

**Montana Department
of
Fish, Wildlife & Parks**



MONTHLY PROGRESS REPORT

Project Title: Quantification of Hungry Horse Reservoir water levels needed to maintain or enhance reservoir fisheries.

Project Number: BPA 84-465; MDFWP 3174-1

Project Biologist: Brian Marotz *BM*

Project Technicians: Mike Hensler, Jon Cavigli, Gary Michael, John Wachsmuth, Tim Taylor

Project Manager: John Fraley

Report for the Month: July 1990

1. Summary of significant results.

Hungry Horse Reservoir refilled for the first time since August 3, 1987. The pool elevation rose from -6.24 feet on June 30, to 3560.72 on July 31, or .72 feet above full pool.

Several modifications were made in the model code. It is now possible to save to file and review all model outputs including river temperatures in the South Fork and main stem Flathead River. Output from the selective withdrawal component includes a breakdown of temperature days or trout growth units by degree and month. Updated fish growth data for mountain whitefish and trout were sent to MSU for incorporation in HRMOD and LRMOD.

Fraley and Marotz attended meetings in Portland with BPA personnel and PNUCC to discuss the reservoir models and applications for use with HYDRO6 and SAM models.

"Skyhook" structures and Christmas trees were installed in Mill Creek. About two thirds of the structures were placed in the creek with 2 river meanders or 60 structures remaining for placement during August when the banks become stable enough for heavy equipment.

Cavigli and Marotz toured Paladin Spring Creek, a tributary to the Flathead River near Flathead Lake. We determined that imprint planting could produce a spawning run with very little improvement to the creek bed. Some artificial spawning structures may be required to increase the area of suitable spawning gravel.

Redd counts were completed on three primary spawning tributaries to the reservoir. Another several tributaries in the Spotted Bear River were assessed for habitat and fish barriers.

Wachsmuth and Taylor completed fabrication of the insect deposition traps in preparation for use in August.

A population estimate was completed in the Harrison section of the South Fork. Over 200 fish were marked, or approximately 40 percent of the cutthroat population in the 1.25 mile reach.

2. Brief discussion of major problems encountered, changes in work plan, or schedule deviations.

None.

3. Short description of planned activities for the following month.

Remaining "skyhook" structures will be installed in Mill Creek, covered and seeded.

Benthos sampling will be conducted.

Insect deposition traps will be installed and monitored in two-week increments for the remainder of the field season.

A hydroacoustic fish population estimate will be conducted during the last week of August using BIOSONIC's dual beam system. Stratified gill netting and trawling will be used with the routine summer gill net series for ground truthing sonic targets.

Marotz will take annual leave August 6 through 17.

4. Itemized listing of each non-expendable item greater than \$1,000 and each designated sensitive item.

None.

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