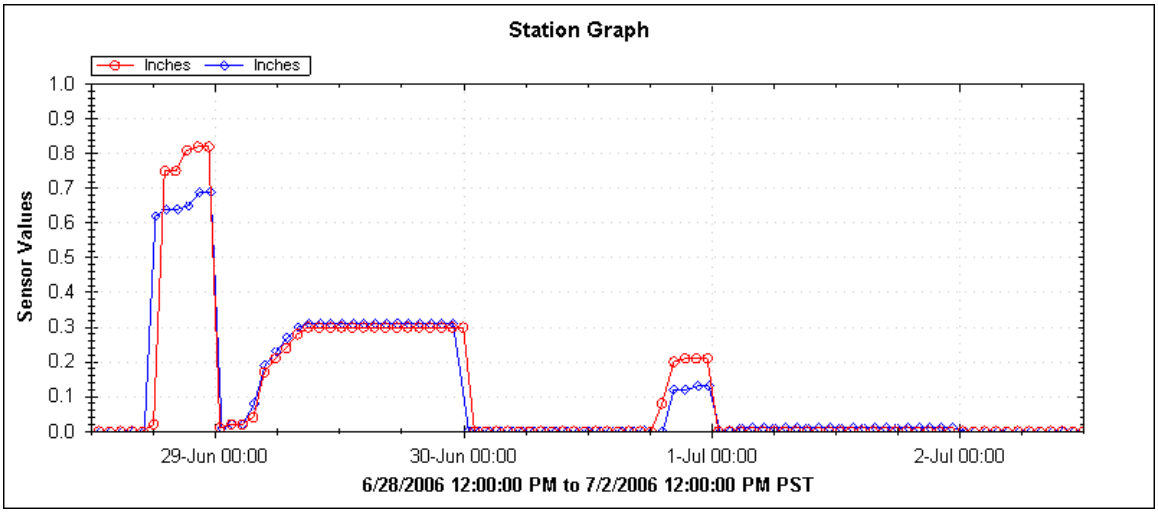
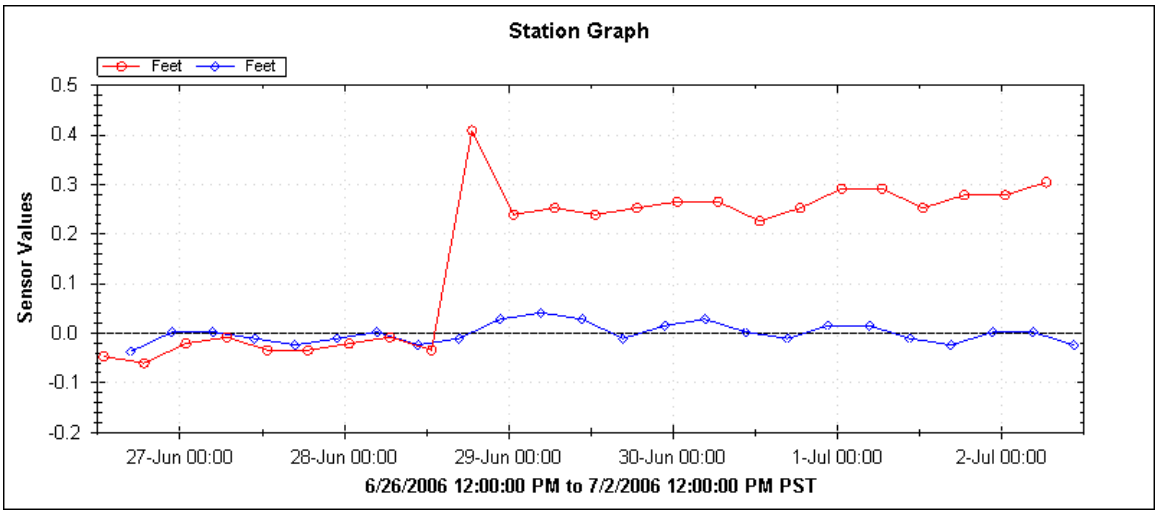
APPENDIX C: Story of June 28 – 29, 2006 thunderstorm in Mays and Jensen.



On June 28th, 2006, a late-evening thunderstorm occurred over the paired watershed study area. In one hour, precipitation in Jensen (red) weather station measured 190 mm (.75 inches) and Mays weather station (blue) recorded 165mm (.65 inches) of rain. At the end of the storm (15 hours), total precipitation received measured 289 mm (1.2 inches) in Jensen and 279 mm (1.1 inches) in Mays.



