

#### **Ditch Piping Project**

East Mesa Water Company Completed July 1, 2015

#### FINAL DELIVERABLE

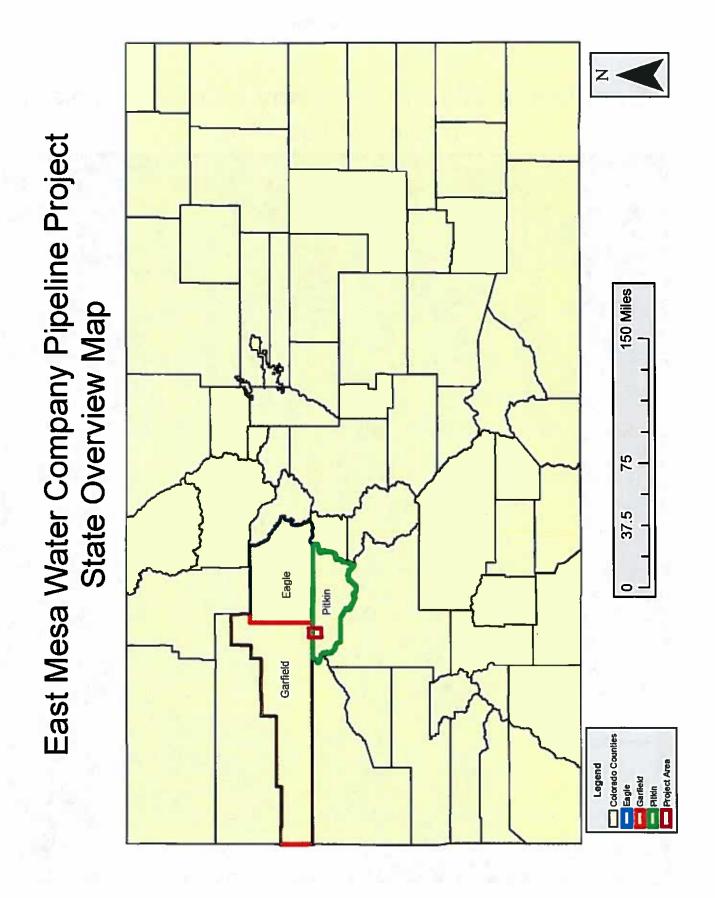


**Project Description** 

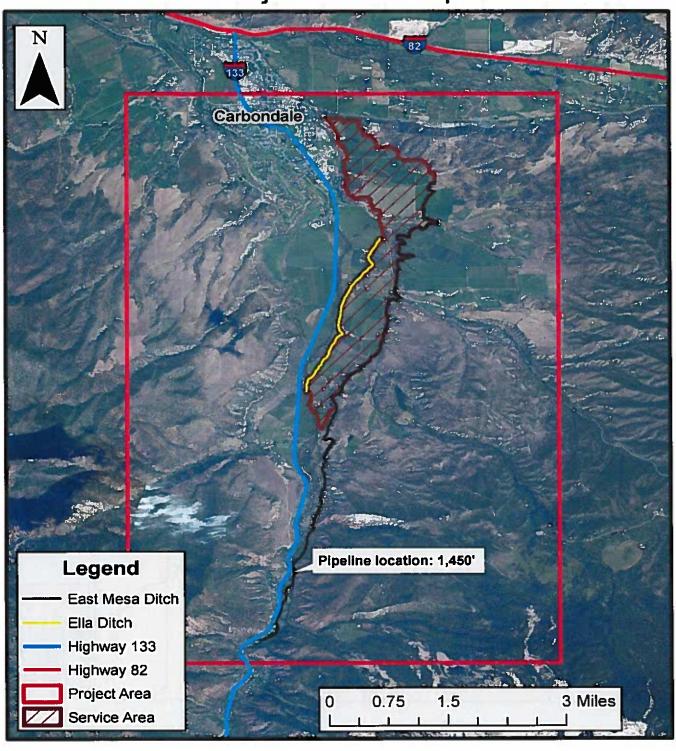
The Company is located in the Crystal River Valley in the western portion of Pitkin County and provides irrigation water diverted out of the Crystal River. The project site is located six miles south of Carbondale. The earthen ditch was replaced with 48-inch HDPE pipe. The new pipe enters a 650 foot long rock tunnel that was collapsing. The Company worked with the NRCS and URS Corporation to pipe the ditch and utilize a combination of rock anchoring and grouting to protect the HDPE pipe inside the tunnel section. The Company serves 12 shareholders and is primarily used to grow hay and forage crops for cattle ranching. The Company was approved for \$40,000 in WSRA Basin grant funds and other grant funding from NRCS. Construction was completed in 2015 at a total cost of \$786,000.

