

*Proposition 1 Water Storage Investment Program
Inland Empire Utilities Agency*

Chino Basin Conjunctive Use Environmental Water
Storage/Exchange Program

QUARTERLY REPORT #7

January through March 2020

Progress Report to the California Water Commission
April 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 January through March 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:

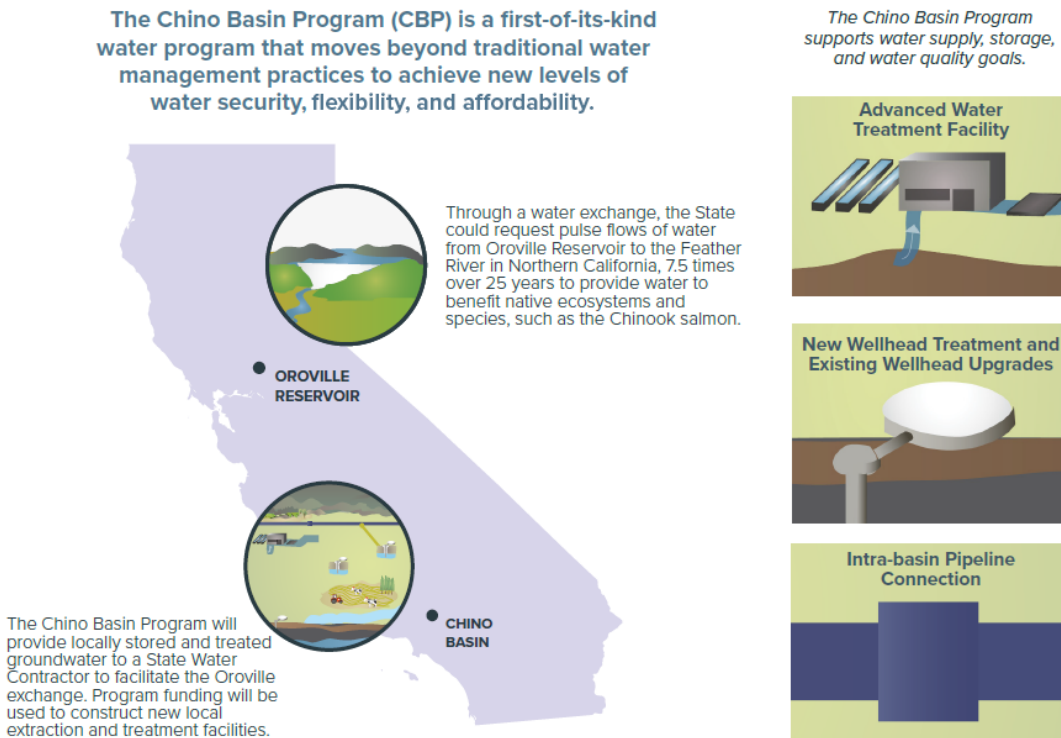
1. Purpose and Introduction
2. Project Planning Update
3. Project Schedule Update
4. Project Cost and Financing Update
 - Attachment 1 — Table 1. Project Schedule
 - Attachment 2 — Table 2. Quarterly Reporting Items for Commission Hearing on Final Awards

2. Project Planning Update

The Project Planning Update is a narrative summary update of the project. The 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 closely with its partner agencies to address key questions and to complete the analysis needed to advance the planning and design of the CBP. There are no issues or concerns that affect milestones or associated requirements at this time.

IEUA continues to make progress with the planning and preliminary design of the CBP (see Figure 2-1). IEUA continues to work with its partners to define water sources for the program and associated facilities, costs, and agreements. The CBP team has completed development of the project components, integrated these components into alternatives, estimated the capital and operational costs for each alternative, and applied evaluation criterion to identify recommended program alternatives for further refinement. An economic analysis is underway to evaluate the costs and benefits of program alternatives. The planning and preliminary design effort is supporting development of local agency partnership agreements, and will be used to inform environmental planning, monitoring, and development of operational plans. IEUA continues to work with State agencies to define how water stored in Chino Basin will be used in dry years in lieu of southern California-bound State Water Project (SWP) flows that will instead be used in northern California for pulse flows in the Feather River. Provided further 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 thousand acre-feet per year of advanced treated water. During the most recent quarter progress was made on developing the principles for long-term agreements for securing supplies that meet IEUA agencies’ needs and related basin obligations. These long-term agreements are being developed with full awareness to other regional water management agreements also under development. Opportunities to align like concepts appearing in these collective agreements will provide for greater success and greater opportunity for expanded, coordinated water management in the region. Next steps will include framing agreements with these concepts in mind, and with consideration for the already defined principles based on mutual benefit.

