



April 15, 2024

DESERT CONSERVATION PROGRAM PROJECT COMPLETION SUMMARY  
**Muddy River Flood Inundation Project**  
**2015-USGS-1521G**

The work for the above referenced project has been completed. Below is a summary of project related information.

**The purpose of the above referenced project was:**

The purpose of this project was to use data collected by the United States Geological Survey (USGS) to create flood inundation maps for properties managed by the Bureau of Land Management (BLM) along the Muddy River. The study evaluated potential changes in the extent of flood inundation caused by a BLM proposed restoration project. Clark County's Riparian Reserve properties on the Muddy River are adjacent to this project and it was recommended to include them in this mapping effort. The creation of the map will also help track future flooding events and how they would affect the area around the Muddy River.

**The major accomplishments or findings of this project include:**

Flood-Inundation Maps were created for a reach of the Muddy River that show proposed model-simulated flood inundation extents. Different level flood-inundation events were represented with data showing the extent of their reach in the area beyond the Muddy River. Simulated inundation extents expand with increasing flood magnitudes, with nearly the entire valley inundated by the 2-percent annual exceedance probability flood streamflow. Within the Muddy River Floodplain Restoration Project Area, inundation extents with restoration increased on the east floodplain and decreased on the west floodplain for the 20-, 10-, 4-, 2-, and 1-percent flood streamflows. Outside the Muddy River Floodplain Restoration Project Area, inundation extents decreased with restoration east of the project area for the 20- and 10-percent flood streamflows, but changes in extent for larger streamflows were minor because most of the streamflow leaves the main river channel upstream of the restoration area. Hydraulically, the proposed BLM project should have minimal effect on the County' Muddy River Reserve properties near Warm Springs Road. The proposed levy is located well downstream (~0.6 river miles) and on the opposite side of the habitat project area. The USGS investigations shows no discernable effect on the upstream area as it is designed. The proposed levy project will allow flood flows to spread onto the floodplain to the east of the river, upstream of where currently do, with the proposed 100-year design discharge contained west of the new levy.



For more information about this project and/or for other Project Reports or Symposium Reports, please visit our [website](#).

If you have any questions about this project, please contact Caryn Wright, at (702) 455-2972.