

## Hydraulic and Hydrologic Analyses

### *Dam Failure Flood Inundation Mapping, Douglas County, Nevada*

Balance Hydrologics prepared dam break analyses and flood inundation mapping for Roundhill and Buckeye Dams located in Douglas County, Nevada for inclusion in a pair of Dam Emergency Action Plans. The analyses that were completed followed guidelines prepared by the National Dam Safety Program led by FEMA and endorsed by the State of Nevada Division of Water Resources. At the State's request the Army Corps of Engineer's HEC-RAS hydraulic modeling platform was used to simulate the dam failures and to route the resulting flood wave through the downstream channel using the unsteady state flow module. Both 100-year and base flow conditions dam failure scenarios were mapped along a combined seven miles of stream channel below the two dams.

