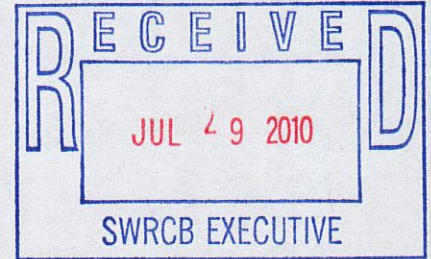




PO Box 5788
Concord, CA 94524



July 29, 2010

Mr. Charles R. Hoppin, Chairman
State Water Resources Control Board
1001 I Street
Sacramento, CA 95812

Re: Draft report on the development of Flow Criteria for the Sacramento-San Joaquin Delta Ecosystem.

This letter will provide comments of Water4Fish on the draft flow criteria report under consideration by the State Water Board at its August 3, 2010 meeting. Water4Fish is a non-profit organization whose purpose is to educate the public and policy makers on the needs of fish in the establishment of water policies for California. The organization has 78,000 supporters who have signed our petitions asking for better water policies for fish.

Water4Fish strongly urges the Board to adopt the staff report. We commend the staff for its thorough and enlightened analysis of the Delta water flows that are needed to restore the Delta ecosystem and the fish and wildlife that depend on this system for survival.

Our current interest is salmon. As the board undoubtedly knows, all of the Central Valley salmon runs have been in a serious decline for several years. There are many contributing causes for these declines but Delta flows resulting from increased export pumping have been identified as the primary cause. The faulty biological opinion of 2004 allowed export pumping to dramatically increase. The Delta flows were radically changed and salmon smolts which previously migrated to the ocean were pulled into the Central Delta where adverse food, cover and predator conditions were fatal to these small fish.

New studies using acoustical tracking of the smolts identified where these fish were being lost. At the height of the problem it was determined that 50% of the smolts coming down the Sacramento river were pulled into the Central Delta at the open Cross Channel Gates at Walnut Grove. Another 20% were pulled into Georgiana Slough just downstream from the Cross Channel Gates. When these losses were combined with the in river losses up to 92% of the smolts perished in the system and never completed their migration to the ocean. The result has been the salmon population crash and shut down salmon fishing seasons in 2008

and 2009. These shutdowns have cost the state \$1.4 billion in economic impact each year and a loss of 23,000 jobs.

The 2009 biological opinion by the National Marine Fisheries Service partially dealt with the flow problems. Pumping changes were made but only to avoid extinctions of the two salmon species listed under the ESA. No changes were made which will restore Delta ecosystem and begin to recover both the listed and non listed species of salmon and other fish native to the Delta.

In the water legislation of 2009 the Legislature set the co-equal goals of a more reliable water supply and a restored Delta ecosystem. They also directed that reliance on the Delta as a water supply source is to be reduced. The draft water board flow standards are a critical element in determining the steps needed for the ecosystem recovery. To bring about these changes, the Boards adoption of the draft plan is crucial.

We are attaching five graph exhibits that show the impact that lack of flow standards are having on the Sacramento River salmon runs.

The first graph shows the collapse of the fall run species. This was the largest run and the primary stock that supported the recreational and commercial fisheries of the state. The graph shows the collapse from 768,000 returning adults in 2002 to successive new record low returns in 2007, 2008 and 2009. In 2009 there were only 39,500 returning adults. The outlook for 2010 and beyond continues to indicate successively lower returns unless current water management and flow conditions are changed. The fall run is not listed under the ESA and therefore does not get the same protections as the listed winter and spring runs. Absent significant flow changes, it is almost assured this run will be petitioned for an ESA listing in the near future.

The next four graphs show why business as usual will continue to destroy the salmon runs. When Delta pumping is heavy and a large portion of the Delta inflow is exported that water has to come from somewhere. It comes from Shasta, Orville, Folsom and other reservoirs. When these reservoirs are heavily drawn down at the wrong time of the year major spawning salmon habitats are destroyed. Salmon need cold water to spawn and they need consistent flows in their early life cycle.

