



**TURNER BASIN IMPROVEMENTS
PROJECT NO. WR11017.00
STATUS UPDATE: APRIL 30, 2014**

The project involves the grading and hauling to create two new recharge basins east of Turner Basin No. 4. It will also install new pipes, gates, and controls for the two new recharge basins. This project will also connect to an existing flood control retention facility, Basin No. 5, by constructing a new stormwater piping from Deer Creek Channel into Basin No. 8. This will allow the Turner Basin site to receive and capture channel flow further upstream and increase recharge potential. The goal of the project is to bring in an additional 600 acre-feet of annual recharge through stormwater and recycled water.

Schedule:

<u>Project Budget</u>	<u>Actual Cost to Date</u>
\$1,275,000	\$1,195,581

<u>Phase</u>	<u>Start</u>	<u>Finish</u>	<u>Status</u>	<u>Projected Cost</u>	<u>Actual Cost</u>
Project Development	11/01/11A	02/22/12A	Completed	\$32,622	\$35,371
Master Plan	02/22/12A	02/22/12A	Completed	\$326	\$551
Pre-design	02/22/12A	03/30/12A	Completed	\$13,093	\$74,997
Environmental Impact	03/01/11A	12/20/12A	Completed	\$72,892	\$74,197
Design	04/02/12A	02/22/13A	Completed	\$120,772	\$122,203
Permits	03/30/12A	12/20/12A	Completed	\$9,927	\$9,927
Bid and Award	12/21/12A	02/20/13A	Completed	\$2,736	\$2,747
Construction	02/20/13A	05/30/14	In Progress	\$1,022,632	\$875,588
				<hr/>	
				\$1,275,000	\$1,193,581

This project is partially funded by the Bureau of Reclamation with a grant of \$406,712.

Project Update:

The programming integration task has been extended due to delays in tying the new program into the existing system. DCS and Operation staffs are working closely with the contractor's sub to ensure the final connection meets specifications and avoid any control interruption with the current system. End of construction is extended to May 30, 2014.

The dirt hauling is completed at the new south basin near Turner No. 4. The remaining volume of material, approximately 40,000 cubic yards will require additional time. IEUA staff is working

with the hauler and other interested haulers to complete the task before June. In the meantime the south new basin is ready for immediate recharge use.

Project Photos:



Construction of Junction Structure



Inside the Completed Junction Structure



Installed 60-inch connection pipe into Basin No. 8
Junction Structure



**WINEVILLE PROOF OF CONCEPT
PROJECT NO. EN13031.00
STATUS UPDATE: April 30, 2014**

The Wineville Basin Proof of Concept (POC) was an investigative project that consists of six cells designed to test and evaluate infiltration rates at strategic locations throughout the Basin. Each of the test cells were 0.5 acres in size. The test cells were excavated at different depths to allow the project to gather percolation data for soils above and below the previously identified clay layer. The Wineville Basin Proof of Concept Project was developed to provide information and data to determine the likely benefit if the Basin were improved to facilitate artificial groundwater recharge. The primary objective of the POC was to measure Basin infiltration rates and use those rates to estimate the likely annual recharge capacity of the Basin in the event improvements are constructed.

Schedule:

<u>Project Budget</u>	<u>Actual Cost to Date</u>
\$424,300	\$351,788

<u>Phase</u>	<u>Start</u>	<u>Finish</u>	<u>Status</u>	<u>Projected Cost</u>	<u>Actual Cost</u>
Design	01/11/13	04/30/14	Complete	\$22,000	\$22,000
Weeding	09/01/13	09/30/13	Complete	\$28,000	\$28,000
Permits	04/24/13	01/17/14	Complete	\$2,200	\$2,200
Environmental Assist.	03/01/13	11/30/13	Complete	\$22,600	\$18,800
Survey	09/01/13	11/30/13	Complete	\$21,000	\$11,767
Construction	06/19/13	04/30/14	Complete	\$208,000	\$208,000
Extra Equipment	10/01/13	11/30/13	Complete	\$7,500	\$7,500
Ontario Pump Costs	10/01/13	11/30/13	Complete	\$19,967	\$19,967
CM/Testing Support	09/01/13	04/30/14	Complete	\$36,000	\$33,554
Contingency				\$57,033	
				\$424,300	\$351,788

Project Update:

