

The Decline in Delta Fisheries

Habitat for fish in the Sacramento-San Joaquin Delta (Delta) has changed radically over the past several decades as a result of diversion of river water for urban and agricultural uses, flood control activities, pollution from urban runoff, poaching and deposition of sewage. The Delta has long provided essential habitat for very large populations of Delta smelt, longfin smelt, and green and white sturgeon, but each of these populations has declined dramatically and their decline has been attributable in varying degrees to changes in Delta habitat. The Delta smelt's status under the California Endangered Species Act was recently up-listed from threatened to endangered, longfin smelt is listed as threatened and green sturgeon is listed as threatened federally. Moreover, the decline in native white sturgeon in the Delta has reduced the economic value of these species' sport fisheries. Because current protections may be insufficient to prevent the extinction of Delta smelt – or the further decline of longfin smelt – ongoing debate over the merits of current and alternative protections is extremely litigious.

Proponents for additional Delta smelt, longfin smelt and green sturgeon protections argue primarily for large-scale reductions to diversion of water from the south Delta for the State Water Project (SWP) and Central Valley Project (CVP). Substantial reductions in south Delta water diversions are possible primarily through foregone municipal and agricultural development, new water conservation measures, new water supplies (e.g., desalination) and alternative points of diversion (e.g., a Peripheral Canal).

On the other hand, it has been suggested large-scale reductions to the SWP and CVP are not warranted because other stressors, such as pollution, invasive species impacts, fisheries impacts and diversions of water for local use have not been sufficiently addressed. It also has been argued that current regulatory limits on diversion of water from the south Delta do not provide reasonable benefit to Delta fish species given the cost.

Independently and through its association with the Interagency Ecological Program for the San Francisco Estuary and the Delta Science Program, the Department of Fish and Game (DFG) is doing extensive research and monitoring to inform real-time decisions on water exports, long-range export planning and export facilities. It worked with the Fish and Game Commission in the up-listing of the Delta smelt and the listing of longfin smelt, and now is regulating the incidental take of longfin smelt. It is working on a recovery plan for green sturgeon and an overhaul of the regulations for sturgeon fisheries. As part of the Bay Delta Conservation Plan, DFG also is identifying quantifiable biological objectives and flow criteria necessary for the conservation of Delta smelt, longfin smelt, and green and white sturgeon, and will continue to conduct and promote research on the feasibility and efficacy of protections for these species of concern. Regulatory action may become necessary and implementation of the regulations should allow for adaptive management.