COLORADO PIKEMINNOW (*Ptychocheilus lucius*)

<u>Navajo/Federal Statuses</u>: NESL G2 / listed endangered on 11 MAR, 1967 (32FR:4001) with designated Critical Habitat 21 MAR 1994 (59FR:13374).

Distribution: Currently restricted to the Upper Colorado River from WY to NM. On the Navajo Nation it has been documented throughout the San Juan River (SJR), from Shiprock to Lake Powell; the mouth of the Mancos River is used during the spring runoff period. The majority of adults use the stretch from about 11 km downstream of Shiprock (RM142) to just downstream of Four Corners (RM117), and spawn in 'The Mixer Area' (RM131-132); young-of-year have primarily been found within the lower 26 km of the SJR just upstream of Lake Powell.

Habitat: Adults use backwaters and flooded riparian areas during spring runoff, and migrate large distances (15-64 km in the SJR) to spawn in riffle-run areas with cobble/gravel substrates. Post-spawning adults primarily use run habitats, with eddies and slackwater also being important. Young-of-year (<120 mm length) use warm backwaters along shorelines. Deeper backwater areas (>1 m deep at confluence with main channel) are the preferred habitat of young fish into the subadult stage (>3 yrs. age and 200-400 mm length). Irrigation canals and ponds connected to SJR may be potential habitat.

<u>Similar Species</u>: Trout species have distinctive adipose fin; no other adult minnows may reach 1-2 m in length, but young are similar to other minnows.

Phenology:

l.JUN-m.JUL: movements to spawning areasm.JUL-l.JUL: spawning occurs post-peak runoff in 22-25°C waterl.JUL-e.AUG: dispersal from spawning areas

Formal Survey Protocol: None. Evaluations may be based on the presence of habitat or Federally designated Critical Habitat. Electrofishing or seine surveys may be required if the proposed action may result in an adverse effect to the species. Federal permit required for survey and collection.

<u>Avoidance</u>: Near occupied habitat, no surface disturbance year-round within 60 m of top of stream bank, and prevent changes to water chemistry or quantity upstream. Within federally designated critical habitat, no modification of constituent habitat elements within 100-year floodplain.

References:

- Holden, P.B. and W. Masslich. 1997. San Juan River recovery implementation program, summary report 1991-1996, PRN-576-2. BIO/WEST, Inc., Logan, UT.
- Minckley, W.L. 1973. Fishes of Arizona. Arizona Game and Fish Department, Sims Printing Co., Inc. Phoenix, AZ. (description p.119)
- U.S. Fish and Wildlife Service. 1990. <u>Colorado pikeminnow recovery plan.</u> U.S. Fish and Wildlife Service, Denver, CO. 56pp.