

NMFS Biological Opinion, 20 May 2002

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12.5 Terms and Conditions

### Term and Conditions 3h

3. In order to minimize the likelihood of incidental take associated with uncertainty and risk regarding long-term Project effects, the Corps shall implement a monitoring program with the following elements:
  - h. The Corps shall minimize effects from stranding through the following actions:
    - i. Develop and implement a stranding study to be developed in conjunction with NMFS, FWS, the Ports, and appropriate State agencies. The stranding study will evaluate parameters that influence stranding. Potential factors include: Cross-sectional area, velocity, water level, bank configuration, location along river, slope of bank, ship traffic past site, and type, size, draft, and speed of vessel. To the extent appropriate, the Corps will integrate this study with efforts related to implementation of the September 15, 1999, biological opinion on the operation and maintenance dredging from John Day Dam to the Mouth of the Columbia. Completed as of February 2004. See study plan for MA-6.
    - ii. The scope of the stranding plan shall include an identified scope including goals, milestones for completion, check-in points, triggers for management change (i.e, management decision points that include specific metrics), and sampling/testing protocols to be developed in coordination with NMFS. Completed as of February 2004
    - iii. The results of the stranding plan shall be used to develop a plan to minimize and/or eliminate fish stranding. The stranding minimization plan, as it applies to ship traffic will be provided to the U.S. Coast Guard, for use in their regulation of river traffic, and to the adaptive management team for consideration during the adaptive management process. Completed as of January 2006
    - iv. The stranding study design shall be submitted to NMFS by December 15, 2002, for approval. Updated: NOAA approved the study on June 16, 2004 and WDFW approved the study on June 22, 2004. Date changed in May 2003 status report, Services agreed to change (August sampling). Further date changed to February 2004 to reach consensus with the interagency working group. Complete.
    - v. The stranding study shall be implemented by April 2003. Stranding study started in March 2004. Complete.
    - vi. The results of the stranding study, including management recommendations to minimize stranding, shall be presented at the adaptive management team meeting (January, 2004). Management recommendations shall be reviewed by the adaptive management team and implemented where feasible. Comments received and incorporated into text of report.
    - vii. The stranding study will be repeated two years following construction of the deeper channel. *End of construction defined by AMT as "when the entire project is constructed."*

viii. Post construction stranding studies will be evaluated by the Adaptive Management Team. TBD

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**Action Plan:** This item is underway. A pilot study was done in 2002 and the results are being used to develop the scope for the pre-and post project study. An interagency task, force including both Federal and State agencies, helped design the study. The information developed will be used to determine ways to minimize stranding.

**Schedule:**

Complete Pilot study	September 2002
Complete preliminary study design	December 19, 2002
Complete final study design	February 2004
Conduct pre construction study	March 2004-April 2005
Draft Report to AMT	January 2006
Present results to Adaptive Management Team	April 2006
Conduct post-construction study	TBD
Present results and recommendations to Adaptive Management Team	TBD