The second graph shows the decline of the natural spawning fall run fish in the upper Sacramento River. This area was traditionally the largest spawning zone in the Central Valley for fall run salmon. Heavy and untimely draw downs from Shasta reservoir have created fatal temperature and flow problems in this zone. The graph shows a decline in natural spawning fall run salmon from 475,000 adult returns in 2002 to 11,054 in 2009.

The next two graphs show the flow and temperature habitat problems in the American River. It shows a decline from 167,000 returning adults in 2001 to only 1,791 in 2008. The

American River was the second most important spawning area in the Central Valley. Its destruction is almost complete and must be changed if the salmon are to be recovered.

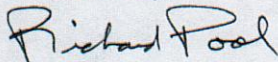
The second American River graph shows the problem. Heavy summer draw downs from the Folsom Reservoir completely exhaust the cold water pool in Folsom. As a result the river temperatures in the fall are 100% lethal to the salmon needs.

The Feather River was the third most important spawning area in the Valley. Flow problems have taken the returning adults from 170,000 in 2001 to an all time low of 3,950 fish in 2009.

The last graph shows the result of a flow problem in the fall of the year. The Mokelumne natural spawning salmon and the Mokelumne hatchery fish have been significantly impacted by heavy flows to the pumps though the Cross Channel Gates. The Mokelumne main stem flows into the Cross Channel bypass just below the gates. In the fall, the main stem is flowing at around 80 cfm and with the pumps running the Cross Channel flows are around 3,000 cfm. The Mokelumne adults are attracted by the heavy flows and end up as strays in the Sacramento River rather than as spawners in the Mokelumne. These flows need correcting as part of the Delta ecosystem recovery.

A high percentage of these problems will be solved if the Water Board approves the draft report and the Delta Stewardship Council follows through integrating the Board's report into the ecosystem recovery plan. Step one is approval of the draft Flow Criteria plan.

Yours Truly,



Richard Pool
President

Attachments: Salmon Returns Graphs

The Crash of the Central Valley Fall Run Salmon

2002 peak
768,000 fish

The Fall Run species has traditionally been the strongest and most abundant of the four separate Central Valley salmon runs. It has been the backbone of the commercial and recreational offshore fisheries for decades. Mismanagement of Delta exports and the impact they have had on upriver salmon spawning and migrating capabilities have been the primary reasons for the recent declines.

