Non-RMPU Ongoing Projects

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GWR AND RW SCADA UPGRADES
PROJECT NO. EN14047
STATUS UPDATE: April 3, 2017

During Inland Empire Utilities Agency's asset review of the existing Supervisory Control & Data Acquisition (SCADA) system, a thorough and comprehensive evaluation of the recycled water (RW) and groundwater recharge (GWR) control system was conducted. A Master Plan was developed; and it recommended critical upgrades to the RW and GWR SCADA systems. The purpose of this project is to provide control system improvements to sustain and support the continued growth of the RW and GWR programs. Under this project, five recharge basins which operate a rubber dam system will be replaced with newer, reliable and fully supported programmable logic controllers (PLCs). The current PLCs are outdated and lack critical product and technical support. The upgrade will extend the site's reliability by 10 years and provide the initial development model when transitioning other sites to newer controllers.

Schedule:

Project Budget	Actual Cost to Date
$892,000	$516,103

Phase	Start	Finish	Status	Projected Cost	Actual Cost
Project Development	11/11/11	02/24/14	Completed	$450	$422
Design	02/26/14	01/15/16	Completed	$192,312	$186,512
Permits	09/12/14	01/15/16	Completed	$50	$42
Bid and Award	01/18/16	04/20/16	Completed	$4,000	$3,461
Construction*	04/21/16	05/31/17	In Progress	$413,678	$325,666
				$610,490	$516,103

*Received bids reduced projected construction cost.

Grant/Loan Update:
Awarded a $139,650 grant and a 1% interest 30-year loan at $740,145 from the Santa Ana Project Water Authority and Clean Water State Revolving Fund loan program respectively.

Cost Sharing Document: Task Order No. 4 of the Master Agreement of 2014

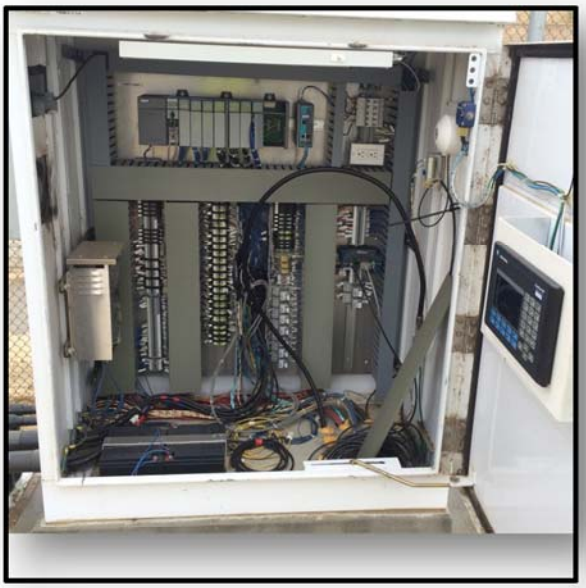
Project Update:
Since last month, the following tasks were completed:

- Import Upgraded SCADA application onto IEUA server

SCADA testing is ongoing until project completion. The project schedule was extended by the contractor to address more extensive field testing before finalizing the project for completion. The anticipated construction completion date is now May 31, 2017.

Project Photos:

San Sevaine Turnout control panel



Turner Basin control panel

UPPER SANTA ANA RIVER WATERSHED HABITAT CONSERVATION PLAN
PROJECT NO. RW15002
STATUS UPDATE: April 3, 2017

The purpose of the Habitat Conservation Plan (HCP) is to investigate and develop a plan to offset the biological impact of future water and recharge improvement projects in the Chino Basin area that have the potential to affect federally-listed endangered, threatened or special status species. This project will be a part of a regional plan with other proposed projects within the Upper Santa Ana River Region. The goal of the project is to identify, in advance, sites that may require biological offset/mitigation and avoid permitting delays on future RMPU projects or other identified recharge improvement projects.

