



**TURNER BASIN IMPROVEMENTS**  
**PROJECT NO. WR11017.00**  
**STATUS UPDATE: JANUARY 29, 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 5, by constructing a new stormwater piping from Deer Creek Channel into Basin 8. This will allow the Turner Basin site to receive and capture channel flow further upstream and increase recharge potential.

**Schedule:**

<u>Project Budget</u>	<u>Actual Cost to Date</u>
\$1,275,000	\$ 1,035,587

<u>Phase</u>	<u>Start</u>	<u>Finish</u>	<u>Status</u>	<u>Projected Cost</u>	<u>Actual Cost</u>
Project Development	11/01/11	02/22/12	Completed	\$32,622	\$35,332
Master Plan	02/22/12	02/22/12	Completed	\$326	\$444
Pre-design	02/22/12	03/30/12	Completed	\$13,093	\$74,997
Environmental Impact	03/01/11	12/20/12	Completed	\$72,892	\$74,197
Design	04/02/12	02/22/13	Completed	\$120,772	\$122,203
Permits	03/30/12	12/20/12	Completed	\$9,927	\$9,927
Bid and Award	12/21/12	02/20/13	Completed	\$2,736	\$2,747
Construction	02/20/13	04/18/14	In Progress	\$1,022,632	\$715,740
				\$1,275,000	

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

**Project Update:**

The Contractor (KIP Construction) and his subcontractor system integrator completed a SCADA programming workshop with Agency staff and is completing programming and integration of project controls submittals. Electrical installation, loop checks, programming integration, startup and training will be completed in the upcoming months of February and March.

**Project Photos:**



**Construction of Junction Structure**



**Inside the Completed Junction Structure**



**Installed 60-inch connection pipe into Basin 8  
Junction Structure**



**WINEVILLE PROOF OF CONCEPT  
PROJECT NO. EN13031.00  
STATUS UPDATE: JANUARY 29, 2014**

The Wineville Basin Proof of Concept (POC) is an investigative project that consists of six cells designed to test and evaluate percolation rates at strategic locations throughout the basin. Each of the test cells will be 0.5 acres in size. The test cells will be excavated at different depths to allow the project to gather percolation data for soils above and below the previously identified clay layer. After completing the test, a final project report will be developed and submitted by April, 2014 by Scheevel Engineering, LLC.

**Schedule:**

<u>Project Budget</u> \$424,300	<u>Actual Cost to Date</u> \$301,502
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<u>Phase</u>	<u>Start</u>	<u>Finish</u>	<u>Status</u>	<u>Projected Cost</u>	<u>Actual Cost to Date</u>	<u>Note</u>
Design	01/11/13	04/30/14	In Progress	\$22,000	\$10,365	1
Weeding	09/01/13	09/30/13	Complete	\$28,000	\$28,000	2
Permits	04/24/13	01/17/14	Complete	\$2,200	\$2,200	
Environmental Assistance	03/01/13	11/30/13	Complete	\$22,600	\$18,800	3
Survey	09/01/13	11/30/13	Complete	\$21,000	\$11,767	4
Construction	06/19/13	04/30/14	In Progress	\$208,000	\$186,558	5
Extra Equipment	10/01/13	11/30/13	Complete	\$7,500	\$7,500	6
Ontario Pumping Costs	10/01/13	11/30/13	Complete	\$19,967	\$19,967	7
CM and Testing Support	09/01/13	04/30/14	In Progress	\$36,000	\$16,345	
Contingency				\$57,033		8
				\$424,300		

**Notes:**

- 1) Design complete, pending final project report and consultant support services during testing.
- 2) Additional weeding was necessary due to aggressive weed growth and to allow work to begin prior to bird nesting season.
- 3) Additional costs incurred due to biological surveys requirements set forth in regulatory permits. Regulatory permit conditions received after initial budget established.
- 4) Additional site topographic survey requirements set forth in regulatory permits. Regulatory permit conditions received after initial budget established. Work activities include pre and post aerial surveys.
- 5) The total contract value was \$207,862 where \$25,710 was for two change orders, time extension on equipment rental due to the bird nesting seasons and added rental fees for

temporary fencing. All construction is complete. Final construction acceptance is scheduled for April, 2014.

- 6) Procurement of 8 pressure transducers and data logger equipment for data monitoring and basin testing.
- 7) Actual invoice cost from the City of Ontario. The remaining available funds were allocated to the contingencies.
- 8) Moved available contingencies to Construction to address two construction change orders.

### **Project Update:**

The contractor, Southern California Grading, Inc., has completed all contract related work, removed materials and equipment from the site. A final project report on the study is scheduled for April, 2014 by Scheevel Engineering, Inc.

