

WATER RESOURCES PROJECTS CALIFORNIA

Roller compacted concrete (RCC) has been used to construct large dams (dams over 50 feet high) in the United States since the first one was constructed in the early 1980's. Progress in design and construction over the ensuing decades have solidified RCC as an economical and resilient method to build large dams. See below for examples of successful large dam projects that have been completed in the state. Learn more by visiting [PCA's Dams Page](#).

● A red dot indicates RCC Dam project 50' and higher



| Name | City | Date | Max Height (ft.) | Length (ft.) | RCC Volume (cy) | Cement (lb/cy) | Flyash (lb/cy) | Upstream Facing | Total Project Cost (\$ Millions) (2) | RCC Unit Cost (\$/cy) (2,3) | Owner | Designer | Contractor | River |
|-------------------------|-----------|------|------------------------|--------------|-----------------------------|----------------|----------------|---|--------------------------------------|-----------------------------|--|-------------------|-------------------------|-----------------|
| Freeman Diversion | Oxnard | 1990 | 55 | 1,200 | 132,000 | 210 | 140 | Earth or Rock Fill Placed Concurrently with RCC | 12.7 | 33.35 | United Water Conservancy District | Dames & Moore | PCL Civil Constructors | Santa Clara |
| Olivenhain | Escondido | 2001 | 306 | 2,580 | 1,400,000 | 125 | 225 | Formed RCC w/ External Liner | 132 | 51.99 | San Diego County Water Authority | Parsons-Harza JV. | Kiewit Pacific Co. Ltd. | Escondido Creek |
| San Vicente (dam raise) | Lakeside | 2012 | 117 Raise 337 Total | 1,414 | 600,000 + 12,500 Saddle Dam | 184 | 226 | Precast Concrete Panels w/ Internal Liner | 140 + 23 prep | 77.11 | San Diego County Water Authority and City of San Diego | MWH | Shimmich/Obayashi JV | San Vicente |

| Notes: | |
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| 1. | The information contained herein was compiled by the Portland Cement Association and published for informational purposes only. The user of this information is responsible for confirming the accuracy or completeness of the information. |
| 2. | Cost information shown is nominal. |
| 3. | RCC unit costs do not include mobilization costs. |