

BORAMEP Total Load Analysis of the Low Flow Conveyance Channel on the Middle Rio Grande, New Mexico

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Abstract. The Bureau of Reclamation Automated Modified Einstein Procedure (BORAMEP) is a computer model that utilizes the Modified Einstein Procedure (MEP) to estimate the total sediment load in a hydraulic system. The effectiveness of BORAMEP has been evaluated by using sediment and hydraulic data from Low Flow Conveyance Channel (LFCC) on the Middle Rio Grande. The total load and sand load at three cross sections of the Low Flow Conveyance Channel were calculated using three different methods. The suspended sediment load was also calculated. BORAMEP total load results appear to be consistent with the total load estimates from the sampling sills at flow rates near 300 cfs but tend to underestimate the total load at flow rates near 600 cfs by at least a factor of two when compared to the total load estimates from the sampling sills. Sand load estimates from BORAMEP appear to be consistent with sand load estimates from the sampling sills at flow rates near 300 and 600 cfs.