Preliminary Design

Over the past quarter the CBP team evaluated the alternatives based on evaluation criteria and reviewed recommendations with local agencies. Technical memoranda are being developed that summarize the alternatives formulation, evaluation, and recommendations. The CBP is complex and includes treatment plants, conveyance, groundwater recharge and extraction facilities, and operational schemes designed to meet the objectives of the CBP. The preliminary design effort organized these facilities as PUT components and TAKE components. PUT components recharge purified water. TAKE components extract groundwater and convey the potable water supply. These components are listed in **Table 2-1**.

Table 2-1. Summary of PUT and TAKE Components

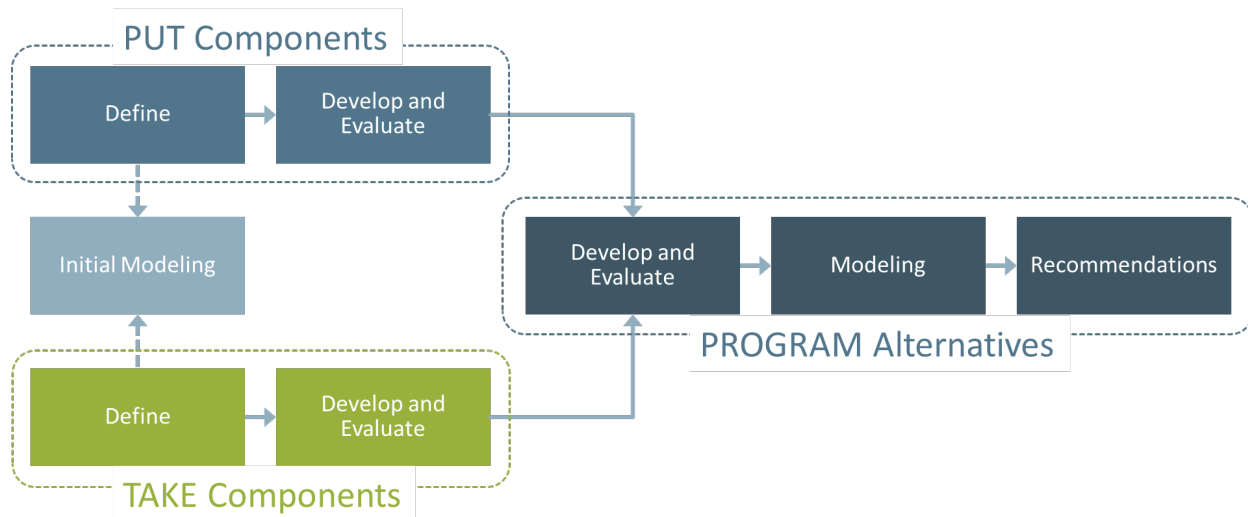
PUT Components	TAKE Components
<ul style="list-style-type: none"> • Tertiary recycled water supply and conveyance • Advanced water purification facility (AWPF) • Purified water pumping and conveyance • Groundwater recharge (injection wells and/or recharge basins) 	<ul style="list-style-type: none"> • Groundwater extraction and treatment • Potable water pumping and conveyance • Potable water usage (MWD pump back or in lieu)
<p>The CBP will comprise both PUT and TAKE components.</p>	

Once the PUT and TAKE components are evaluated, preferred components are combined to develop the overall program alternatives. The identification and evaluation process for developing the PUT and TAKE components, evaluating them, and determining the preferred program combination of PUT and TAKE components is shown conceptually in **Figure 2-2**. Program alternatives are modeled to confirm the operating constraints of the Chino Basin are met. Evaluation criteria, supported by technical and economic modeling, are used to screen and rank the alternatives from which recommendations can be made for a preferred program alternative.

Information related to the preliminary design has been presented at workshops with local partner agencies and smaller group meetings focused on specific service area details. The most recent workshop occurred in March of 2020. This workshop featured a presentation of the Preliminary Design Report (PDR) Study preliminary findings from the alternatives development and evaluation described above. Questions and input provided during this workshop are informing refinements to PUT and TAKE components and determination of the preferred program alternative. The program

alternative recommendations will be presented at the next workshop planned for this summer. The presentation will be accompanied by technical memoranda documenting the study efforts.

Figure 2-2. Evaluation Screening Approach



Economic and Financial Analysis

The preliminary design effort developed the various project components and estimated the capital and operational cost of these components. An economic analysis is in progress to integrate these costs together with an economic evaluation of benefits. This information will be used to compare alternatives to help identify the most economically feasible program alternative. This economic benefits/costs comparison is used together with other feasibility considerations to help identify the most feasible program alternative. Key areas of sensitivity and uncertainty are also considered for this evaluation to understand how to these parameters and assumptions affect the comparison.

