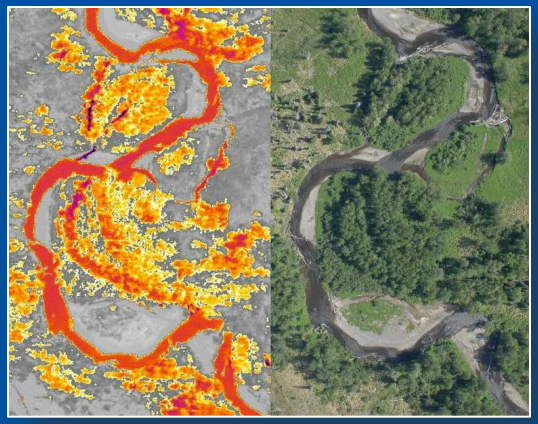


Stream Temperature Action Plan

Steps to Protect Alaska's Wild Salmon Habitat from the Impacts of Thermal Change

Sue Mauger

Mat-Su Salmon Science & Conservation Symposium

November 8, 2012

CLEAN WATER · HEALTHY SALMON

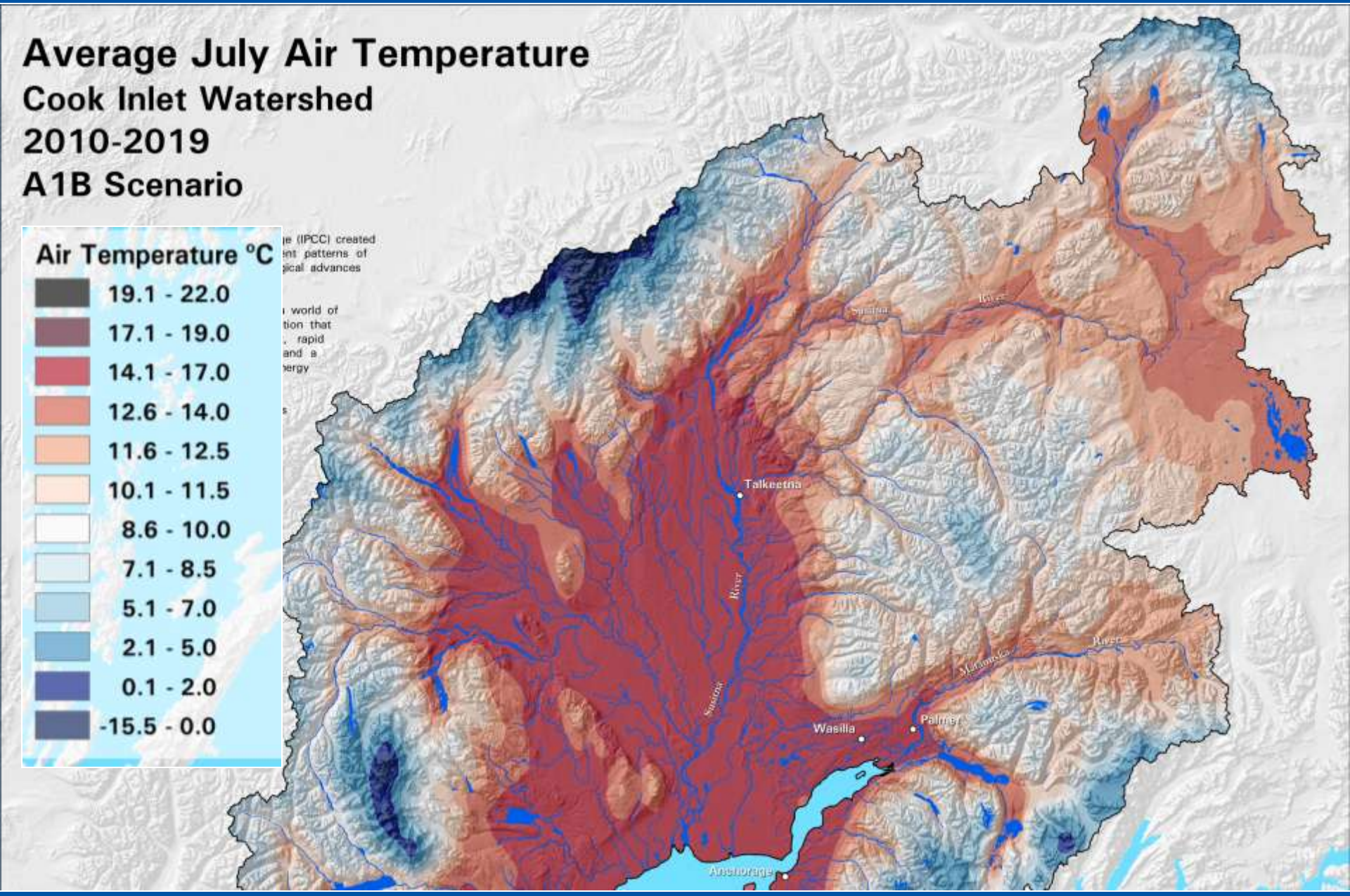
INLETKEEPER®

Average July Air Temperature