Schedule:

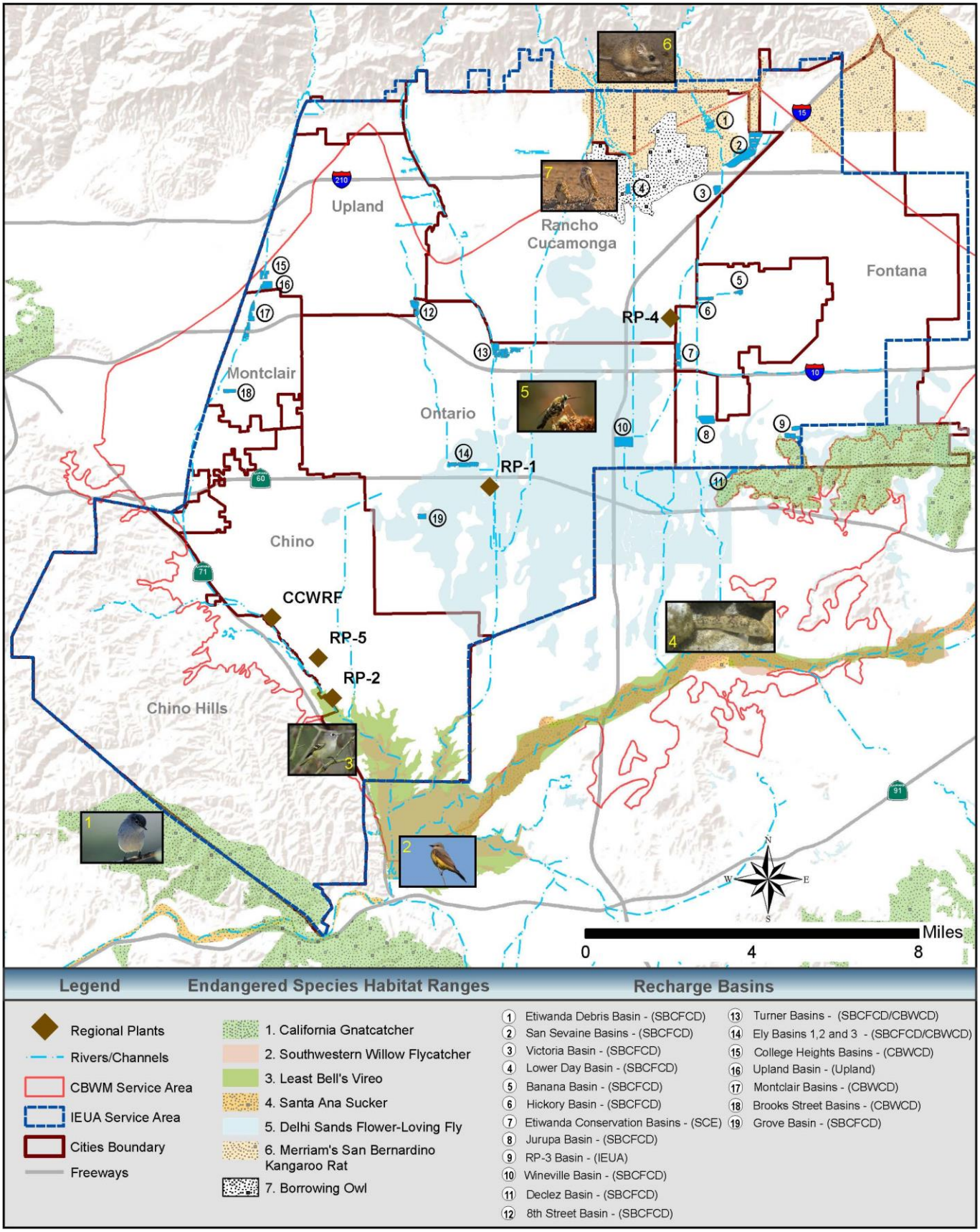
Project Budget	Actual Cost to Date
$160,000	$84,326

Phase	Start	Finish	Status	Projected Cost	Actual Cost
Investigate/Plan	07/01/14	07/01/18	In Progress	$160,000	$84,326
				$160,000	$84,326

Cost Sharing Document: Task Order No. 7 of the Master Agreement of 2014

Project Update:

The project is gaining momentum since it is in the modeling phase of the study. Results of the model is expected within the next six-months. Further extensions to the schedule were added to address additional time to verify and confirm data inputs for the model. The above is a revised schedule which pushes the end date to July 1, 2018. The extended schedule is not anticipated to impact the total project cost.