### **Project Photos:**



**Berm removed and channel cleaned  
(12/03/13)**



**Access roads removed and basin restored  
to original (12/03/13)**



**JURUPA PUMP STATION HVAC IMPROVEMENTS**  
**PROJECT NO. EN14040**  
**STATUS UPDATE: JANUARY 29, 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		\$360		
<u>Phase</u>	<u>Start</u>	<u>Finish</u>	<u>Status</u>	<u>Projected Cost</u>	<u>Actual Cost</u>
Project Development	09/02/13	05/20/14	In Progress	\$7,911	\$360
Pre-design	10/31/13	03/03/14	In Progress	\$15,117	\$0
Design	03/04/14	05/19/14	Not Started	\$35,240	\$0
Permits	04/04/14	07/25/14	Not Started	\$2,487	\$0
Bid and Award	05/20/14	07/25/14	Not Started	\$12,421	\$0
Construction	07/28/14	04/10/15	Not Started	\$147,314	\$0
				\$220,490	

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:**

The revised Preliminary Design Report (PDR) prepared by the design consultant, Kitchell, was received on December 17, 2013. Based on the building assessment and cost estimate results, the Agency and Kitchell recommend direct cooling and ducting to the VFD, MCC, and LCP panels. The recommended approach will save energy as only critical electrical equipment will be cooled during operational periods. Additionally, the Agency recommends a design-build approach to assist in cost and schedule containment. The Agency anticipates receiving the finalized design in April 2014.

**Project Photos:**



**MCC Control Panel**



**Pumping System**





**SAN SEVAINE IMPROVEMENTS PROJECT  
PROJECT NO. EN13001  
STATUS UPDATE: JANUARY 29, 2014**

San Sevaire basins consist of five, soft-bottomed basins along the San Sevaire 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). The basins currently operate by delivering RW only to basin 5, which has the lowest infiltration rate as compared to the other basins. This has limited current RW recharge to approximately 500 AFY.

The Project will evaluate and propose construct improvements needed to maximize infiltration and recharge of RW at the San Sevaire 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. A final report on the recommended basin improvements will be provided in April, 2014, by Scheevel Engineering, LLC.

**Schedule:**

	<u>Project Budget</u>			<u>Actual Cost to Date</u>	
	\$2,500,000			\$70,455	
<u>Phase</u>	<u>Start</u>	<u>Finish</u>	<u>Status</u>	<u>Projected Cost</u>	<u>Actual Cost</u>
Pre-design	10/01/12	04/30/14	In Progress	\$177,677	\$54,425
Environmental Impact	06/26/13	09/23/14	In Progress	\$22,677	\$0
Design	05/09/14	06/16/15	Not Started	\$152,247	\$0
Land Acquisition	05/09/14	01/06/15	Not Started	\$0	\$0
Permits	05/15/13A	12/18/15	In Progress (1)	\$75,570	\$16,030
Bid and Award	07/01/15	09/16/15	Not Started	\$8,140	\$0
Construction	12/21/15	03/30/17	Not Started	\$2,063,689	\$0
				<u>\$2,500,000</u>	

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:**

<u>Recent Activities:</u>	<u>Date</u>	<u>Status</u>
▪ Obtain CEQA and Impacts from TDA	12/30/13	Completed
▪ Complete Project Development Report	04/30/14	In Progress

- Perform Soil Investigation

04/15/14

Delayed (2)

Notes:

(1) Includes permit and environmental survey costs.

(2) To expedite soil investigations and reduce efforts needed in obtaining a new Army Corps of Engineers (ACOE) permit, Agency staff has been coordinating with ACOE to allow the activities to be included as part of the Agency's ACOE O&M permit. IEUA staff anticipates receiving the permitting document by mid-February of 2014. Soil investigation will then continue after bird nesting season which is from April 15 to September 15. In the meantime, the project development report will be completed before the soil investigation.

**Project Photo:**



**San Sevaine Basin 5 - Berm**





**GWR SCADA UPGRADES**  
**PROJECT NO. EN14047**  
**STATUS UPDATE: JANUARY 29, 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:**

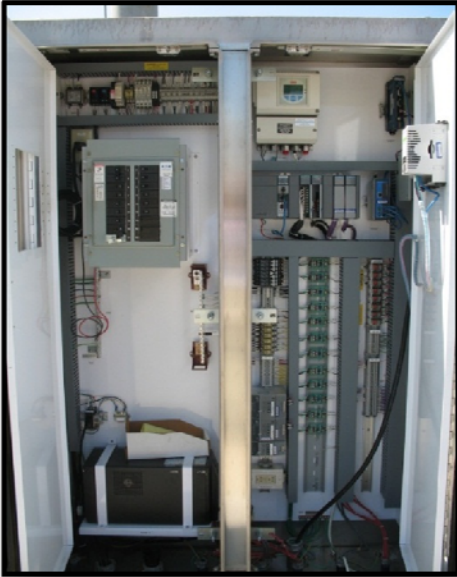
	<u>Project Budget</u>		<u>Actual Cost to Date</u>		
	\$892,00		\$0		
<u>Phase</u>	<u>Start</u>	<u>Finish</u>	<u>Status</u>	<u>Projected Cost</u>	<u>Actual Cost</u>
Project Development	11/11/11	02/06/14	In Progress	\$927	\$0
Design	02/07/14	07/24/14	Not Started	\$129,900	\$0
Permits	04/02/14	11/24/15	Not Started	\$10,000	\$0
Bid and Award	07/25/14	09/17/14	Not Started	\$428	\$0
Construction	09/18/14	01/15/16	Not Started	\$750,745	\$0
				<u>\$892,000</u>	

