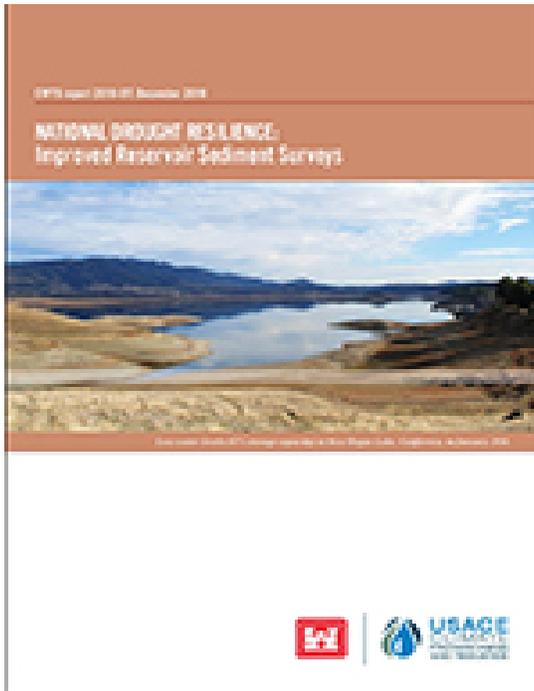


## USACE Releases Report Supporting the National Drought Resilience Partnership



ALEXANDRIA, VIRGINIA. In December 2016 the [National Drought Resilience: Improved Reservoir Sediment Surveys](#) (pdf, 5.34 MB) was released. This report addresses work undertaken by the U.S. Army Corps of Engineers (USACE) and Department of the Interior's Bureau of Reclamation (Reclamation), to support the National Drought Resilience Partnership (NDRP). The report focuses on NDRP Goal 1, Action 4: Encourage Federal Reservoir Surveys.

The primary objective of the report was to take advantage of drought-induced low reservoir levels to increase knowledge of the state of reservoir sedimentation, which in turn affects reservoir storage. An interagency team developed a strategy and supporting technologies to enable rapid deployment and data collection using Light Detection and Ranging (LiDAR) technology. Droughts tend to be regional phenomena; multiple reservoirs in an

affected area are likely to be at exceptionally low water levels. This enables economies of scale through collection of data at multiple reservoirs during a single LiDAR mission.

The team found that cost and field time are both minimized by using airborne LiDAR to collect topographic data when reservoir elevations are low. Data processing automation decreases post-processing time, and other improvements allow the data to be shared through online databases, such as the USACE Geospatial Repository and Data Management System (GRiD). The high resolution of the data set makes it useful for other purposes, including water supply reallocation studies, project planning, and cultural resources management.

This report supplies information on drought impacts to reservoirs, the results of the NDRP reservoir survey by LiDAR in drought-lowered reservoirs, the cost and data quality advantages of a combined LiDAR/multi-beam SONAR (Sound Navigation and Ranging) approach, and examples that show the use of both of these technologies to assess sedimentation and remaining capacity at some of the nation's reservoirs. The report concludes with lessons learned to help guide subsequent deployment of these technologies at reservoirs across the Nation.

### Learn More:

- [National Drought Resilience: Improved Reservoir Sediment Surveys](#) (pdf, 5.34 MB)
- [Climate Change Adaptation: Update Reservoir Sediment Information](#)