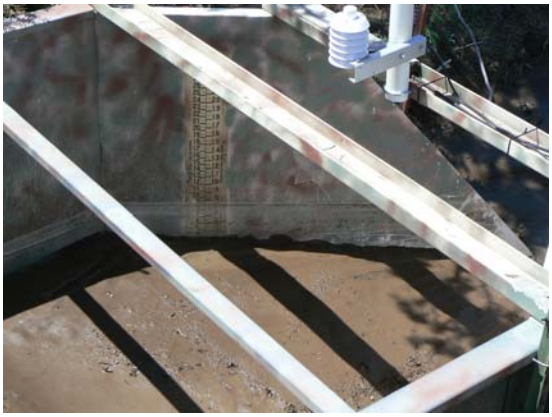
Within 1 hour of the start of the storm, sensors in Jensen flume (red) recorded flow of .4 ft on the staff gauge. Flow in Mays (blue) was not detected. The continuous flow in Jensen after the initiation of the storm reflects sediment deposits in the flume and not actual flow. Flow lasted less than 6 hours.

Jensen flume 4 days after summer thunderstorm, notice sediment deposits in the floor of the flume.

Mays flume 4 days after the same storm. Floor of flume has dusting of sediment but floor is already dry.

Staff gauge in Jensen flume showed that actual flow may have been as high as 22.86 cm (9 inches). The bottom of the photo shows the height of mud in the flume.

Staff gauge in Mays flume showed that rain drop splatter scattered mud on the walls of the flume but no flow line is visible.



The sensor posed over the throat of the flume is an ultrasonic sensor, measuring the changes in distance between the sensor and bottom of flume. Sediment deposits are evident on the flume floor and measure 10 cm (4 inches).

The ultrasonic sensor in Mays recorded no changes in depth of flow. Sediments on the flow of the flume are less than 31 mm (1/8 inch) deep.

Channel deposits in Jensen. This deposit was laid across channel cross-section number 4. The stake on the far side of the channel was buried with deposits to the top of the stake. Channel cross section here is 338 cm (133 inches).

The channels of Mays showed no evidence of large flows or sediment deposits. This photo shows vegetation and a small amount of channel flow just above Mays' flume. Flow disappears before crossing through the fence.

Near Jensen cross-section number 22, overland flow was evident. Overland flow moved sediment and organic material into the channel.

This road was used as a skid trail. Just days before the storm, road condition was soft, with several inches of loose soil on top.

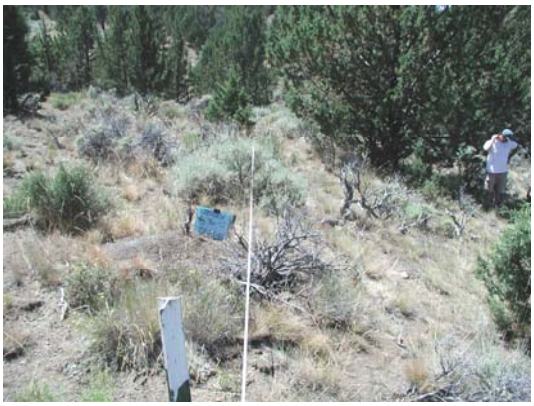
Channel deposits were numerous in Jensen following the storm. These deposits were place near Jensen spring.

One of two channels monitored in Mays. Road used for skidding is on the right. Evidence of channel flow was minimal.