Upland
Rancho Cucamonga
Fontana
Montclair
Ontario
Chino
Chino Hills
RP-4
RP-1
CCWRF
RP-5
RP-2
Miles
0
4
8
Legend
Regional Plants
Rivers/Channels
CBWM Service Area
IEUA Service Area
Cities Boundary
Freeways
Endangered Species Habitat Ranges
1. California Gnatcatcher
2. Southwestern Willow Flycatcher
3. Least Bell's Vireo
4. Santa Ana Sucker
5. Delhi Sands Flower-Loving Fly
6. Merriam's San Bernardino Kangaroo Rat
7. Borrowing Owl
Recharge Basins
1 Etiwanda Debris Basin - (SBCFCD)
2 San Sevaine Basins - (SBCFCD)
3 Victoria Basin - (SBCFCD)
4 Lower Day Basin - (SBCFCD)
5 Banana Basin - (SBCFCD)
6 Hickory Basin - (SBCFCD)
7 Etiwanda Conservation Basins - (SCE)
8 Jurupa Basin - (SBCFCD)
9 RP-3 Basin - (IEUA)
10 Wineville Basin - (SBCFCD)
11 Declez Basin - (SBCFCD)
12 8th Street Basin - (SBCFCD)
13 Turner Basins - (SBCFCD/CBWCD)
14 Ely Basins 1,2 and 3 - (SBCFCD/CBWCD)
15 College Heights Basins - (CBWCD)
16 Upland Basin - (Upland)
17 Montclair Basins - (CBWCD)
18 Brooks Street Basins - (CBWCD)
19 Grove Basin - (SBCFCD)

RMPU PROJECTS

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SAN SEVAINE IMPROVEMENTS PROJECT
PROJECT NO. EN13001
STATUS UPDATE: April 3, 2017

As part of the 2013 Amendment to the 2010 Recharge Master Plan Update (RMPU), this Project will evaluate, design, and construct basin improvements needed to maximize infiltration and recharge capture at the San Sevaine Basins. The final recommendation from the preliminary development report proposes to implement: (1) a new stormwater / recycled water pump station in Basin 5, (2) directly tying it into an existing RW pipeline, (3) place new pipelines and headwalls into Basins 1, 2, and 3, and (4) install monitoring wells and lysimeters. The proposed improvements will add 642 acre-feet per year of stormwater and 4,100 acre-feet per year of recycled water for groundwater recharge.

Schedule:

Project Budget	Actual Cost to Date
$6,295,000	$707,924

Phase	Start	Finish	Status	Projected Cost	Actual Cost
Pre-design	10/01/12	05/14/15	Completed	$160,000	$159,833
Environmental Impact	06/26/13	01/20/16	Completed	$30,000	$24,218
Design	05/15/15	12/12/16	Completed	$500,000	$453,911
Permits	05/15/13	05/01/17	In Progress	$25,000	$25,000
Bid and Award	12/13/16	06/21/17	In Progress	$5,000	$5,000
Construction	06/22/17	06/22/18	Not Started	$5,740,000	$39,962
				$6,460,000	$707,924

Grant/Loan Update:
Awarded a $750,000 state grant from the Department of Water Resources through the Santa Ana Watershed Project Authority as part of Proposition 84 and a $375,000 federal grant from the US Bureau of Reclamation.

Cost Sharing Document:

- Task Order No. 8 of the Master Agreement of 2014 (August, 2014)
- 1st Amendment Task Order No. 8 of the Master Agreement of 2014 (April, 2015)

