

Pacific Coast Salmon and Climate Initiative

Presented to the Pacific Marine Fisheries Council
March 5, 2023

By Jacques White, Long Live the Kings

Salmon Are Already in Crisis

28 ESA-listed populations, most not meeting recovery goals

40% Decline in total Pacific Ocean salmon harvests in 2020

10 US salmon fishery disasters declared between 2016 and 2020

Existing Pressures

- Rapid human population growth
- Intensive land and water use
- Depleted salmon populations



Climate Impacts

- Variable snowpack
- Extreme wildfires
- Elevated river temperatures
- Lower flows
- Warming and acidifying oceans
- Altered food webs



**Increased
Salmon and
steelhead
vulnerably**

Collaborative Framework

Tribal
governments,
First Nations,
government
agencies,
academia, NGOs,
industry, and
community
groups

10-Year Initiative

Fill knowledge gaps &
learn from each other

Prioritize, fund, and
implement crucial actions

Inform local & regional
planning and
management

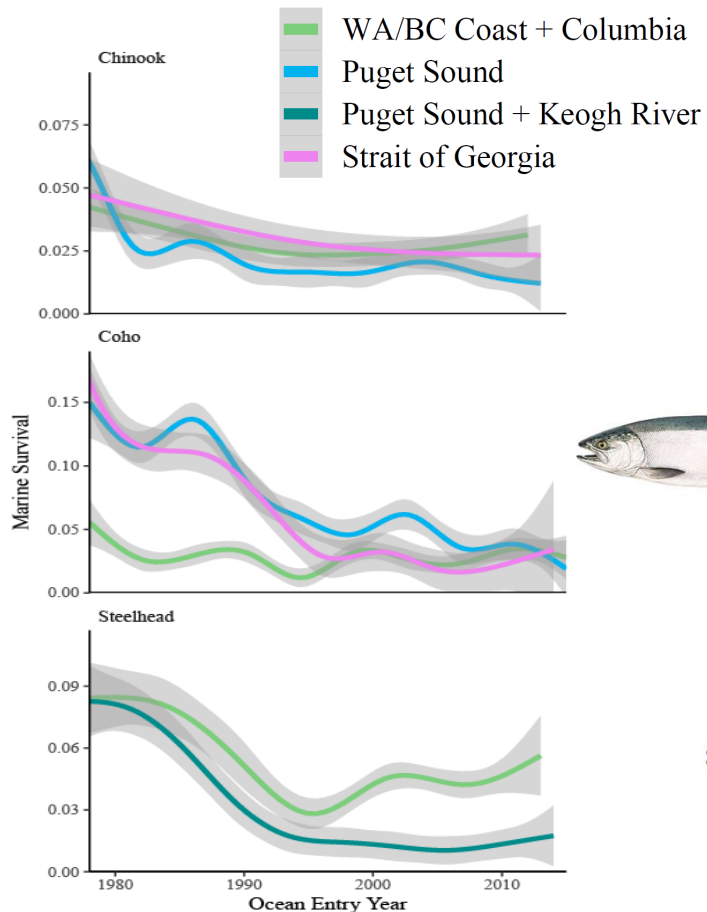
Build capacity & resilience
in impacted communities

