



COCHISE COUNTY COMMUNITY DEVELOPMENT

"Public Programs...Personal Service"

MEMORANDUM

Date: 10/10/14
To: Board of Supervisors
From: Karen C. Riggs, Director Highway & Floodplain 
Subject: Repair of storm damage to Old Divide Road

Background: On September 8, 2009 a heavy rainstorm hit the hillside above Old Divide Road. The hillside had been stripped of vegetation by a wild land fire just a few weeks earlier. Runoff and debris overwhelmed the corrugated metal pipe culverts (cmp's), swept over the road and swept away the down slope material undercutting the road in 3 drainages. The road has been closed to vehicular traffic ever since this event.

An ADOT employee was determined responsible for (accidently/but carelessly) starting the fire that damaged the hillside. Consequently ADOT provided \$232,000 in restitution which was their estimate of the cost to replace what was damaged but includes no improvements.

We have received necessary permits for the work from BLM. Some temporary constructions easements are necessary downstream of the road for the repairs.

The road was a state highway constructed in the mid 19th century. The roadway provides resident access and serves as an emergency route in and out of Old Bisbee in case of closure of the Mule Pass Tunnel. It is the recommendation of the County Engineer that the road be repaired and opened to two way traffic.

Existing Conditions: The damaged sections of road and slope are in 3 natural drainages. The down slopes consist of shallow, loose, granular material sitting at steep slope on bedrock. Runoff from the September 8th and subsequent rain storms have swept away the concrete splash aprons, and most of the fill in the three drainages. The cmp's were clogged with debris but have since been cleaned and are functioning. The hillside above the road has recovered somewhat since the burn, the brush and trees are dead but grass has grown in patches.

Proposed Remedial Measures: The goals of the following proposed remedial measures are to restore the roadway to 2-12' lanes with 7' shoulders with cmp's headwalls and concrete downstream aprons to withstand 100-year runoff events. The propose measures are as follows:

- Existing damaged culverts and headwalls will be removed and replaced.
- Fill will be placed and compacted downstream to stable dimensions.
- Concrete erosion protection will be provided downstream of the culverts.
- The damaged roadway sections will be repaired and double chip sealed.

Preliminary Opinion of Probable Cost: We anticipate repair at approximately \$220,000.