Native Topography Design Process

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Abstract. The Bureau of Reclamation, Albuquerque, New Mexico has currently funded a new design for the S-Curve model at CSU’s ERC that will mimic two specifically surveyed bends of the Rio Grande. The new design includes specific channel features such as thalweg placement in the channel, constrictions, and point bars. While the new design will again be testing the shear stresses along the bed of the channel, consideration will also be given to how the velocities and stresses vary depending on location in both the vertical profile, as well as the longitudinal profile across a cross section. This will allow better estimation of bend migration and erosion by studying a simulated river reach in a controlled environment.

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