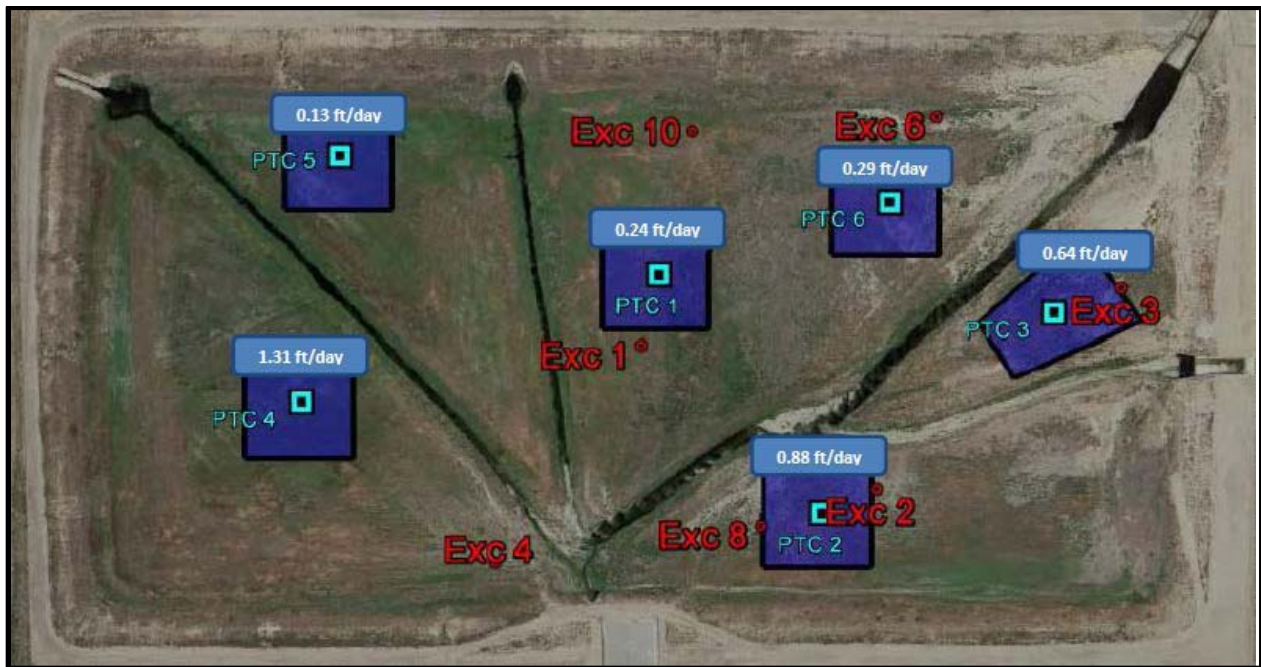
The study was completed in April. It concluded and recommended that the Basin presents an opportunity to use an existing facility for the dual purpose of flood control and groundwater recharge. Because it is a flood control basin, the conveyance of stormwater to the Basin lends itself to stormwater capture and infiltration. Future Basin improvements should include fitting the Basin to capture stormwater and accept supplemental water.

Final Project Data:

Table 1 - Projected Basin Performance Summary in Acre-Feet per Year (AFY)

Scenario	Infiltration Rate	Stormwater Recharge	Supplemental Water Recharge	Total Annual Recharge
No. 1	0.13 ft./day	820 AFY	940 AFY	1,760 AFY
No. 2	0.24 ft./day	2,080 AFY	1,750 AFY	3,830 AFY

Figure 1- Infiltration Rate Summary by Test Cells





**JURUPA PUMP STATION HVAC IMPROVEMENTS
PROJECT NO. EN14040
STATUS UPDATE: APRIL 30, 2014**

The Jurupa Pump Station (PS) is a key recharge facility that directly conveys storm water runoff, local runoff, imported and recycled water to Cell 1A at the RP-3 Basin. The PS is located on the north-east corner of Jurupa Basin which acts as a pass through basin for flows intercepted at the nearby San Sevaine Channel. The PS' electrical equipment, such as the motor control center, variable frequency drives (VFDs) and communication equipment, is critical to the operation of the pump station. With high temperatures experienced at the PS, vital controls and switches has been experiencing temperature related failures and shutdowns. The HVAC improvements will address these critical failures by installing a permanent air conditioning system, roof thermal insulation, controls, etc. for the electrical equipment at the Jurupa PS.

