

**DRAFT** Table 8-  
Project Data for Investigations

Project	Management Zone	Summary of Key Project Features	Cost
15th Street Basin	1	Investigate ways to improve storm and supplemental water recharge	\$ 20,000
Montclair	1	Investigate the recharge of recycled water	\$ 35,000
Upland Basin	1	Investigate the recharge of recycled water	\$ 35,000
College Heights	1	Investigate the recharge of recycled water	\$ 35,000
Brooks Basin	1	Investigate the rerouting of recycled water and street runoff to State Street storm drain	\$ 30,000
Brooks Basin	1	Evaluate the installation of a low elevation pump station to drain basin for maintenance	\$ 30,000
San Sevaine	2	Investigate Basin 5 Infiltration Improvements	\$ 600,000
San Sevaine	2	Evaluation of Etiwanda Creek and San Sevaine Channel area properties for new recharge sites	\$ 30,000
San Sevaine	2	Conduct investigation/regulatory process to permit recycled water recharge in SS1 through SS4	\$ 35,000
Etiwanda Debris Basin	2	Evaluate opportunity to use the "Etiwanda Habitat Area" for recharge use	\$ 30,000
Victoria Basin		Investigate the removal of fine-grained materials from basin floor	\$ 30,000
Lower Day Basin	2	Evaluate the use of the northern part of the basin	\$ 50,000
Lower Day Basin	2	Evaluate recharge potential of 200 acre-s of SBCFCD land just north of the 210 freeway	\$ 300,000
Turner Basin	2	Evaluate property adjacent to Turner 1	\$ 150,000
Ely Basin	2	Investigate the poor infiltration rate	\$ 60,000
Regulatory Storage in the Alta Loma Basin	Cucamonga	Improve basin appurtenances	\$ 50,000
Jurupa	3	Investigate poor recharge capacity	\$ 50,000
Wineville	3	Conduct proof of concept investigation to determine recharge feasibility	\$ 300,000
Banana Basin	3	Extend level sensor to more readily monitor recharge at low levels	\$ 50,000
Riverside Basin	3	Conduct proof of concept investigation to determine recharge feasibility	\$ 300,000
RP3	3	Investigate horizontal recharge wells under Fontana RDA and SCE rights of way	\$ 50,000
RP3	3	Investigate the recharge feasibility of adjacent 60 acres	\$ 150,000
Declerz Basin	3	Investigate the recharge feasibility of adjacent 12 acres	\$ 45,000
<b>Total for all investigations</b>			<b>\$ 2,465,000</b>

