

Tuesday, January 11, 2022

Exxon Valdez Oil Spill Trustee Council

State Trustees: Jason Brune (ADEC), Treg Taylor (ADOL), Doug Vincent-Lang (ADF&G)

Federal Trustees: Craig O'Connor (NOAA), David Schmid (USFS), Sara Taylor (DOI)

Dear Trustees

The Science Panel (Panel) greatly appreciates the opportunity to provide independent review of research proposals submitted to the Council. As stated in the Restoration Plan, the main purposes of the Panel are to provide independent scientific review, giving the necessary objective evaluation of the scientific merits of projects, and to assure the public that scientific judgements are without bias (pg. 14 of the 1994 Restoration Plan rev. August 30, 2021). The Council's structure for a strategic Panel guiding long-term ecosystem programs and projects in the last 10-20 years is considered visionary and ensures the credibility of the program to the scientific community, serving as a model for others internationally. The Panel understands that ultimately the Council makes the funding decisions, and those decisions are not taken lightly; however, we feel strongly regarding our recommendations, which have generally agreed with those of the Trustee Council over the years. Thus, we were surprised by the distinct departure from our recommendations in the most recent round of review. The mission of the Panel is to ensure the scientific integrity of the Council and Council-funded projects. By ignoring these recommendations, we feel that the credibility of the research program and the Council is at stake. We offer elaboration on the rationale for recommendations that deviated from Trustee Council decisions below to clarify the consequences of these actions.

2222LTRM Integrated Program Management. The Panel is respectfully recommending that the Trustees fully fund the science administration part of the 2222LTRM program proposal. The Panel considers this a critical component of the integrated LTRM program, which is led by a cohesive and qualified team of individuals to manage and coordinate the many individual projects over a 20-year period. At the Panel's request, the science administration team has been able to elevate the program to include synthesis and modeling efforts for more meaningful ecosystem-level products that better inform resource managers. Over the last 10 years the scientific products produced by the LTRM programs have made significant contributions to our understanding of injured resources and their long-term recovery in the spill area. Because of these successes, the Panel recommended the continuation of the program's science administration, including the continuation for funding postdocs to further synthesize the wealth of data that will be produced over the remaining years of the program. Without the science

administration team, there will be no “program”, just individual projects. There will be a significant loss in efficiencies for both the science and logistics, a lack of high-quality synthesis products for the remaining years of the Council, and ultimately, a diminished level of understanding of the recovery of injured resources from the spill.

The Panel was extremely disappointed to hear of the decision to not fund many of the LTRM projects that we recommended for funding. We feel there are two projects that should be reconsidered for funding due to key information they provide on injured resources whose status remains unrecovered and their integration with several other funded projects.

22120114-N Long-term killer whale project. Killer whales are a protected resource and play a key role as an apex predator in the ecosystem. Numbers of both resident (AB pod) and transient (AT1 pod) killer whales in Prince William Sound significantly declined after the *Exxon Valdez* spill. Neither pod has recovered to pre-spill levels, which is the longest-lasting, direct effect of the spill to a species population ever documented and arguably the most important oil impact study funded by the Trustee Council. The AB pod was on a slow path to recovery but has been setback by the recent heat wave, potentially erasing the previous 30 years of recovery since the spill. Not funding this project brings into doubt the responsibility of the Council to track and monitor species that were injured during the spill, particularly when their recovery remains incomplete.

22220111-K Aerial herring surveys. These are inshore surveys conducted in areas where larger vessels are unable to navigate. This is an established method employed for the past 11 years, originally developed by Council-funded ecosystem programs in the late 1990s. This project is integrated with other funded projects sharing resources in the field and information. The forage fish project (22120114-C) provides real-time vessel-based ground truthing for the aerial surveys in concert with sampling the schooling fish to gather samples for aging, diet, and condition analyses. The herring stock assessment (22170111-C) and humpback whale (22120114-O) projects rely on this project's data for their modeling efforts. Not funding this project will create significant information gaps and reduce the ability to determine the recovery status of these injured resources.

The Panel also has serious concerns about several projects the Trustees approved for funding that were not recommended by the Panel. The Panel spent a significant amount of time reviewing and discussing new research proposals. We were pleased to see an infusion of new directions for research, but also found that several lacked the scientific rigor to achieve their stated goals. Given the significant financial commitment by the Council, we want to ensure

sound science is being funded and are concerned that these projects are without sufficient scientific merit as proposed.

22220203 Walleye pollock-herring interactions. Our concerns stated in our March review were largely unanswered by the PI responses. The one objective that has any scientific value is related to the funded herring disease project and samples for that project can be collected using alternative platforms. Rather than address why existing pollock data were insufficient to address the questions, the PIs merely stated that the data had been used for something else to date. We expected preliminary analysis of existing data to justify objectives. Our concerns about the Bioenergetic model approach were also largely not addressed. In general, we were disappointed with the very limited responses, which mostly just reiterated their planned objectives, rather than conducting better science, and thus we are unable to recommend funding. Furthermore, the analysis of predation on herring by pollock depends on technology provided in another proposal that the Panel strongly supported but was eliminated by the Council. Therefore, this proposal cannot succeed without involvement of the investigators from the other proposal (22170115: Genetic and physiological mechanisms of virus and oil interactions in Pacific herring).

22220300 PWS Kelp Mariculture Development for Habitat Restoration and Local Economy. A major shortcoming of the project is that it lacks a study design and description of methods. Rather, an ad hoc approach seems to be planned whereby anecdotal observations will be made and plans will be figured out by trial and error along the way. As a result, we did not see that the proposal could rigorously meet its objectives, and therefore, did not recommend funding.

22220502 Clean Water Act assessment of beaches with lingering oil. Developing current assessments of beach impairment cannot be accomplished using historical data from the EVOS. This approach would only be useful if up-to-date data existed on beach impairment in the spill zone. Since little to no oil is visible on beaches where lingering oil has been documented, it is not clear how recent information would even be obtained without extensive sampling in the spill zone and sensitive analyses meeting EPA standards. This would not just be an analysis of water and sediments for EVO, but the health and tissue chemistry of organisms on these beaches. The lingering oil efforts supported by EVOSTC currently have been extremely limited to a handful of sites, the oil is buried, and there is no information that organisms at these sites are impacted. As such, an inventory of impaired beaches from EVO is highly unlikely; therefore, we did not recommend funding.

It has been, and continues to be, a privilege to help guide the overall direction of the Council's research and fund the best science possible. The Panel reiterates the utmost importance and value of fully funding the Science Administration portion of the 2222LTRM integrated program management proposal to produce the same high-quality integrated research and information that the Council has been recognized for over the last decade; the long-term killer whale project 22120114-N, which has acquired unprecedented information on this injured, ecologically important species; and the aerial herring surveys project 22220111-K, which is valuable in its own right and essential to other funded projects in PWS. We hope that you will consider our advice, and we stand by to answer any questions you may have or to review revised proposals should you wish to receive further scientific input.

Sincerely,
EVOSTC Science Panel