STATE OF CALIFORNIA

DEPARTMENT OF FISH AND GAME

INTRAOFFICE CORRESPONDENCE

TO : Robert L. Jones

DATE Feb. 8, 1954

FROM : Willis A. Evans

SUBJECT: Navarro River, Mendocino County -- Jetty Project

While in Sacramento recently I had the opportunity to discuss the Navarro River jetty project with both Leo Shapovalov and Robert Paul. I obtained the following impressions:

In relation to the subject problem, Leo feels that the Shapovalov. primary benefit of keeping the mouth of the Navarro River open is that of allowing the young silver salmon direct access to the sea at the time of their spring migration. He feels that when the mouth is closed the young silver salmon are required to remain in the lagoon area until the winter Although no loss of life is anticipated during their period in the rains. lagoon he was primarily concerned over the fact that their growth would be much slower that that realized had they been able to spend that period in I pointed out that if the closure of the bar had a rather the ocean. drastic effect on the size of the fish we would undoubtedly have smaller silver salmon entering a river such as the Navarro. In general, I obtained the feeling that he was in favor of having the mouths of such streams kept open year-round, if possible. He did not emphasize at all the benefits to adult fish and seemed to agree that they would be unable to migrate very far upstream under such conditions. If the river flow was high enough for them to migrate on upstream, it probably would be high enough to open the bar.

Paul. Bob Paul is not enthusiastic about the possibilities of installing either jetties or conduits at the mouths on any of our coastal streams. From the engineering standpoint it is extremely expensive. He points, for example, to the Noyo River jetty which was constructed at a cost of nearly a million dollars by the Corps of Engineers. The culvert or tunnel underneath the bar seemed like the most feasible approach: however, none of the fisheries men have been willing to recommend this type since there is considerable doubt as to how the fish would ever find the opening.

I would like to find out specifically at what months of the year the bar is closed and correlate that with the runoff pattern. Further, I would then like to see how many months during the downstream migration of silver salmon and steelhead they would not have access to the ocean. Likewise during the adult runs how many months would they not have access upstream? It would appear to me at this stage of the investigation that the facts are definitely lining up on the side of our being opposed to the principle of constructing expensive devices for the purpose of keeping the mouths of When all of our data is compiled I suggest that we coastal streams open. arrange a meeting in Mendocino County with all interested parties and try to come to a definite decision and understanding with local people. It would seem desirable at such a meeting to have present the Division of Water Resources engineer who actually did the field engineering and analysis of this project.



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DEPARTMENT OF FISH AND GAME

INTRAOFFICE CORRESPONDENCE

DATE FEBRUARY 8, 1954

TO: Robert L. Jones, Regional Manager - Region III
FROM: Willis A. Evans Fisheries Management Supervisor -- Region III
SUBJECT: Navarro River - Mendocino County - Jetty Project

Subsequent to our trip to Mendocino County and discussion of the Navarro River jetty project with local people, I have had an opportunity to review the file material. It is quite a sizeable file and the pertinent information may be summarized in chronological order as follows:

Year

1880 - A jetty consisting of wooden piling and cribbing was constructed by the lumber company operating in that area. It apparently succeeded in keeping the river mouth open, allowing passage of logs and small crafts at all times of the year. Pictures of this jetty are available in our files,

1914 - The jetty was burned at this date and never replaced. Thereafter, annually, the sand bar at the mouth completely shut off the river preventing entrance of anadromous fishes during the early winter months,

192? - Agitation was begun by local people for rebuilding of the jetty, During 1927 and 1928, local people succeeded in opening the mouth at periodic intervals by manual means. At this time, certain legislative members were interested in the project, and it was brought forcibly to the attention of the Fish and Game,,

1928 - Mr., John Spencer, of the Division, investigated the matter and outlined a plan for carrying out this project. During 1928, negotiations were instigated to obtain necessary right-ofways from the Albion Lumber Company» At the same time, the necessary permission for construction of the jetty was requested from the U. S, Army Engineers, At that time, it was estimated that the jetty could be replaced for approximately \$5,000, utilizing river timber and an old wharf made available by the Albion lumber Company, Due to the cost of the project, it came under the jurisdiction of the State Department of Public Works, It was, therefore, turned over completely to that Department. Due to legal difficulties in the wording of the right-of-way agreement, satisfactory arrangements were not made with the Albion Lumber Company until the end of 1928, Page 2 Robert L. Jones - 2/8/54

