



Salmon and People in Alaska in the 21st Century:
Toward an Integrated Approach
to Salmon Habitat Assessment
and Resource Planning



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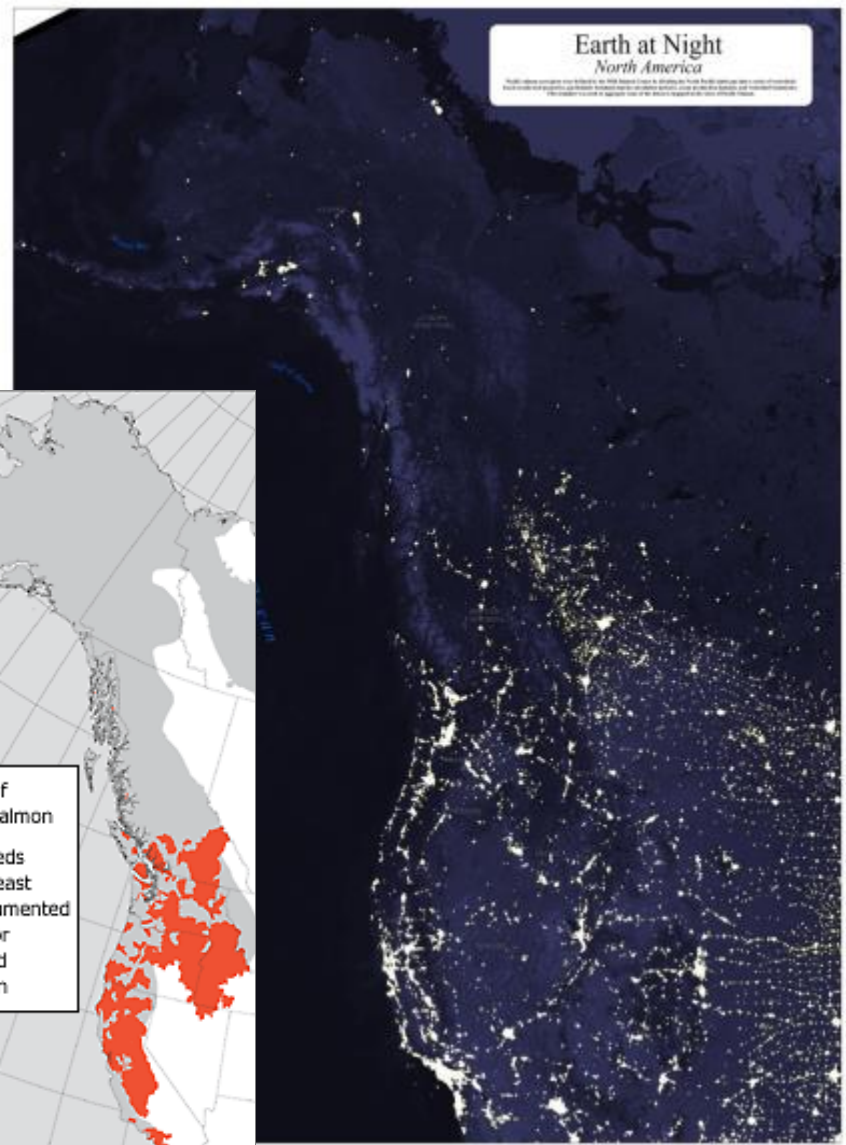
Southeast Alaska
Watershed Symposium
5 November, 2011





Observation:

