Memorandum To: Lawrence Evans, U.S. Army Corps of Engineers
Kevin Moynahan, Oregon Department of State Lands

From: Judy Linton, U.S. Army Corps of Engineers, and Lori Warner-Dickason, Oregon Department of State Lands (Technical Team Co-Chairs)

Date: February 26, 2008
Subject: Technical Team Recommendation for Chetco River Sediment Transport Study

1. On February 25, 2008, Technical Team members participated in a conference call to discuss alternative approaches for evaluating sediment transport specifically within the Chetco River system, but also as they may be applicable to other coastal river systems. Purpose of the call was to come up with a recommended approach to be considered by the Executive Team at their meeting on Wednesday February 27, 2008. The Executive Team will need to make decisions about moving forward with the recommended study given the cost involved. The following Tech Team members participated on the call: Judy Linton, Lori Warner-Dickason, Alex Cyril, Corey Saxton, Chuck Wheeler, Janine Castro, Jay Charland, Patty Snow, Robert Elayer, Chris Lidstone, Jim O'Connor, Glen Hess, and Rose Walick.

2. A summary of the methods discussed can be found in the attached spreadsheet "Approaches to Gravel Supply Evaluation". The Direct Measurement approach would provide the most accurate data but is time consuming. It could be done with other approaches, however, to validate results. The morphologic transport approach is the next most accurate method.

It is very important to note that cost and timeframe estimates are very rough and are based on USGS conducting the studies. Depending on project scope, timing, and funding arrangements USGS may be able to contribute funds.

3. Recommendation: The Technical Team proposes the following analysis of the Chetco River.

Evaluate sediment transport in the Chetco River using the Morphological Transport Estimates and Sediment Impact Analysis Model (SIAM). Because of the similarity in the two models, they can be run concurrently. SIAM does include some bedload calculations and can use existing data (specifically cross sections).
Timeframe: If initiated in spring 2008 a complete reach analysis and report could be completed by spring or summer 2009.

Consideration should be given to running several independent bedload transport calculations to verify the results of the models. This would increase the estimated cost.

Purchase LIDAR elevation data. This could greatly reduce if not eliminate the need for field surveys.
Cost: $25K to $30K for one river system (field surveys required to gather data for the models are estimated to cost roughly the same amount). As mobilization is a large part of the cost, some efficiencies could be realized by flying more than one river system. Consideration should therefore be given to purchasing the LIDAR data for at least two river systems.
Timeframe: Summer 2008 during low flow periods.

Bottom line: Estimated total cost for the Chetco River is $100K to $150K. These numbers would be further refined in a detailed budget prepared as part of a Scope of Work. Since preparation of the Scope of Work is fairly labor intensive, it is recommended the Executive Team not request USGS move forward with this step unless there is a realistic prospect of funding the studies.

4. Next Steps:
    a. Decide on the appropriate method.
    b. Explore funding options to conduct the work
    c. Request a more refined proposal from USGS.