Cook Inlet Watershed

2010-2019

A1B Scenario

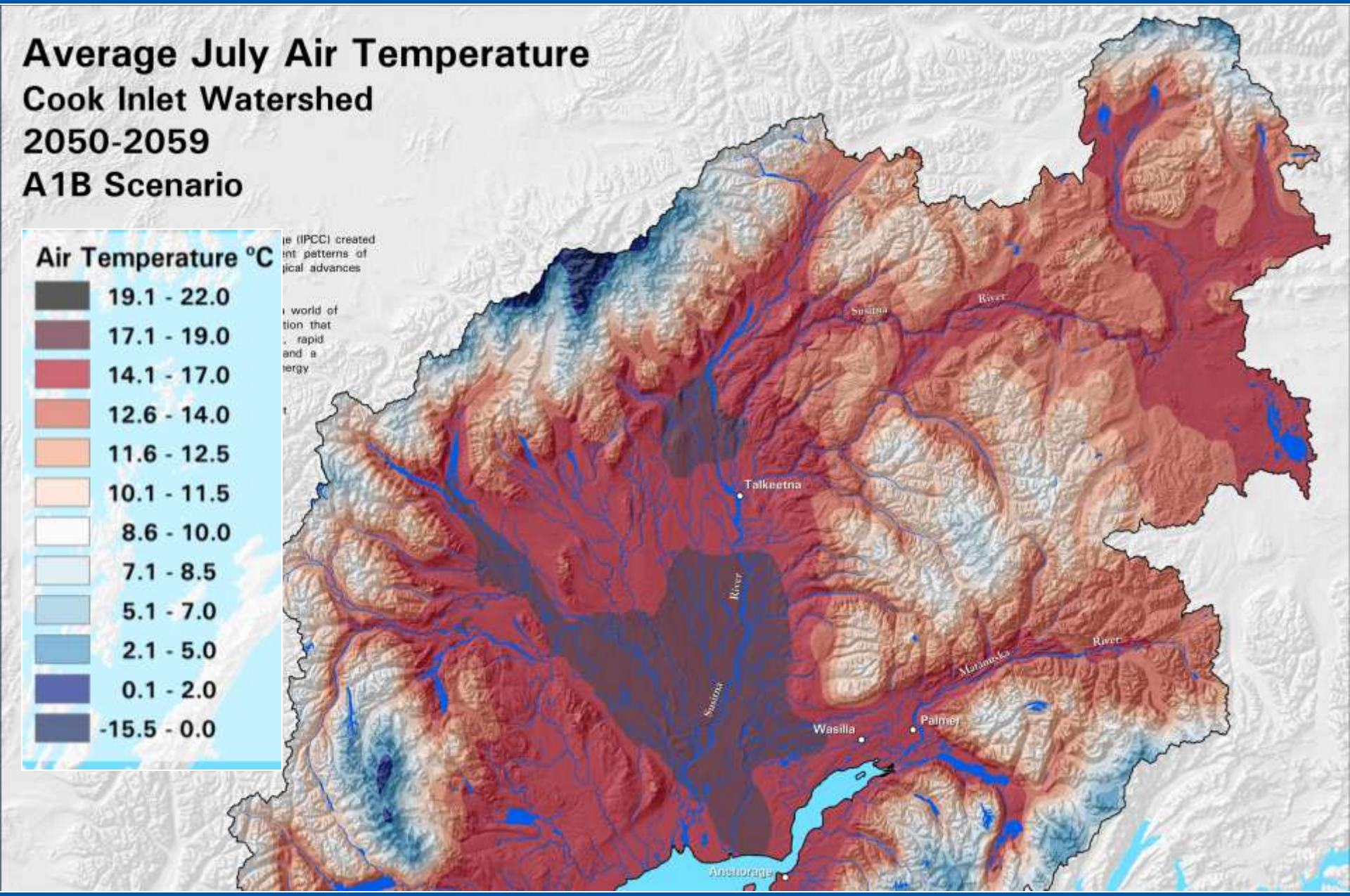


Average July Air Temperature

Cook Inlet Watershed

2050-2059

A1B Scenario

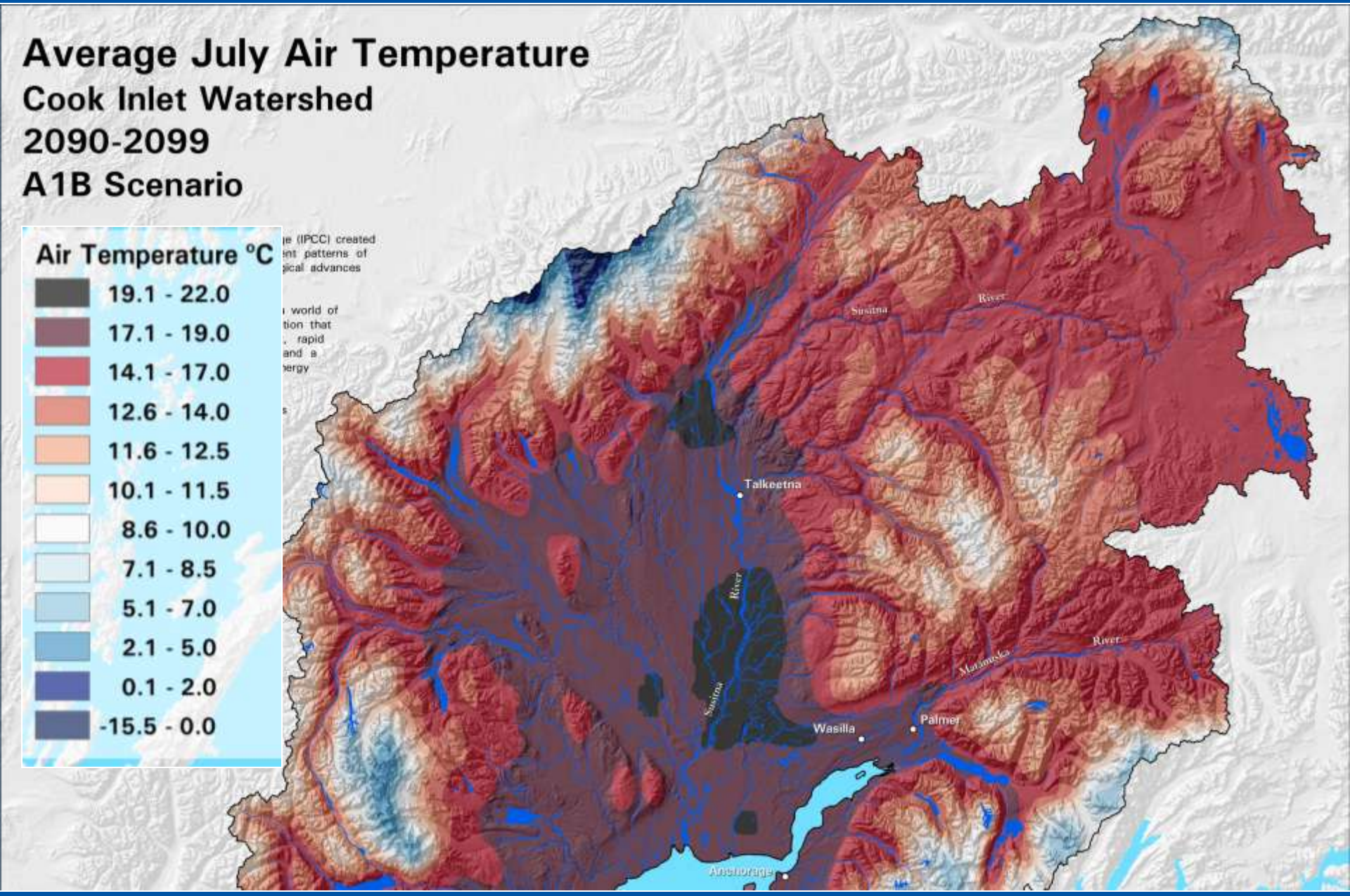


