

Completion Documentation for Construction of Three Cross-Vane Structures in Pueblo Canyon

The project to construct three cross-vane structures in Pueblo Canyon has been completed. The following discussion documents the construction of the cross-vane structures.

Construction

The cross-vane structures were constructed between September 11 and 14, 2009, at the locations described in the "Supplemental Interim Measures Work Plan to Mitigate Contaminated Sediment Transport in Los Alamos and Pueblo Canyons". The channel distance between the upper and lower of the three structures is 0.8 km (0.5 mi).

The cross-vane structures were constructed in accordance with the conceptual design submitted to NMED on June 29, 2009, and approved by NMED on August 11, 2009. Each of the three cross-vane structures consists of rocks buried in the channel in a "V-shaped" configuration with rocks set adjacent to each other. The apex rock of each structure is set lowest into the channel with a height approximately 20 in. above the channel bed. The downstream rocks are keyed into the channel bank. The top of the buried rocks form a slope of approximately 3% from the apex to the downstream rocks at the channel banks.

Sediments within the channel that were disturbed for placement of rocks were spread along the up-channel and down-channel faces of the rocks. It is anticipated that initial flows through these structures will establish a stable condition around the structures.

The sites of these cross-vane structures will be monitored and cross-vane configurations, stabilization features, or other aspects will be adapted as necessary. Monitoring of these structures will be conducted in accordance with the monitoring plan for Los Alamos and Pueblo Canyons due to the New Mexico Environment Department on October 15, 2009.

Figures 1a and 1b show the western (upcanyon) structure. Figures 2a and 2b show the middle structure. Figures 3a and 3b show the eastern (downcanyon) structure.



Figure 1a View of upper cross-vane structure looking north across the Pueblo Canyon channel



Figure 1b Downcanyon view of the upper cross-vane structure



Figure 2a Upcanyon view of the middle cross-vane structure



Figure 2b View looking downcanyon at the middle cross-vane structure



Figure 3a View looking north across the lower cross-vane structure showing rehabilitation of access road



Figure 3b View looking upcanyon at the lower cross-vane structure