Schedule:

	<u>Project Budget</u>		<u>Actual Cost to Date</u>		
	\$300,000		\$5,762		
<u>Phase</u>	<u>Start</u>	<u>Finish</u>	<u>Status</u>	<u>Projected Cost</u>	<u>Actual Cost</u>
Project Development	09/02/13A	03/20/14A	Completed	\$3,000	\$3,031
Pre-design	10/31/13A	03/03/14A	Completed	\$5,000	\$2,731
Proposal	03/04/14A	05/14/14	In Progress	\$12,000	\$0
Design/Build	05/14/14	10/24/14	Not Started	\$186,000	\$0
				<u>\$206,000</u>	<u>\$5,762</u>

The total project cost was originally \$300,000. Through the Pre-design Phase, the Agency has been able to evaluate the details of the project and simplify the scope.

Project Update:

On April 24, 2014 IEUA received only one design-build proposal for the Jurupa Pump Station HVAC Improvements from IDS Group for \$39,575. Based on the consultant's proposal, experience, and qualification, the Agency finds IDS most qualified to provide the design/build services. The kick-off with IDS is scheduled for early May. Staff is anticipating to complete the project before November 2014 and below the projected budget.

Project Photos:



MCC Control Panel



Pumping System



SAN SEVAINE IMPROVEMENTS PROJECT
PROJECT NO. EN13001
STATUS UPDATE: APRIL 30, 2014

San Sevaïne basins consist of five, soft-bottomed basins along the San Sevaïne Channel. The basins encompass approximately 93 acres with the potential to recharge up to 8,500 acre-feet per year (AFY) of recycled water (RW), storm water (SW) and imported water. The basins currently operate by delivering most flow to Basin No. 5, which has the lowest infiltration rate as compared to the other basins. This has limited current recharge to approximately 500 AFY.

The Project will evaluate and propose construction improvements needed to maximize infiltration and recharge at the San Sevaïne Basins. Depending upon the evaluation, either one or more of the following measures will be implemented: (1) construct a new stormwater/recycled water pump station and pipeline, (2) extend the existing RW pipeline, (3) re-grade and deepen basin, (4) construct internal berms.

Schedule:

<u>Phase</u>	<u>Project Budget</u>		<u>Status</u>	<u>Actual Cost to Date</u>	
	<u>Start</u>	<u>Finish</u>		<u>Projected Cost</u>	<u>Actual Cost</u>
Pre-design	10/01/12A	05/13/14	In Progress	\$177,677	\$66,900
Environmental Impact	06/26/13A	09/26/14	In Progress	\$22,677	\$0
Design	07/25/14	05/04/15	Not Started	\$152,247	\$0
Permits	05/15/13A	11/04/15	In Progress	\$75,570	\$17,629
Bid and Award	05/19/15	08/04/15	Not Started	\$8,140	\$0
Construction	11/05/15	02/15/17	Not Started	\$2,063,689	\$0
				\$2,500,000	\$84,529

The Agency received an official notification from DWR through SAWPA that the requested \$750,000 grant from the Prop 84 Round 2 funding has been approved.

Project Update:

The project is in the Preliminary Design phase. Initial CEQA and regulatory review findings were received by Tom Dodson in January and will be incorporated into the pre-design report. The draft project report will be submitted mid-May and will be distributed for review. IEUA received

the new ACOE 404 permit on 02/26/14, and the soil investigation activities will commence after the end bird season which is September 15.

Recent Activities:

	<u>Date</u>	<u>Status</u>
▪ Obtain CEQA and Impacts from TDA	12/30/13	Completed
▪ Complete Project Development Report	05/30/14	In Progress
▪ Perform Soil Investigation	09/15/14	Delayed (1)

Notes:

(1) Soil investigation activities required an approved permit with ACOE. Since the receipt of the permit was received in late February which was a few weeks before to start of the bird nesting season the investigation was pushed out after September 15.

Project Photo:



San Sevaine Basin 5 - Berm



**GWR SCADA UPGRADES
PROJECT NO. EN14047
STATUS UPDATE: APRIL 30, 2014**

The Inland Empire Utilities Agency’s existing Supervisory Control & Data Acquisition (SCADA) system is comprised of a wide range of equipment that is located at various remote sites and facilities throughout the IEUA’s RW and GWR facilities. During the master planning process, a thorough and comprehensive review and evaluation of the recycled water and groundwater recharge SCADA system was conducted. The Master Plan recommended SCADA upgrades to the RW and GWR SCADA systems. The purpose of these upgrades will provide the foundation of a robust, reliable and seamless control system that will sustain and support the continued growth of the RW and GWR programs.

