



DEPARTMENT OF THE INTERIOR

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INTERIOR EMPLOYEES WIN \$12,000 INCENTIVE AWARD FOR FISH PROTECTION DEVICE FOR WATER DEVELOPMENT PROJECTS

The invention of the louver fish screen--a unique device which will protect fishery resources at multipurpose water developments--has won for three Department of the Interior employees an incentive award of \$12,000.

Secretary of the Interior Fred A. Seaton will present checks today to two Fish and Wildlife Service employees and one from the Bureau of Reclamation who cooperated in developing the fish conservation device. The incentive award is the third largest ever made by the Government and the first of its size ever made by a nonmilitary agency.

The fish screen, which was first developed for use at the huge Tracy Pumping Plant of the Central Valley Reclamation Project in California, is acclaimed by Interior Department officials as one of the outstanding advances in fishery conservation in 30 years.

Its use at the Tracy installation and on future water developments will save the Government many millions of dollars in actual construction and operation costs and will protect a sports and commercial anadromous fishery resource worth tens of millions of dollars, Secretary Seaton said.

Sharing the award are Russell Vinsonhaler of the Bureau of Reclamation and Daniel W. Bates and George O. Black of the Fish and Wildlife Service. For their respective contributions, Vinsonhaler and Bates receive \$5,040 each and Black gets \$1,920. Vinsonhaler and Bates have also received the Department's Distinguished Service Award and Black was presented the Meritorious Service Award.

In principle, the louver fish screen differs radically from the conventional and more costly moving fish screens of the past. Described as a "venetian blind with perpendicular slats," the louver screen extends diagonally across a water channel from which fish are to be barred.

The fish screen is designed principally to guide millions of young salmon, bass, and shad--anadromous species on their way downstream from spawning beds--away

from irrigation and hydroelectric diversion works. The fish are carried down the channel by the current. As they approach the louvers across the diversion channel, they sense the disturbing sounds and eddies made by the slats and continually move to one side to avoid the louvers. They are finally swept to safety by a siphon or other bypass.

One of the problems of the Fish and Wildlife Service, the agency primarily responsible for preventing fish losses at Federal water developments, has been to find a way to guide fish from areas of danger to areas of safety. The development of an effective and economic means to accomplish this has been the subject of continuing research. Until the louver screen, other devices were not fully effective and were very costly to construct and maintain.

The Fish and Wildlife Service is continuing its experimentation on electrical guiding devices which can be used under conditions not adapted to the louver, such as guiding adult salmon into fishways around dams. These experiments include guiding or attracting fish to a bypass or by repelling them from a danger area.

The louver screen has been under test since 1952, with results so gratifying that the Bureau of Reclamation and the Fish and Wildlife Service decided to adapt it for use at the Tracy Pumping Plant--the world's second largest pumping installation.

At Tracy, which pumps water from the Delta area of the San Joaquin and Sacramento Rivers, the pull of the pumps is so great that fish heading for the sea are caught up in its current. The protective device at Tracy consists of a row of vertical louvers extending approximately 340 feet diagonally across a concrete channel $83\frac{1}{2}$ feet wide and 25 feet deep. The fish--averaging an inch long--are first diverted through a siphon to holding tanks, from which they are trucked to a point of safety further downstream in the Delta.

Russell Vinsonhaler is presently headquartered at the Bureau of Reclamation's Kansas River Projects Office at McCook, Nebraska. Daniel Bates and George Black of the Fish and Wildlife Service are headquartered in Portland, Oregon, and Eureka, California, respectively.

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