

HUMBOLDT BAY MUNICIPAL WATER DISTRICT
R. W. MATTHEWS DAM – PROJECT # 3430

Reservoir (at Spillway Crest Elevation)

Drainage basin into reservoir	120 square miles
Area	1,180 acres
Capacity	48,030 acre-feet
Maximum length and width	7 miles long by ½ mile wide
Shoreline length	18 miles

Embankment-type Dam

Crest elevation	2686 feet
Crest length	630 feet
Crest width	30 feet (at crest elevation 2686 feet)
Maximum width at base	750 feet
Height above streambed	150 feet
Embankment Volume	1,050,000 cubic yards

Spillway

Crest elevation	2654 feet
Crest length	100 feet
Maximum discharge for design flood	49, 000 cfs at reservoir stage 2680

Outlet Works

Type	Circular, steel-lined, reinforced concrete pipe
Size	45-inch diameter
Intake Structure	Submerged 5ft x 5ft box with emergency slide gate
Terminal Structure	Concrete chamber, 36-inch hollow cone valve
Elevation at intake centerline	2553.9 feet
Length	820 feet
Rated capacity	360 cfs at elevation 2654

Useful Conversions

1 cubic foot per second (cfs) = 450 gallons per minute = 646,320 gallons per day
 An acre foot covers one acre of land one foot deep
 1 acre foot = 43,560 cubic feet = 325,850 gallons