Schedule:

<u>Project Budget</u> \$892,000	<u>Actual Cost to Date</u> \$8,640
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<u>Phase</u>	<u>Start</u>	<u>Finish</u>	<u>Status</u>	<u>Projected Cost</u>	<u>Actual Cost</u>
Project Development	11/11/11A	02/24/14A	Completed	\$927	\$422
Design	02/26/14A	08/11/14	In Progress	\$129,900	\$8,218
Permits	04/18/14A	08/12/14	Not Started	\$10,000	\$0
Bid and Award	08/12/14	10/15/14	Not Started	\$428	\$0
Construction	10/16/14	02/12/16	Not Started	\$750,745	\$0
				\$892,000	\$8,640

This project was qualified for additional funding through the Clean Water State Revolving Fund loan program, the Proposition 50 grant program and a Department of Water Resources Proposition 84 grant program through Santa Ana Project Water Authority. Under these programs, the GWR SCADA upgrades will receive approximately \$740,145 of a 1% interest rate, 30-year loan and a \$139,650 grant.

Project Update:

IEUA staff met with the MSO consulting team on April 29th to discuss their initial design assumptions and concerns. After MSO reviewed each of the Basin and Turnout programs as part of their scope, they had a few recommendations which they wanted IEUA’s initial opinion and comment. MSO also requested an extended review period because their findings revealed certain systems lacked complete data information. The complex data structure will also need more time to evaluate to ensure all options in upgrading the system is made known. MSO will complete their evaluations to show several alternatives with pros/con and cost. A final predesign report is scheduled before May 28.

Project Photo:



San Sevaine Turnout Control Panel



**COMMUNICATION UPGRADES
PROJECT NO. EN12019
STATUS UPDATE: APRIL 30, 2014**

This project will transition the communication equipment within the remote GWR and RW sites (totaling over 20 sites) onto the new, faster and more reliable communication network. The upgrade will replace the radio equipment for each site and add several new communication towers to send all communication onto the Agency's new 18GHz Motorola network back-haul. The Communication System Upgrades anticipates all remote sites to be upgraded for integration with the new communication network, and seven monopoles necessary to improve the line-of-sight communication. After the completion of a predesign study which will determine the required location and number of towers, the project will move forward with a design/build approach in implementing the communication upgrades.

Schedule:

	<u>Project Budget</u>		<u>Actual Cost to Date</u>		
	\$1,245,000		\$75,628		
<u>Phase</u>	<u>Start</u>	<u>Finish</u>	<u>Status</u>	<u>Projected Cost</u>	<u>Actual Cost</u>
Project Development	11/11/11	01/27/14	Completed	\$5,771	\$47,270
Design	01/20/14	07/29/14	In Progress	\$135,129	\$28,358
Permits	03/17/14	07/30/14	In Progress	\$6,000	\$0
Construction	07/30/14	06/24/15	Not Started	\$1,098,100	\$0
				\$1,245,000	\$75,628

This project was qualified for additional funding through the Clean Water State Revolving Fund loan program, the Proposition 50 grant program and a Department of Water Resources Proposition 84 grant program through Santa Ana Project Water Authority. Under these programs, the Communication Upgrades will receive approximately \$1,022,105 of a 1% interest rate, 30-year loan and a \$192,850 grant.

Project Update:

On April 30 DTA/Sun Wireless completed all 20 sites for the radio survey study. Currently they are in the process of drafting their finds and recommendations for addressing the proposed locations of new communication towers. The radio survey effort was extend to late April due poor visibility and high winds. The draft submittal is scheduled for May 15.

The draft will be made available for all stake holders for review and comment.

Project Photo:



Basin Communication Tower



**CB20 NOISE MITIGATION
PROJECT NO. EN14038
STATUS UPDATE: APRIL 30, 2014**

In 2010, a recharge basin turnout structure was constructed within the Metropolitan Water District's right-of-way in the residential area of the City of Upland. The turnout was to provide immediate access to available raw water for the purpose of groundwater storage. The Noise Mitigation Project is to reduce the impact of operating noise to the surrounding residences. Current sound studies reveal the facility generates noise levels above the allowable limits permitted by Upland's Ordinances. As a public service effort, IEUA and Chino Basin Watermaster initiated a capital project to design and build a sound enclosure by a qualified sound specialist. The objective is to maintain compliance with City Ordinance and reduce the impact of noise to nearby residents. The project budget is \$160,000. The installation is scheduled for completion on June 30, 2014.

