

## VII - WATER CONTROL PLAN

**7-01 General Objectives.** Mathews Canyon Dam and reservoir, along with Pine Canyon Dam and reservoir, are components of a coordinated flood protection improvement under the overall plan of improvement for flood control at Clover Creek, Meadow Valley Wash and the Lower Muddy River, Nevada. At Mathews Canyon Dam, flood control protection is achieved by reducing flood discharges to a maximum outflow of 260 cfs.

**7-02 Constraints.** Mathews Canyon Dam was designed as an ungated dam strictly for the purposes of flood control. There are no known physical, legal, social, or political constraints.

**7-03 Overall Plan for Water Control.** Mathews Canyon Dam is a component of a coordinated flood control plan. Together with Pine Canyon Dam, it is essential for reducing flood peaks on Clover Creek, Meadow Valley Wash and lower Muddy River. The ungated outlet at the dam provides automatic regulation of the reservoir, therefore, coordination of flood releases from Mathews Canyon Dam with other projects in the Muddy River Basin is not possible. At Mathews Canyon Dam, flood control protection is achieved by reducing a peak flow of up to 8,500 cfs to a maximum outflow discharge of 260 cfs.

**7-04 Standing Instructions to Damtender.** There are no permanent attendants, telephones nor radios located at Mathews Canyon Dam, since its ungated outlet provides for automatic regulation of the reservoir.

**7-05 Flood Control.** Floods of magnitudes up to and including the reservoir design flood are controlled by the project such that peak outflows from the reservoir are safely carried in downstream reaches. Flood waters are released through a 3.5-foot diameter conduit, which has a maximum capacity of 260 cfs. The outlet works do not include any mechanical equipment that permits adjustment of reservoir outflows. Plate 7-01 shows the maximum storage capacity for Mathews Canyon Dam flood control reservoir.

**7-06 Recreation.** Water is neither impounded nor released for either upstream or downstream recreation purposes.

**7-07 Water Quality.** Mathews Canyon Dam is not operated for water quality objectives and it is not designed to hold water for an extended period. Therefore, water quality is not monitored.

**7-08 Fish and Wildlife.** The operation of Mathews Canyon Dam does not consider fish and wildlife objectives.

**7-09 Water Supply.** Prolonged water impoundment is not possible at Mathews

Canyon Dam due to its ungated outlet, and there are no formal agreements between the Corps of Engineers and the Bureau of Reclamation, nor any local agencies, concerning the waters passing through the dam. The water passing through the dam supplies the local water tables, and ultimately, becomes part of the Colorado River storage at Lake Mead.

**7-10 Hydroelectric Power.** No facilities for the generation of hydroelectric power at Mathews Canyon Dam exist, nor are any contemplated.

**7-11 Navigation.** There is no navigation possible in Mathews Canyon Dam reservoir.

**7-12 Drought Contingency Plans.** Since Mathews Canyon Dam is ungated, it cannot be used to prolong the storage of water during drought periods. Therefore, a drought contingency plan cannot be developed.

**7-13 Flood Emergency Action Plans.** The Flood Emergency Action Plan for Mathews Canyon Dam is contained in a document entitled "Flood Emergency Plan Mathews Canyon Dam, Clover Creek, Lincoln County, Nevada, Emergency Action and Notification Subplan," dated February 1986. The report includes dam breach and spillway flow inundation maps which delineate flood boundaries downstream from Mathews Canyon Dam. The downstream area that would be inundated by failure of Mathews Canyon Dam is largely undeveloped except for the town of Caliente, small groups of homes near railroad sidings, isolated homes, and the main line of the Union Pacific Railroad. Flooding would extend downstream to Lake Mead. The plan also covers identification of impending and existing emergencies, notification of other parties about impending or existing emergencies, emergency operations and repairs, and post earthquake response procedures. Copies of this plan are available at the LAD ROC.

**7-14 Deviation from Normal Regulation.** Although the reservoir is self-regulating, should there be an instance when it is necessary to deviate from the established flood control plan as described in this chapter, prior approval of deviations is required from the Corps SPD office in San Francisco. The protocol established in "CESPD-ET-EW Memorandum for SPL dated 12 August 1999, Subject: Guidance on the Preparation of Deviations from Approved Water Control Plans, dated 1 August 1999", shall be followed when requesting deviations.

**7-15 Rate of Release Change.** Since the dam is ungated, there is no manual control of reservoir discharges, therefore, there is no control over the rate of release change.