STATE WATER RESOURCES CONTROL BOARD

DIVISION OF WATER RIGHTS

# STAFF ANALYSIS OF THE HEARING RECORD FISHERY RESOURCES AND WATER RIGHT ISSUES ON THE LOWER YUBA RIVER

JULY 1994

## ISSUE 2: ARE ADDITIONAL MEASURES NEEDED AT EXISTING DIVERSION FACILITIES TO PROTECT THE FISHERY RESOURCES?

### A. GENERAL:

Chapter VI provides a detailed discussion of the location, operation, and effectiveness of the fish screens at each of the three major diversion facilities. The following provides a summary, conclusions and recommendations regarding each diversion facility.

### B. BROWN'S VALLEY PUMPLINE DIVERSION:

In the opinion of Division staff, the diversion of up to 80 cfs without a fish screen results in the loss of a significant number of anadromous fish and, therefore, represents an unreasonable method of diversion. The water agencies that supply or divert water at this location (YCWA and Browns Valley) have the responsibility of ensuring that diversion of water does not cause significant loss of fish and does not represent an unreasonable method of diversion. Accordingly, staff recommend that the SWRCB direct the water agencies (i.e. YCWA and Browns Valley) to prepare a workplan that evaluates alternative methods to reduce fish losses at this location, to include:

- A description of the alternatives considered.
- Recommendations of DFG and USFWS.
- CEQA considerations
- The proposed project.
- Estimated costs and sources of funding.
- Proposed construction scheduling.

The water agencies should be required to consult with DFG and the USFWS and to submit a workplan acceptable to the Chief of the Division of Water Rights within six months of the date of this order. Staff recommend that the Board prohibit any diversion at this site, in the event that the water agencies do not implement measures acceptable to the Chief of the Division of Water Rights, in accordance with a time schedule acceptable to the Chief of the Division of Water Rights.

### C. NORTH CANAL:

In the opinion of Division staff, the present diversion facility results in the loss of a significant number of anadromous fish and, therefore, represents an unreasonable method of diversion of water. The water agencies that supply or divert water at this location (YCWA, Hallwood, Cordua and Ramirez) have the primary responsible to ensure that their diversion of water does not cause a significant loss of fish and is not an unreasonable method of diversion.

Staff recommend that the SWRCB direct the water agencies (i.e. YCWA, Hallwood, Cordua and Ramirez) to prepare a workplan that evaluates alternative methods to reduce fish losses at this location, to include:

- Modification of the operation of the existing fish screen.
- Methods to improve the return of captured fish to the river.
- Methods to reduce predation.
- Relocation of the existing screen closer to the river.
- Construction of a new fish screen.
- A description of the alternatives considered.
- Recommendations of DFG and USFWS.
- CEQA considerations
- The proposed project.
- Estimated costs and sources of funding.
- Proposed construction scheduling.

The water agencies should be required to consult with DFG and the USFWS and to submit a workplan acceptable to the Chief of the Division of Water Rights within six months of the date of this order. Staff recommend that the SWRCB prohibit any diversion at this site, in the event that the water agencies do not implement measures acceptable to the Chief of the Division of Water Rights, in accordance with a time schedule acceptable to the Chief of the Division of Water Rights.

D. SOUTH CANAL:

The existing offstream rock barrier fish screen was constructed in 1985 by South Yuba and Brophy in substantial conformance with the conceptual design plans and criteria specified in the stipulated judgement. [SOUTH YUBA, Exh.5] Although some studies were conducted, DFG did not conduct sufficient studies to evaluate the effectiveness of the fish screen as specified in the stipulated judgement. In the opinion of the Division staff, there is insufficient information available to determine the effectiveness of the rock barrier portion of the diversion facility.

DFG and USFWS have expressed concern regarding the performance of the existing rock barrier fish screen and recommend that a "state-of-the-art", perforated plate fish screen be constructed "on-river". DFG and USFWS state that rock barrier fish screens have proven ineffective in other areas. This concern is supported by the fact that the rock barrier fish screen at the Browns Valley Pumpline Diversion Facility was removed due to operational problems.

Sufficient information has been submitted to show that modifications could be made to the alignment and configuration of the diversion channel and to the operations at the diversion site to improve the overall performance of the diversion facility to protect emigrating juvenile salmon. YCWA performs routine maintenance on the diversion channel and has reconstructed the channel to remove gravel deposited by floodwaters [USFWS,Exh.7,p.3]; consequently, modification to the diversion channel could be completed in conjunction with future maintenance or reconstructive work. These modifications should be relatively inexpensive. In the opinion of Division staff, continued diversion at the existing facility would represent an unreasonable method of diversion of water, when feasible and inexpensive measures could be implemented to modify the facility to better protect fish.

The water diverters have the primary responsibility to insure that their diversions do not significantly impact fishery resources and do not represent an unreasonable method of diversion. Accordingly, staff recommends that the SWRCB direct the water agencies that supply or divert water from the South Canal (YCWA, South Yuba and Brophy) to prepare a workplan that evaluates alternative methods to reduce fish losses at this location, to include:

- Modifications that could be made to the diversion/bypass channel to return fish to the river.
- Modifications that could be made in the operation of the diversion facility.
- Methods to reduce predation.
- Additional studies to be conducted.
- Recommendations of DFG and USFWS.
- CEQA considerations
- A description of the alternatives considered.
- The proposed project.
- Estimated costs and sources of funding.
- Proposed construction scheduling.

The water agencies should be required to consult with DFG and the USFWS and to submit a workplan acceptable to the Chief of the Division of Water Rights within six months of the date of this order. Staff recommends that the SWRCB prohibit any diversion at this site, in the event that the water agencies do not implement measures acceptable to the Chief of the Division of Water Rights, in accordance with a time schedule acceptable to the Chief of the Division of Water Rights.

As described in Issue 4 below, staff recommends that YCWA submit a petition to add points of rediversion of waters supplied to South Yuba and Brophy from the Reeds Creek-South Canal. Staff recommends that approval of that petition be conditioned on the satisfactory implementation of the measures outlined in the workplan.

E. DANTONI AREA:

Water users in the Dantoni Area pump directly from the Yuba River. Testimony was not presented as to the exact number of diverters in this stretch of the river, sizing of pumps that are installed in the river, or whether the pumps were equipped with any type of fish screening devices. In the opinion of Division staff, the diversion rates for these pumps are small in comparison to the diversions at Daguerre Point Dam, however, it appears reasonable to require that screening devices be installed on these pumps, since other diverters on the river will be required to implement measures to reduce the loss of fish. Therefore, Division staff recommends that YCWA and DFG conduct an evaluation of potential losses due to diversions in the Dantoni Area and, if appropriate, submit recommendations to the SWRCB relative to improvements that could be made and the parties responsible for those changes.