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June 30, 2010

## MEMORANDUM

**TO:** Council Members

**FROM:** Terry Morlan

**SUBJECT:** IEAB Report on Economic Effects of Zebra/Quagga Mussels

Roger Mann, IEAB Chair and primary author of the Mussel report, presented draft findings for this analysis at the April Council meeting. Noelwah Netusil will update the Council on the final Mussel report at the July Council meeting.

The schedule in the task order for the final report was the end of June, 2010. The final will be delayed for a week or two, but the IEAB hopes to be able to send the final report to the Council before the July Council meeting. The delay has been the result of a tremendous amount of interest in the work and the volume of new information that has been coming in almost daily. In addition, the IEAB has expanded the review of the draft paper to a larger group of scientists including members of the ISAB and ISRP, other scientists working on mussels, and Council Fish and Wildlife staff. The IEAB is still expecting comments from a couple of external reviewers.

Although several sections of the report have been expanded, the major findings remain similar to the draft presentation in April. The potential costs of zebra or quagga mussels in the region could vary dramatically depending on the extent and level of infestation. Calcium levels appear to be a very important condition affecting the likelihood and extent of mussel infestations. Calcium levels in the upper Snake River are most conducive to infestations, but even there significant seasonal variations create uncertainty. With a moderate infestation and muted mussel growth rates annual costs might run in the tens of millions of dollars. With an expansive infestation and rapid mussel growth annual costs could run into the 100s of million dollars with some loss of hydroelectric production and extensive habitat and ecosystem damage. It appears that current prevention efforts may be under-funded but funding and inspections are increasing.

A great deal of additional research is needed to narrow the range of risks and costs. There is already research underway. Mussels are getting significant attention but some issues will not be resolved soon. Until results of this research are available the IEAB can do little more to refine the potential costs.