Additional Project photos follow.

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Sponsor: East Mesa Water Company	County: Pitkin &	Garfield	Water Source: Crystal River			
Type of Loan: Ditch Rehabilitat	on Board Approval		Date: July 2013			
Final Grant Amount Expended: \$60,000						
Design Engineer: Natural Resource Conservation Service (NRCS) & URS Corporation						
Contractor: Mueller Construction & Rock Solid Construction						
Project Elements: Pipe removal, 42" HDPE, concrete inlet and outlet structures, tunnel stabilization, and grouting of tunnel						

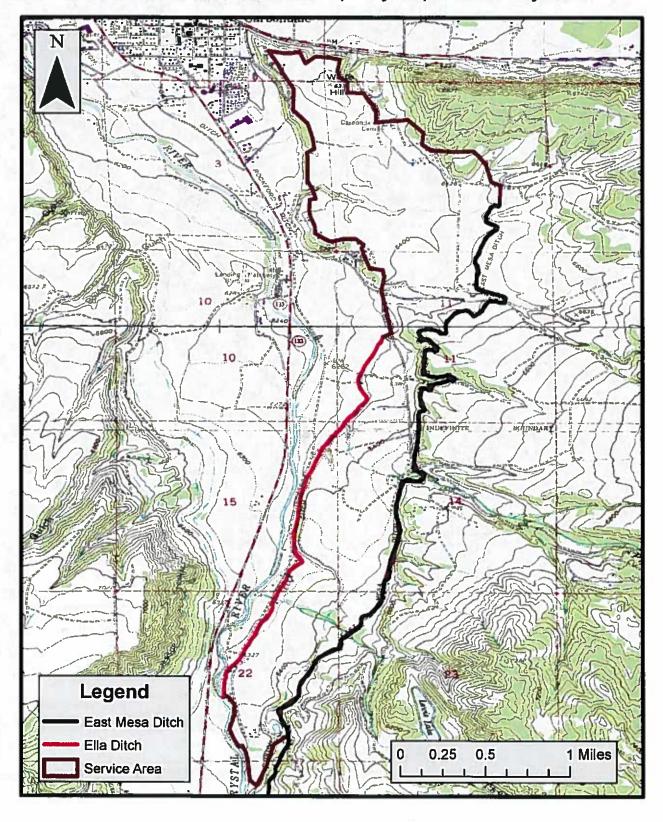


# East Mesa Water Company Pipeline Project Project Area Map

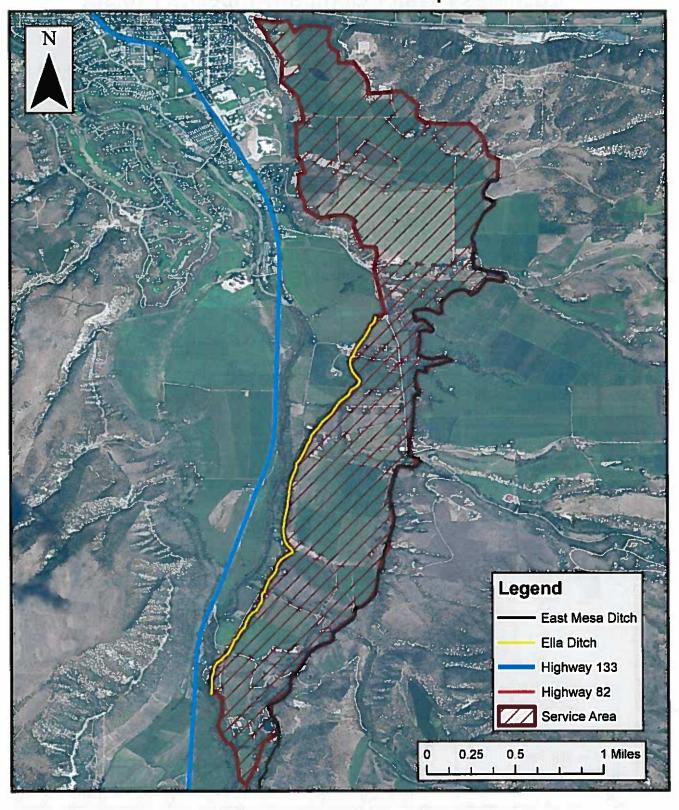


Topography Map of Project Area

## East Mesa Water Company Pipeline Project



## East Mesa Water Company Pipeline Project Service Area Map



### Photos of Project area





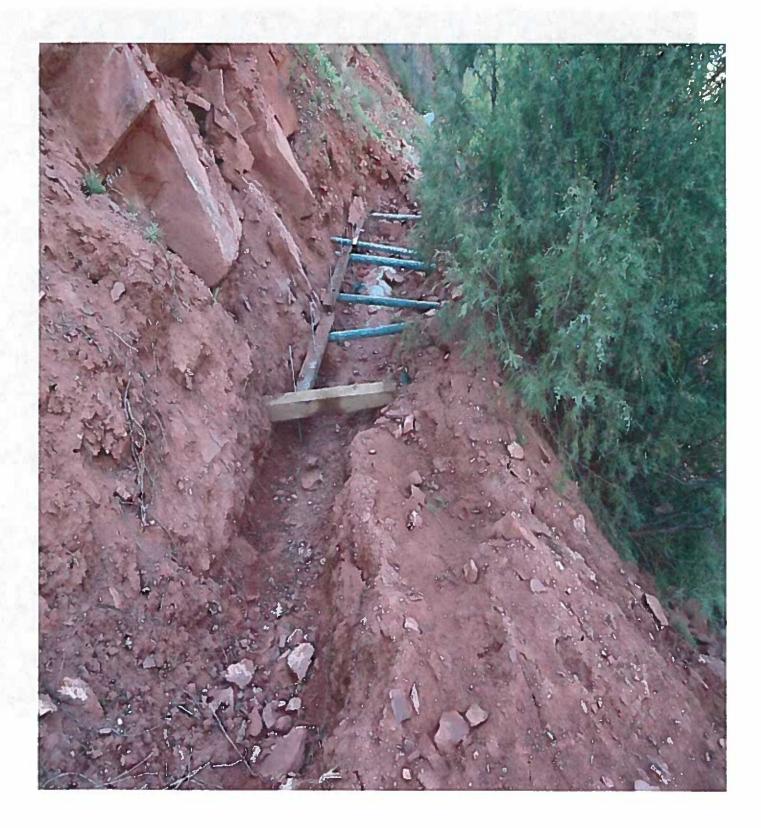
Photo showing elevation difference between existing ditch and Crystal River



One of several rock slide and debris flow areas along proposed pipeline section



End of pipeline and start of Rock tunnel.



