

## **Lake Pleasant 1992 Reservoir Survey**

Lake Pleasant, part of the Central Arizona Project, is a multipurpose water resource development and management project that provides irrigation, municipal and industrial water, power, flood control, outdoor recreation, environmental enhancement and sediment control. Lake Pleasant was formed by New Waddell Dam that is located on the Agua Fria River about 35 miles northwest of Phoenix, Arizona. The primary purpose of this facility is to store Colorado River water for CAP use. The dam also stores Agua Fria River runoff and provides flood protection by controlling the river flows. New Waddell Dam is located one-half mile downstream of the original Waddell Dam, which is now covered in the enlarged Lake Pleasant. New Waddell Dam was constructed between 1985 and 1994 and has a crest elevation of 1,728 feet and a crest length of 4,900 feet.

The topography of Lake Pleasant was developed from combined 1992 bathymetric data and aerial photography. The bathymetric collection was conducted by Reclamation's Sedimentation and River Hydraulics Group working with Reclamation's Phoenix Area office. The bathymetric survey used sonic depth recording equipment interfaced with a range/range positioning system that provided continuous sounding positions throughout reservoir covered by the reservoir.

The Phoenix Area Office set the control for the bathymetric and aerial surveys. Phoenix Area Office conducted the aerial photography interpretation and developed the total reservoir topography. The data was collected and processed in Arizona; central state plane coordinates system in NAD27. For data release, the data was converted to Arizona, central state plane coordinates, NAD83.

The horizontal datum is based on Arizona's state plane coordinates system, central zone, NAD83.

The elevations are all tied to NGVD29. All elevation shifts were rounded off to the nearest tenth of a foot for this analysis and report.