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Type	oral presentation
Category	Innovative Watershed and Stream Restoration Approaches/Methods
Title	<i>Benefits of the Use of Articulated Concrete Matting on the South Branch of French Creek Erie County, Pennsylvania</i>
Abstract	<p>The exposure of a large gas transmission line in a streambed has the potential for catastrophic consequences and therefore, requires quick action and thinking “outside the box”. This gas transmission system includes a large-diameter, high pressure 26-inch pipeline located in northwestern Pennsylvania. The South Branch of French Creek flows in a northerly direction through the project area. The channel splits and turns 90 degrees splitting both to the east and west. At these splits, approximately 270-ft of the pipeline was exposed in the bank parallel to the stream. Immediate and cost-effective alternatives to cover the exposed gas pipeline and repair the streambank, were discussed with state and federal officials. Prior to the commencement of construction activities, over 200 mussels representing eight species were collected and relocated by representatives of state agencies, the gas company and URS. The gas company determined that the best way to protect the gas pipeline and its effect on the South Branch of French Creek was to install articulated concrete matting over the pipeline to armor the streambank. The matting provides protection to the gas line as well as decreases the additional sediment occurring in the watershed due to erosion from storm events. The paper will discuss the stabilization of the streambank, the environmental studies conducted for permitting and the periodic monitoring events of the project area to measure the return of mussels in the streambed and regrowth of vegetative cover of the streambanks within the disturbed areas.</p>