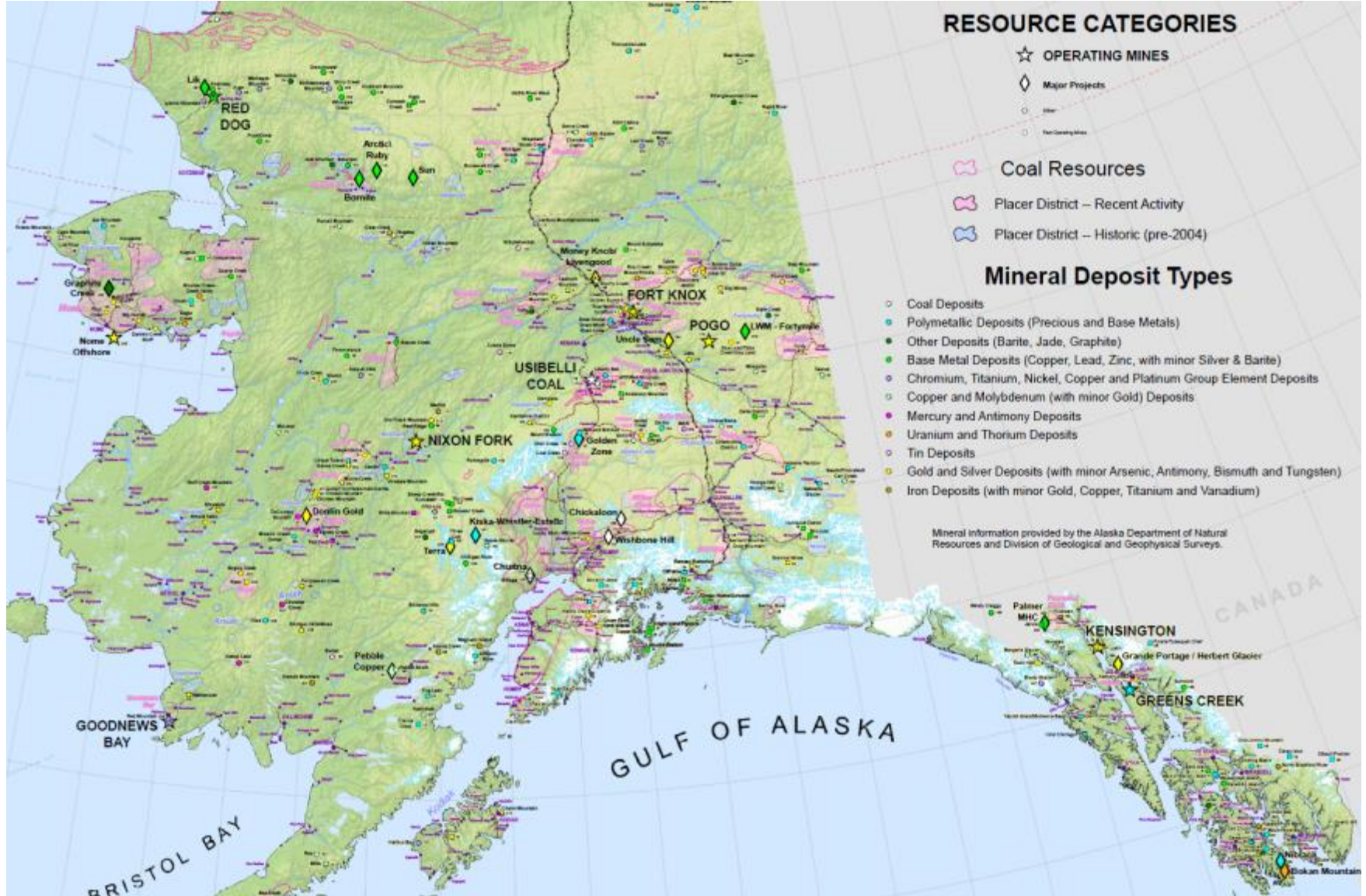
Historically, we have a poor record of success in maintaining abundant salmon in the context of population growth and industrial development



<u>Region</u>	<u>Percent of Historic (%)</u>
Alaska	~100
British Columbia	36
California	9
Puget Sound	8
Oregon Coast	7
Columbia River	2
<u>Washington Coast</u>	<u><2</u>

From Gresh et al. (2000)

Example: Mineral Resources in Alaska



Salmon Decision Tools Workshop – May 2013



A Workshop on Salmon Habitat Decision Systems and Tools

Goal: Improve understanding of salmon information systems and decision-making

Approach: Collaborative engagement among scientists, stakeholders and decision-makers





Salmon Decision Tools Workshop – May 2013



Questions:

Are decision systems and information tools in Alaska sufficient to support resource development while maintaining a high likelihood of abundant salmon in the future?