**DRAFT Table 8-  
Unit Recharge Cost Differences with a Zero Excavation Cost**

Project ID	Project	Management Zone	Summary of Key Project Features	New Yield	Capital Cost	Annualized Capital Cost	Annual O&M Cost	Total Annual Cost	Unit Cost	Unit Cost with a Zero Excavation Cost	Difference in Unit Cost
1	Montclair Basins	1	Transfer water between Montclair Basins. Deepen Basin 4.	71	\$ 5,450,000	\$ 354,500	\$ 2,631	\$ 357,131	\$ 4,997	\$ 4,590	\$ (407)
11	Ely Basin	2	Basin enlargement and increased drainage area	221	\$ 11,620,000	\$ 756,000	\$ 8,122	\$ 764,122	\$ 3,464	\$ 1,519	\$ (1,945)
13	Lower San Sevaine Basin	2		New basin	1,194	\$ 33,290,000	\$ 2,165,800	\$ 43,971	\$ 2,209,771	\$ 1,850	\$ 673
14	CSI Storm Water Basin	3	Deepen basin by 10 feet	81	\$ 900,000	\$ 58,700	\$ 2,998	\$ 61,698	\$ 758	\$ 348	\$ (410)
15	Wineville Basin	3	Gate the low-elevation outlet, replace embankment with dam, and construct a pneumatic gate on the spillway	2,157	\$ 6,280,000	\$ 408,400	\$ 79,438	\$ 487,838	\$ 226	\$ 180	\$ (46)
17	2010 RMPU Proposed RP3 Basin Improvements	3	Inlet improvements and enlargement (2010 RMPU)	434	\$ 22,040,000	\$ 1,434,000	\$ 15,987	\$ 1,449,987	\$ 3,340	\$ 1,912	\$ (1,428)
18	2013 RMPU Proposed RP3 Basin Improvements	3	Increase conservation storage (2013 RMPU)	166	\$ 5,290,000	\$ 344,100	\$ 6,118	\$ 350,218	\$ 2,108	\$ 1,422	\$ (686)
20	Sierra	3	Deepen basin by 10 feet	7	\$ 1,000,000	\$ 65,100	\$ 247	\$ 65,347	\$ 9,758	\$ 4,233	\$ (5,525)
21	Sultana Avenue	3	Deepen basin by 10 feet	7	\$ 1,020,000	\$ 66,600	\$ 258	\$ 66,858	\$ 9,528	\$ 4,112	\$ (5,415)
23	2010 RMPU Proposed Wineville PS to Jurupa, Expanded Jurupa PS to RP3 Basin with 2010 RMPU Proposed RP3 Improvements	3	2010 RMPU Proposed Wineville Basin Improvements, Wineville 20 cfs PS to Jurupa, Improved Jurupa Basin Inlet, 40 cfs PS to RP3 Basin with Proposed 2010 RMPU RP3	3,542	\$ 32,410,000	\$ 2,108,300	\$ 512,408	\$ 2,620,708	\$ 740	\$ 565	\$ (175)
24	2013 RMPU Proposed Wineville PS to Jurupa, Expanded Jurupa PS to RP3 Basin with 2013 Proposed RP3 Improvements	3	2010 RMPU Proposed Wineville Basin Improvements, Wineville 20 cfs PS to Jurupa, Improved Jurupa Basin Inlet, 40 cfs PS to RP3 Basin with Proposed 2013 RMPU RP3	3,134	\$ 17,440,000	\$ 1,134,400	\$ 497,394	\$ 1,631,794	\$ 521	\$ 484	\$ (36)