To support this analysis an economic decision-support tool was developed to facilitate comparison of program alternatives. This tool incorporates the monetization of project facilities and operations, program benefits based on assessed economic value, and computes a net present value and benefit/cost ratio for comparison purposes.

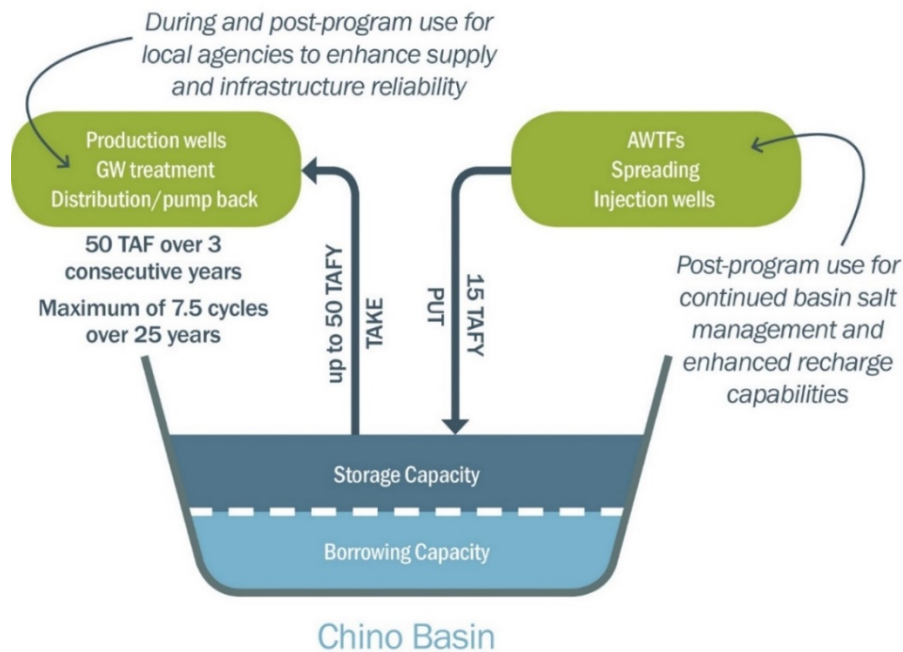
Next steps in the process will be to evaluate the financial feasibility of the program alternatives. This will involve allocating costs to project purposes, aligning project beneficiaries with these project costs, and determining ability to finance those project costs. The financial analysis takes into consideration funding, including State/Federal grants and low-interest loans, that would contribute to the applicable portions of the project costs. An important outcome of this analysis is an estimate of the unit water costs across the planning horizon for the different program alternatives.

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-SWP

Operations Analysis tool 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. The operations analysis tool was recently enhanced to include flexible groundwater banking operations capabilities to help determine banked water potentially available as a water supply under different operating assumptions. This is important for computing water supply benefits.

Figure 2-3. CBP Conceptual Operations



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 Update. The development of the CBP PEIR will start later this year when recommendations from the PDR Study are available and the draft project description can be prepared.

Design, Construction, and Operation Update

As noted above, additional feasibility and preliminary design studies are underway. These efforts are defining project infrastructure alternatives and operational elements needed to complete design and development of operations plans.

Communications and Engagement Update

The CBP implementation requires close planning and coordination with local, regional, and State agencies. IEUA sees these efforts as critical to developing a clear understanding of interests, needs, and concerns, and continues to develop and advance its project communications and outreach efforts through various means as discussed below.

IEUA Outreach Efforts

IEUA is implementing a multi-pronged local agency communications approach. IEUA conducts one-on-one meetings with all fourteen local agencies that signed a Memorandum of Understanding (MOU) for CBP participation. These meetings reviewed the program objectives, the status of planning and analysis, agency-specific needs, and key questions raised by local agency interests. IEUA holds recurring meetings among the IEUA general manager and local agency general managers to review and resolve key questions and decisions for actions moving forward. IEUA also conducts workshops to provide a CBP update and specialty workshops to address specific issues and key questions. These communication efforts provide IEUA with valuable stakeholder insights and feedback on the CBP and related IEUA efforts. IEUA outreach efforts also include maintaining a program website and a media outreach strategy.

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 sessions IEUA is working with local and regional agencies to discuss integration and coordination of local and CBP objectives and associated agreements, and to obtain input and identify questions. The CBP Workgroup workshop sessions conducted to date and planned through the next quarter are summarized in **Table 2-2**. Stakeholders participating in the workshops include the 14 local agencies that signed the MOU as well as several other stakeholders with associated interests to the Chino Basin.