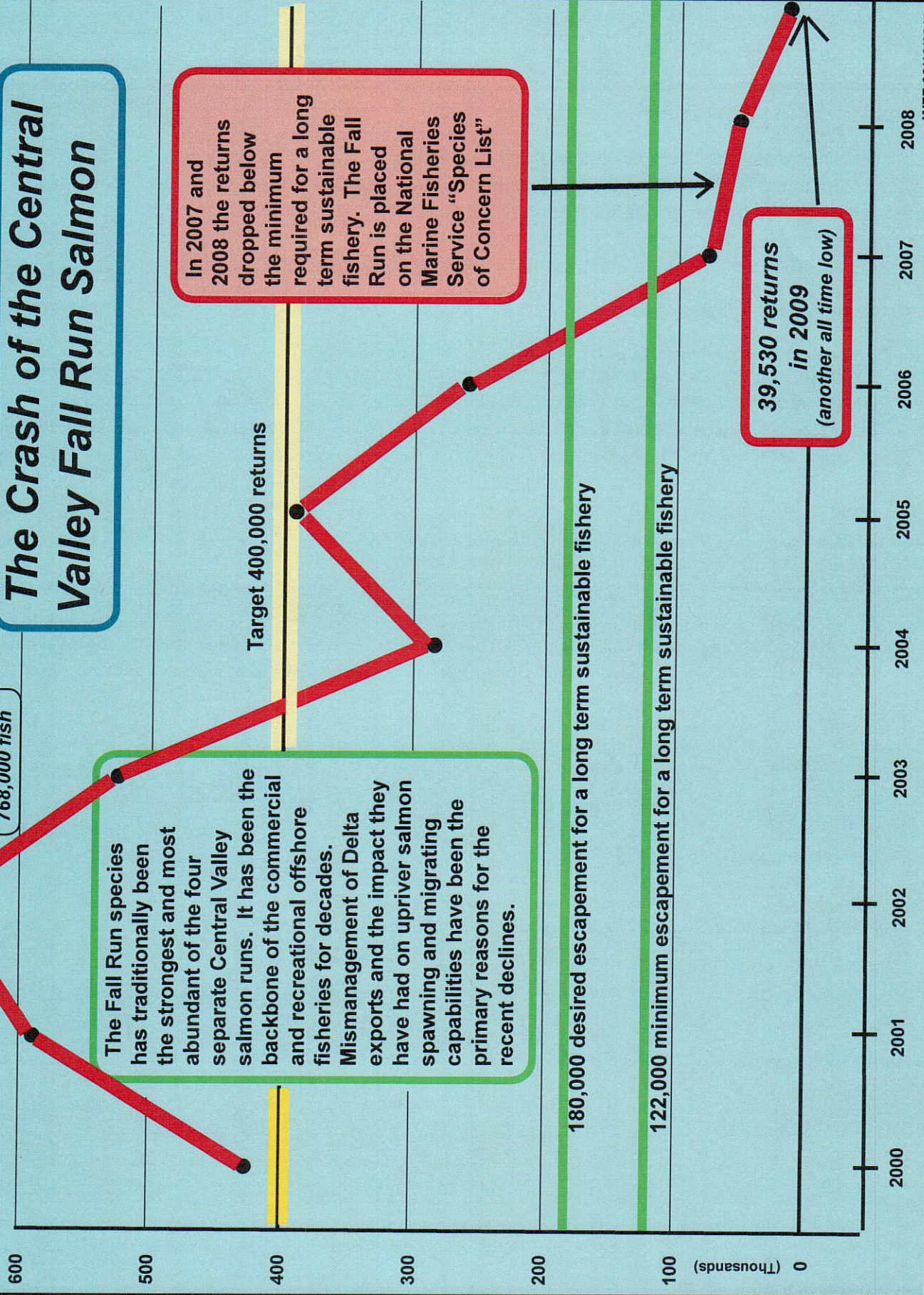
In 2007 and 2008 the returns dropped below the minimum required for a long term sustainable fishery. The Fall Run is placed on the National