

C – CONSTRUCTION HISTORY

1.0 CONSTRUCTION HISTORY

On July 28, 1955, the Sacramento Municipal Utility District (SMUD) filed an application with Federal Energy Regulatory Commission (FERC) for a license under the Federal Power Act (FPA) for the Upper American River Project (Project). On August 28, 1957, FERC issued an order effective August 1, 1957, to the SMUD for the licensing of the Project.

Article 25 of the license provided for the following three phases of construction of Project facilities: 1) construction of Ice House and Junction Dams, the Jaybird Conduit, and one generating unit at the Jaybird Power Plant, to begin within one year of the license issuance date and to be completed within 3.5 years of the license issuance date; 2) construction of Union Valley, Sawmill and Camino Dams, Robbs Peak Tunnel, Camino Conduit, the second unit at Jaybird Power plant, and the Camino Power Plant, to begin within 1.5 years of the license issuance and to conclude within 5.5 years of the license issuance date; 3) construction of the Rubicon Diversion, Buck Island, and Loon Lake Dams, Buck-Loon and Ice House Tunnels, and Union Valley Power Plant, to begin within 3 years of the license issuance date and to be completed within 7 years of the license issuance date.

On April 4, 1961, FERC issued an order granting SMUD an extension of time to complete construction of Stage 1 of the Project facilities by July 1, 1961, and then on October 31, 1962, FERC again provided the District with an extension of time to complete construction of Stage 2 of the Project facilities by July 1, 1963. On August 27, 1963, FERC further extended of time to complete construction of stage 2 of the Project facilities to January 1, 1964.

On October 31, 1962, FERC further modified Article 25 of the license to provide for construction of the White Rock Division, which included the Slab Creek Dam and Reservoir and White Rock Tunnel and Power Plant, to begin within 7 years of the effective date of the license and to be completed within 13 years of the effective date of the license.

On February 28, 1964, FERC again modified Article 25 of the license to provide for construction of the Robbs Peak Power Plant, which includes the Robbs Peak Powerhouse and Penstock, to begin within 7 years of the effective date of the license and to be completed within 9 years of the effective date of the license.

On July 21, 1966, FERC modified Article 25 of the license to provide for construction and installation of the Camino Generating Unit 2 in the Camino Powerhouse, to begin within 10 years of the effective date of the license and to be completed within 11 years of the effective date of the license.

On May 15, 1967, FERC added Article 60 to provide for construction of remaining Project works comprising the Loon Lake Development.

On May 27, 1968, FERC again modified Article 25 of the license to delete reference to the Ice House Tunnel, thereby no longer requiring construction of the tunnel.

On February 25, 1969, FERC added Article 61 (which subsequently was renumbered as Article 62 by FERC on June 16, 1970) to provide for the construction of Brush Creek Development within one year of the date of issuance of this order and to be completed within three years of the date of issuance of the order.

On September 8, 1969, FERC amended Article 60 to extend the construction period to December 31, 1971.

On September 10, 1980, FERC added Article 72 to provide for the construction of Slab Creek Powerhouse within two years from the effective date of this order and to be completed within four years from the effective date of this order.

On April 28, 1982, FERC added Article 76 to provide for the construction of tunnel, penstock and the Jones Fork Powerhouse within two years from the effective date of this order and to be completed within four years from the start of construction.

Major improvements in the Project since original construction are summarized in Table C1.0-1. An asterisk indicates that the construction was done by the United States Forest Service (USFS). Two asterisks indicates that the facility was constructed with Davis-Grunsky Act Funds.

2.0 PROPOSED CONSTRUCTION SCHEDULE FOR IMPROVEMENTS

During the course of the relicensing process, the District will evaluate the potential for additional modifications of Project facilities. Some of the possible modifications are discussed in section A3. Based on these evaluations, the District may propose such modifications in its license application.

