

United States  
Department of  
Agriculture

Forest  
Service

SO

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Reply To: 2540 Water Uses

Date: March 13, 1985

Subject: PLACWA diversion structures

To: District Ranger, Georgetown RD

Kirby, here's some background information on the PLACWA project #2079 (Long Canyon diversions) that may be of help to you when you talk to their representatives.

Current flow releases from the structures are:

North fork Long Canyon -- 2 cubic feet/second all year  
South fork Long Canyon -- 5 cubic feet/second all year  
during wet or normal years -- 2.5 cubic  
feet/second all year during dry years.

If normal flow drops below these flows, the normal flow is the required low flow (since there is no storage associated with these structures).

These structures are not screened to prevent fish from entering the conduit system. Studies conducted by PG&E on the Mokelumne River Project indicate that fish migrating downstream do become entrained in these water diversion projects and are diverted from the stream systems. The loss can be significant. These same studies show that rainbow trout downstream migration occurs June through September with a peak in mid July. The majority of fish migrating downstream at these times are young of the year fish (40 - 70 mm length). If the structures "spill" during this time, then some of the fish travel over the dam. If it doesn't, most fish are sucked into the diversion tunnels.

Electroshocking data collected on the South Fork Long Canyon above the diversion structures indicate excellent fry and young of the year production of trout. This data was collected at various times in the past for Timber Sale input and for the development of the Long Canyon Habitat improvement Project EA (Sikes Act 1979). Electroshocking data collected last year downstream from Ramsey crossing produced a more normal distribution of fish age classes. This is probably due to the type of habitat sampled. The gist is, the upper section of Long Canyon produces a lot of fish that, given the opportunity, could be used to seed the lower section of the Rubicon River (a California designated Wild Trout Stream).

A solution to this problem would be to screen the diversion structure. All new hydroelectric projects address this concern and the identified accepted solution is to screen the intake structures. This has been addressed in the Long Canyon small hydro project proposal (downstream from the PLACWA diversions).

We have yet, on this forest, had an opportunity to pursue this concern and retrofit an existing structure with fish screens. This is primarily due to the longevity of the licenses that are issued for these projects, and the unwillingness of the project proponent to incur the expense of the retrofit screens. This project's license is up for renewal in the year 2013. At that time we will have the legal opportunity to force this issue. If, however, we have the opportunity to do so before then, lets go for it!

Hope this information helps you out. If you have any questions, or need more information, please give either myself or Mike Henry a call.

/s/ Karl Stein  
Karl Stein  
Fishery Biologist