Table 2-2. CBP Workgroup Workshops

Month	Workshop	Objectives
December 2018	CBP Workgroup	CBP overview, workgroup charter, introduce CBP Collaborative Memorandum of Understanding (MOU) for CBP participation, identify key questions
January 2019	CBP Workgroup	CBP costs/benefits review, review questions, present draft MOU for CBP participation
February 2019	CBP Workgroup	CBP water sources and financial analysis review, introduce CBP agreement terms, review questions
May 2019	CBP Workgroup	IEUA rate study update, CBP alternatives development approach, CBP agreement, review questions
June 2019	CBP Workgroup	CBP water sources update, CBP alternatives and evaluation approach, 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, CBP economic analysis update
March 2020	CBP Workgroup	IEUA regulatory challenges review, IEUA master planning update, CBP alternatives evaluation review
June 2020 (planned)	<i>CBP Workgroup</i>	<i>CBP program alternatives review, financial analysis review</i>

MWDSC and State Engagement

IEUA continues to coordinate with the 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.

The CBP team is continuing to work closely with the California Department of Water Resources (DWR) and California Department of Fish and Wildlife (CDFW) to evaluate the CBP exchange conditions with the State. IEUA coordinated a joint meeting in the Fall of 2019 to discuss SWP operations, program description refinements, and potential agreements and expected performance of responsible parties. Comments by the State agencies on a draft program description document were provided to IEUA January 2020. Meetings with these State resource agencies are planned for June 2020 to discuss these comments and the development of State agreements and associated principles.

IEUA continues to coordinate closely with Commission management to provide updates on project progress, to discuss key questions, to assist discussions with State resource agencies, and to more clearly define the pathway ahead for completing the analysis and agreements with these agencies. A site visit was held in January 2020 with Commission management to discuss local agency questions, the timing and role of DWR's analysis of SWP operations, and the flexibility to potentially accommodate a shutdown in a major local facility or other local emergency. A follow-up site visit by Commission and other State staff was planned for the March 2020 timeframe however is postponed due to current events of COVID-19.

3. Project Schedule Update

IEUA and local agency partners are working together to define the 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**). The program completion date remains December 2025, 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
Winter 2019/2020	Complete water sources evaluation, refine economic evaluation, and complete PDR
Fall 2020	Consensus on water sources, draft terms for water sources
Fall 2020	Draft agreement terms (Phase 1) with local agencies and MWDSC
Early 2021	Draft agreement terms (Phase 1) with resource agencies
Summer 2021	Draft PEIR, final agreement terms with local and resource agencies
Fall 2021	CWC 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 partners to further develop the CBP and will continue to drive the following activities:

- **CBP Workshops:** Resume focused workshops with local partner agencies 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:** Complete evaluation of program alternatives and identify recommended program alternatives for further development. Develop draft documentation.
- **Economic and Financial Analysis:** Complete economic analysis of costs and benefits of program alternatives. Complete financial analysis and ability to pay analysis. Develop draft documentation.
- **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. Meet with State resource agencies to discuss SWP operations analysis and principles for consideration in proposed State agreements.
- **Communications and Outreach:** Continue to conduct one-on-one 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 partner agencies 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., Water Infrastructure Improvements for the Nation (WIIN) Act), 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 identified)			
Agreements with IEUA Member Agencies	2019	2020	40%
Agreements with State Water Project Contractor	2019	2021	20%
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	15%
Completed Feasibility Studies (includes feasibility studies related to planning efforts that are the framework for the CBP as well as CBP-specific studies)			
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	60%
CBP Feasibility Studies and Pre-Design	2019	2021	60%
IEUA Rate Study	2019	2020	75%
Environmental Documentation (includes environmental documentation already completed that supports elements of the CBP)			
IEUA Facilities Master Plan PEIR	2016	2017	100%
OBMP Update for Chino Basin EIR Addendum	2016	2017	100%
OBMP Update for Chino Basin CEQA	2019	2020	0%

Funding Agreement Milestone	Start Date	Finish Date	% Complete
CBP PEIR	2019	2020	0%
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 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 and will be included when identified)		
Agreements with IEUA Member Agencies	2020	40%
Agreements with State Water Project Contractor (SWPC)	2021	20%
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	15%
Completed feasibility studies (includes feasibility studies related to planning efforts that are the framework for the CBP as well as CBP-specific studies)		
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 CEQA	2020	60%
CBP Feasibility Studies and Pre-Design	2021	60%
IEUA Rate Study	2020	75%

Description	Estimated Completion Date	% Complete
Final environmental documentation (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 CEQA Update for Chino Basin	2020	0%
CBP PEIR	2020	0%
All required federal, State, and local approvals, certifications, and agreements		
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%

*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.



CONTACT INFORMATION

INLAND EMPIRE UTILITIES AGENCY

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