TABLE C1.0-1. Summary of significant construction activities and modifications to Project facilities for the Sacramento Municipal Utility District's Upper American River Project	
Year of Completion	Description of Activity
Loon Lake Development	
1963	Construction of the Rubicon Dam and Reservoir
1963	Construction of the Rubicon Auxiliary Dam
1963	Construction of the Rubicon Rockbound Tunnel
1963	Construction of the Buck Island Dam
1963	Construction of the Buck Island Auxiliary Dam
1963	Construction of the Buck Island-Loon Lake Tunnel
1963	Construction of the Loon Lake Dam
1963	Construction of the Loon Lake Auxiliary Dam
1963	Construction of the Loon Lake Dike
1971	Construction of the Loon Lake Power Tunnel and Penstock
1971	Construction of the Loon Lake Switchyard
1971	Construction of the Loon Lake Powerhouse (including the Turbine and Generator)
1971	Construction of the Transmission Line from Loon Lake to Robbs Peak
1971	Construction of the Loon Lake Powerhouse Tailrace Tunnel
1990	Rewedge of the Generator
1966 *	Construction of the Loon Lake Picnic Area
1966 *	Construction of the Loon Lake Boat Ramp
1967 *	Construction of the Loon Lake Campground
1967 *	Construction of the Loon Lake Day Use Area
1967 *	Construction of the Desolation Wilderness Trailhead
1968 *	Construction of the Pleasant Boat-in Campground
1987 *	Construction of the Loon Lake Equestrian Group Campground
1989	Construction of the Loon Lake Chalet
1990	Construction of the Northshore Loon Lake RV Campground
1990	Construction of the Red Fir Group Campground
1991	Construction of the Loon Lake Equestrian Campground
1991	Enlargement and Reconstruction of the Loon Lake Campground
1991	Reconstruction of the Loon Lake Day Use Area into the Group Camps of the Loon Lake Campground
1992 *	Relocation of the Desolation Wilderness Trailhead
1992	Construction of the Loon Lake Sanitation Station
2000	Reconstruction of the Loon Lake Boat Ramp
Robbs Peak Development	
1962	Construction of the Gerle Creek Dam and Reservoir
1962	Construction of the Gerle Creek Canal
1962	Construction of the Robbs Peak Dam
1965	Construction of the Robbs Peak Powerhouse Tunnel
1965	Construction of the Robbs Peak Powerhouse Penstock
1965	Construction of the Robbs Peak Powerhouse (including the Turbine and Generator)
1965	Construction of the Robbs Peak Switchyard
1965	Construction of the Union Valley Transmission Facilities (from Robbs Peak to Union Valley)
1984	Rewind of the Generator
1988	Rewedge of the Generator

TABLE C1.0-1 (Continued)	
Year	Description of Activity
1993	Rewind of the Generator
1989	Replaced the Turbine Runner
1967 *	Construction of the Gerle Creek Family Campground
1988 *	Construction of the Summer Harvest Trail
1990	Construction of the Gerle Creek Day Use Area
1990	Construction of the Accessible Fishing Pier and Accessible Trail
1992	Construction of the Angel Creek Day Use Area
1996	Construction of the Airport Flat Campground
Jones Fork Development	
1961	Construction of the Ice House Dam and Reservoir
1985	Construction of the Jones Fork Power Tunnel
1985	Construction of the Jones Fork Penstock
1985	Construction of the Jones Fork Powerhouse (including the Turbine and Generator)
1985	Construction of the Jones Fork Switchyard
1985	Construction of the Transmission Line from Jones Fork to Union Valley
1961 **	Construction of the Ice House Campground
1961 **	Construction of the Ice House Day Use Area
1962 **	Construction of the Ice House Boat Launch
1969	Construction of the Ice House Sanitation Station
1969 *	Construction of the Cleveland Corral Information Station
1980 *	Reconstruction of the Ice House Campground
1990	Construction of the Northwind Campground
1990	Construction of the Strawberry Point Campground
1992	Reconstruction of the Cleveland Corral Information Station
1999	Reconstruction of the Ice House Boat Launch
1999	Construction of the Ice House Bike Trail
Union Valley Development	
1963	Construction of the Union Valley Dam and Reservoir
1963	Construction of the Union Valley Power Tunnel and Penstock
1963	Construction of the Union Valley Powerhouse (including the Turbine and Generator)
1963	Construction of the Union Valley Switchyard
1963	Construction of the Transmission Lines from Union Valley to Jaybird and Union Valley to Camino
1987	Rewind of the Generator
1991	Replaced the Turbine Runner
1965 **	Construction of the Sunset Boat Launch
1965	Construction of the Sunset Sanitation Station
1966 *	Construction of the Sunset Campground
1966 **	Construction of the Fashoda Day Use Area
1969 *	Construction of the Wench Creek Campground
1969 *	Construction of the Wench Creek Group Campground
1969 *	Construction of the Crystal Basin Information Station
1970 *	Construction of the Yellowjacket Campground
1970 *	Construction of the Yellowjacket Boat Launch
1987	Construction of the West Point Boat Launch
1987	Reconstruction of the Sunset Boat Launch
1987	Reconstruction of the Sunset Sanitation Station
1991	Construction of the Jones Fork Campground
1991	Relocation of Fashoda Day Use Area