DATA Table 8-2  
Project Data for Yield Enhancement Projects

Project ID	Project	Management Zone	Summary of Key Project Features	Baseline (acre-ft/yr)	New Yield	Regulatory Compliance	Project Complete	Capital Cost	Annualized Capital Cost	Annual O&M Cost	Total Annual Cost	Unit Cost	Production Sustainability Score	Project Combinations
<b>Proposed Projects in Table 6-1 that Were Analyzed in Detail</b>														
1	Monclair Basins	1	Transfer water between Monclair Basins, Deepen Basin 4.	1,188	71	N	N	\$ 5,450,000	\$ 354,500	\$ 2,631	\$ 357,131	\$ 4,997		
2	Monclair Basins	1	New drop inlet structures to Monclair Basins 2 and 3	1,188	248	N	N	\$ 2,640,000	\$ 171,700	\$ 9,132	\$ 180,832	\$ 729		
3	North West Upland Basin	1	Increase drainage area and basin enlargement	29	90	Y	N	\$ 5,990,000	\$ 389,400	\$ 3,441	\$ 392,841	\$ -		
4	Princeton Basin	2	Increase drainage area	48	20	Y	Y	\$ -	\$ -	\$ 745	\$ 745	\$ -		
5	San Severino	2	Construct internal berms and gates and pump water from S55 to S51, 2,3	1,177	642	N	N	\$ 7,800,000	\$ 507,400	\$ 23,641	\$ 531,041	\$ 827		
6	Victoria Basin	2	Abandon the mid-level outlet	439	48	N	N	\$ 150,000	\$ 9,800	\$ 1,751	\$ 11,551	\$ 243		
7	Lower Day Basin 2010 RMP/PU	2	Inlet improvements, rebuilding embankment, elimination of mid-level outlet	395	789	N	N	\$ 2,480,000	\$ 161,600	\$ 29,041	\$ 190,641	\$ 242		
8	Lower Day FEUA	2	Install gate on mid-level outlet	395	75	N	N	\$ 600,000	\$ 39,000	\$ 2,777	\$ 41,777	\$ 554		
9	Turner 2 <sup>1</sup>	2	Raise Turner 2 spillway	1,226	66	N	N	\$ 390,000	\$ 57,900	\$ 2,426	\$ 60,326	\$ 916		
10	Turner Expansion <sup>1</sup>	2	Basin improvements to the basins east of Archibald Ave and new basins adjacent to Turner 4	1,226	84	N	N	\$ 1,280,000	\$ 83,300	\$ 3,097	\$ 86,397	\$ 1,027		
11	Ely Basin	2	Basin enlargement and increased drainage area	1,103	221	N	N	\$ 11,620,000	\$ 756,000	\$ 6,122	\$ 764,122	\$ 3,464		
12	Ontario Blossvale Project	2	New Blossvale	0	8	Y	Y	\$ 650,000	\$ 42,000	\$ 277	\$ 42,277	\$ -		
13	Lower San Severino Basin	2	New Basin	0	1,194	N	N	\$ 33,200,000	\$ 2,165,800	\$ 43,971	\$ 2,209,771	\$ 1,650		
14	CSI Storm Water Basin	3	Deepen basin by 10 feet	72	81	N	N	\$ 900,000	\$ 58,700	\$ 2,998	\$ 61,698	\$ 758		
15	Wineville Basin	3	Gate the low-elevation outlet, replace embankment with dam, and construct a pneumatic gate on the spillway	5	2,157	N	N	\$ 6,280,000	\$ 408,400	\$ 79,438	\$ 487,838	\$ 226		
16	Jurupa Basin	3	Inlet improvements	234	421	N	N	\$ 1,900,000	\$ 123,600	\$ 15,516	\$ 139,116	\$ 330		
17	2010 RMP/PU Proposed RP3 Basin Improvements	3	Inlet improvements and enlargement	596	434	N	N	\$ 22,040,000	\$ 1,434,000	\$ 15,987	\$ 1,449,987	\$ 3,340		
18	2013 RMP/PU Proposed RP3 Basin Improvements	3	Increase conservation storage	596	166	N	N	\$ 5,290,000	\$ 344,100	\$ 6,118	\$ 350,218	\$ 2,108		
19	Vallecito Pit	3	Construct new inflow and outflow structures	0	857	N	N	\$ 13,260,000	\$ 797,800	\$ 31,548	\$ 829,348	\$ 968		
20	Sierra	3	Deepen basin by 10 feet	109	7	N	N	\$ 1,000,000	\$ 65,100	\$ 247	\$ 65,347	\$ 9,758		
21	Sullivan Avenue	3	Deepen basin by 10 feet	83	7	N	N	\$ 1,020,000	\$ 66,600	\$ 258	\$ 66,858	\$ 9,528		
22	Decker Basin	3	Reconstruct existing embankment and install a gate on the low level outlet	673	242	N	N	\$ 4,070,000	\$ 264,500	\$ 8,924	\$ 273,424	\$ 1,128		
23	2010 RMP/PU Proposed Wineville P5 to Jurupa, Expanded Jurupa P5 to RP3 Basin with 2010 RMP/PU Proposed RP3 Improvements	3	2010 RMP/PU Proposed Wineville Basin Improvements, Wineville 20 cfs P5 to Jurupa, Improved Jurupa Basin Inlet, 40 cfs P5 to RP3 Basin with Proposed 2010 RMP/PU RP3	835	3,542	N	N	\$ 32,410,000	\$ 2,108,300	\$ 512,408	\$ 2,620,708	\$ 740		Includes RP3's 15,16,17
