



Flood Control District of Maricopa County

2801 West Durango Street
Phoenix, Arizona 85009
Phone: 602-506-1501
Fax: 602-506-4601
TT: 602-506-5897

FOR IMMEDIATE RELEASE
For more information please contact:
Nicole Scheider
(602) 506-6762
nicolescheider@mail.maricopa.gov

Flood Control Dam Rehabilitated Along New Segment of Loop 202 Red Mountain Freeway

MESA, Ariz. (Aug. 19, 2008) – The completion of the final leg of the Loop 202 Red Mountain Freeway gave residents of Mesa and the far East Valley more than an additional commuting route. The project also paved the way for the Flood Control District of Maricopa County (District) to rehabilitate one of its flood control dams.

Spook Hill Flood Retarding Structure (FRS) is a four-mile-long earthen dam located in Mesa, stretching from McDowell Road and Power Road to near Brown Road and Hawes Road. Spook Hill FRS is the key component of a series of three District dams in northeast Mesa and Apache Junction. The three dams, along with interconnecting floodway channels, protect downstream development and the Central Arizona Project Canal from stormwater runoff from a 110-square-mile watershed fed by the Utery and Goldfield mountains. The flood control structures capture floodwater from the watershed and re-route it to the Salt River.

The District determined that overall rehabilitation of the dam was required following field investigations which found cracking within the dam embankment. Due to the parallel alignment of Spook Hill FRS with the new freeway segment between McDowell Road and University Drive, the Arizona Department of Transportation (ADOT) and the District entered into an agreement to include the rehabilitation of the dam, at the District's cost, as a part of the freeway construction contract. Coordinating upgrades to the dam while building the freeway was less expensive than waiting until after the highway was in place.

“This project proves how advantageous it is for county and state agencies to work together on infrastructure improvements,” said Maricopa County District 2 Supervisor Don Stapley. “In the end, the residents of the far East Valley benefit the most from this cooperation.”

The new Red Mountain Freeway segment runs along the east side of the FRS through the dam's flood pool. To protect the freeway from floodwater, ADOT designed and built a soil cement levee in the flood pool on the east side of the freeway to hold back the stormwater of a 100-year rainfall event. If floodwater overtops this levee, Spook Hill FRS is designed to contain and re-direct this floodwater. The District reviewed ADOT's floodplain use permit to build the levee and confirmed the design would not adversely affect the function of the FRS flood pool.

Three new road crossing bridges were constructed over Spook Hill FRS by ADOT. The bridge construction facilitated the rehabilitation of the 28-year-old dam. Commencing in January 2006, the dam rehab project included: 1) the construction of a sand material zone built into the center of the dam as a defensive measure to prevent dam failure due to cracks in the structure; and 2) the construction of a new principal outlet drain. Both upgrades were built to current dam safety standards. Updated hydrology was developed to determine the most accurate stormwater flow paths

and utility lines were properly relocated. The rehabilitation addressed all of the issues the District noted in its earlier dam assessment.

In the interest of public safety and as part of the agreement with ADOT, the District's Flood Warning Branch installed a new ALERT gage at each of the bridge crossings over the dam and four additional rainfall gages in the watershed upstream of the new freeway. The gages are part of ADOT's freeway monitoring system as well as the District's countywide ALERT warning system measuring rainfall and stormwater runoff. ADOT officials will be notified by the District if rain gages show the potential for flooding along the Red Mountain Freeway corridor.

The Flood Control District of Maricopa County is tasked to provide regional flood hazard identification, regulation, remediation, and education to Maricopa County residents so that they can reduce their risk of injury, death, and property damage from flooding, while still enjoying the natural and beneficial values served by floodplains.

###