Outcome

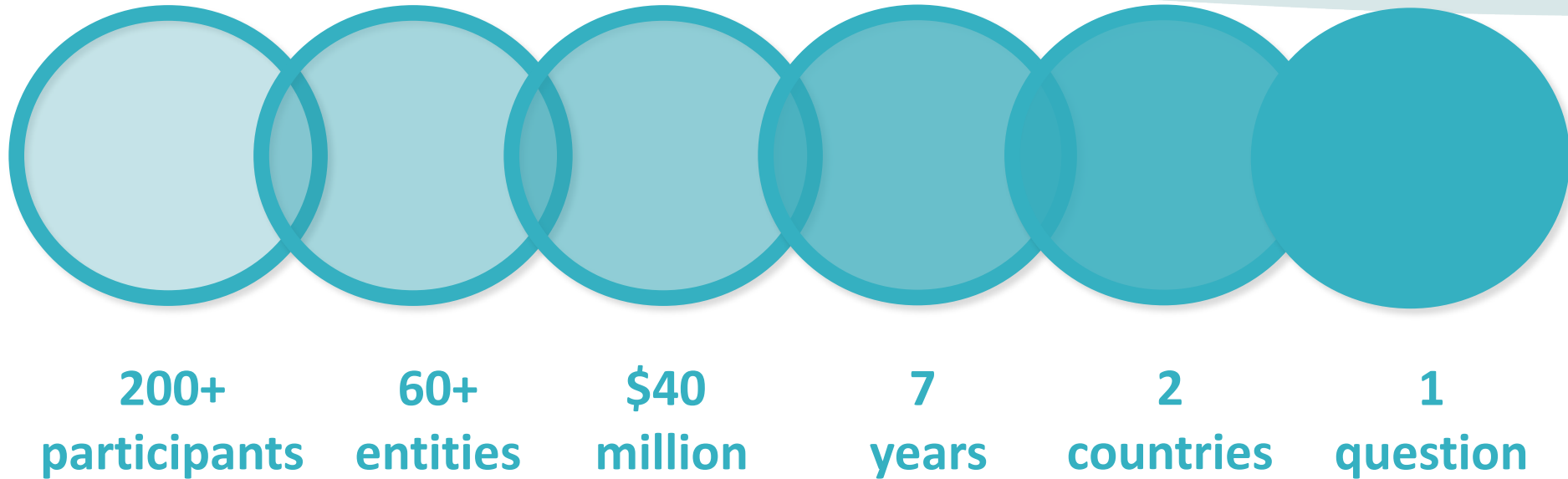
Climate-
resilient path
to protect
and restore
PNW salmon

Managers and scientists agree:

- We need a unified and comprehensive response
- Existing recovery frameworks lack funding, flexibility and take too narrow of an approach
- Local adaptation is essential, but regional perspective, research, sharing, and action is needed



- **Salish Sea Marine Survival Project: 2014-2019**
- **Question:** What are primary factors affecting juvenile Chinook, coho & steelhead survival in the Salish Sea marine environment?
- **Approach:** 90+ studies across the Salish Sea