Marine Fisheries Service "Species of Concern List"

Target 400,000 returns

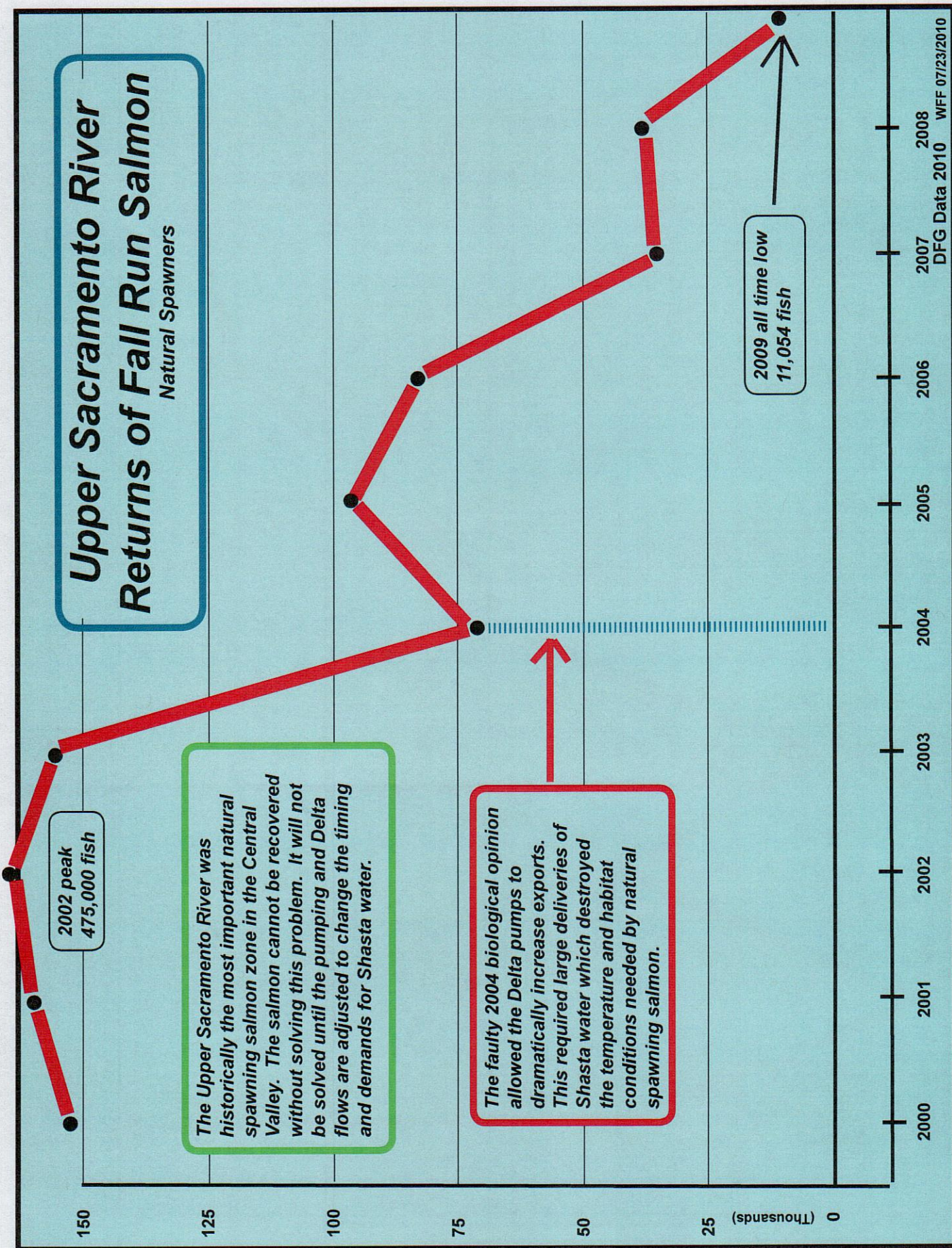
180,000 desired escapement for a long term sustainable fishery

