

## **Paddling for a Purpose: Coast Salish Tribal Journey 2009**

### **[Intro Music]**

**Jennifer LaVista:** U.S. Geological Survey scientists and the Coast Salish Tribal Nation are paddling to study the water resources of the Salish Sea, which is the native name for the Puget Sound and the Strait of Georgia. This is the second year that scientists have been invited to join the journey and they've added additional tests to look at the waters.

**Speaker 1:** It's recently been found that the near shore of Puget Sound is undergoing a lot of stress, loss of salmon, loss of shellfish, loss of habitat and to address the problems, scientists and managers are trying to understand what changes are occurring and what's driving those changes.

There are very few efforts under way that can measure water quality at the scale that this Tribal Journey Water Quality Project does. We're measuring water quality along five different areas of the Salish Sea simultaneously every 10 seconds as the canoes journey hundreds of miles.

**01:08 Speaker 2:** The number of canoes that will ultimately land at the Suquamish is probably over 100 and out of those 100 canoes, we have five canoes that will be carrying probes in different areas of the Salish Sea.

And so we will have all points covered once again this year and the data will once again show that there is a concern that we'll have to be aware of. And we can't wait to see what the data tells us.

**Speaker 1:** What's different about this year is that in addition to the five parameters we measured last year which were temperature, salinity, pH, turbidity, and dissolved oxygen, we're adding chlorophyll which is important because it's a measure of the amount of plant life that's in those surface waters.

**01:57** We also have along those most northerly and southerly routes water samples every five kilometers. In those samples, we'll be looking at dissolved nutrients, particulate nutrient and chlorophyll. We will be examining the phytoplankton because the phytoplankton is the plant life at the base of the food chain that feeds all the other invertebrates and fishes, birds, plant life

So phytoplankton is considered these days to be going through a lot of changes and stress just like everything else because of the warming climate, a lot of urban runoff, and changes in the overall habitats that support phytoplankton.

**Speaker 2:** This is the Salish Sea. This is who we are. This has provided our people with a way of life. It has sustained us for generations since time. The tides are right out now and our elders always said, "When the tide's out, the table is set. We will

continue to live off the sea even though we are starting to see signs in the fish and in the clams, in the crabs, in the shrimp, in the sea urchins, in the gooey ducks, in the muscles.

**03:14** We are starting to see that they are infected by the contamination and so it is kind of scary to think that the food that you've live on forever is being polluted and I know we as the people will never stop eating it. We just have to be very careful of the fact that we are probably ingesting poisons that are being introduced into the Salish Sea.

**Speaker 1:** A lot of that is going on right now and Puget Sound is trying to get as detailed in understanding of the nature of the problem as we can and it's a very complicated problem. You have very high PCB levels for example in the killer whales in the in the orca population in Puget Sound. You have storm water runoff that is very severely impacting the natural salmon runs for example.

So you have all of these various factors plus you have legacy pollution in the Sound itself based on historic industrial development. So really the challenge we have is right now. To try and put all that information together and come up with the five or six or seven really important things to do over the next 20 years. It's really all about over the next generation. What can we really do to reverse the trend.

**04:36** **Speaker 2:** We are creating a partnership that will help everyone in the Salish Sea benefit from the work that we're doing. It is truly a partnership because we're marrying agriculture with science. And that is going to show the world that what we're doing here can be replicated in other places.

**Jennifer LaVista:** Log on to [USGS.gov/coastalish](https://www.usgs.gov/coastalish) for upcoming reports and analysis over the next few months. CoreCast is a product of the U.S. Geological Survey Department of the Interior. I'm Jennifer LaVista.

**[End Music]**