



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration

National Marine Fisheries Service

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MEMORANDUM FOR: F/HC2 - Melanie Harris

FROM: F/AKR4 - Jon Kurland 

SUBJECT: Draft Terminal Dam Paper

The Alaska Region Habitat Conservation Division has reviewed the draft report entitled "Evaluation and Mapping of Atlantic and Gulf Coast Terminal Dams: A Tool to Assist Recovery and Rebuilding of Diadromous Fish Populations." We concur that a tool for prioritizing terminal dams to target for removal would be useful. However, length of fish habitat above a terminal dam should not be used as an absolute measure of value of lost fish production. This simplistic attempt to address a complex issue is noble, but won't always yield the desired result.

The first full paragraph on page 5 of the draft stresses the difficulty and expense of dam removal. To test the utility of the suggested method of prioritizing, we went to Table 4 and checked the top 2 ranked projects on the Internet. The number 1 ranked dam is the Coffeerville Lock and Dam on the Tombigee River, a huge barge canal project. Approximately 24 million tons of freight are annually shipped in this canal. A project of this magnitude and profile would be an unlikely candidate for removal and not a good target for expenditure of scarce funds. The table also states there is no fish passage. Operation of most lock systems usually allows for some nominal amount of fish passage. The number 2 ranked project is the Blewett Falls Dam on the Pee Dee River. The table states there are 1424.1 river miles of habitat blocked by the dam. This may be true, but access to this habitat would require removal of the 5 dams (Tillery, Falls, Narrows, Tuckertown and High Rock) directly upstream of Blewett Falls. Based on the text of the document and Table 4, we thought that removal of the listed dam would open up the amount of habitat listed in the Total Miles column. We either interpreted the document incorrectly or an error was made in the data analysis. Either case requires some changes in the document to improve clarity or check and remove errors.

Some measure of habitat quality would be a helpful addition for this process. Measuring habitat quality is difficult, but fish species could possibly be used as a habitat indicator. The greater the number of diadromous fish species in a system (diversity), the more complex (higher quality) the habitat. In addition, not all fish species have equal values. Most would conclude that striped bass have a higher value than lamprey. Factoring in habitat quality could result in systems with multiple dams having a higher ranking than a single dam system. In other words, removal of 5 dams on one system may produce better ecological results than removing one dam on each of 5 different systems. A quick look at species diversity and species value could be incorporated into this document to yield a simple estimate of habitat quality.



A great deal of valuable information is lacking because there was no validation of the information by state agencies. There is no data (ND on Table 4) for 25 % of the ranked dams, which makes it impossible to rank these dams as being important to remove. State agencies may not always be the best source of information. The most information we found for Blewett Falls Dam (No. 2 on Table 4 list) and the Pee Dee River was the Progress Energy website.

Table 4 needs some significant revision. The column headings are not clear. What does A/C Notes mean? What does Estimated River Miles mean? If diadromous fish are present below the dam, they should be listed. There should be a column listing purpose of dam. Is it hydropower, barge canal, flood control, etc.? The FERC relicense date should be given for all hydropower dams. Dams with relicensing in the next 10 years are targets for fish passage. Dams with relicensing more than 10 years in the future are off the radar screen and should be lower priority.

We see two options for this report. One is to use it without major modifications as a list of rivers with dams that block diadromous fish and may be candidates for dam removal. The other option is to make substantial modifications and develop a ranked list of potential candidates based on an expanded criteria base. Please contact Larry Peltz at 907-271-1332 if you would like to discuss our comments.

Cc: Larry Peltz, Sue Walker