



# SANTA ANA RIVER BASIN, CA

## Operations & Maintenance

U.S. ARMY CORPS OF ENGINEERS

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### LOCATION AND DESCRIPTION:

The Santa Ana River Basin (SARB) Project, as operated and maintained by the Corps includes 16 miles of channels and levees and 5 flood risk management dams. Project features are located in Orange, Riverside and San Bernardino Counties, California.



1. **BREA DAM:** Located 2 miles north of the city of Fullerton. Project Elements: Dam and Appurtenances (87-foot-high; 1,765-foot-long; 4,009-acre-feet cap at spillway crest – 1964), 1 Recreation Area - # of visitors to Recreation Area was 532,955 in FY 2019. Initially Operational/ Fully Operational FY42/FY42
2. **CARBON CANYON DAM:** Located 16 miles NE of the City of Santa Ana. Project Elements: Dam and Appurtenances (99 feet-high; 2,150-foot-long; 6,614-acre-feet cap at spillway crest - 1977), 1 Recreation Area - # of visitors to Recreation Area 160,043 in FY 2019. Initially Operational/ Fully Operational FY61/FY61.
3. **FULLERTON DAM:** Located in the eastern part of the city of Fullerton just west of the 57 Freeway and Bastanchury Road crossing. Project elements: Dam and Appurtenances (46 feet-high; 575 ft-long; 764 acre-feet cap at spillway crest 1969), 1 Recreation Area - # of visitors to Recreation Area 385,260 in FY 2019. Initially Operational/Fully Operational FY41/FY41.
4. **PRADO DAM:** Located on the Santa Ana River approximately 30.5 miles (49 kilometers) upstream of the Pacific Ocean. Project elements: Dam & Appurtenances (106 ft-high; 2,280 ft-long; 196,235 acre-ft cap at spillway Crest - 1980), 3 Recreation Areas - # of visitors to Recreation Areas 3,397,514 in FY 2019. Initially Operational/Fully Operational FY41/FY41
5. **SAN ANTONIO DAM:** Located 7 1/2 miles N of the City of Pomona. Project elements: Dam and Appurtenances (160 ft-high; 3,850 ft-long; 7,703 acre-ft cap at spillway crest 1981), Initially Operational/Fully Operational FY56/FY56.
6. **SAN ANTONIO AND CHINO CREEKS CHANNELS:** Located 30 miles E of the City of Los Angeles. Project elements: 15.7 miles of channel. Initially Operational – FY60 Fully Operational – FY61

**AUTHORIZATION:** Flood Control Act of 1936 (as amended 1938)

### **SUMMARIZED FINANCIAL DATA:**

**As of 24 Aug 2020**

O&M Estimated Federal Cost	\$12,537,000
Estimated Non-Federal Cost	0
Total Estimated Project Cost	\$12,537,000
Allocation thru FY19	\$12,537,000
President's Budget for FY20	\$9,908,000
President's Budget for FY21	\$9,771,000
House Report for FY21	TBD
Senate Report for FY21	TBD
Balance to Complete After FY21	N/A

**U.S. ARMY CORPS OF ENGINEERS – LOS ANGELES DISTRICT**

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**ACTIVITIES FOR FY 2021:** Funds are being used for routine O&M. Non-routine activities planned include Electrical Modernization at Carbon Canyon dam, post award and QA of ongoing construction efforts, completion of Prado Master Plan, Prado Periodic Inspection, San Antonio Periodic Assessment, Bridge Inspections at Brea and Fullerton, Emergency Action Plan Updates, and Hydraulic Steel Structures Inspections at Brea, Carbon Canyon, and Fullerton.

**FY21 PLANNED ACCOMPLISHMENTS:** Optimal funding would be used for:

**OPERATION** - Funds would be used for minimum operational and maintenance requirements; environmental/resource land management; water control and quality management; real estate compliance; utilization inspections; dam safety oversight; project/program management.

**MAINTENANCE** - Funds would be used for servicing facilities and to conduct minimum level maintenance requirements: Repair fencing (as needed in Basins), Dam Inspection and service (Electrical and Mechanical) per O&M manual, Clear vegetation around log boom and mow operations area for fire safety, Clear vegetation 50' from toe of dam per EP 1110-2-18, Clear vegetation 15' from channel walls and concrete structures per EP 1110-2-18, Clear vegetation 15' from center line of abutments. EP 1110-2-18, Clear 15' both side of V-ditch from gravel seepage blanket, Clear vegetation from upstream/downstream embankments per EP 1110-2-18, Clean out existing material in weep holes and replace with 3/4" rock, Clear upstream apron and trash racks of sediment/debris, Grade all access roads, patch cracks and re seal where needed, Inspect/repair drainage gallery conduit and manhole, Maintain clearance around all relief wells and manholes, Clear/Spray weeds in gravel seepage blanket, Clear vegetation and debris at concrete weir, Repair/Clear around staff boards, and Inspect/repair outlet conduit/apron.

**ISSUES AND OTHER INFORMATION:** The Los Angeles District operates and maintains 5 dams in SARB that reduce the risk of flooding approximately 2.7 million people and \$114 billion in property within Los Angeles County, Orange County, Riverside County, San Bernardino County. These dams were constructed 60 to 80 years ago. Routine operation, maintenance, and inspection activities are performed at each dam. However, they are not exempt from the downward trend associated with the nation's aging infrastructure and are in need of rehabilitation of dam components, such as hydraulic systems, motors, gates, and generators. Current project funding received through the O&M program does not meet growing deferred maintenance requirements for the five flood risk management projects and 15.7 miles of flood control channels and levees within the flood control system. The project is currently funded at less than 18% of O&M capability; causing a continued increase in deferred maintenance, repairs, and inspections needed to properly O&M the SARB system.

These dams are reviewed periodically and rated according to the age and condition of the dam and potential downstream consequences. The SARB dams range from low to high urgency of action. Carbon Canyon Dam and Prado Dam currently have a high urgency of action (DSAC 2); and Brea Dam, Fullerton Dam, and San Antonio Dam have a low urgency of action (DSAC 4). The Dam Safety Action Classification or DSAC is a rating system that provides consistent and systematic guidelines to address dam safety issues of all 700 Corps owned and operated dams. This process enables us to prioritize dam safety actions to correct deficiencies, which include interim risk-reduction measures to be undertaken while further investigations are conducted and remedial actions are implemented.

The Prado Dam and Reservoir project is authorized primarily for flood risk management, but it is also operated, when there is opportunity, to benefit water conservation. The water conservation pool (also called the "buffer pool") impoundment occurs only in relationship to urban runoff generated from rain events. And like the runoff impoundment stored for flood runoff, the buffer pool storage is also temporary, and drained completely in coordination with the Orange County Water District for their capture into their groundwater recharge facilities. Currently, there is a Feasibility Study to propose increasing the flood season buffer pool behind Prado Dam, from elevation 498, up to elevation 505 feet, NGVD29. There is also an approved multi-year major deviation in place to implement this proposed operation change to the water control plan now while the Feasibility Study is ongoing. Upon completion of the Feasibility Study and approval of the increased buffer pool storage alternative, the approved deviation plan currently in place will become a permanent part of the project operation. The proposed increase to

the buffer pool storage volume is less than 6% of the entire flood risk management pool. Operating the project for water conservation does not interfere with its capability to provide flood protection to the downstream communities.

**CONGRESSIONAL INTEREST:** Senators Harris, Feinstein; Congresspersons Aguilar (CA-31), Torres (CA-35), Cisneros (CA-39), Calvert (CA-42), Porter (CA-45)