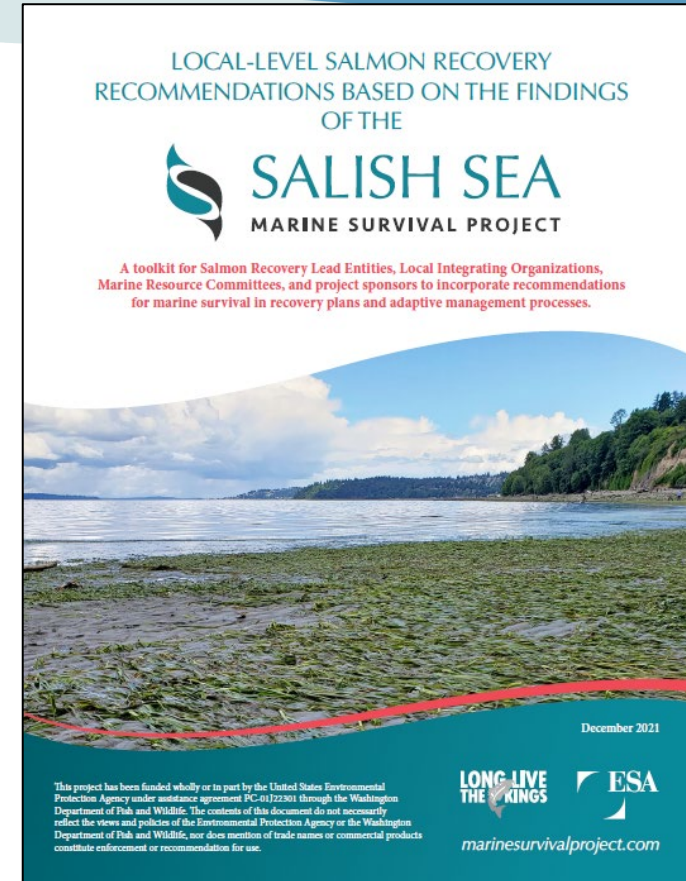
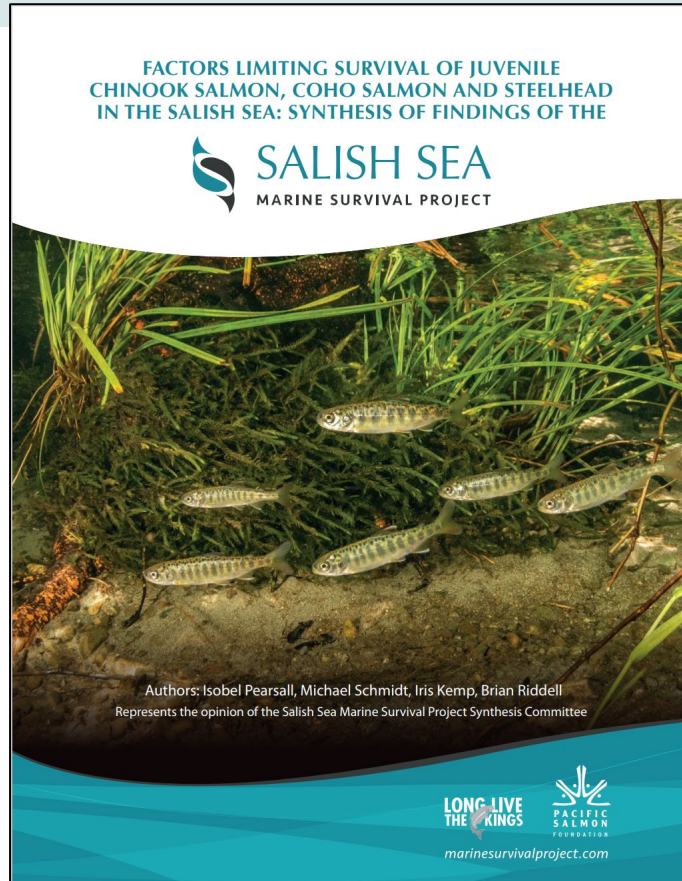


What affects the survival of young Chinook,
Coho & steelhead in the Salish Sea?



