Stanley Rice

To: Trustees of the Exxon Valdez Oil Spill October 2, 2022

From: Stanley Rice, retired NOAA EVOS scientist

This letter is in support of funding the management budget for the integrated Gulf Watch Alaska/Herring long-term research and monitoring program (GWA-LTRM)

Science research is a marathon, not a dash

As a long-term science manager of staff and active science budgets for 42 years with NOAA, I have long lamented the struggle to finish multi-year projects. This became more difficult when projects became more complex, more sophisticated, and were soft funded. As noted above, science research is an ever evolving marathon, sometimes easy to start, but always difficult to finish. And like a marathon, the result just doesn't matter unless you finish!

Funding the management of science is needed to provide an "orderly and complete" end of the projects, and most importantly, to complete the final peer reviewed products. It is not over until the paper work is done. Some of the projects have been funded for several decades, through complete changes in objectives, findings, and personnel. But their value is severely compromised when you cut corners at the end. It just will not happen if left independently to individuals, all with good intentions, but with changing priorities (like getting another job to put food on the table!).

Funding the management team will provide the leadership needed to birddog the in-season logistics, across multiple projects from different agencies and entities, hound them for the periodic progress reports and budgets, and most importantly, hound them for finished products. The finished peer reviewed publications, In particular, the integrated syntheses across projects and years will be the most important products, cementing the long term science legacy of the damages and recovery of the Exxon Valdez oil spill. Funding for the syntheses (including support for the post docs) is a significant part of the management budget.

Again, science research is a marathon, not a dash. In a way, this long-term program is the last leg in a 30 year marathon embodying all that we have learned from the Exxon Valdez oil spill, an investment of millions of dollars by the Trustee Council over long period of time. This is not the time to drop support for the big finish and increase the odds of failing to finish. That would be a real shame when so close to the finish line......

Dear EVOS Trustees,

I am the Science Lead for Gulf Watch Alaska (GWA) and have been in this role since 2017. During the program's first 10 years, GWA was designed and has matured as a highly integrated long-term ecosystem research and monitoring program. Through the efforts of the Management Team, including science leadership, GWA published four synthesis papers describing how the Gulf of Alaska responded to recent heatwaves and impacts on the physical environment, ecosystem components, fisheries, and recovery of resources injured by the *Exxon Valdez* oil spill (EVOS) ¹.

Synthetic products that allow us to estimate recovery timelines are not possible without efficient program administration and science coordination that the GWA Management Team provides. Otherwise, you are left with an assortment of individual projects, without cohesion, and would not be possible for the EVOS Trustee Council staff to administer with current staffing levels.

Building on the first 10 years, we developed our proposal for the next 10 years as an efficiently administered, integrated program. The greatest value of GWA is this integration and the sustained data collection. The selective removal of individual projects and intentions to reduce the length of data collection severely compromise that value. A prime example is the killer whale project that has demonstrated how the recent marine heatwave erased a 30 year, positive recovery trajectory of a key Prince William Sound resident group. Under a reduced funding scenario, portions of this and several other projects are among the last that I would have recommended eliminating. GWA would have been strategic in reducing costs to a new spending cap, while maintaining integration and science integrity.

I understand the need to reduce expenditures and fund other priorities, but I urge you to maintain the integrity that we designed into the GWA long-term monitoring program by funding Program Management and the reduced killer whale project. This design allows GWA to continue its legacy products, while being nimble enough to provide new products valuable to the EVOS Trustee Council's Mariculture and Education & Outreach foci.

Thank you for your time and investment in overseeing the EVOS legacy efforts. Sincerely,

Robert M. Suryan, PhD

Supervisory Research Fish Biologist, NOAA Auke Bay Laboratories Science Lead, Gulf Watch Alaska Long-Term Ecosystem Research and Monitoring Program

¹ Suryan et al. 2021. Ecosystem response persists after a prolonged marine heatwave. Scientific Reports 11:6235. Danielson et al. 2022. Temperature variations in the northern Gulf of Alaska across synoptic to century-long time scales. Deep Sea Research Part II: Topical Studies in Oceanography:105155.

Weitzman et al. 2021. Changes in rocky intertidal community structure during a marine heatwave in the northern Gulf of Alaska. Frontiers in Marine Science 8.

Arimitsu et al. 2021. Heatwave-induced synchrony within forage fish portfolio disrupts energy flow to top pelagic predators. Global Change Biology 27:1859-1878.