24	2013 RMP/PU Proposed Wineville P5 to Jurupa, Expanded Jurupa P5 to RP3 Basin with 2013 Proposed RP3 Improvements	3	2010 RMP/PU Proposed Wineville Basin Improvements, Wineville 20 cfs P5 to Jurupa, Improved Jurupa Basin Inlet, 40 cfs P5 to RP3 Basin with Proposed 2013 RMP/PU RP3	835	3,134	N	N	\$ 17,440,000	\$ 1,134,400	\$ 497,394	\$ 1,631,794	\$ 521		Includes RP3's 15,16,18
<b>Operations and Maintenance<sup>3</sup></b>														
25	Banana Basin (annual cleaning)	3	Increase frequency of basin maintenance	317	11	N	N	\$ -	\$ -	\$ 38,260	\$ 38,260	\$ 3,528		
26	Banana Basin (semiannual cleanings)	3	Increase frequency of basin maintenance	317	48	N	N	\$ -	\$ -	\$ 88,260	\$ 88,260	\$ 1,822		
27	Decker Basin (annual cleaning)	3	Increase basin maintenance frequency	673	18	N	N	\$ -	\$ -	\$ 75,114	\$ 75,114	\$ 4,289		
28	Decker Basin (semiannual cleanings)	3	Increase basin maintenance frequency	673	76	N	N	\$ -	\$ -	\$ 175,114	\$ 175,114	\$ 2,318		
29	Ely Basin (annual cleaning)	2	Increase maintenance frequency	1,103	44	N	N	\$ -	\$ -	\$ 169,173	\$ 169,173	\$ 3,835		
30	Ely Basin (semiannual cleanings)	2	Increase maintenance frequency	1,103	198	N	N	\$ -	\$ -	\$ 379,173	\$ 379,173	\$ 1,916		
31	Hickory Basin (annual cleaning)	2	Increase frequency of basin maintenance	353	7	N	N	\$ -	\$ -	\$ 76,925	\$ 76,925	\$ 10,448		
32	Hickory Basin (semiannual cleanings)	2	Increase frequency of basin maintenance	353	30	N	N	\$ -	\$ -	\$ 166,925	\$ 166,925	\$ 5,508		
<b>Proposed Projects in Table 6-1 that Were Not Analyzed</b>														
33	Upland Basin	1	Construct low level drain	556		N	N	\$ -	\$ -	\$ -	\$ -	\$ -		
34	College Heights <sup>4</sup>	1	Construct internal berms to reduce seepage to the Upland basin.			N	N	\$ 30,000	\$ 2,000	\$ -	\$ 2,000	\$ -		
35	Lower Cienega Basin <sup>5</sup>	2	Basin enlargement for distribution			N	N	\$ 23,080,000	\$ 1,502,100	\$ -	\$ 1,502,100	\$ -		
36	Management Zones 2 and 3 Capture, Pump and Recharge <sup>6</sup>	2,3	Capture water in MZ-2 and 3 basins low in the system and pump to basins higher in the system	234		N	N	\$ 24,910,000	\$ 1,620,400	\$ -	\$ 1,620,400	\$ -		
37	Jurupa Basin <sup>6</sup>	3	Inlet improvements and basin enlargement	596		N	N	\$ 5,760,000	\$ 375,000	\$ -	\$ 375,000	\$ -		
38	RP3 Basins <sup>6</sup>	3	Inlet improvements			N	N	\$ -	\$ -	\$ -	\$ -	\$ -		
39	Alder Basin <sup>6</sup>	3	Deepen basin			N	N	\$ -	\$ -	\$ -	\$ -	\$ -		

1. The baseline for the Turner 2 Spillway Project and the Turner Expansion includes the recharge from Turner 1, 2, 3 and 4.  
 2. Based on available information, it can be assumed that the basin infiltration can be increased 10 to 20% with annual cleaning, and 20 - 50% with cleaning twice a year. Field data needs to be established to determine optimum cleaning frequency per basin.  
 3. The Upland Basin Project was removed by IEUA because the basin performs well and limited cleaning is needed.  
 4. The College Heights project does not effect stormwater recharge.  
 5. The projects did not pass the screening criteria and were not considered.  
 6. The recharge gained by the 2010 RMP/PU RP3 Inlet improvement is comparable to the current recharge at RP3.  
 7. The results of this table provide an estimate of the cost per acre-ft of stormwater recharge. These estimates are reconnaissance level (level 5) estimates and additional technical work needs to be done to assure feasibility.