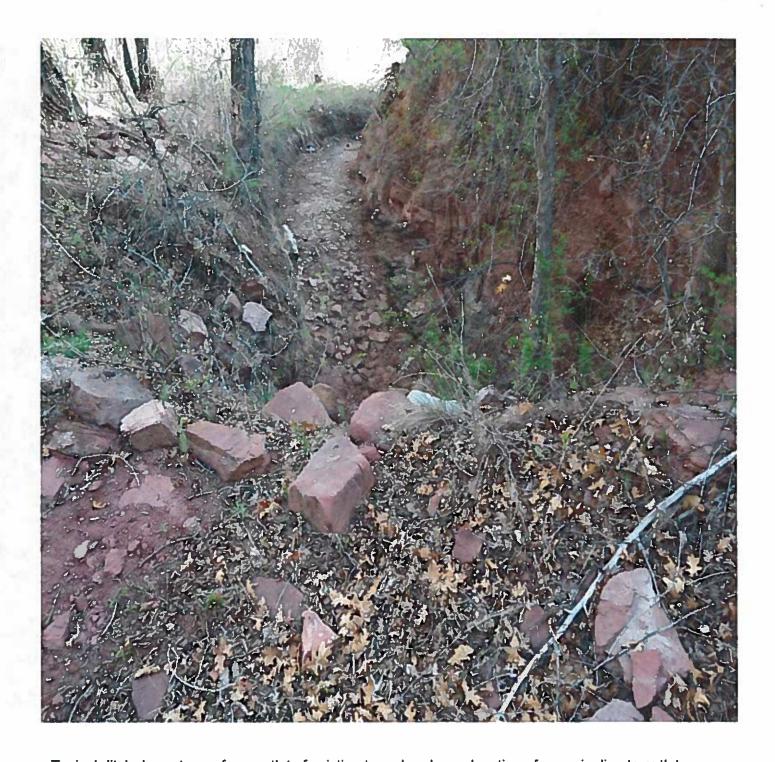
Repair of collapsing pipeline.



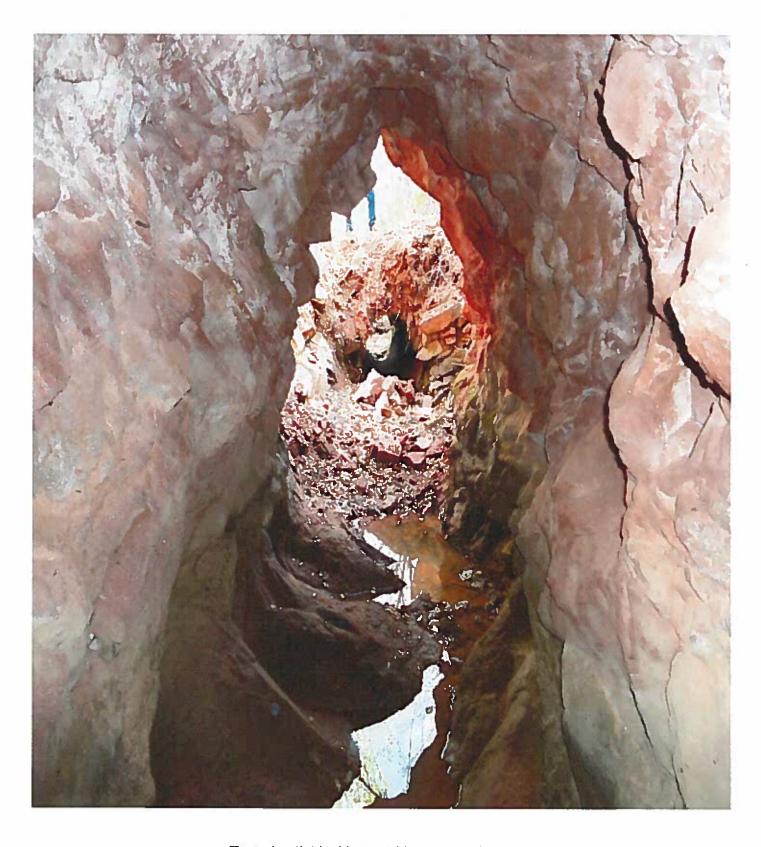
Existing pipeline to be replaced by new pipeline route