Average July Air Temperature

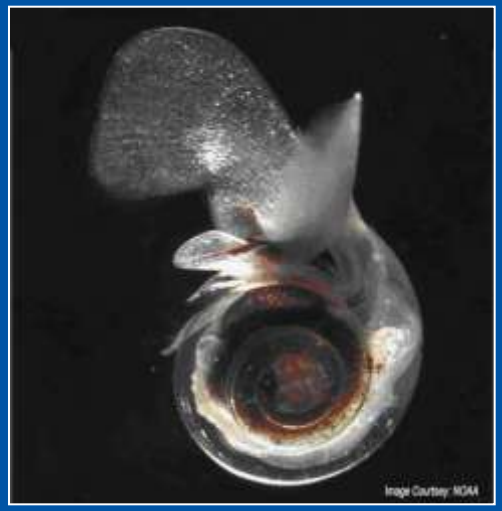
Cook Inlet Watershed

2090-2099

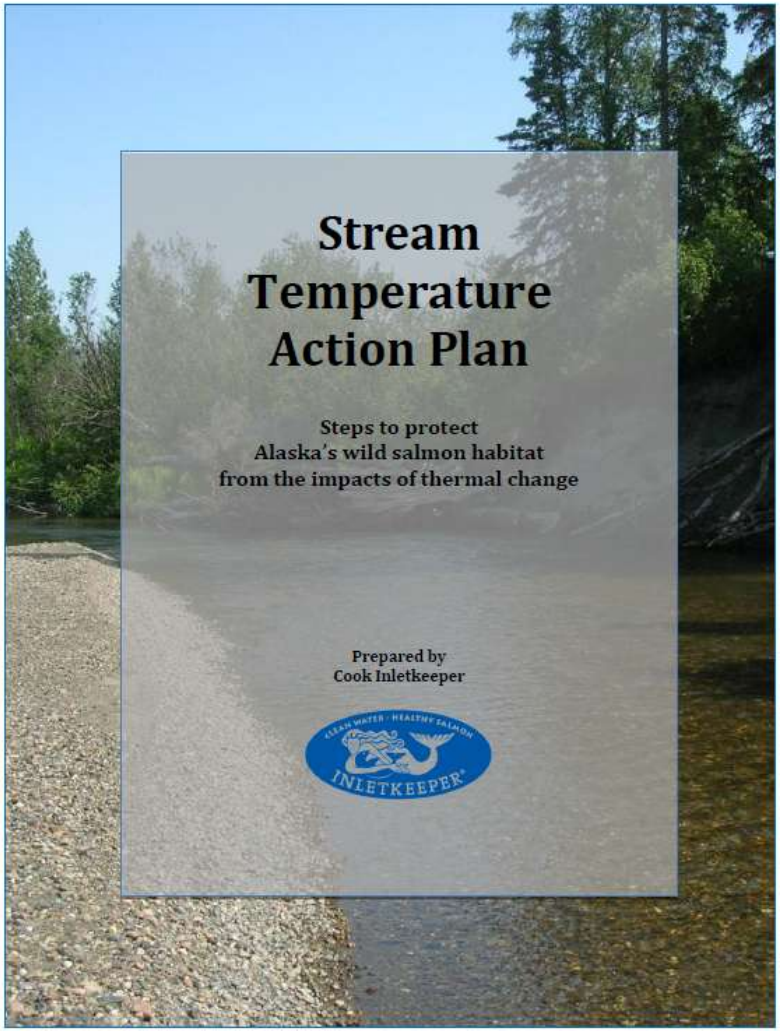
A1B Scenario



