contractor (SWPC)	2021	25%
Chino Basin Storage and Recovery Application	2021	5%
Contracts for administration of public benefits		
CDFW (ecosystem)	2021	15%
SWRCB (water quality)	2021	5%
DWR (emergency response)	2021	5%
DWR (operations)	2021	20%
Completed feasibility studies (includes feasibility studies related to planning framework for the CBP, as well as CBP-specific studies)	ng efforts that a	are the
2000 Optimum Basin Management Plan (OBMP) for Chino Basin	Done	100%
2001 Chino Basin Organics Management Strategy	Done	100%
2002 Recycled Water System Feasibility Study	Done	100%
2002 Wastewater Facilities Master Plan	Done	100%
2002 Salinity Management Plan	Done	100%
2005 Urban Water Management Plan	Done	100%
2005 Recycled Water Implementation Plan	Done	100%
2007 Recycled Water Three Year Business Plan	Done	100%
2010 Urban Water Management Plan	Done	100%
2013 Recharge Master Plan Update (RMPU)	Done	100%
2015 Energy Management Plan	Done	100%
2015 Recycled Water Program Strategy	Done	100%
2015 Wastewater Facilities Master Plan Update	Done	100%
2015 Water Use Efficiency Business Plan Update	Done	100%
2016 Feasibility Study of Recycled Water Interconnection — Pomona, Monte Vista Water District, and IEUA	Done	100%
2016 Integrated Water Resources Plan	Done	100%
2017 Recycled Water Intertie Study – Jurupa Community Services District and IEUA	Done	100%
2018 Recharge Master Plan Update	Done	100%
OBMP Update for Chino Basin	2020	85%
CBP Feasibility Studies and Pre-Design	2021	75%
IEUA Rate Study	2020	75%

Attachment 2

Description	Estimated Completion Date	% Complete
<b>Final environmental documentation</b> (includes environmental documentation already completed that supports elements of the CBP)		
IEUA Facilities Master Plan PEIR	2017	100%
OBMP Update for Chino Basin EIR Addendum	2017	100%
OBMP Update for Chino Basin Subsequent EIR	2020	75%
CBP PEIR	2020	0%
All required federal, State, and local approvals, certifications, and agree	ements	
Federal: Potential operations approvals w/USBR	2021	0%
Federal: Potential permitting approvals w/USACE	2021	0%
Federal: Other possible federal permits/approvals tbd	2021	0%
State: Incidental Take Permit, if needed (w/CDFW)	2021	0%
State: Section 1707 water rights change, if needed (by DWR, w/SWRCB)	2021	0%
State: SWP water supply contract amendments, if needed (by SWPC, w/DWR)	2021	0%
State: Other possible State permits/approvals tbd	2021	0%
Local: Possible encroachment permits (w/ city/county)	2021	0%
Local: Storage in CBWB (w/Chino Basin Watermaster)	2021	0%
Local: Other possible local permits/approvals tbd	2021	0%

<sup>\*</sup>Note: Updates to the Funding Agreement and Status Update sections of the Table 2 quarterly reporting template (provided by the Commission) are for elements needed to execute a funding agreement. The Commission requires an update of these elements only when a significant change has occurred. There currently is no information to report for these elements and there has been no change in the information related to these elements at this time.

Attachment 2 2





# **CONTACT INFORMATION**

### **INLAND EMPIRE UTILITIES AGENCY**

Chino Basin Conjunctive Use Environmental Water Storage/Exchange Program (Chino Basin Program)

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