Quarterly Progress Report
July 1 – September 30, 2005
BOR Agreement 1425-03-FC-10-9910

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September 30, 2005

Bureau of Reclamation implemented Ecologically Based System Operations (EBSM) on the South Fork Snake River during winter 2003-2004. IDFG began biological monitoring of Yellowstone cutthroat trout during the same time period. The 2004 data have been entered and analyzed, and the first draft of the annual progress report has been submitted for review. This quarterly progress report summarizes activities conducted during the third quarter of 2005, which is the final quarter for this grant agreement.

An estimated 5,000 rainbow trout were harvested in 2003 compared to 1,000 in 1996. It is likely that significantly more rainbow trout will be harvested this year with our continued information and education campaign and the major regulation changes that began in 2004. During this quarter, 35 flights were completed and 1,270 anglers were interviewed for the creel survey.

Annual population monitoring using electrofishing was completed at the Lorenzo section (lower South Fork below Heise) in September. Preliminary analysis indicates that cutthroat trout are at historic low numbers whereas brown trout – particularly juveniles – were found in healthy numbers. The Conant section will be electrofished in October. Data from both sections will provide the cutthroat and rainbow trout recruitment estimates needed to evaluate the 2004 freshet. In addition, assistance was provided for Teton River semi-annual electrofishing and other upper Snake River electrofishing to evaluate mountain whitefish abundance.

The Palisades Canal screen bypass trap was operated March 30 to July 14. The bypass trap sampled post-spawners returning downstream, and, using the proportion of marked to unmarked fish, the estimated Palisades Creek weir efficiency was 90.5%. A total of 800 cutthroat trout – 76 which were unmarked – and 82 rainbow trout were trapped. All cutthroat trout trapped earlier at the Palisades Creek weir were marked with an upper caudal fin punch and all rainbow trout were moved to the Trail Creek Pond near Victor. Also this quarter, the fish weirs at Burns and Pine creeks were retrofitted with Mitsubishi floating weir panels salvaged from the Blackfoot River. All weirs except Rainey Creek will be operated with Mitsubishi weir panels next spring. Damage caused by high runoff this spring at the Pine Creek and Rainey Creek weir sites was repaired. Finally, the property surrounding the Palisades Creek weir (1.25 A) was purchased by the Idaho Fish and Wildlife Foundation to provide permanent access, and limited property development was initiated.

Population modeling with Dr. Rob Van Kirk (Idaho State University) and Dr. Mary Conner (Utah State University) has continued at a slow pace due to fall work schedules. The purpose of the modeling is to assess the effects of various management scenarios (angler harvest, tributary management, and flow manipulation) on the likelihood of long-term cutthroat trout persistence in the South Fork. To date, informal meetings have been conducted and a modeling blueprint has been mapped. South Fork cutthroat and rainbow trout fecundity, sexual maturity, age and growth, and spawn timing data has been compiled and sent to Dr. Van Kirk for review. During this quarter, otoliths and fin rays collected from 60 cutthroat trout in 2003 were sent to Auburn University and University of Idaho for aging. Depending on their success – which will be critical to model development – additional aging structures will be analyzed this winter.