Climate Change in the Mat-Su Basin

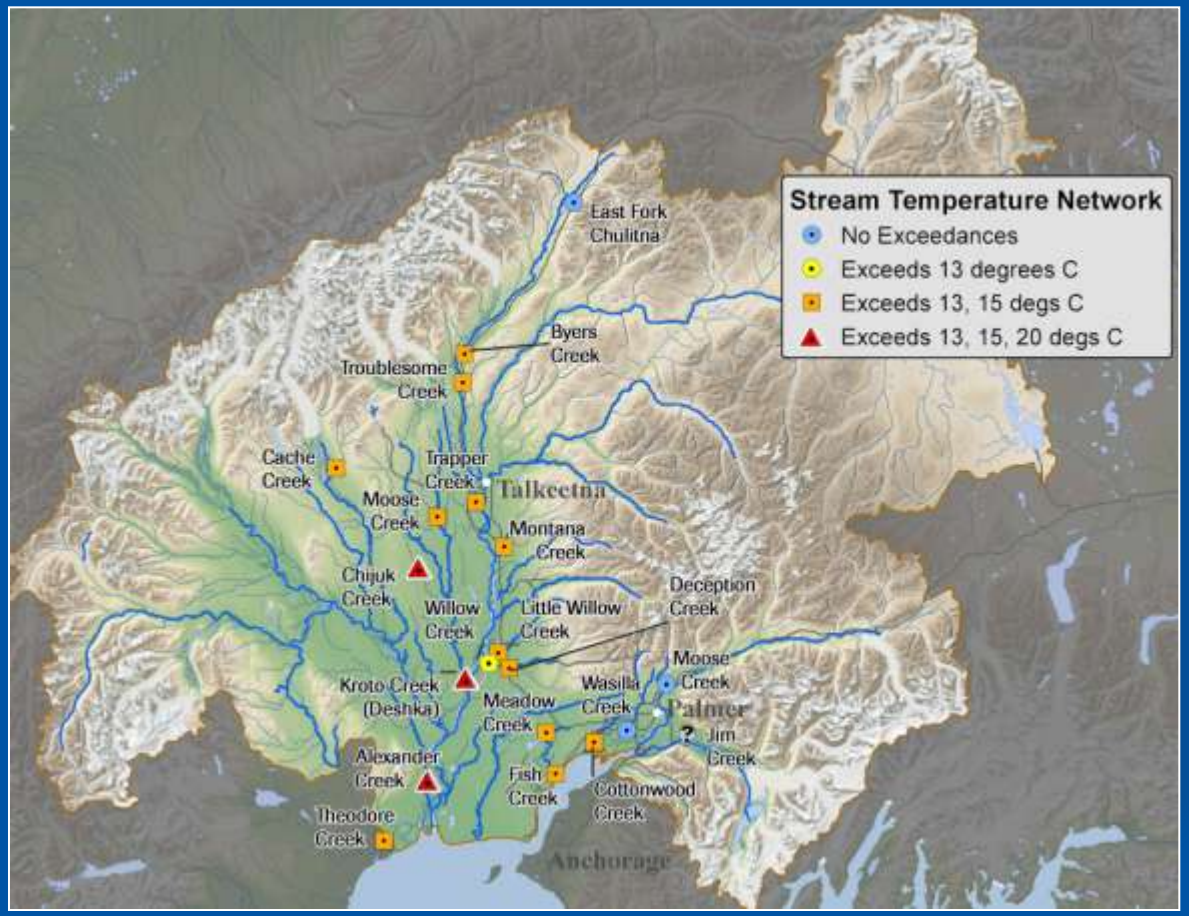


Strategic Planning



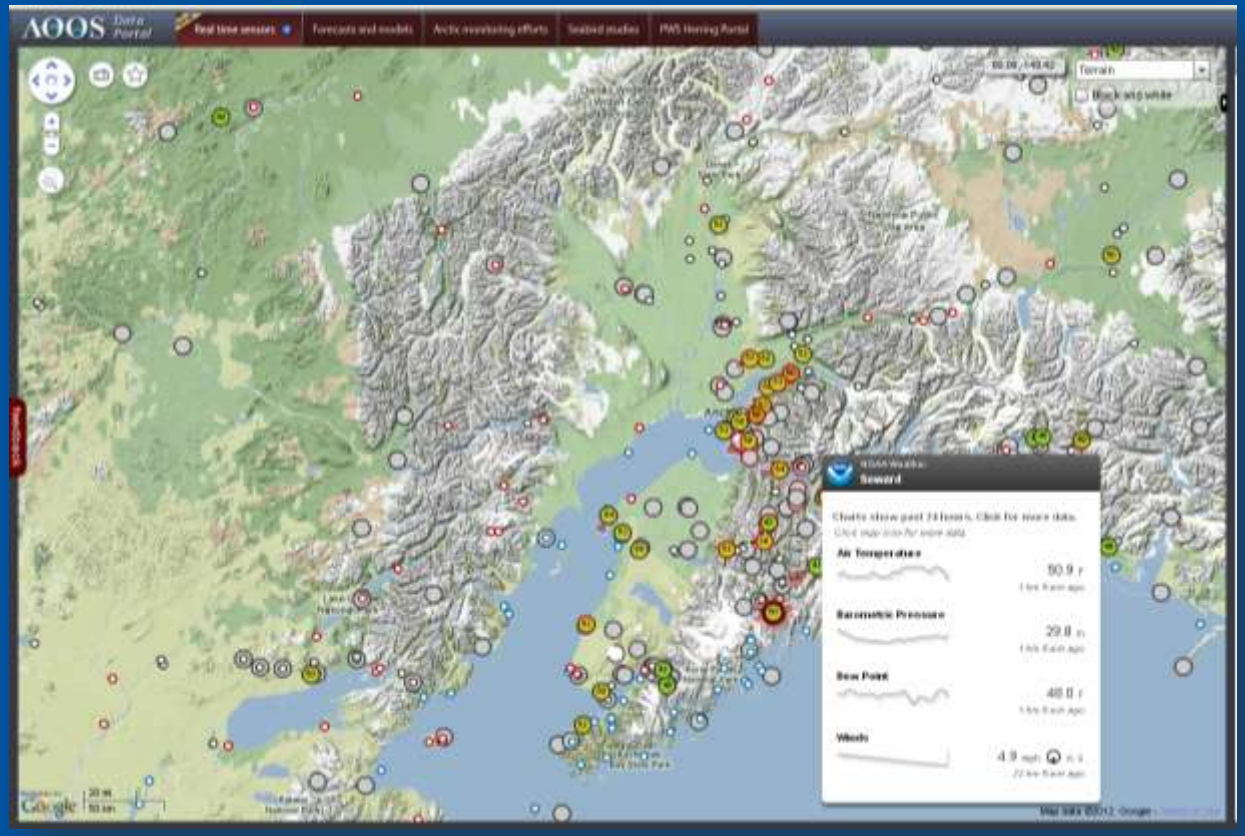
Goals

Improve our understanding of