Why are juvenile salmon dying in the Salish Sea?

More than 60 organizations are working internationally to address this critical question. The Salish Sea Marine Survival Project is a United States and Canada collaboration to isolate and address the causes of poor juvenile salmon and steelhead survival in the Salish Sea. It is the largest and most important research of its kind in the shared waters of British Columbia and Washington State, addressing a key uncertainty impeding salmon recovery and sustainable fisheries.

The Problem

While hundreds of millions of dollars have been invested in habitat recovery, harvest rates have been significantly reduced, and hatchery management has undergone major changes; our Salish Sea salmon and steelhead populations have not rebounded.

Changes in the Salish Sea are thought to be significantly affecting the abundance of our region’s salmon and steelhead. Chinook, coho and steelhead survival during their marine phase of life has declined up to tenfold since the 1980s. The marine survival of coastal and Columbia River populations has varied since the 1980’s but does not follow the same declining trend, suggesting the problem is within the Salish Sea and not the open ocean shared by all Pacific salmon.

The Solution

The Salish Sea is a complex marine ecosystem with many interconnected factors that can affect salmon survival. Since 2014, we have been working with over 200 scientists from federal, state, tribal, academic and nonprofit entities in the U.S. and Canada to execute a comprehensive, multi-disciplinary, and highly coordinated research program. The program seeks to identify the most important impacts to address. Over $13 million has been raised in the U.S., $12 million in Canada, and an equal amount of in-kind support has been provided from our project partners. More than 90 studies have been initiated and 40 articles published to date.
Already, the Salish Sea Marine Survival Project has made a significant contribution to our understanding of salmon and is informing management actions focused on increasing their productivity and abundance. For example, in Washington, over 20% of the recent recommendations of the Washington State Governor’s Southern Resident Orca Task Force were influenced by the Project, including novel hatchery management approaches, a focus on estuary habitat restoration, an ecosystem approach to predation management, forage fish recovery, zooplankton monitoring and revised NPDES permitting for wastewater treatment to include flame retardants. Further, a significant portion of NOAA’s Puget Sound Steelhead Recovery Plan focuses on actions to improve early marine survival in Puget Sound.

**Long Live the Kings and the Pacific Salmon Foundation**

Long Live the Kings (Seattle, WA) and the Pacific Salmon Foundation (Vancouver, BC) are coordinating this massive international research effort, working together to create the necessary funding mechanisms, maintaining outreach and communications, and helping translate the research results into management actions.

**Project Funding: We need your help!**

We request nominal budget increases to support federal scientists so that they can execute their critical roles in this effort. For FY2020:

- **NOAA-NMFS > Protected Resources Science and Management > Pacific salmon** - Add $1 Million for the Salish Sea Marine Survival Project.

These federal funds are a vital match to the $25M committed for this $30M effort. This includes, but is not limited to: $5M - Southern Endowment Fund (Pacific Salmon Treaty), $1.6M - State of Washington, $3.5M - Canadian governments, and over $3M - private donors, including $500k from the Boeing Company and $750k from Paul G. Allen’s Vulcan Inc.

This project also leverages over $20M of in-kind support -- from Tribal, state, and federal sources -- 1:1 match to new funds, demonstrating a firm commitment by the project partners to complete this necessary work.