

**2015 IRP Update**  
**A Glance at Future Resource Development Costs**  
**Backup Information**

Future projects were analyzed to provide a reasonable range of sample future project costs for each resource type. The data set is based on identified future projects through the IRP project inventory list, stormwater database (developed through the Southern California Water Committee Stormwater Task Force), project reports and member agency feedback. The analysis includes projects with the status of feasibility, advanced planning, or full design and online before 2025. Outliers were not included in this analysis. Stormwater projects with less than 50 acre-feet of annual yield and recycled water projects with less than 300 acre-feet of annual yield were also not included in this analysis due to an observed resulting deviation from the expected range of values (cost breakpoint of larger unit costs for smaller projects).

The following tables provide the lists of potential future projects identified to estimate a general sense of scale of future resource development costs.

<b>Recycled Water Projects (Non-Potable, Indirect Potable, Direct Potable)</b>	<b>Capacity (acre-feet per year)</b>	<b>Unit Cost (\$/acre-foot)</b>
Woodland Hills Water Recycling Project	300	\$ 3,507
Griffith Park South Water Recycling Project	300	\$ 3,555
Olivenhain Northwest Quadrant Recycled Water Project	300	\$ 3,702
Sepulveda Basin Sports Complex Water Recycling Project	308	\$ 1,505
March Air Force Base Reclamation Project	448	\$ 3,624
Crescenta Valley Recycled Water Project	475	\$ 2,554
2013 Recharge Master Plan Projects	500	\$ 8,412
Garber Street Tank Water Recycling Project	500	\$ 1,719
Direct Reuse/Rose Hills Expansion	600	\$ 2,050
Pasadena Non-Potable Water Project	700	\$ 3,224
Anaheim South Recycled Water Project	900	\$ 1,516
West Basin Water Reclamation Program	920	\$ 6,059
Water Recycling Small Pipeline Extension Projects	1,000	\$ 905

San Clemente Water Reclamation Project	1,000	\$	1,455
West Raymond-Verdugo Basin Recycled Water Project	1,190	\$	2,196
Elsinore Valley/Tuscany (Phase 1A)	1,225	\$	1,632
LAX Cooling Towers Water Recycling Project	1,250	\$	688
Escondido Regional Reclaimed Water Project (Easterly Ag Distribution & MFRO with Mains and Brine)	1,258	\$	5,056
Woodland Hills Water Recycling Expansion Concept	1,550	\$	526
Downtown Water Recycling Project	2,350	\$	1,533
Escondido Regional Reclaimed Water Project (HARRF Upgrades)	2,492	\$	5,668
North Hollywood Water Recycling Project	2,772	\$	1,437
Carlsbad MWD Encina Basin Water Reclamation Program - Phases I and II	3,292	\$	1,222
Terminal Island Expansion Project	7,880	\$	859
Harbor Water Recycling Project	9,300	\$	1,904
Groundwater Reliability Improvement Project	10,000	\$	818
Harbor Area Water Recycling Expansion and Storage	12,220	\$	968
Natural Advanced Treatment Concept	19,000	\$	1,204
West Basin Water Reclamation Program I_V	28,717	\$	1,965
Los Angeles Groundwater Replenishment Project (Tillman)	30,000	\$	1,964
City of San Diego Pure	16,800	\$	2,767
Regional Recycled Water Supply Program	56,000	\$	2,364

Range/Percentile	
Low	\$526/AF
25%	\$1,222/AF
75%	\$3,224/AF
High	\$6,059/AF

Seawater Desalination Projects	Capacity (acre-feet per year)	Unit Cost (\$/acre-foot)
Long Beach High Case (5 MGD)	5,600	\$ 2,985
Long Beach Base Case (5 MGD)	5,600	\$ 2,819
Carlsbad	48,000	\$ 2,367
Huntington Beach	56,000	\$ 2,152
Doheny Desal with Fe/Mn Treatment	16,000	\$ 1,859
El Segundo (20 MGD)	22,400	\$ 1,760
El Segundo (60,000 acre-feet)	67,200	\$ 1,530

Range/Percentile	
Low	\$1,530/AF
25%	\$1,859/AF
75%	\$2,367/AF
High	\$2,985/AF

Stormwater Distributed Capture and Recharge Projects	Capacity (acre-feet per year)	Unit Cost (\$/acre-foot)
Burbank Boulevard BMP	53	\$ 11,764
Mission Hills Green Belt	100	\$ 4,558
San Fernando Road Swales	130	\$ 3,758
Sun Valley Parking Lot Infiltration	80	\$ 5,414
Whitsett Sports Field Park Retrofit	750	\$ 1,675

Range/Percentile	
Low	\$1,675/AF
25%	\$3,758/AF
75%	\$5,414/AF
High	\$11,764/AF