

McPhee Dam

Overview

McPhee Dam, located on the Dolores River, is a rolled earth, sand, gravel, and rockfill structure with a volume of approximately 6,230,000 cubic yards. The crest of the dam is 270 feet high above streambed, 1,300 feet in length, and 30 feet wide. A gated spillway located in the right abutment includes a concrete chute leading to a stilling basin. The outlet works, located in the left abutment of the dam, has two separate intake structures, and a total capacity of 5,000 cubic feet per second.

Great Cut Dike is a rolled earthfill structure with a crest length of 1,900 feet, and crest width of 30 feet. It has a maximum height of 64 feet above original ground surface. The embankment has a volume of about 189,000 cubic yards.

McPhee Reservoir was created with the construction of McPhee Dam and the Great Cut Dike in a saddle on the Dolores-San Juan Divide. The reservoir has a total capacity of 381,195 acre-feet, including 229,200 acre-feet of active capacity, 151,900 acre-feet of inactive capacity, and 95 acre-feet of dead storage. The water surface area totals 4,470 acres at the top of the active capacity at an elevation of 6924.0 feet. The reservoir extends approximately 10 miles up the Dolores River, 4 miles up Beaver Creek, 1 mile up Dry Creek, 2 miles up House Creek, and 2 miles up the Great Cut saddle to the dike.

General

Region	Facilities in Upper Colorado Upper Colorado Home Page
State	Colorado
County	Montezuma
Project	Dolores
Dam Type	
Reservoir	McPhee
Watercourse	Dolores
Location	
Longitude	-108.5723876953125
Latitude	37.57651247047376
Net Generation	4,292,835 kWh
Original Construction	1983-1984
Modified Construction	
National ID Number	CO82915
Hydrologic Unit Code	

Dimensions

Structural Height	295.0 ft
Hydraulic	

Height (Normal Operating Depth at Dam)	262.0 ft
Top Parapet (Elevation)	
Spillway Crest Elevation	6897.0 ft
Crest Elevation	6936.0 ft
Crest Length	1370.0 ft
Crest Width	
Base Width	
Volume of Dam Construction Materials	
Streambed at Dam Axis	6666.0 ft
Top of Exclusive Flood Control Pool (Elevation)	
Top of Joint Use Pool (Elevation)	
Top of Active Conservation Pool (Elevation)	6924.0 ft
Top of Inactive Conservation Pool (Elevation)	6855.0 ft
Top of Dead Storage Pool (Elevation)	6676.0 ft

Hydraulics & Hydrology

Volume	
Total Water Storage at Elevation	
Maximum Water Surface Elevation	
Normal Water Surface Elevation	6924.0 ft
Spillway Type	
Auxiliary Spillway	No
Spillway Capacity at Elevation	33300 cfs at 6928.0 ft
Auxiliary Spillway Capacity at Elevation	
Uncontrolled	

Spillway Capacity at Elevation	
Outlet Works Capacity at Elevation	5275.0 cfs at 6928.0 ft
Diversion Capacity at Elevation	
Drainage Area	809.0 sq mi
Hydrometeorological Report (HMR)	
Probable Maximum Flood (PMF) Report	

Contact Information

Owner	Title	Area Office Manager
	Organization	Western Colorado Area Office
	Address	2764 Compass Drive, Suite 106
	City	Grand Junction, CO 81506
	Phone (Office)	970 248-0600
Operator	Organization	Dolores Water Conservancy District
	Address	60 South Cactus Street, PO Box 1150
	City	Cortez, CO 81321
	Phone (Office)	970 565-7562

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