current thermal regimes in Alaska's salmon streams.



Goals

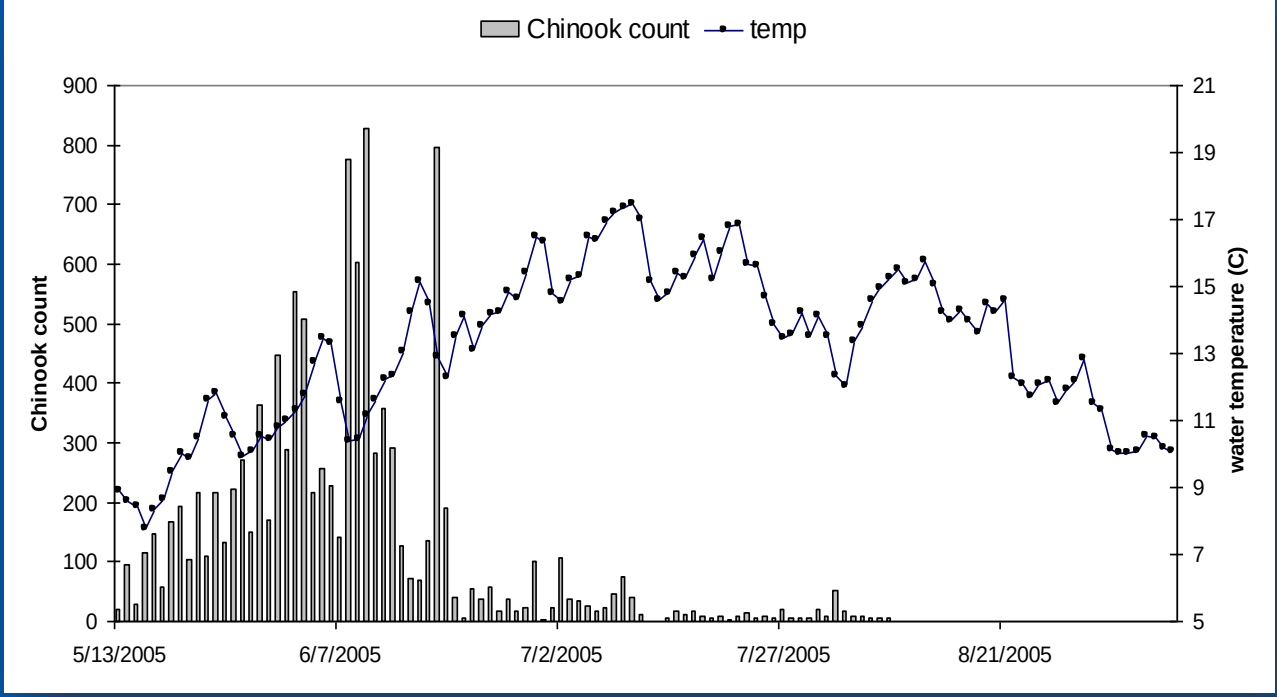
Provide long-term datasets for climate and hydrologic modeling applications.



