A BRIEF HISTORY OF THE SALMON FISHERY ENHANCEMENT PROGRAM IN ALASKA

2012 Pink and Chum Workshop

Juneau, Alaska

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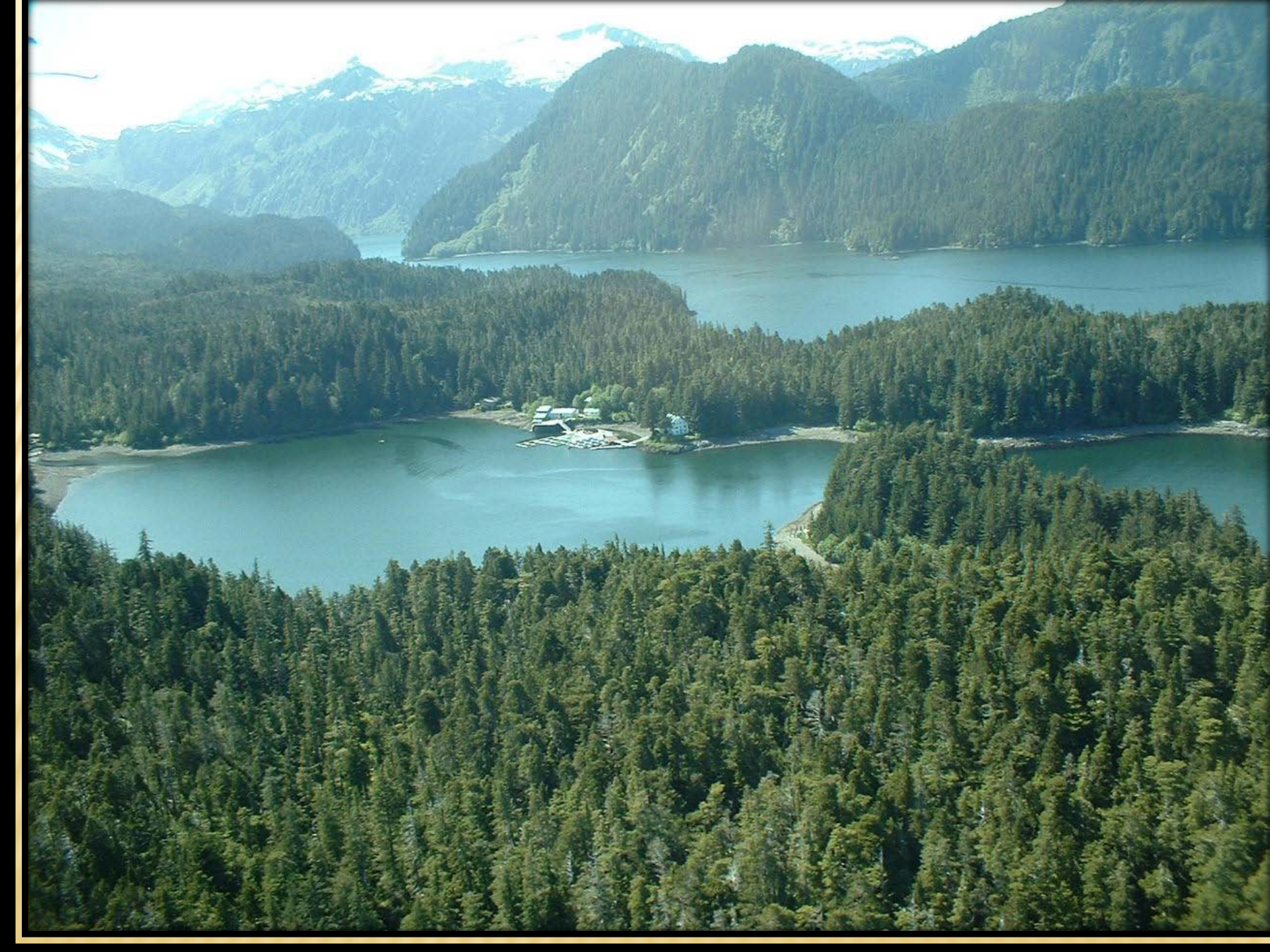
Alaska Department of Fish and Game

Alaska hatcheries pre-statehood

- 1891-First hatchery in Alaska was built at Karluk by salmon canneries. (Voluntary, 5)
- 1896-Alaska Salmon Fisheries Act amended to require canneries to establish hatchery programs. (Mandatory, 2 +)
- 1903-Federal Government hatcheries. (2)
- 1917-Territorial Fish Commission hatcheries.(4)
- 1934-1954-Research Stations/Experimental Hatcheries.