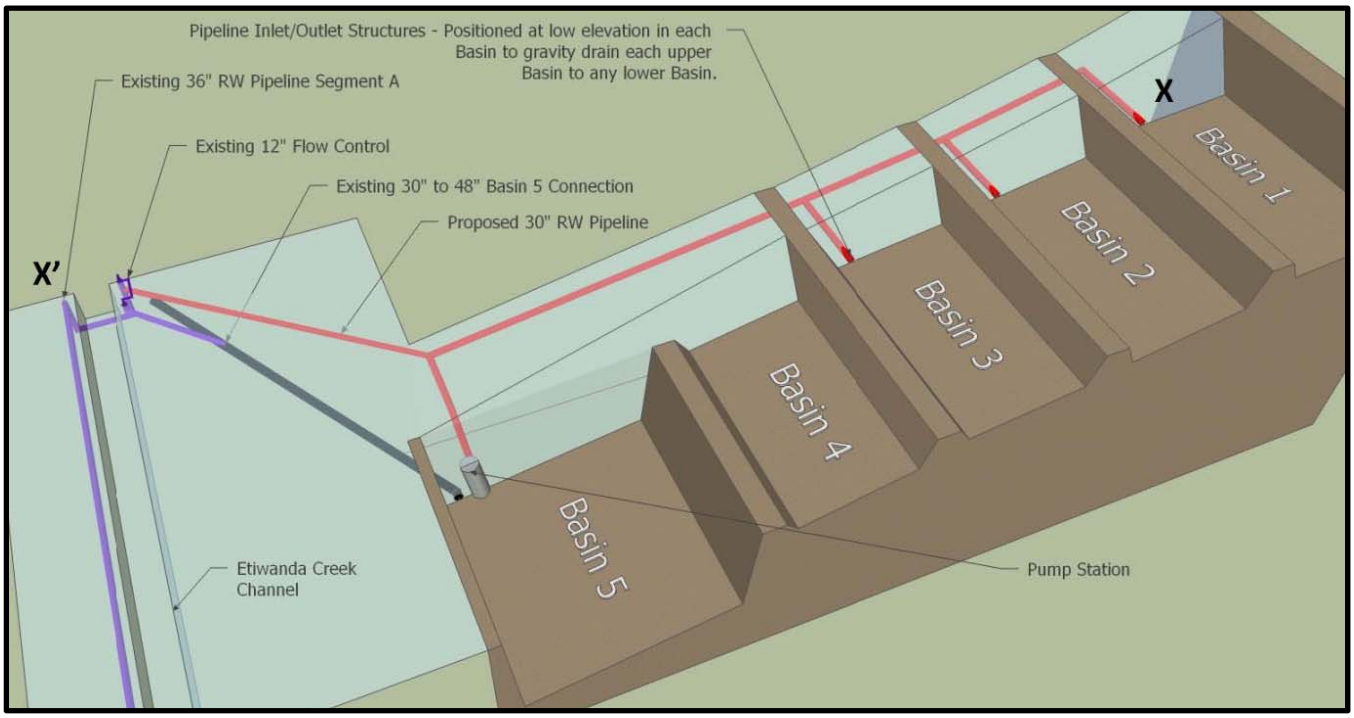
Project Update:
As mentioned in the last update, the following 17 eligible contractors were pre-selected to bid on the construction:

- Atkinson Construction
- Canyon Springs Enterprises

- CCL Contracting, Inc.
- CDM Constructors, Inc.
- E. J. Meyers Company
- Environmental Construction
- Ferreira Construction Co.
- Gwinco Construction & Engineering
- H & H General Contractors, Inc.
- J. F. Shea Construction, Inc.
- J. R. Filanc Construction Co.
- L. H. Woods & Sons, Inc.
- Mike Bubalo Construction Co., Inc.
- Norstar Plumbing & Engineering, Inc.
- Reyes Construction, Inc.
- SCW Contracting Corporation
- W. M. Lyles Co.

Construction bidding started on March 14 with an expected award date of June 2017. The delay was due to coordinate the construction award date with the expected SRF loan which is current delayed for state approval. A cost share amendment is pending to reflect the recent addition of available grant funding.

Conceptual Design:



Isometric View of the Recommended Basin Improvement
Pump Station in Basin 5 and Extension of the Recycled Water Pipeline to Basins 1, 2, and 3

2013 RMPU AMENDMENT YIELD ENHANCEMENT PROJECTS
PROJECT NO. RW15003.00
STATUS UPDATE: April 3, 2017

The 2013 Amendment to the 2010 Recharge Master Plan Update recommended that the yield enhancement projects listed below be implemented for preliminary-design, environmental review, permitting, and final design.

ID	Basin Projects	Key Project Improvements	Original RMPU Yield		Adjusted Yield[1]	
			SW	RW	SW	RW
			acre-feet per year			
18a	CSI Storm Water Basin	New storage and recharge facility by deepening basin ***(Pending)***	81	-	100	-
23a	Wineville, Jurupa, and RP3	Improve storage and recharge capacity with pumps/conveyance systems between basins and provide new diversion structures	3,166	2,905	2,921	2,905
27	Declez Basin	Improve capacity by modifying existing/adding new structures ***(Deferred)***	241	-	507	-
11	Victoria Basin	Improve the infiltration rate and increase storage by removing settled deposits	43	120	75	120
14	Turner Basin	Increase storage and recharge by raising the spillway height ***(Deferred)***	66	-	23	-
15a	Ely Basin	Improve storage and recharge by deepening basin ***(Deferred)***	221	-	101	-
2	Montclair Basins	Increase storage and recharge capacity by directing more channel flow ***(Pending)***	248	-	233[2]	-
25a	Sierra	Improve storage and recharge by removing 40,000 CY ***(Removed-no longer feasible)***	64	-		
17a	Lower San Sevaine Basin	Construct a new storage flow through basin (***Removed-no longer feasible***)	1,221	-		
			5,351	**3,025**	**3,960**	**3,025**