Example of the AOOS online data portal with real time sensors (shown) and forecast and model output maps.

Goals

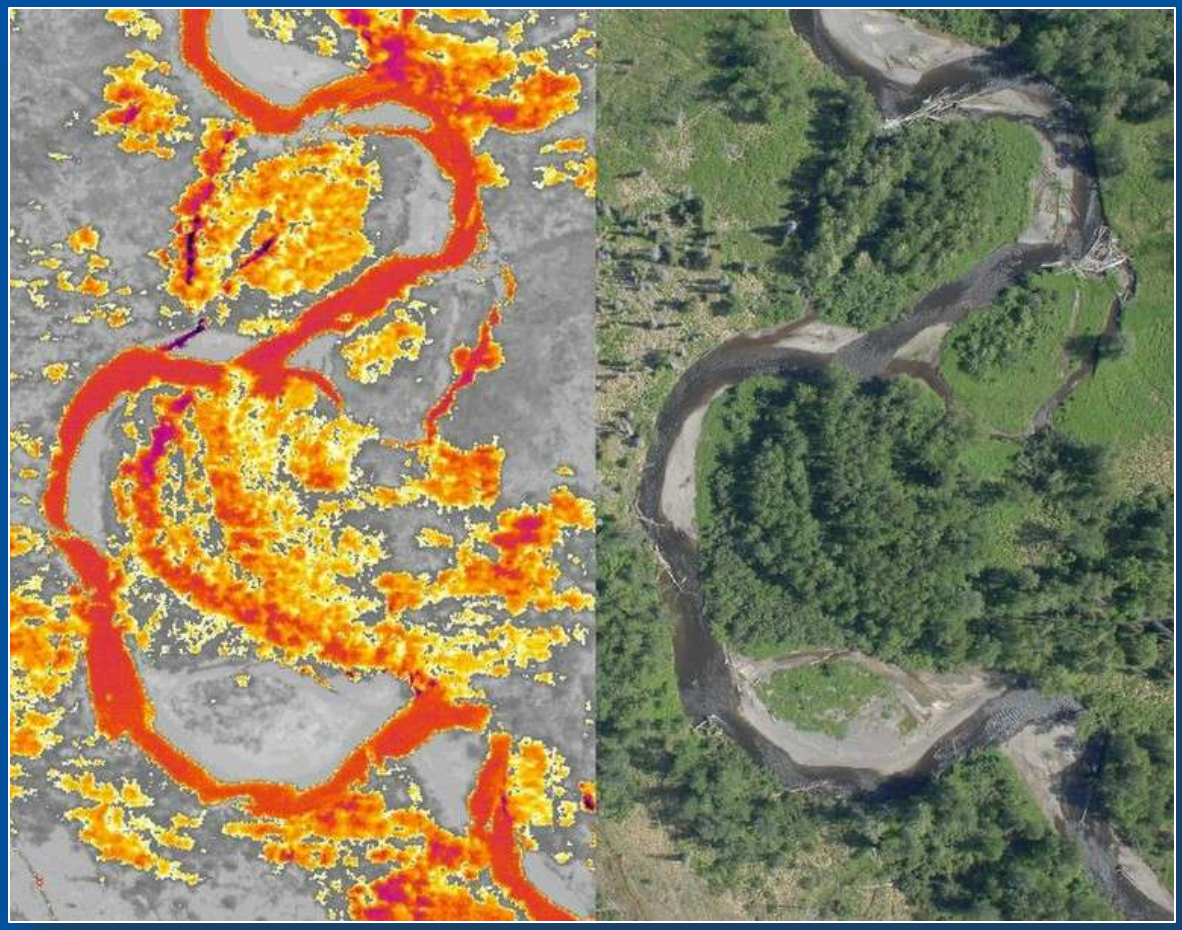
Provide real time data for fisheries managers.