- What are the strengths and weaknesses of Alaska's current decision and information systems?
- How can we support or improve decision systems and information tools?



Salmon Decision Tools Workshop – May 2013



- Participants:**
- **Fish habitat and watershed partnerships:**
 - Mat-Su, Kenai, Southwest, Southeast, Copper, Yukon
 - **Native corporations and other private:**
 - Ninilchik Native Corporation, Tyonek Tribal Conservation District, Chickaloon Tribal Council, Ahtna, BBNA, USKH, Aquatic Restoration and Research Institute, Malma Consulting
 - **State and federal agencies:**
 - ADF&G Habitat, ADF&G Sport Fish, ADF&G Com Fish, DNR Mining Land & Waters, DEC Water Quality, Kachemak Bay Research Reserve, USF&WS, USGS, NOAA, EPA, USGS, NMFS, BLM
 - **Educational institutions:**
 - Univ. of Alaska Anchorage, Univ. of Alaska Fairbanks, Univ. of Washington
 - **Non-governmental organizations:**
 - Great Land Trust, Copper River Watershed Project, Cook Inlet Keeper, Southeast Alaska Watershed Coalition, Yukon Inter-tribal Watershed Coalition, Copper River Inter-tribal Resources Commission, Gordon and Betty Moore Foundation



Key Findings: Sources of Concern

- Lack of landscape-scale data on salmon distributions, habitats & populations
 - Anadromous Catalog is essential for ADF&G authority, may be only ~50% complete in some areas.
- Lack of management framework that guides watershed development.
 - Example in commercial fisheries is in-season management and maximum sustained yield that guide harvest
- Permitting systems are outdated
 - Not Digital: No accessible, comprehensive inventory
 - Case by Case: Permit decisions are considered in isolation
 - Lack of specific criteria for permit evaluation



Key Findings: Sources of Optimism

- Active Partnerships
 - Networks of engaged stakeholders across Alaska
- New information is rapidly emerging
 - Better mapping of stream habitats and watershed conditions
 - Increased focus on Chinook salmon
- Widespread intact habitat
 - Extensive wetland mosaic (e.g., ~40% of landscape on Kenai)
 - Relatively strong mechanisms for conservation of wetlands

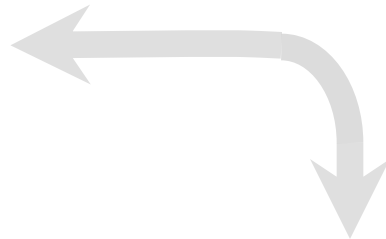


Salmon Social-Ecological System

Salmon Resources



Harvest
Other Uses



Ecological conditions:

- Salmon Distribution
- Habitat Functions
- Stock Assessment
- Water Quality
- Instream Flow

Resource Users



Cultural values



Social values



Economic values

Communication



Participation

Governance Systems



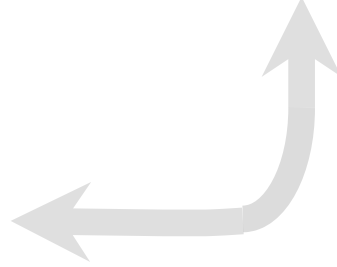
etc.