122,000 minimum escapement for a long term sustainable fishery

39,530 returns in 2009 (another all time low)



Upper Sacramento River Returns of Fall Run Salmon Natural Spawners



2002 peak
475,000 fish

The Upper Sacramento River was historically the most important natural spawning salmon zone in the Central Valley. The salmon cannot be recovered without solving this problem. It will not be solved until the pumping and Delta flows are adjusted to change the timing and demands for Shasta water.

The faulty 2004 biological opinion allowed the Delta pumps to dramatically increase exports. This required large deliveries of Shasta water which destroyed the temperature and habitat conditions needed by natural spawning salmon.

2009 all time low
11,054 fish

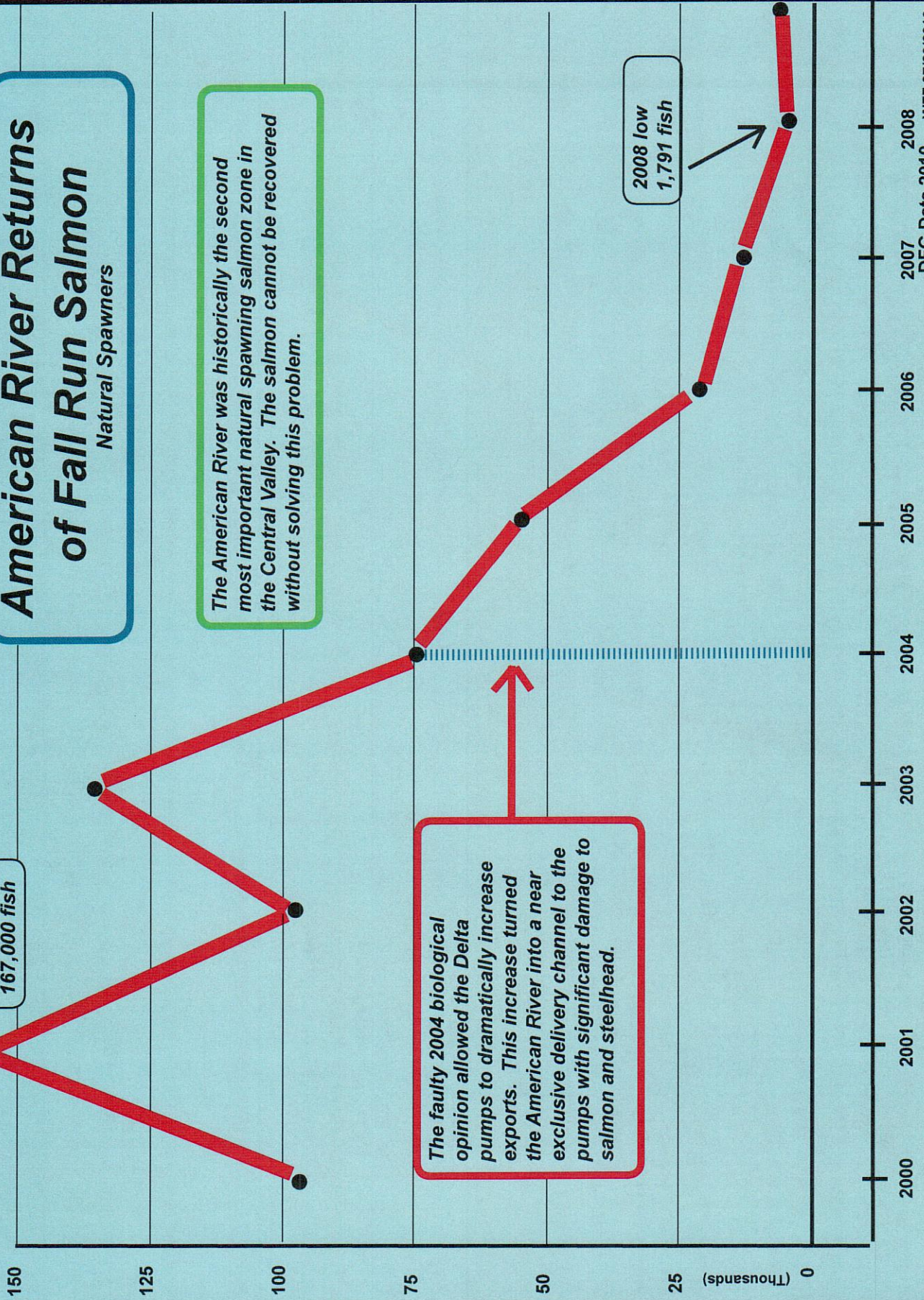
American River Returns of Fall Run Salmon Natural Spawners

2001 peak
167,000 fish

The American River was historically the second most important natural spawning salmon zone in the Central Valley. The salmon cannot be recovered without solving this problem.

The faulty 2004 biological opinion allowed the Delta pumps to dramatically increase exports. This increase turned the American River into a near exclusive delivery channel to the pumps with significant damage to salmon and steelhead.

2008 low
1,791 fish



Typical Fall American River Temperatures

The American River is a death trap for fall run salmon. The state and federal pumps draw all the cold water from behind Folsom Dam during the summer. The adult salmon start arriving in July and are left with lethal habitat for spawning. This problem must be solved if the salmon are to recover.

