

**DEPARTMENT OF FISH AND GAME**<http://www.dfg.ca.gov>601 Locust Street
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May 21, 2004

Mr. Dan Keppen, Executive Director
Klamath Water Users Association
2455 Patterson Street, Suite 3
Klamath Falls, OR 97603

Dear Mr. Keppen:

Your May 18, 2004, letter outlines several questions regarding operational procedures at Iron Gate Hatchery (IGH). As you are aware, the hatchery was built as partial mitigation for the loss of salmonid habitat above Iron Gate Dam and has been in operation since 1966. Since 1966, the Department of Fish and Game (Department) has continually reviewed and refined hatchery protocols to promote the use of sound biological practices. This process involves discussions with several Federal agencies including National Oceanic and Atmospheric Administration, Fisheries (NOAA), United States Bureau of Reclamation (Reclamation) and United States Fish and Wildlife Service (FWS). In addition, discussions regarding IGH operations with PacifiCorp, Klamath Basin Tribes, and the Klamath Basin Fishery Task Force occur routinely.

It is unclear what impacts IGH fish have on the survival and distribution of naturally produced salmonids below Iron Gate Dam. Because the Department realizes there is a potential for increased competition among hatchery and non-hatchery fish for the limited riverine habitat, especially during low flow years, we worked with the FWS to develop an early release strategy (ERS) for Chinook salmon smolts from IGH. Consequently in May 2001, the Department began staggering the release of the smolt Chinook salmon from the hatchery. The ERS is designed to reduce the number of hatchery smolts entering the river at one time and thus reduce potential competitive interactions between hatchery and naturally produced fish in the river. In addition, release of hatchery smolts in May should also provide better habitat and migration conditions in the river coincident with higher flows and lower water temperatures. The Department is currently working with our cooperators to monitor and evaluate the effectiveness of the ERS.

The mitigation goals established for the operation of IGH call for a total release of 6,000,000 Chinook salmon (4,920,000 smolts and 1,080,000 yearlings). In the past, yearling production has occurred at two facilities, IGH and Fall Creek Fish Facility (FCFF). Approximately 900,000 yearlings are reared at IGH and the remaining 100,080 at FCFF. The FCFF was eliminated in the 2003-04 budget year. All yearling Chinook salmon are released in early October. To

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achieve these mitigation goals a minimum of 8,000 adult Chinook salmon must return to the hatchery. Over the past few years, including 2002, IGH returns have exceeded 8,000 fish. A return of at least 8,000 fish is beneficial in terms of maintaining the genetic diversity of the hatchery stock because it allows hatchery personnel to collect eggs from a more representative portion of the entire fall Chinook run. All fish in excess of what the hatchery needs are retained in the hatchery and killed. This practice reduces the potential for hatchery fish to spawn in the river. This and other operational procedures were developed by the Department - NOAA Joint Hatchery Review Committee in 2001.

During the week of May 10, 2004, and prior to the release of any IGH Chinook smolts, FWS biologists operating a downstream migrant trap on the main stem Klamath River near Kinsman Creek (RM 145) observed significant mortality in juvenile salmonids. The fish showed clinical signs of *C. Shasta*. During the same week, crews seined near Klamathon Bridge (above Interstate 5) and caught approximately 400 nonhatchery smolts showing no external signs of *C. Shasta*.

The Department will release 5 million IGH smolts this spring. The release groups will consist of approximately 1 million smolts per week extending through the first week of June. The first release occurred on May 13, 2004. While the FCFF will not be in operation this next year, the Department will retain approximately 900,000 smolts at IGH. This is the maximum number of smolts that the Department can raise to yearlings at this facility.

As part of the day to day operation of IGH, fisheries technicians and managers monitor the condition and health of the fish at the facility. If a fish health condition becomes apparent, the Department's fish health section is notified and the fish are examined. Over the past several years Dr. Scott Foot from the FWS, Fish Health Laboratory, has acquired fish from IGH for inclusion into a disease monitoring program for the Klamath River Basin. These IGH fish were tested and found to be disease free prior to release.

Mortality of hatchery and nonhatchery production from the Klamath River has not been well studied. Because of the life cycle of Chinook, it is very difficult to assess when and where specific mortality occurs within the system. The Department agrees that mortality and survival of hatchery and nonhatchery outmigrants warrants additional investigation. In the past decade there have been at least three documented juvenile mortality events within the Klamath River (1997, 1998, 2000). The most severe event occurred in late June 2000 when dead and moribund salmonids, primarily young-of-year Chinook salmon, were observed in 64 river miles of the main stem Klamath River from Coon Creek, Siskiyou County (RM 89) downstream to Pecwan Creek (RM 25). The

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Department estimated tens of thousands up to as many as 3 hundred thousand juvenile salmonids perished as a result of *Flavobacterium columnare* (*columnaris*) and *Ceratomyxa Shasta*.

I hope this letter helps clarify some of your concerns regarding the operational procedures at IGH. As stated earlier, the Department frequently coordinates with Klamath River Basin resource managers on issues that pertain to the Klamath River and IGH. If you have any additional questions please contact Fisheries Program Manager Gary Stacey at (530) 225-2364.

Sincerely,



DONALD B. KOCH
Regional Manager

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