Locations of some pre-statehood hatcheries

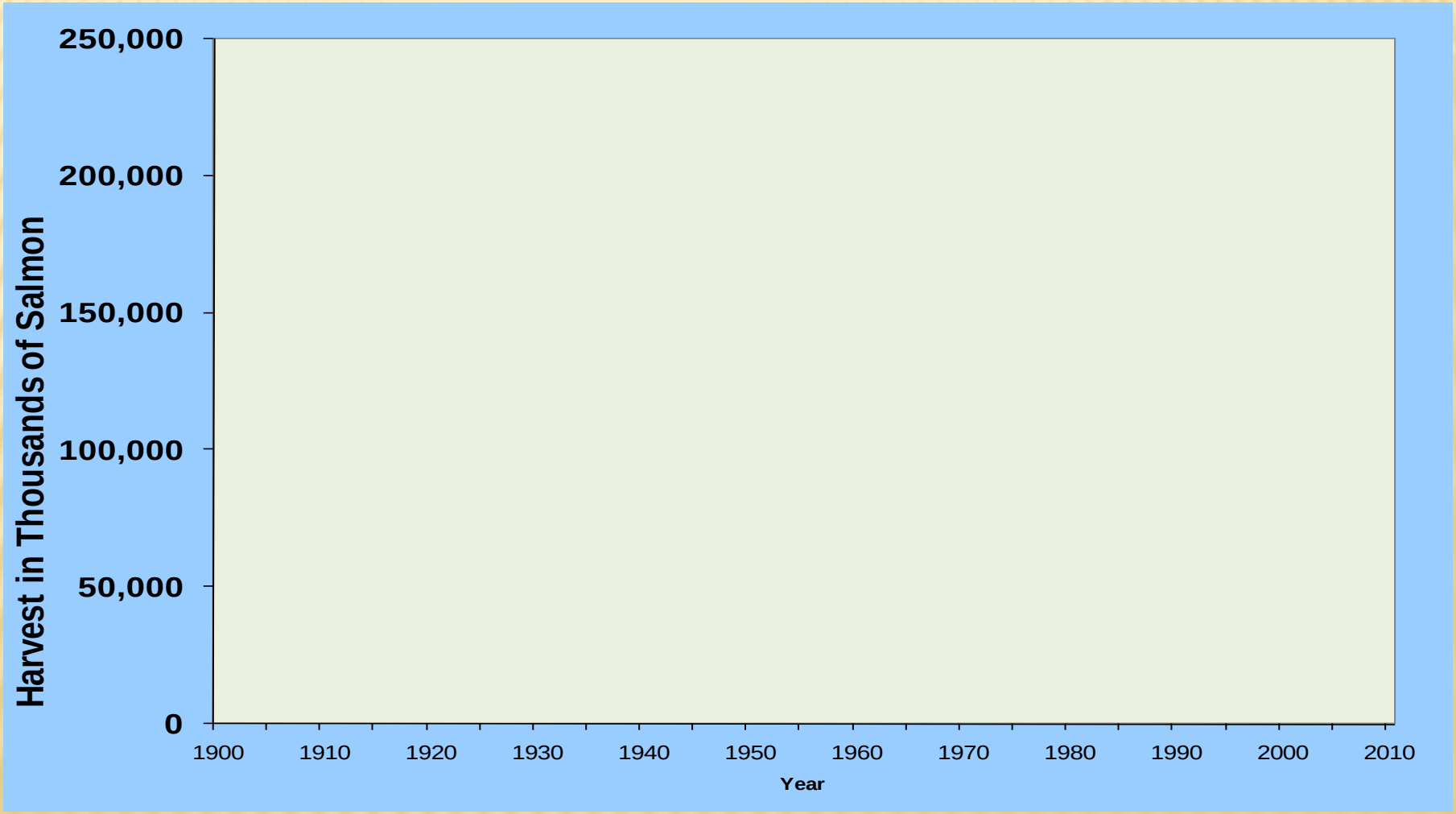
- Karluk Lake – Kodiak
- McDonald Lake – Southern Southeast
- Hetta Lake – Prince of Wales Island
- Hugh Smith Lake – Southern Southeast
- Klawock Lake - Prince of Wales Island
- Afognak Lake – Afognak Island
- Eyak Lake – Cordova
- Grouse Lake - Seward

