

Dam: Freeman diversion

Country USA

River Santa Clara

34°17'56.82"N 119°06'29.63"W

34.299118 -119.108231

Owner/Client United Water Conservancy District

Designer/Engineer Dames & Moore

Contractor PCL Civil Constructors

Purpose (code) G

Site start 01.03.1990

RCC start 01.07.1990

RCC completion 30.09.1990

Site completion 31.12.1991

Height (m) 17

Length (m) 366

Volume of RCC (m³x10³) 101

Total volume (m³x10³) 110

Reservoir capacity (m³x10⁶) Unknown

Upstream slope V

Forming of upstream face (code) (1)

Downstream slope 0.80

Forming of downstream face (code) (17)

Spillway slope 0.80

Forming of spillway face (code) (17)

Depth of layers (mm) 300

Depth of lifts (mm) 300

Cement content (kg/m³) 125

Pozzolan content (kg/m³) 83

Code for pozzolan (F)

RCCDAM Unique Serial No. RCCDAM0074

Under Construction



RCCDAM0074UC

Completed Dam



RCCDAM0074CD

Google Earth



RCCDAM0074GE

Guide to Abbreviations

Purpose

- E Environmental
- F Flood control
- G Groundwater recharge
- H Flood control
- I Irrigation
- N Navigation
- P Pollution control
- R Recreation
- W Water supply

Facing method

- (1) Traditional concrete against formwork
- (2) Traditional concrete against formwork with external geomembrane
- (3) RCC against formwork
- (4) RCC against formwork with external geomembrane
- (5) Traditional concrete against precast concrete panels
- (6) Traditional concrete against precast concrete panels with geomembrane
- (7) RCC against precast concrete panels
- (8) RCC against precast concrete panels with geomembrane
- (9) RCC against precast concrete panels with hot poured membrane
- (10) RCC against precast concrete blocks
- (11) Reinforced conventional concrete cast before RCC placement
- (12) Reinforced conventional concrete cast after RCC placement
- (13) Reinforced concrete cast against precast units or slip-formed facing elements
- (14) Slip-formed/extruded facing elements
- (15) RCC supported by fill shoulders
- (16) Mechanically compacted unformed face of RCC
- (17) Unformed face of RCC
 - ' GEVR/GE-RCC
 - * Stepped face

Pozzolans

- (-) No Pozzolan Used
- (C) High-lime flyash (ASTM Class C)
- (F) Low-lime flyash (ASTM Class F)
- (M) Milled sand
- (N) Natural pozzolan (ASTM Class N)
- (R) ROLAC (mixture of flyash and slag with or without limestone fines)
- (S) Ground-granulated blast-furnace slag
- (L) Mixture of GGBFS and limestone fines