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Alaska has declared and/or accepted 23 salmon-related disaster declarations since 1997.

Some of Alaska's salmon fisheries are models of success, with management structures that have maintained biomass, stock diversity, and biological yield.

At the same time there are fisheries facing severe challenges. Alaska has lost the ability to provide an abundance of resources to meet the needs of Alaskans.

A two-prong approach is required. There is a distinct difference between monitoring & management (what ADFG typically does) and research & restoration of Alaska's salmon stocks. Both are necessary and important components of how we understand and therefore manage salmon stocks.

In order to identify the causes of the declines and recoveries of salmon returns to Western Alaska, native regional organizations, joined with state and federal agencies to form an innovative partnership to cooperatively address salmon research and restoration needs. This partnership includes the Association of Village Council Presidents, the Tanana Chiefs Conference, Kawerak, Inc., Bering Sea Fishermen's Association, the ADFG, NOAA, US Fish and Wildlife Service, plus additional native, governmental and non-governmental ex-officio partner institutions. In 2001, the partners established the Arctic-Yukon-Kuskokwim Sustainable Salmon Initiative (or AYK SSI) through a Memorandum of Understanding and created a process and structure to ensure the coordinated expenditure of research funds. Governed by an eight-member Steering Committee and advised by a six-member Scientific Technical Committee, the AYK SSI is the largest salmon research coalition in the state and one of the largest most diverse groups on the entire Pacific coast working to rebuild Alaska's salmon runs.

Federal disaster money and appropriations were the sole contributors to the research & restoration efforts in the AYK until 2010 when state legislators began fully appreciating the potential benefits of these efforts. Through the AYK SSI the State of Alaska has appropriated a total of \$5.5M in to the research & restoration of AYK salmon stocks.

What we have learned is that although we've been researching salmon stocks in the AYK since 2002 we are just now beginning to understand the myriad of variables such as the role of ocean temperatures and currents on Chinook salmon. What we've found is these variables may be

inhibiting restoration. An endowment will permit the continued building of knowledge about these variables and this information then can be used to improve management decision making.

We've learned that with understanding...return predictions will improve.

With improved predictions comes better management.

With improved management, extreme levels of variation seen recently in the salmon populations should be reduced.

Long-term forecasts of the implications of climate change and fisheries management in Alaska are highly speculative, given present levels of understanding.

Uncertainty increases as conditions (such as temperature or percent of sea ice cover) move outside the range of historical observations. Under science-based management, increasing uncertainty typically translates into more precaution.

Predictions of future changes of ecosystems for the Gulf of Alaska, Aleutian Islands, and eastern Bering Sea are uncertain, partly owing to gaps in our understanding of mechanisms affecting the dynamics of resources and partly due to uncertainties in climate forecast models at the level of detail necessary for the Alaska region. A combination of improved monitoring, process-oriented studies, modeling, and policy development are necessary to improve our ability to forecast and address likely future marine ecosystem changes in Alaska.

Establishing this endowment can produce answers to effectively address the causes of the declines of Chinook salmon and provide direction for how the State of Alaska can manage in the face of such uncertainty and chaos.

With consistent funds the program becomes independent of the ebb and flow of Chinook salmon abundance in any one particular year, and hence the ebb and flow of political pressures to react. Consistent funds mean a long-term effective program focused on the research and restoration needs of Chinook salmon. In addition, projects can be as short or as long in length as necessary. Consistent funds allow undertaking projects with a time length that are biologically relevant.

With consistent funding project length can match the Chinook salmon life cycle, allowing the ability for the program to undertake research projects that require consistent funding over one or more life cycles of the Chinook salmon (7 or more years). For example, some research questions can only be answered by following a brood year (cohort) from egg to returning adult. Most programs limit project lengths to time periods much less than the Chinook salmon life cycle, such as 2-3 years,

primarily because of uncertain funding in the future. Thus, this fund will allow scoping project lengths to best match their research and restoration purposes.

Research at every life stage helps policymakers determine what course of action to take in order to maintain or rebuild salmon populations.

To achieve this we require multidisciplinary research across the full salmon life cycle, especially in the marine environment where Chinook salmon spend three-fourths of their life and complete 90% of their growth.

For the record we've already been warned that the 2013 season for Chinook salmon on the Yukon River may be even worse than 2012, which likely was the worst return ever so far.

The Alaska Chinook Salmon Research and Restoration Endowment is the approach necessary to provide for the STABILITY needed to restore and protect the future of our stocks. This endowment is not duplicative of the recent Chinook salmon stock assessment proposal, it is to provide the research & restoration mechanism required for today's crisis.