APPENDIX D: Vegetative monitoring changes from 2005 and 2007

Jensen vegetation transect #1, 7/25/05

Jensen vegetation transect #1, 7/24/07



Jensen vegetation transect #2, 7/25/05

Jensen vegetation transect #2, 7/24/07

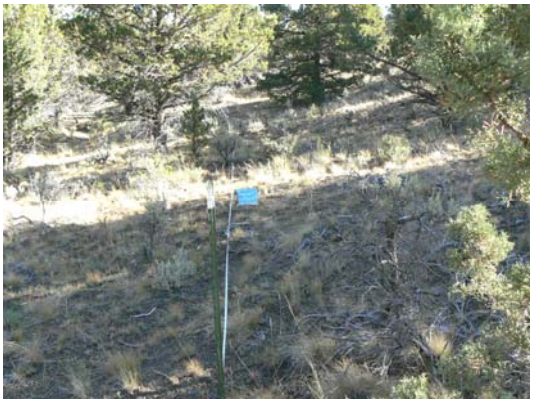
Jensen vegetation transect #3, 7/25/05

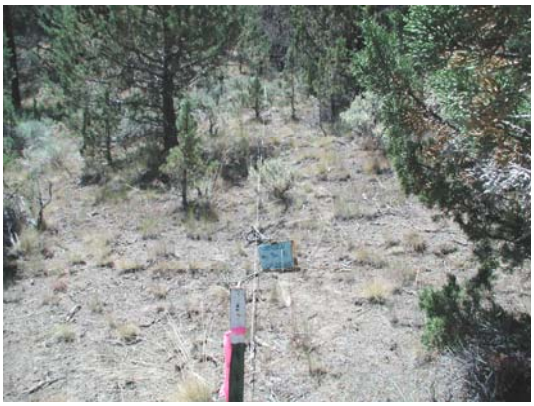
Jensen vegetation transect #3, 7/24/07

Jensen vegetation transect #4, 7/25/05

Jensen vegetation transect #4, 7/24/07

Jensen vegetation transect #5, 7/25/05


Jensen vegetation transect #6, 7/24/07


Jensen vegetation transect #6, 7/25/05

Jensen vegetation transect #6, 7/24/07

Jensen vegetative transect #7, 7/25/05

Jensen vegetative transect #7, 7/24/07

Jensen vegetative transect #8, 7/25/05

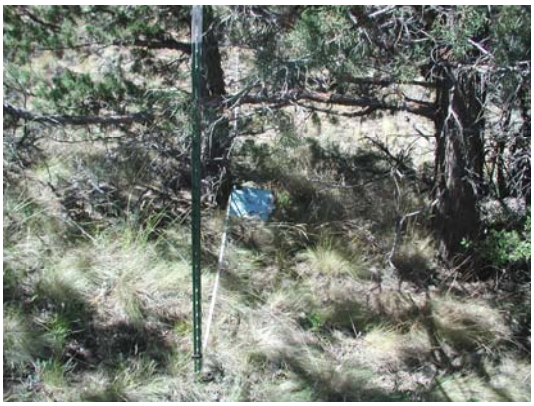
Jensen vegetative transect #8, 7/24/07

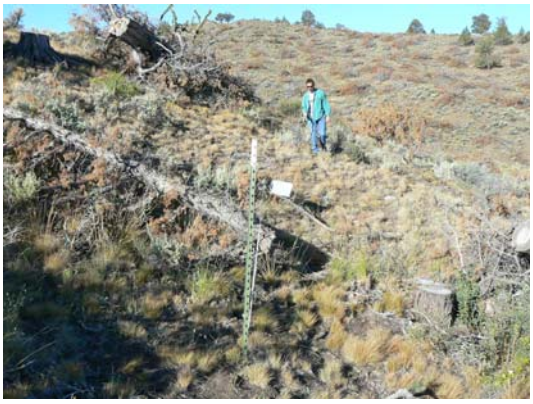
Mays vegetative transect #1, 7/26/05

Mays vegetative transect #1, 7/26/07

Mays vegetative transect #2, 7/26/05

Mays vegetative transect #2, 7/26/07


Mays vegetative transect #3, 7/26/05


Mays vegetative transect #3, 7/26/07

Mays vegetative transect #4, 7/26/05

Mays vegetative transect #4, 7/26/07

Mays vegetative transect #5, 7/26/05

Mays vegetative transect #5, 7/26/07

Mays vegetative transect #6, 7/26/05

Mays vegetative transect #6, 7/26/07

Mays vegetative transect #7, 7/26/05

Mays vegetative transect #7, 7/26/07

Mays vegetative transect #8, 7/26/05

Mays vegetative transect #8, 7/26/07

APPENDIX E. Vegetative responses, pictures from 7/25/07 – 7/28/07

Overview of Jensen Watershed

General view of the understory condition in Jensen. Grasses are mature and mostly dormant. Slope is generally easterly. There is very little "greenness" left.

Jensen watershed, another view of understory, north slope.

Jensen watershed, a south slope, very few reproductive culms are evident.

Mays watershed overview, pre treatment (July, 2005)

Mays watershed overview, post treatment (July, 2007).

Mays watershed, south slope highlighting the flush of cheatgrass.

Mays watershed - Reproductive culms on Junegrass and Big blue.

Mays Watershed - Plant release and reproduction of basin wildrye.

Mays watershed – Reproductive culms on bluebunch wheatgrass and Indian ricegrass. Also visible is the reproductive release of mountain big sagebrush.

Mays watershed - Increase in perennial forb cover was noted. *Crepis* in bloom.

Mays watershed – Lupine spp. in bloom in late July.