

INTERIM HEARING
OF THE
BAY DELTA PROCEEDINGS

Rebuttal Testimony of Dante John Nomellini

August 1992

Fish Screens

In my capacity as manager and co-counsel of the Central Delta Water Agency I have direct responsibility for a Delta-Siphon Fish Screen Test Project now underway on McDonald Island. Exhibit WRINT CDWA Ex. 5 shows the location of such project. Exhibit WRINT CDWA Ex. 6 shows the type of screen utilized and Exhibit WRINT CDWA Ex. 7 the configuration of the installation. Somewhat unique to this project is the hinge which allows the screen manifold to be easily lifted out of position while leaving the siphon fully operational. The hinge greatly reduces the risk of crop loss due to screen plugging. Although we hope to continue our test a number of preliminary conclusions are apparent.

1. Technology and hardware appears to be available to screen small fish (1 inch or greater in length) but does not appear to be available to screen eggs and larvae. See also Exhibit WRINT CDWA Ex. 1, pgs. 27 and 37 and Exhibit WRINT CDWA Ex. 4 pg. 9.

2. A major cost component for fish screens is bringing electrical power to the site.

3. The average cost of installing a self cleaning fish screen for Delta diversions is probably upwards of \$50,000.00 per site. Operation and maintenance costs are not yet known.

4. The DWR - Sacramento - San Joaquin Delta Atlas dated August 1987 page 49 shows approximately 1600 irrigation diversions. The cost of screening just the small fish at all these locations appears to be about \$80,000,000.00.

5. Some areas of the Delta have greater concentrations of eggs, larvae and fish than others. (See Exhibit WRINT CDWA 1 pg. 29 and Exhibit WRINT CDWA 3.

6. There is a substantial variation in the diversion potential of fish and eggs among diversion locations in the same area. See Exhibit WRINT CDWA Ex. 2 pgs. 4 and 5. Possible important variables could be depth of intake, configuration of intake, channel flow characteristics and desirability of habitat near the intake.

7. There is a substantial variation in the time and duration of diversions depending upon crops and extent of area served. By way of example the siphon on McDonald Island used for our fish screen test project was operated for only four (4) days for irrigation purposes. The field served by the siphon was planted to wheat which had adequate moisture from seepage and rainfall except in the later part of May when irrigation water was applied during a four (4) day period.

8. California Law requires the Department of Fish and Game to bear the cost of screening agricultural diversions in the Delta which are less than 250 cfs. See Exhibit WRINT CDWA Ex. 1 pg. 37 and Exhibit WRINT CDWA Ex. 4 pg. 2 paragraph 4.

9. More study is needed to determine which diversion points in the Delta significantly affect fish, eggs or larvae and whether it is cost effective to screen or relocate the high impact diversions.

10. More study is needed to determine whether or not it is possible to monitor the movement of fish, eggs and larvae and thereby develop a program to alter the timing of diversions at high impact locations in order to reduce diversions of fish through agricultural diversions.

Growth and Development in Areas to Which Water from Delta is Exported.

Exhibit SWC 3b figure 9 shows that the desert area per household use is about 65% higher than the coastal household use and about 30% higher than the inland valley household use. At page 13 of the same exhibit it is explained that growth in the desert area is expected to be higher than in the other two areas. The absence of growth planning is apparent. Assuming the present projected demand can be met without further destruction of northern California what is the plan for the future? How much desert can we allow to be developed? If the future demand is to be met with desalted water then why allow further destruction of northern California as an interim solution?