(1) Adjusted further to reflect new values as adopted during the completion of the PDR

(2) Pending value change to 96 AFY per after recent modelling review

Schedule:

	Amended Soft Cost*			Actual Cost to Date	
	$3,825,500			$1,109,750	
Soft Cost Phases	Start	Finish	Status	Projected Cost	Actual Cost
Project Development	07/01/14	06/17/15	Completed	$27,000	$3,476
Preliminary Design	06/25/15	06/17/17	In Progress	$735,000	$735,000
Environmental	02/19/15	06/15/17	In Progress	$325,000	$325,000
Design	06/22/17	02/09/18	Not Started	$2,638,500	$46,274
Permits	11/17/16	02/09/18	Not Started	$100,000	-
				$3,825,500	$1,109,750

*PID 25a and PID 17a are removed from the design and not included within the total soft cost.

Grant/Loan Update:

Recently, RP-3 Basin Improvements was awarded a $300K grant from the US Bureau of Reclamation. IEUA recently responded to two funding opportunity announcements from US Bureau of Reclamation which are the following:

- USBR Water Use Efficiency's $750,000 grant (Wineville/Distribution System)
- USBR Drought Resiliency's $697,500 grant (Jurupa Basin Project)

Cost Sharing Document:

- Task Order No. 1 of the Master Agreement of 2014 (August, 2014)
- 1st Amendment Task Order No. 1 of the Master Agreement of 2014 (April, 2015)
- 2nd Amendment Task Order No. 1 of the Master Agreement of 2014 (June, 2016)

Project Update:

IEUA is finalizing the following:

1) Released the Design RFP on March 15. Contract award for design services is scheduled for June 2017. The late award date was due to coordinating the award date with the expected SRF planning loaning and addressing the concerns noted below for the Montclair Basin.
2) Conducting additional evaluation of the Montclair Basin project.
   a) Recently received comments from Chino Basin Water Conservation District's engineering required further preliminary evaluation
   b) Presenting findings at the next RIPCom Meeting.
3) Pending an amendment to the cost share of this project to reflect the reduced projects that were authorized for final design, bid, and construction. Separate task order shall be created for the individually approved projects. The above soft cost will be amended to only reflect the final cost associated to the deferred projects.

LOWER DAY RMPU IMPROVEMENTS
PROJECT NO. RW15004
STATUS UPDATE: April 3, 2017

This project will modify the existing intake structure and install pneumatic gates in the channel. The pneumatic gates will monitor and self-adjust to maintain a water level or rate of discharge over the gate structure in accordance with an established programmable logic controller. The basin's existing embankment will be evaluated and reconstructed to meet the requirements of a dam embankment with the Division of Safety of Dams. Improvement to the embankment may include excavation and keying to prevent piping and seepage. Per the 2013 RMPU, this project proposes to increase the recharge capacity of the basin by 789 acre-feet per year.

Schedule:

Project Budget	Actual Cost to Date
$2,480,000	$256,802

Phase	Start	Finish	Status	Projected Cost*	Actual Cost
Project Development	07/01/14	12/17/14	Completed	$25,000	$24,790
Pre-Design	12/18/14	11/16/16	Completed	$159,000	$151,309
Environmental Impact	12/18/14	04/20/16	Completed	$44,000	$43,313
Permits	12/18/14	01/08/18	In Progress	$170,000	$37,390
Design	06/22/17	03/12/18	Not Started	$278,000	-
Bid and Award	03/13/18	06/20/18	Not Started	9,000	-
Construction	03/22/18	06/28/19	Not Started	$3,323,000	-
				$4,008,000	$256,802

*Projected cost is updated to reflect the proposed design cost

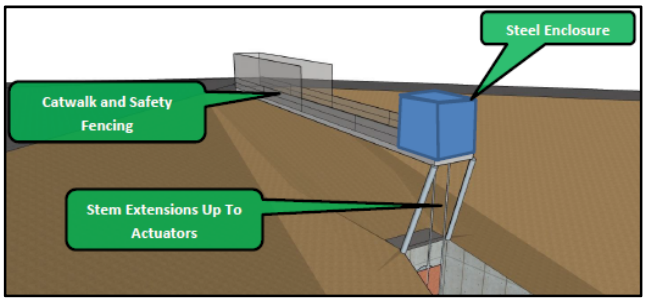
Grant/Loan Update:
Awarded a $750,000 state grant from the Department of Water Resources through the Santa Ana Watershed Project Authority as part of Proposition 84 and a $375,000 federal grant from the US Bureau of Reclamation.

