

Implications of Hydraulic Conditions of the San Acacia Reach for the Rio Grande Silvery Minnow

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Abstract. The Rio Grand silvery minnow (*Hybognathus amarus*) was historically present in the Rio Grande and Pecos Rivers from the headwaters of the Rio Grande in southern Colorado to its confluence in the Gulf of Mexico. Due to extensive river fragmentation via dam construction throughout the 1900's, the current *H. amarus* population is bounded to 5% of its historical range within the Rio Grande, New Mexico. As a result, *H. amarus* was classified as endangered in 1994. Additionally, populations are the lowest ever recorded due to decaying habitat conditions, poor water quality during low flow events, stream channelization, and the presence of non-native fish species. Recent studies suggest that prolonged, elevated flows resulting in immersed habitats and overbank flooding are important for the successful propagation of wild silvery minnow. Thus, research will focus on relating present sediment and water flows to habitat conditions essential to the success of *H. amarus* in the upcoming study.