Municipal & Tribal Governments

Social / Economic Context



Demand for resources

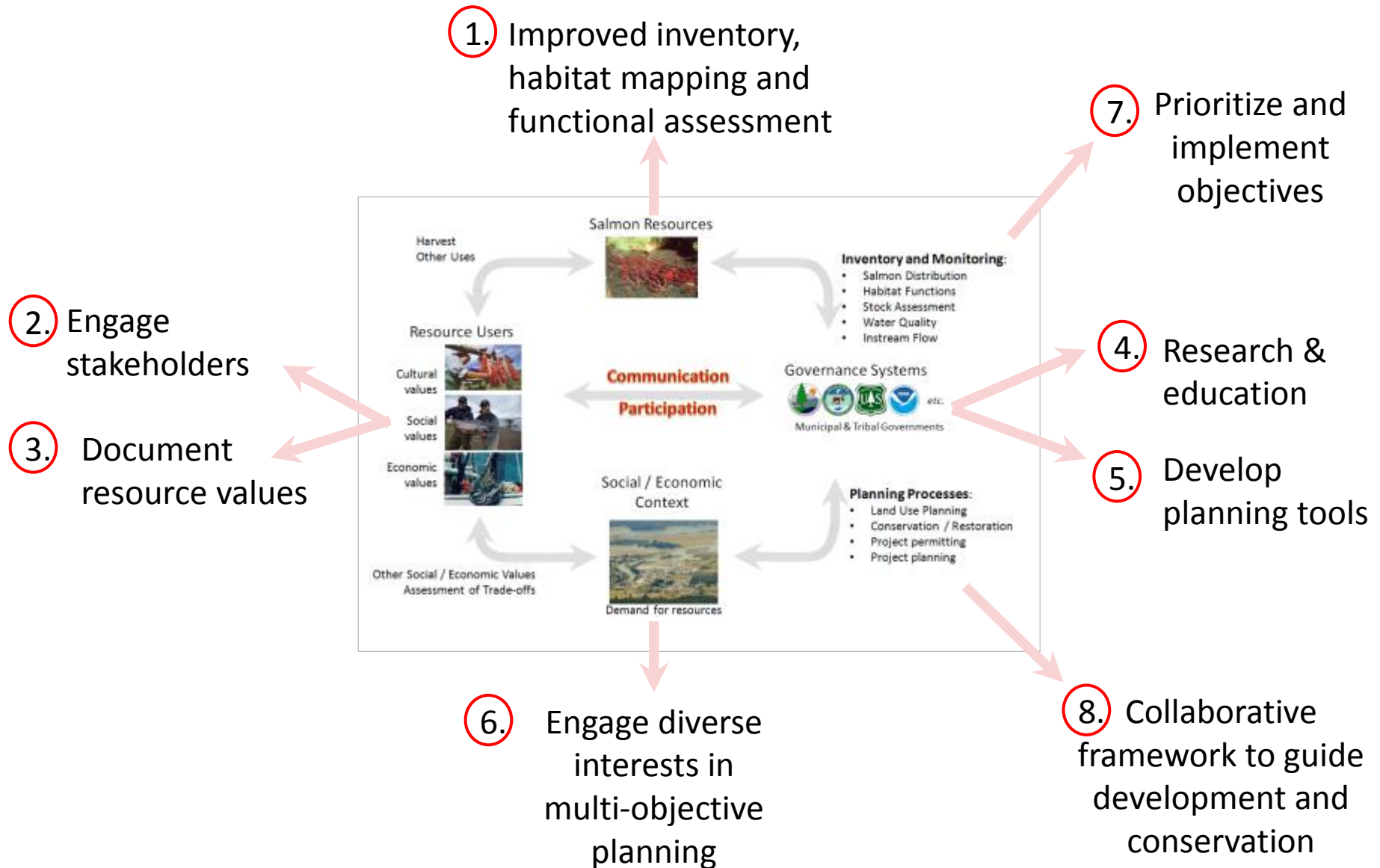


Planning processes:

- Land Use Planning
- Conservation / Restoration
- Project permitting
- Project planning

Other Social / Economic Values
Assessment of Trade-offs

Integrated Approach to Salmon and Resource Planning





“Today we have an unprecedented opportunity – using science and technology to create a better understanding of landscapes than ever before – to advance important conservation goals and achieve our development objectives.”

Sally Jewell, Secretary of the Interior
October 31, 2013
Washington, D.C.