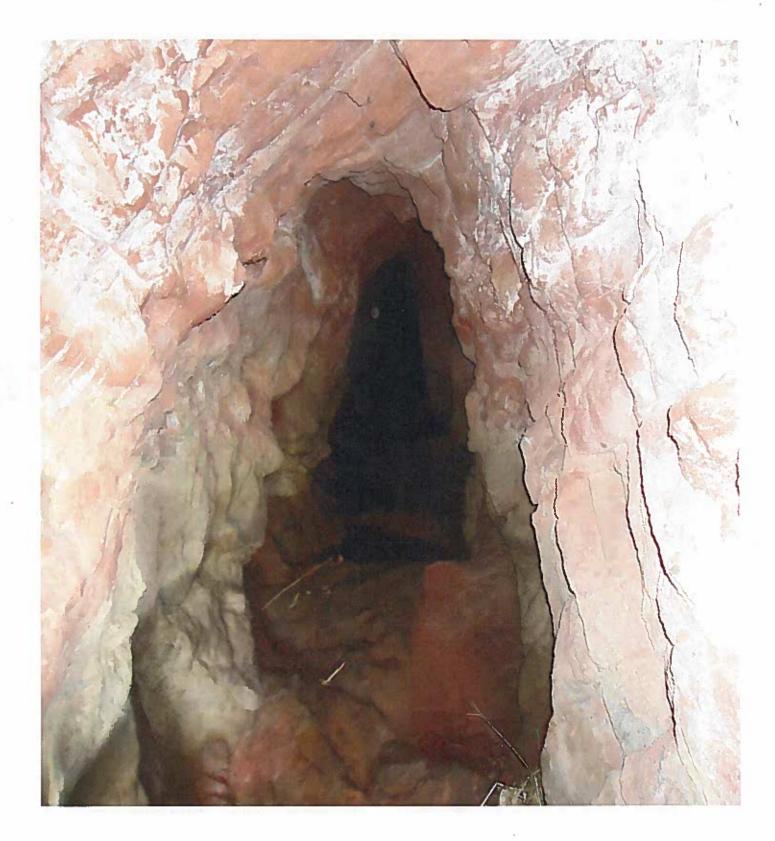
Typical Ditch just upstream from proposed beginning of new pipeline



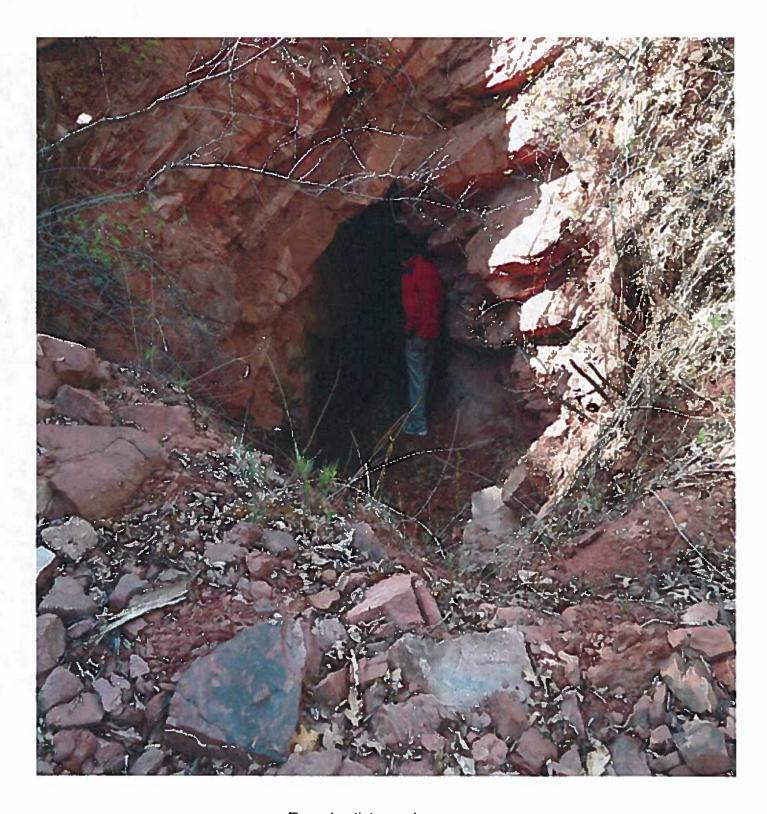
Typical ditch downstream from outlet of existing tunnel and near location of new pipeline to outlet



Tunnel outlet looking out (downstream)



Tunnel outlet looking into tunnel ( upstream)



Tunnel outlet overview



Proposed route to leave lower roadway and rise up to existing ditch below tunnel Blue flags show Carbondale Town Water pipeline route



Proposed Pipeline route in old road way with phone line box and inlet to Bain Thomas Ditch



Photo showing steep rock cliff the existing tunnel and ditch traverse