The Agency is finalizing grant funding for both the SCADA and communication upgrades. The final amounts will be determined within February.

**Project Update:**

On December 12, 2013, the Agency received two proposals in response to the design service RFP solicitation. On January 13, 2014 a four (4) panel review committee met and determined that MSO Technologies was the most qualified firm. Currently, the Agency’s Board of Directors is scheduled to award MSO’s consulting service contract on February 19, 2014. MSO’s agreed service fees are \$129,620 where \$99,660 is for design services and \$29,960 is for engineering support during construction.

**Project Photo:**



**San Sevaine Turnout Control Panel**



**COMMUNICATION UPGRADES  
PROJECT NO. EN12019  
STATUS UPDATE: JANUARY 29, 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 twenty-seven existing sites to be upgraded for integration with the new communication network, and seven monopoles necessary to improve the line-of-sight communication. The project will use a design/build approach in implementing the communication upgrades.

**Schedule:**

<u>Project Budget</u> \$1,245,000	<u>Actual Cost to Date</u> \$64,932
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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	11/11/11	01/27/14	Completed	\$5,771	\$44,882
Equipment Pre-purchase	11/11/11	07/29/14	In Progress	\$0	\$0
Design	01/20/14	07/29/14	In Progress	\$135,129	\$20,050
Permits	03/17/14	03/05/15	Not Started	\$6,000	\$0
Bid and Award	07/30/14	07/30/14	Not Started	\$0	\$0
Construction	07/30/14	06/24/15	Not Started	\$1,098,100	\$0
				\$1,245,000	

The Agency is finalizing grant funding for both the SCADA and communication upgrades. The final amounts will be determined within February.

**Project Update:**

On January 13, 2014 Dahl Taylor and Associates began the preliminary design efforts. Their initial scope prior to performing the design/build approach is the following:

- Evaluate each of the 27 sites to determine how each site will be upgraded and transitioned to the Agency's new communication system.
- Perform radio path survey at 27 sites to determine the best line of communications between the GWR/RW sites with the Northwest 6B Tower, RP-4, and RP-1.
- Provide a detailed report with findings and recommendations with regards to frequency options, expected signal strength, anticipated uptime, and other required information

to maintain a reliable communication from all 27 sites with Northwest 6B Tower, RP-4, or RP-1.

- Prepare a detailed final cost estimate to purchase and install all new equipment and provide a full business case evaluation of all alternative design as part of the design recommendations.

**Project Photo:**



**Basin Communication Tower**



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**CB20 NOISE MITIGATION  
PROJECT NO. EN14038  
STATUS UPDATE: JANUARY 29, 2014**

This project will provide a sound mitigation measure for an imported recharge turnout (CB-20) in the City of Upland. The site is located within a residential area at the corner of Winston Avenue and E 18th Street. While the equipment is running, residents have complained to the City of the loud sound of rushing water. The majority of the noise is generated from a 24-inch flow control valve (Clay Valve) and a conical water discharge pipe. The sound produced by the equipment is above City Ordinance noise levels. A temporary measure was implemented to reduce the current noise levels by placing thin sound blankets over the valve and discharge pipe. The temporary measures have not fully reduced noise levels below the City Ordinance. A permanent solution is required to stay in compliance with City Ordinance. This project will be implemented by using a design/build approach.

**Schedule:**

	<u>Project Budget</u>		<u>Actual Cost to Date</u>		
	\$160,000		\$614		
<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	01/16/14	Completed	\$11,382	\$182
Design	01/17/14	02/27/14	In Progress	\$9,090	\$432
Construction	02/28/14	06/30/14	Not Started	\$139,528	\$0
				<u>\$160,000</u>	

**Project Update:**

On January 13, 2014 the Agency completed the final contract documents with C.E Pickup, a qualified sound specialist. By February 12, the Agency will receive a draft 3-D rendition of the proposed sound enclosure.

Construction is scheduled to begin as early as February 28, 2014.

**Project Photos:**



**CB-20 Turnout Facility**



**CB20 Outlet while in use**