

COMBIE RESERVOIR NEAR AUBURN, CA

LOCATION.--Lat 39°0'36", long 121°3'28" referenced to North American Datum of 1983, in SW 1/4 NW 1/4 sec.2, T.13 N., R.08 E., and is split between the Nevada County, CA and Placer County, CA line.

DRAINAGE AREA.—36.25 mi².

ESTABLISHMENT AND HISTORY.—Combie Dam, a concrete arch dam, was originally constructed and completed in 1928 and is also known as the Van Giesen Dam. Staff gages were established by Nevada Irrigation District.

GAGE.--Design Analysis H-350XL data logger, Air Force II bubbler, with a Design Analysis H-2221 V2 DASE GOES Satellite Transmitter. They are located in a metal box on the right abutment of the concrete dam. The bubbler line was replaced and extended on October 11, 2018 when the reservoir was drawn down past the previous bubbler line placement. Datum of gage is at mean sea level.

A Druck submersible transducer is also located on the right abutment of the dam in a metal box approximately 40 feet south from the logger and bubbler. This data is collected in the Combie South powerhouse in a Design Analysis H-500XL data logger. The transducer level goes down to 1585.17 before it comes out of water.

Outside gages are on four vertical posts and cover elevations 1581.54-1603.34, located approximately 80 feet east from the north abutment. There are two staff gages on a piece of 2x6 redwood bolted to the dam face on the north abutment covering elevations 1599.94-1606.54.

Staff limits:

1. 1598.54 – 1603.34
2. 1591.74 – 1598.54
3. 1584.94 – 1591.74
4. 1581.54 – 1584.94

FLOODS.--Maximum contents, February 18, 1986 and January 1, 2006, elevation 1607.00.

REGULATION AND DIVERSIONS.--. Discharge is normally released through Combie South powerhouse back into the Bear River or into the Combie Phase I canal from the Combie North powerhouse. The capacity of Combie South powerhouse is approx. 330 CFS while the North powerhouse has an approx. capacity of 200 CFS.

ACCURACY.--Good.

COOPERATION.--Nevada Irrigation District operates the gage.

JUSTIFICATION.—Storage and re-diversion reservoir.

REMARKS.--Total capacity of 5,555 acre-ft. The surface area of Combie when full (1600.00') is 276 acres. Combie North Powerhouse and Phase I outlet is 1557.36' with dead water storage of 11 acre-ft at this elevation. Combie South Powerhouse Penstock

outlet is at 1587.50'. The center gate at Combie is located in the center of the dam at an elevation of 1545.00'.

Combie spills at: 1600.00 (5,555 AF).