- 1929 By May of 1929, local people began: inquiring as to what the current status of the project was. The preparation of plans for construction by the Department of Public Works was completed by 1929.
- 1930 During the late summer of 1930, the jetty was actually constructed by the Department of Public Works at an estimated cost of 14500. No actual plans and specifications of this structure are available in our files. The jetty was extremely short-lived. During November 1930, winter storms largely demolished it. May I quote from a local news article of the time: "I wonder if the Fish and Game Commission inspected the jetty that was constructed at the mouth of the Navarro River this summer? If not it is too late now as the ocean got a little rough last night and scattered it all over the beach. Surely children would know better than try to stop the ocean with a few small rocks loosely piled upon the sand."

Local indignation directed toward the Fish and Game Commission for the destruction of the jetty brought forth articles pointing the responsibility to the Department of Public Works.

1950 - During the intervening twenty years, apparently little agitation occurred regarding construction of a jetty. It is our understanding that local people would periodically open up the bar in order to permit access of anadromous fishes. During January of 1950, the matter was again called to the attention of the Department of Fish and Game by Senator Biggar. On January 19, 1950, the construction of a jetty on the Navarro River was submitted to the Wildlife Conservation Board as a proposed project by the Mendocino Coast Fish and Game Club, Fort Bragg. During February of that year, Mr. Gordon referred the matter to the Bureau of Fish Conservation for investigation and report, terming it Project #85. FA(0) - Navarro River Jetty.

It was recommended almost immediately that \$10,000 be allotted from the Wildlife Conservation Board funds for carrying out necessary engineering studies for this project. The Wildlife Board declined to allocate any moneys for engineering and indicated that they would consider construction of the project after preliminary engineering had been completed. An attempt was therefore made by the Division of Fish and Game to transfer \$5000 from the 1949-50 budget to the Division of Water Resources for the carrying out of the necessary engineering work.

The Department of Finance denied the request for transferring of funds. However, the red-tape was finally unraveled to the

extent that \$5000 was transferred to the Division of Water Resources for the purpose of financing the preliminary engineernig studies, By August of 1950, the Division of Natural Resources was still waiting the transfer of funds to initiate the work. During the latter part of 1.950, an engineering investigation was made of the proposed jetty*

1951 - At this time, it was suggested by our Division that possibly a sea-level tunnel or culvert might be more practical at this location than a jetty. Therefore, both items were given consideration by engineers. The report concluded that the initial cost of constructing a jetty would be approximately \$350,000 with an average annual maintenance cost of \$50,000. They further concluded that construction of a sea-level tunnel was not feasible due to the fact that the tunnel would be clogged with sand periodically throughout the year. After considerate exchange of correspondence engineers concluded that one tunnel site might be available where clogging with sand would not be a problem* This was some distance from the mouth along the north bank of the stream. However, this site was not acceptable to the Bureau of Fish Conservation, since it was feared anadromous fishes would not find the small three foot entrance.

Further geological investigations were made to determine whether the old rock jetty constructed by the State would serve as a sufficient base for the construction of a conduit. The engineers' report concluded that the base was satisfactory, and, nevertheless, it was their conclusion also that the mouth of the structure would fill with sand several times annually. The engineers' report is available in our files.

During October of this year, it was recommended by the Bureau of Fish Conservation that a \$40,000 item be included in the current fiscal budget for the construction of the Navarro River fishway, or conduit. This apparently was the estimated cost. There is no indication that any money was budgeted for this project. However, we are attempting to fill in the remaining gaps in the near future,

One point worth noting is that through the entire file there is no discussion of the feasibility of the project from the biological standpoint. It is merely mentioned that the opening of the river mouth on a continuous basis would provide better fishing opportunities for anglers. It would appear that this phase of the matter requires more investigation than is available from the files. I •will attempt to discuss this matter with our various fisheries Page 4 - Robert L, Jones - 2/8/54

biologists acquainted with this project in the very near future. The basic question is, is it desirable to permit entry of adult anadromous fishes prior to the time that the natural run-off is sufficient to create a natural breakthrough of the bar?

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Willis A. Evans Fisheries Management Supervisor Region III

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