SALISH SEA
MARINE SURVIVAL PROJECT





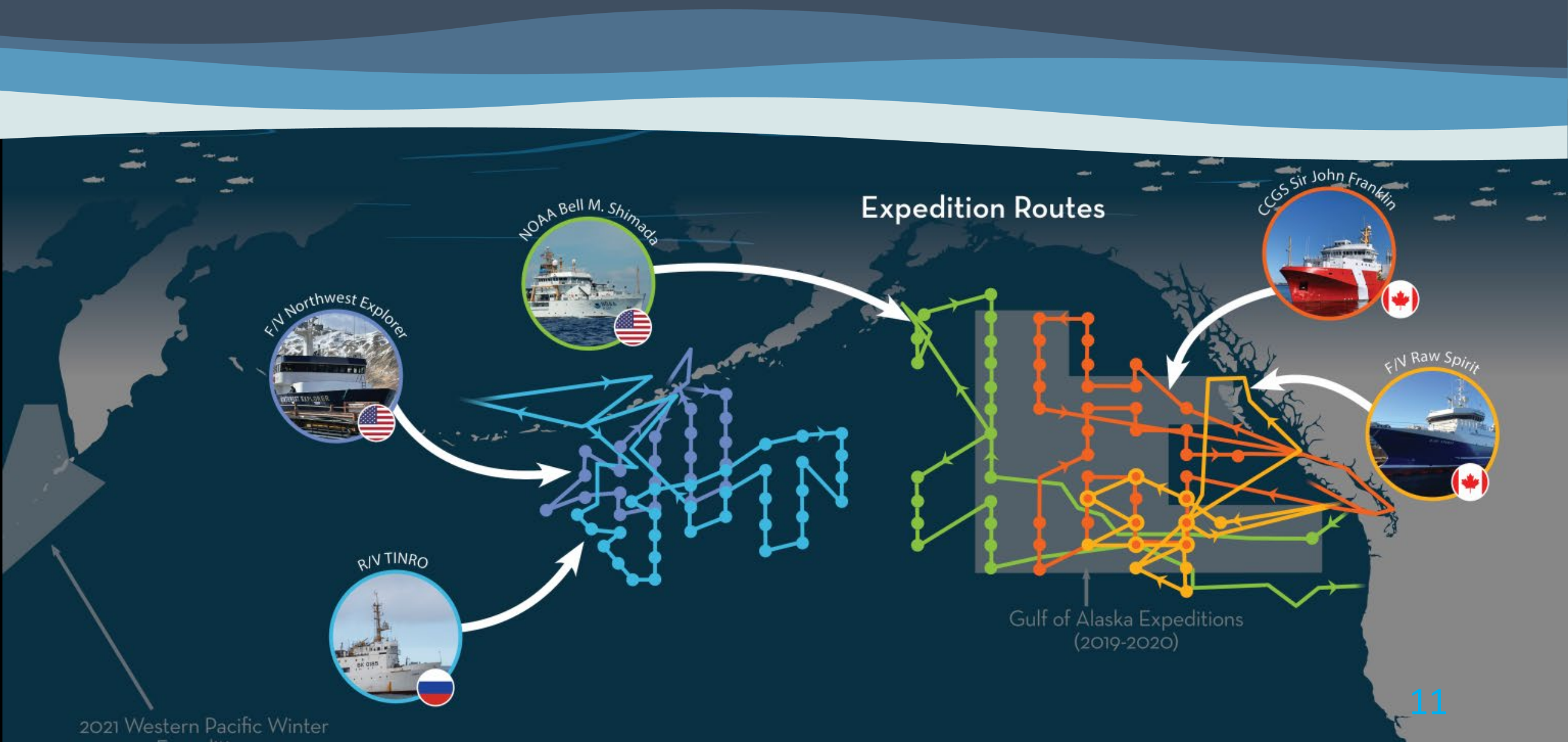
<https://marinesurvivalproject.com/research-findings/>



Climate change may influence:

- Salmon prey availability
- Harmful algal blooms
- Susceptibility to disease and contaminants

Collaborative Precedent: 2022 Winter High Seas Expedition





- Tribal and First Nations communities have long observed climate change
- Mainstream efforts rarely engage with Indigenous communities
- Advancing effective solutions depends on **co-producing all initiative phases**