Example of a post-season analysis using ADF&G Anchor River weir data of Chinook salmon movement through the weir and water temperature. Generally, large movements of fish correspond with a decrease in water temperatures, especially when daily water temperatures were above 13°C.

Goals

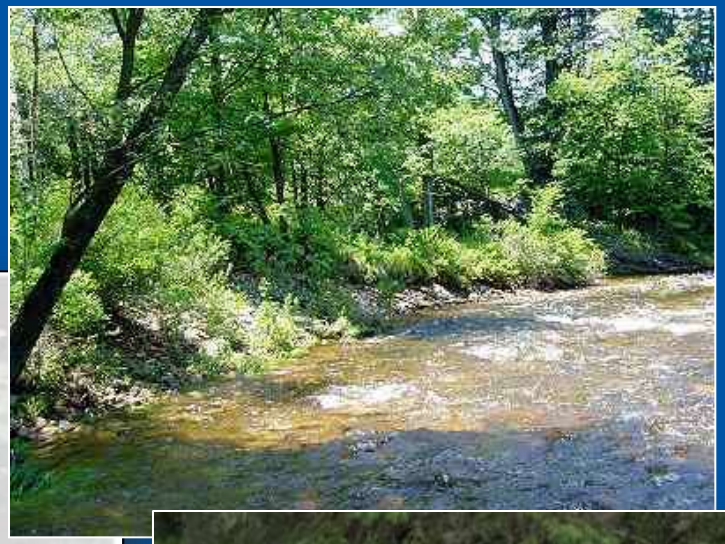
Protect waters that are currently cold.

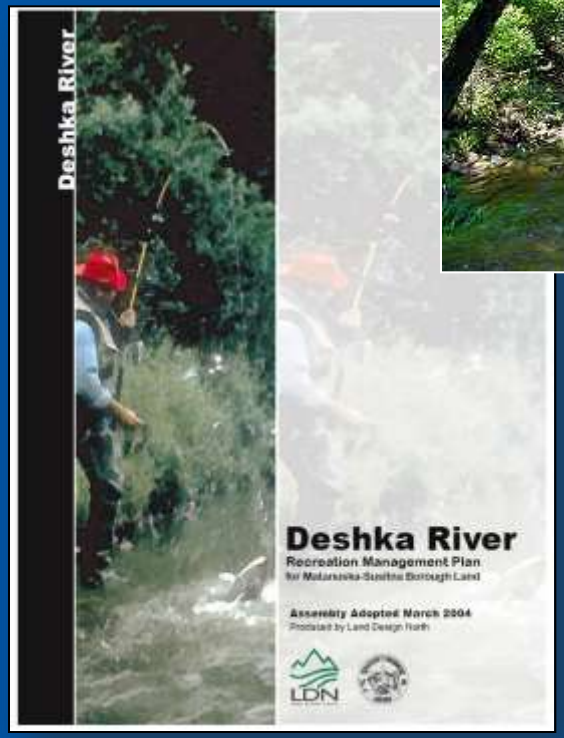


Thermal infrared imagery (left) with corresponding aerial image (right) showing cold water inputs (purple) to the mainstem of the Anchor River (orange).

Goals

Reduce thermal stressors to temperature sensitive streams.





Goals

Encourage more watershed-based research on salmon productivity to better understand freshwater survival versus marine survival.

Thank you!

Funding provided by ADEC through an Alaska Clean Water Action grant