[Email response for project 35057 - Habitat Condition and Restoration Potential of Columbia River Flood Plains: A Critical, Missing Element of Fisheries Recovery Science and Policy]

1. The ISRP cited a need for a social/economic analysis of options on flood plains being considered for restoration.

Response:

We agree that social and economic considerations should be part of our prioritization process, once the key flood plain reaches of the Columbia system have been identified by our protocol. We will modify our approach to flood plain prioritization by including a stepwise analysis of "cultural constraints." Our original plan called for documenting the presence of structures on the flood plains such as dikes, roads, railroads, farmland, houses and gravel pits, from which cultural uses can be inferred. We also proposed to document the implications of revised flow regimes necessary to restore ecological function in the study flood plains. In response to the ISRP concern we will now also conduct a preliminary analysis of the feasibility of achieving normative flood plain ecology by removing those constraints. We cannot predict at the outset what specific considerations will be germane. But they will likely include such things as legally mandated flow patterns, alternative water diversion scenarios, potential water conservation measures for irrigators, options for dike removal and gravel pit rehabilitation and the acquisition of private lands that would be affected by normative flooding. Hence, our product will not only identify and rationalize scientifically the key flood plains (e.g., intact habitat as documented by remote sensing and field work, accessibility by anadromous salmonids; presence of native biodiversity, present riparian habitat condition) but will now also include analysis of social and economic constraints on restoration. For example, there may be no reasonable or economically rational way to achieve normative flow regimes on some flood plains. In others, the economic and social investments in dikes and other structures may be too large to consider removal. We used this approach for prioritizing and initiating ongoing multi-million dollar restoration for specific flood plains in the Yakima River, WA, working with the US Bureau of Reclamation (see www.umt.edu/flbs, click on Yakima Project). We estimate that this additional element to the project will add $35K to the budget in the first two years of the project and $50K in years 3 to 5 for a total of $75K. Co-principle investigator Jamieson will co-lead this aspect with Stanford to ensure that our analysis is effective and comparable on both sides of the 49th parallel.

2. The ISRP cited need for a monitoring and evaluation plan.

Response:

We will assemble a panel to review the progress of the project. We envison a group that will provide advice on all aspects of the project, including special insight and overview on the social economic analysis described above. This team will be headed by Dr. Micheal Gilbert of the US. Army Corps of Engineers, Omaha, NB. Dr. Gilbert

compliments our team by having years of experience evaluating mitigation of river engineering projects, including dike placement and removal. Like us, Gilbert is interested in applying passive solutions to floodplain restoration. But his years of government service have engendered pragmatism with regard to feasibility of potential restoration endpoints in a geopolitical and engineering context. We need such perspective. Gilbert will independently recruit 2-5 US and Canadian scientists and/or resource managers to serve on his panel. We expect to report to Gilbert's committee annually in a workshop format and to receive a formal written review of the draft project report. This will add $25K per year to our budget for travel and consultation fees for a total of $125K.