



# Lake Mead Reservoir Capacity Allocation

## Summary

When the Lake Mead sedimentation (2001) and LiDAR (2009) surveys were completed, the Lake Mead Reservoir Capacity Allocation sheet was updated and published with the new elevation-area and elevation volume tables (2011). Between 2011 and 2016, Reclamation installed five wide head turbines at Hoover Dam. This effectively extended the elevation at which Hoover Dam can generate energy, typically referred to as "minimum power pool" or "top of inactive capacity". Previously, the minimum elevation at which Hoover Dam could safely and securely generate energy by passing water through the turbines was 1,050 feet above mean sea level (msl). With the wide-head turbines installed, Hoover Dam can now generate energy through the turbines down to an estimated elevation of 950 feet msl.

Due to this change, Reclamation has updated the Reservoir Capacity Allocation sheet to represent the extended active capacity in which energy can be generated at Hoover Dam. This Reservoir Capacity Allocation sheet supersedes the one published in the Lake Mead Area and Capacity Tables in 2011.



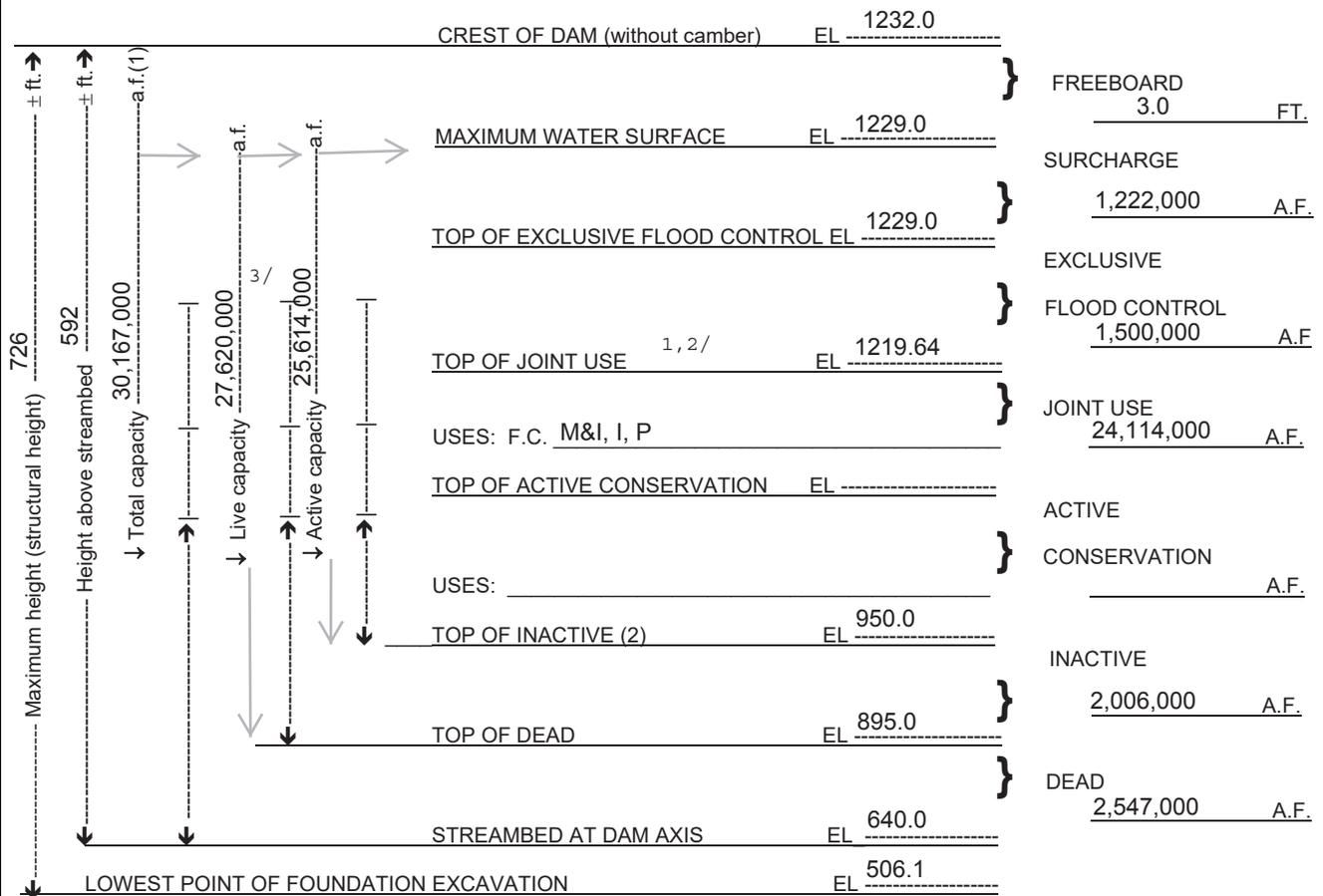
### Key Information:

**Old top of inactive pool: 1,050 feet**  
**Old active capacity (between elevation 1,050 feet and maximum water surface elevation of 1,229 feet): 19.937 million acre-feet**

**New top of inactive pool: 950 feet**  
**New active capacity (between elevation 950 feet and maximum water surface elevation of 1,229 feet): 25,614 million acre-feet**

## RESERVOIR CAPACITY ALLOCATIONS

TYPE OF DAM Concrete, thick-arch		REGION LC	STATE Arizona-Nevada
OPERATED BY Bureau of Reclamation		Lake Mead	RESERVOIR
CREST LENGTH 1,244 FT.	CREST WIDTH 45 FT.	Hoover	DAM
VOLUME OF DAM 4,400,000 CU YD.		Boulder Canyon	PROJECT
CONSTRUCTION PERIOD 1931-1936		LCDO	DIVISION
STREAM Colorado River			UNIT
RES AREA 162,900 ACRES AT EL 1229 FT		Operational	STATUS OF DAM
ORIGINATED BY:		APPROVED BY:	
SHANA TIGHI <small>Digitally signed by SHANA TIGHI Date: 2022.11.23 07:42:51 -0800</small>	ST LC-4610 07/07/2022	MARK COOK <small>2022.10.3 11:43:59 -0700</small>	MRC LCD-30000 10/31/2022
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- (1) Includes \_\_\_\_\_ a.f. allowance for \_\_\_\_\_ year sediment deposition between streambed and EL \_\_\_\_\_ of which \_\_\_\_\_ a.f. is above EL \_\_\_\_\_.
- (2) Established by \_\_\_\_\_ Estimated Minimum Power Pool \_\_\_\_\_.

### REFERENCES AND COMMENTS:

Surface Area and Capacity tables dated 1/2011 reflecting 2001 Sedimentation Survey combined with 2009 LiDAR Survey conditions. Estimated Minimum Power Pool (Active Capacity) updated 10/2016 reflecting turbine replacements. In 2021 corrected joint use total volume from 18,438,000 A.F. to 24,114,000 A.F.

1/ Top of Joint Use elevation estimated by taking the capacity at maximum surface elevation, subtracting the flood control space, and looking up the elevation at capacity 26,120,000 A.F. This capacity falls between elevations 1,219.63 and 1,219.64 feet. For official purposes, the elevation is rounded to 1,219.64 feet.

2/ Top of spillway gates, in raised position, is at elevation 1,221.4 feet. Between elevation 1,221.4 feet and 1,229.0 feet, there are 1,222,000 A.F. of capacity (surcharge).

3/ Public Law 90-537, Colorado River Basin Project Act Title VI, General Provisions: Definitions: Conditions, Section 606(d) states "(d) "Active Storage" means that amount of water in reservoir storage, exclusive of bank storage, which can be released through the existing outlet works." Therefore, "Active Storage" for Lake Mead is equivalent to live capacity as given on this sheet.