Schedule:

	<u>Project Budget</u>		<u>Actual Cost to Date</u>		
	\$160,000		\$3,202		
<u>Phase</u>	<u>Start</u>	<u>Finish</u>	<u>Status</u>	<u>Projected Cost</u>	<u>Actual Cost</u>
Project Development	09/25/13	01/23/14A	Completed	\$11,319	\$182
Design	01/24/14A	5/13/14	In Progress	\$9,057	\$3,020
Construction	05/14/14	06/30/14	Not Started	\$137,237	\$0
				<u>\$157,613</u>	<u>\$3,202</u>

Project Update:

Currently the City of Upland is finalizing its review and comment on the proposed sound enclosure. Metropolitan Water District's Operational group is also finalizing its review and approval of the enclosure. As soon as MWD provides its written approval, IEUA will direct the Design/Build Contractor to proceed in ordering the material for construction. The lead time is typically 3 to 4 week with an installation time of 1 week. The project is scheduled for completion before June 30, 2014.

Project Photos:



CB-20 Turnout Facility



CB20 Outlet while in use



Proposed rendition of the sound proof enclosure



**HICKORY BASIN ARIZONA CROSSING
PROJECT NO. EN12025
STATUS UPDATE: APRIL 30, 2014**

The Hickory Basin Arizona Crossing Project designed and constructed a new soil cement access road and culvert over the inlet channel at the Hickory Basin. This project, which was part of the Chino Basin Facilities Improvement Program Phase II, was deferred due to Flood Control permitting approvals. In January 2012, the project re-commenced bidding after receiving full permitting documents from the San Bernardino Flood Control District (SBCFCD). The project completed construction and the facility has been in operation since April 17, 2013. The purpose of the access road was to provide immediate maintenance and operational access for IEUA and SBCFCD personnel to the north area of the basin without interrupting recharge or stormwater detention operations. The goal of the project is to minimize maintenance cost and mitigate recharge interruptions due to basin dewatering when accessing critical pumping equipment for routine or emergency maintenance. Secondly, the access crossing was a required condition with the SBCFCD as part of a maintenance agreement to utilize the basin for continuous recharge.

Schedule:

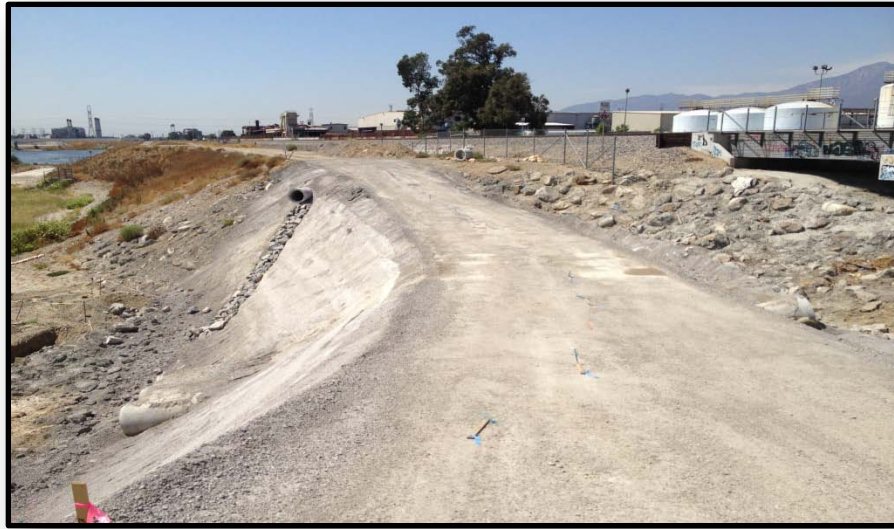
	<u>Project Budget</u>		<u>Actual Cost to Date</u>		
	\$332,971		\$220,417		
<u>Phase</u>	<u>Start</u>	<u>Finish</u>	<u>Status</u>	<u>Projected Cost</u>	<u>Actual Cost</u>
Design	10/01/11	12/31/11	Completed	\$7,200	\$7,200
Permits	10/01/11	01/12/12	Completed	\$2,000	\$1,518
Bid and Award	01/12/12	03/21/12	Completed	\$1,200	\$307
Construction	03/22/12	04/17/13	Completed	\$222,571	\$211,392
Added Contingencies				\$100,000	
				332,971	\$220,417

The added contingency was included into the project towards the later phase of construction to address potential change orders with the General Contractor.

Project Update:

The project was fully completed and operational in April 2011 with a final total project cost of \$220,417. In November 2011, IEUA received from the General Contractor a “Notice of Potential Claim” and “Notice of Claim” which were both denied by IEUA. In March/April 2013, IEUA legal counsel notified staff of a filed lawsuit against IEUA from Kaveh Engineering and Construction. Currently IEUA legal counsel is addressing the notice.

Project Photo:



Completed access road leading to the north side of Hickory Basin



Completed Arizona Crossing which spans the inlet channel