TABLE C1.0-1 (Continued)	
Year	Description of Activity
1991	Construction of the Fashoda Campground (in place of original Fashoda Day Use Area)
1995	Construction of the Wolf Creek Sanitation Station
1996	Construction of the Wolf Creek Campground
1999	Construction of the Azalea Cove Campground
1999	Construction of the Big Silver Group Campground
1999	Construction of the Camino Cove Campground
1999	Construction of the Jones Fork Bike Trailhead
1999/2000	Construction of the Union Valley Bike Trail
2000	Construction of the West Point Campground
2000	Construction of the Lone Rock Campground
2000	Reconstruction of the Crystal Basin Information Station
Jaybird Development	
1961	Construction of the Junction Dam and Reservoir
1961	Construction of the Jaybird Powerhouse Tunnel
1961	Construction of the Jaybird Penstock
1961	Construction of the Jaybird Powerhouse (including the Unit 1 Turbine and Generator)
1961	Construction of the Jaybird Switchyard
1961	Construction of the Transmission Line from Jaybird to White Rock
1962	Construction of the Unit 2 Turbine and Generator
1983	Rewind of the Unit 2 Generator
1987	Rewedge of the Unit 2 Generator
1988	Rewind of the Unit 1 Generator
1990	Rewedge of the Unit 2 Generator
Camino Development	
1963	Construction of the Camino Dam and Reservoir
1963	Construction of the Camino Power Tunnel
1963	Construction of the Camino Penstock
1963	Construction of the Camino Powerhouse (including the Unit 1 Turbine and Generator)
1963	Construction of the Camino Switchyard
1963	Construction of the Transmission Lines from Camino to White Rock and Camino to Lake Substation
1968	Construction of the Camino Unit 2 Turbine and Generator
1970	Construction of the Brush Creek Dam
1970	Construction of the Brush Creek Powerhouse Tunnel
1986	Rewedge of the Unit 2 Generator
1989	Rewind of the Unit 2 Generator
1992	Rewind of the Unit 1 Generator
2000	Replaced the Unit 1 Turbine Runner
Slab Creek/White Rock Development	
1967	Construction of the Slab Creek Dam and Reservoir
1968	Construction of the Slab Creek Penstock
1968	Construction of the White Rock Powerhouse Tunnel
1968	Construction of the White Rock Penstock
1968	Construction of the White Rock Powerhouse (including the Turbines and Generators)
1968	Construction of the White Rock Switchyard
1968	Construction of the White Rock Transmission Facilities (White Rock to Orangevale and White Rock to Hedge)
1978	Rewedge of the White Rock Unit 1 Generator
1979	Rewedge of the White Rock Unit 2 Generator
1983	Construction of the Slab Creek Dam Powerhouse (including the Turbine and Generator)

TABLE C1.0-1 (Continued)	
Year	Description of Activity
1983	Construction of the Slab Creek Transmission Facilities
Ongoing	White Rock Unit 2 Turbine Runner replacement
Ongoing	White Rock Unit 1 Turbine Runner replacement
1977	Construction of the Slab Creek Boat Ramp
Ongoing	Slab Creek Powerhouse Rebuilt

* Constructed by USFS

** Constructed with Davis-Grunsky Act funds