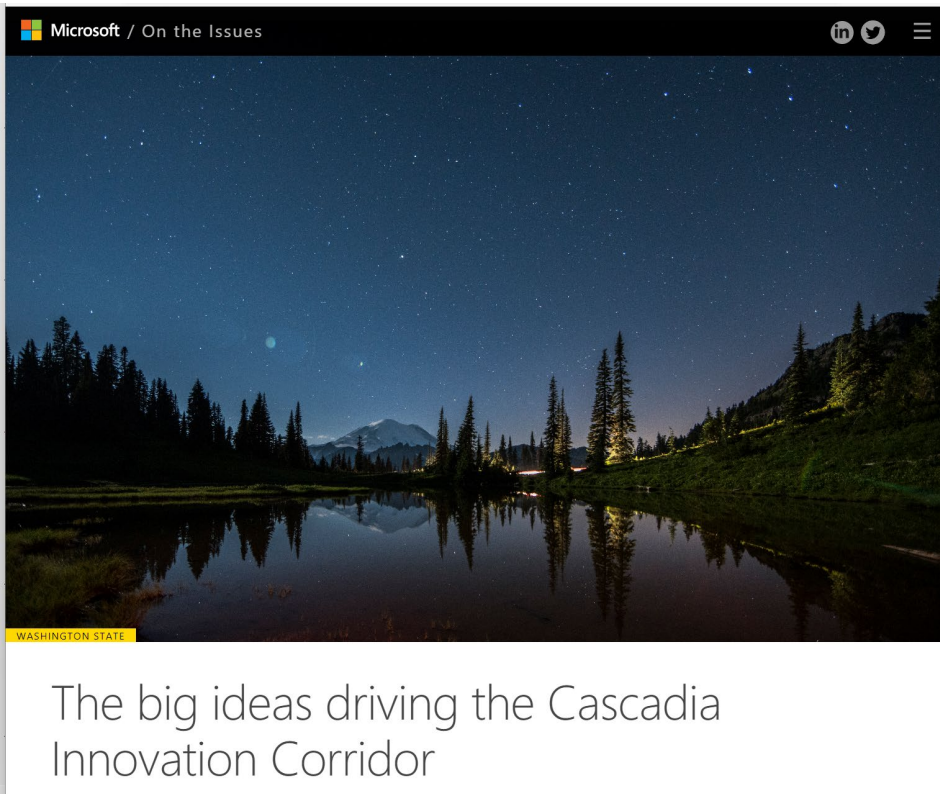
Photos: NWIFC

Salmon & Climate Initiative

Take Actions Across Landscape



Proposed Scope of
Salmon and
Climate Initiative



- Urgent issue requiring big thinking and new strategies
- Funding and political environment
- New regional approaches to climate change signal potential

e.g., Cascadia Innovation Corridor

PHASE 1
PLAN



PHASE 2
TAKE ACTION



PHASE 3
ITERATE

PHASE 1

PLAN

Approach:

- Core Team
- Workshop Steering Committee
- Scoping Workshop

Outcomes:

- Workshop Summary Report (barriers to action and info. gaps identified)
- Strategic Action Plan



PHASE 2

TAKE ACTION

Approach:

- Core Team (Project Management)
- Coordinating Committee (Guidance)
- Technical Team(s) (Implementation)

Action Outcomes:

- Funding Secured
- Early On-the-Ground Actions Started
- Novel Actions Tested
- Outcomes Evaluated
- Solutions Prioritized

Research Outcomes:

- Peer Reviewed Studies Complete (i.e., knowledge gaps filled)
- Models & Tools Developed
- Science Communicated



PHASE 3

ITERATE

Approach:

Iterative Approach Building on Phase 2

Outcome:

Solution Implementation

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- Core Team, to date:
 - Long Live the Kings
 - Salmon Defense
 - Pacific Salmon Foundation (Canada)
 - University of Washington Faculty Members
 - WA Governor's Salmon Recovery Office



Local actions, regional strategies, and global impacts:



Science

- Coordinate research across boundaries & habitat ranges
- Improve and inform monitoring, forecasting, and adaptive management tools

Planning

- Support information-sharing and coordination
- Help decisionmakers integrate salmon recovery into community climate adaptation and resilience plans

Investment

- Ensure long-term viability of major salmon recovery investments in habitat and infrastructure
- Inform priorities for climate-resilient recovery strategies

Immediate (Phase 1) Goal: build broad coalition of partners to launch, guide and drive the Pacific coast Salmon and Climate Initiative:

- Support efforts to secure funding for the Workshop
- Participate in the Workshop Steering Committee (~ five 2-hour planning meetings)
- Send a representative to the workshop (1-2 days)
 - Support staff to contribute to Workshop Summary Report or Strategic Action Plan (6+ hours)

What would your organization need to engage with SCI? – funding? capacity?