Cost Sharing Document: Task Order No. 2 of the Master Agreement of 2014

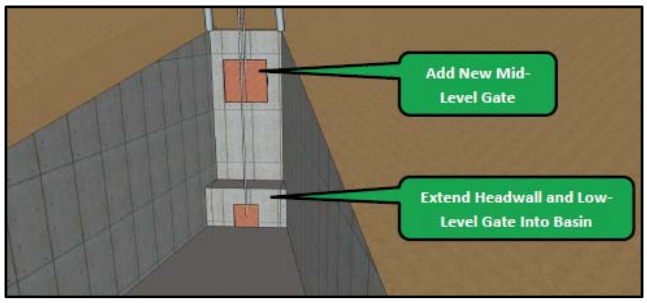
Project Update:

The project is currently in the process of soliciting design services to prepare the final design. IEUA is anticipating to award these services by June 2017 which is in parallel to the other RMPU projects that recently completed preliminary design. Design is schedule for a March 2018 completion date. An amendment to the cost sharing agreement is pending to adjust the above budget and cost share.

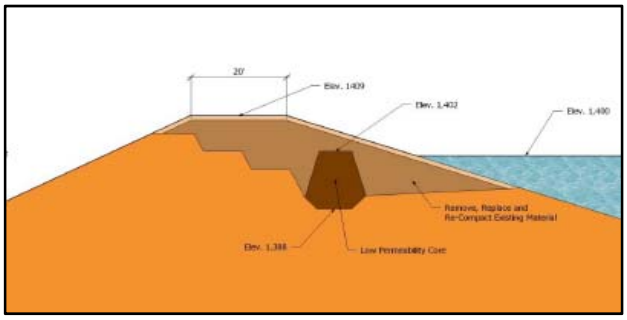
Conceptual Design of the Proposed Improvements:



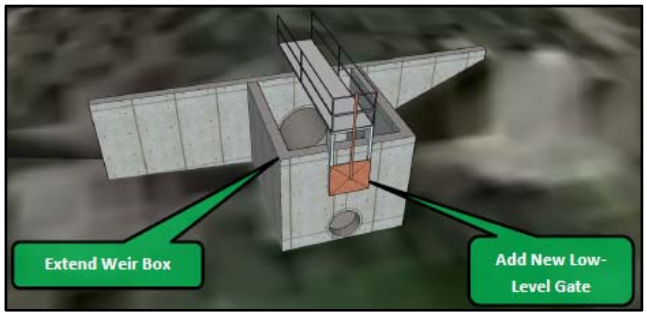
Mid-level Outlet Modifications – Increase Storage to the Lower Basin



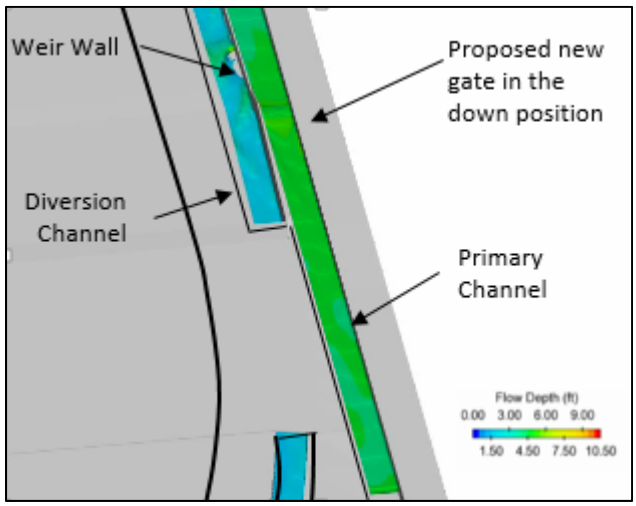
Coating Existing 36" & 72" Outlet Pipes – Maintain Flood Control requirements of immediate dewatering



Reconstruction of Southern Berm – Prevent Seepage



Modifications to Upper Basin Outlet – Increase Storage to the Upper Basin



Water Flow Simulation of Channel with Proposed New Gate

An Obermeyer Weir Wall example in Mendocino, California