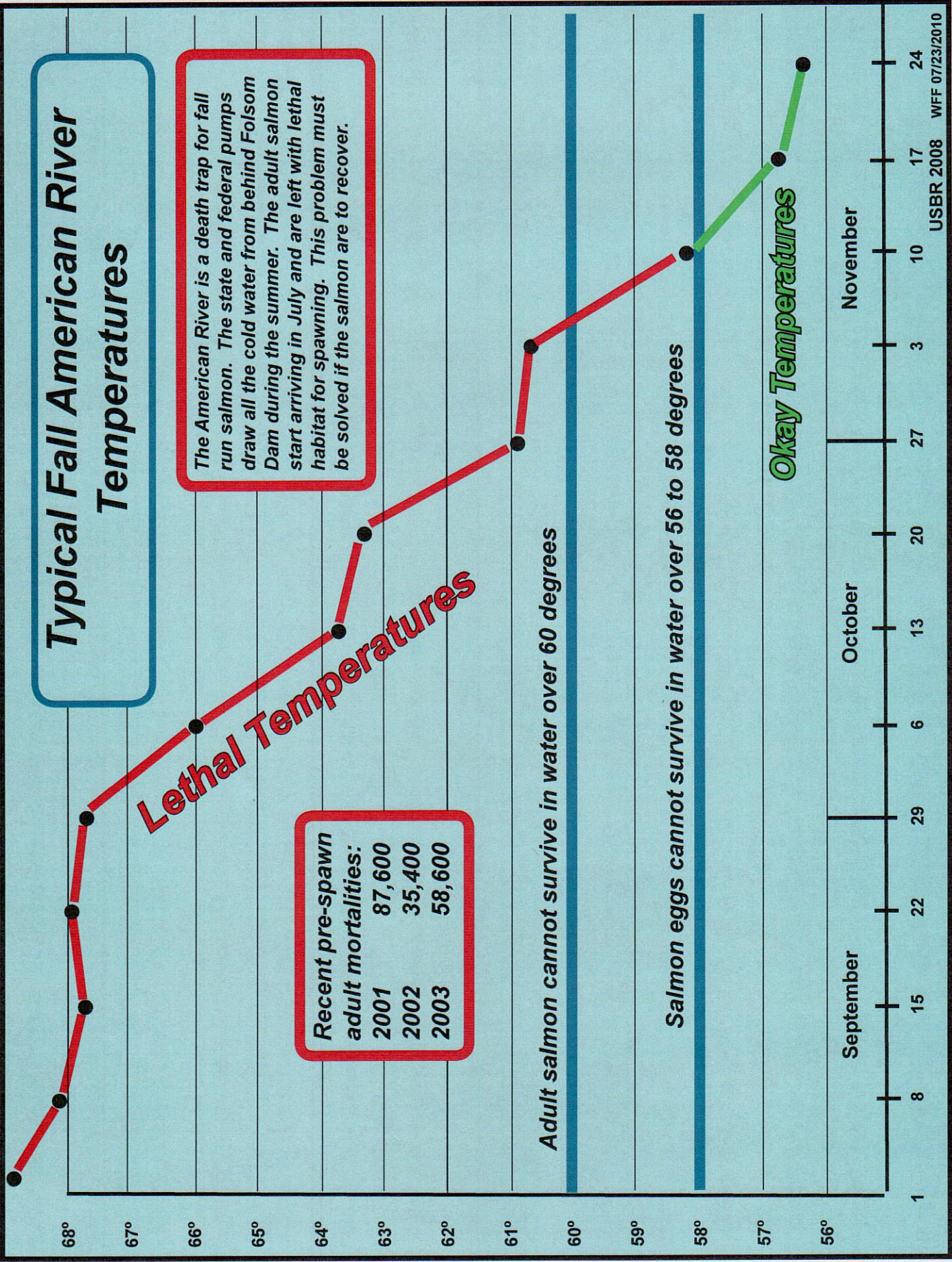
Lethal Temperatures

Recent pre-spawn adult mortalities:	
2001	87,600
2002	35,400
2003	58,600

Adult salmon cannot survive in water over 60 degrees

Salmon eggs cannot survive in water over 58 degrees

Okay Temperatures



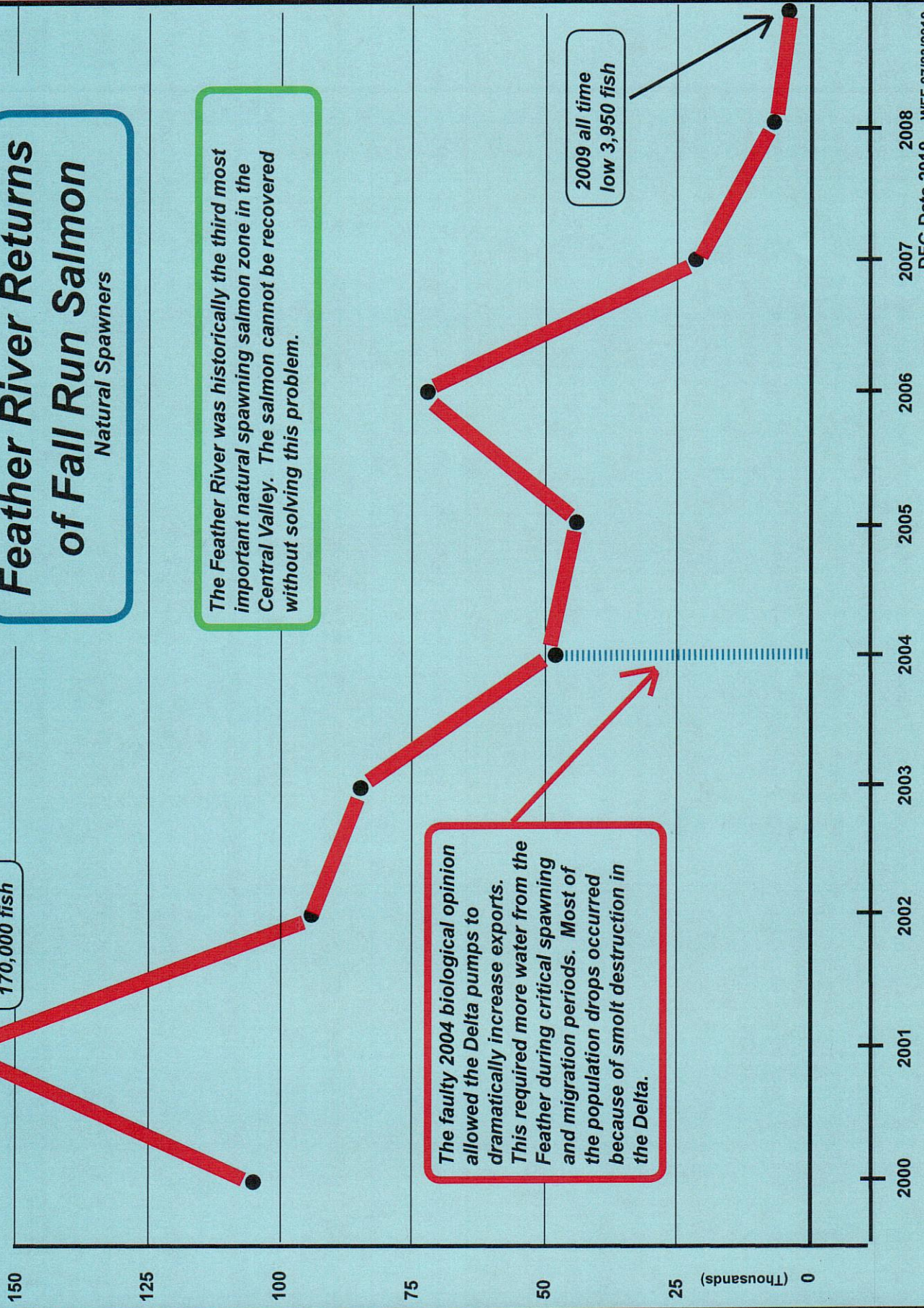
Feather River Returns of Fall Run Salmon Natural Spawners

The Feather River was historically the third most important natural spawning salmon zone in the Central Valley. The salmon cannot be recovered without solving this problem.

The faulty 2004 biological opinion allowed the Delta pumps to dramatically increase exports. This required more water from the Feather during critical spawning and migration periods. Most of the population drops occurred because of smolt destruction in the Delta.

2009 all time low 3,950 fish

2001 peak 170,000 fish



Mokelumne River Returns of Fall Run Salmon Natural Spawners

12

10

8

6

4

2

(Thousands)

0

2005 peak
10,406 fish

The Mokelumne River supports both natural spawning fall run salmon and hatchery fish. The river has prime natural spawning habitat and the hatchery is the most modern in the state. Both populations have been severely impacted by Delta flow problems.

The faulty 2004 biological opinion allowed the Delta pumps to dramatically increase exports. Heavy export pumping in September and October pulls high water volumes through the cross channel gates attracting returning Mokelumne adults through the gates and into the Sacramento system rather than into the Mokelumne main stem. Both natural and hatchery stocks have been impacted severely. Salmon recovery will require changes in this practice

2009 all time
low 123 fish

2000

2001

2002

2003

2004

2005

2006

2007

2008