

SPECIAL REPORT September 2, 2003

We are looking for special presentations to fill next seasons' dates. If you have any suggestions or would like to volunteer please email Sue Lowry or Laura Watson.

SPECIAL REPORT

Greg Wilkerson, professor at the University of Wyoming, presented "Modeling CBM Surface Water Impacts Using Erosion Potential Modeler. The research and development for this was provided by:

Wyoming Department of Environmental Quality
U.S.G.S. Water Resources Institute Program
University of Wyoming Water Research Program
Wyoming Water Development Commission
Wyoming State Geological Survey
University of Wyoming

The research objective was to "develop an approach for establishing an erosion index for drainages in northeast Wyoming," and "produce an erosion index map compatible with ArcView GIS. This research includes using Loham's hydrology regression equations to determine the flood frequency that estimates the channel's bankfull capacity, in turn creating the equilibrium width of the channel. If the CBM discharge amount within the drainage is known then an erosion potential index (EP) can be calculated. All of these calculations such as, drainage area, geographic factors, and EP are performed within a GIS setting. With further research a future final product can be used to estimate - at what value of the erosion potential index should decision makers disallow further Coal Bed Methane (CBM) water to be discharged into the channel. We appreciate Dr. Wilkerson taking time out to come to Water Forum and present his work.