2009 AFOGNAK LAKE EGG TAKE

THE NEED FOR A MODERN FISHERY ENHANCEMENT PROGRAM

- By statehood, in 1959, Alaska's salmon fishery had fallen to its lowest level in 60 years, primarily due to overfishing, and remained low through the next 15 years
- Salmon abundance was well below both historical levels and the production potential of the habitat, many stocks were depleted and some extirpated
- Effective fishery management alone was not increasing abundance quickly enough
- Economic losses to individual fishermen, coastal communities and the State were considered a disaster

ALASKA COMMERCIAL SALMON HARVEST FROM 1900-1973



Rebuilding The Kitoi Bay Hatchery After the 1964 Tsunami

AN INTEGRATED APPROACH TO RECOVERING ALASKA'S SALMON FISHERIES

- In season escapement based management of salmon fisheries was adopted with state control of fish and game in 1960.
- Fisheries Rehabilitation, Enhancement and Development (FRED) Division was created by legislature in 1971.
- Following a constitutional amendment in 1972, limited entry commercial salmon fishery program was enacted in 1973.

PRIVATE NONPROFIT SALMON HATCHERIES JOIN THE EFFORT IN 1974

CHAPTER 11

AN ACT Authorizing the Operation of Private Nonprofit Salmon Hatcheries

Be it enacted by the Legislature of the State of Alaska:

Section 1. INTENT. *It is the intent of this Act to authorize the private ownership of salmon hatcheries by qualified nonprofit corporations for the purpose of contributing by artificial means to the rehabilitation of the state's depleted and depressed salmon fishery…*

Approved May 16, 1974
Effective August 14, 1974

THE PURPOSE OF ALASKA'S SALMON FISHERY ENHANCEMENT PROGRAM

- Recovery and support of Alaska’s salmon fisheries and fishing economy.
- Provide an economic engine to support and grow coastal communities.

ADF&G MISSION STATEMENT

To **protect, maintain, and improve** the fish, game, and aquatic plant **resources** of the State, and manage their **use and development** in the best interest of the **economy** and the **well-being** of the **people** of the State, consistent with the **sustained yield principle**.

WILD STOCK PROTECTION MECHANISMS

- Rigorous hatchery permitting process
- Wild stocks are always given priority in fisheries management
- Locate releases away from significant wild stocks
- Use local broodstock sources
- Use adequate brood numbers
- Selective “breeding” prohibited
- Fish health screening required
- Permit hatcheries at lower initial capacities
- May require tagging/marking of hatchery fish
- May require special studies on wild/hatchery interactions

TIMELINE OF POLICIES, STATUTES AND REGULATIONS GUIDING THE PROGRAM

- 1971 FRED Division statute created by legislature
- 1974 PNP hatchery permitting statute
- 1976 regional planning statute
- 1976 regional aquaculture association statute
- 1978 BoF hatchery management policy
- 1981 fish transport regulations
- 1985 PNP regulations
- 1985 Genetics policy
- 1988 pathology policy
- 1988 Contracts for the operation of State hatcheries
- 1992 wild and enhanced stock statute
- 1994 sockeye salmon culture policy
- 2000 BoF sustainable salmon fisheries policy

PORT ARMSTRONG HATCHERY

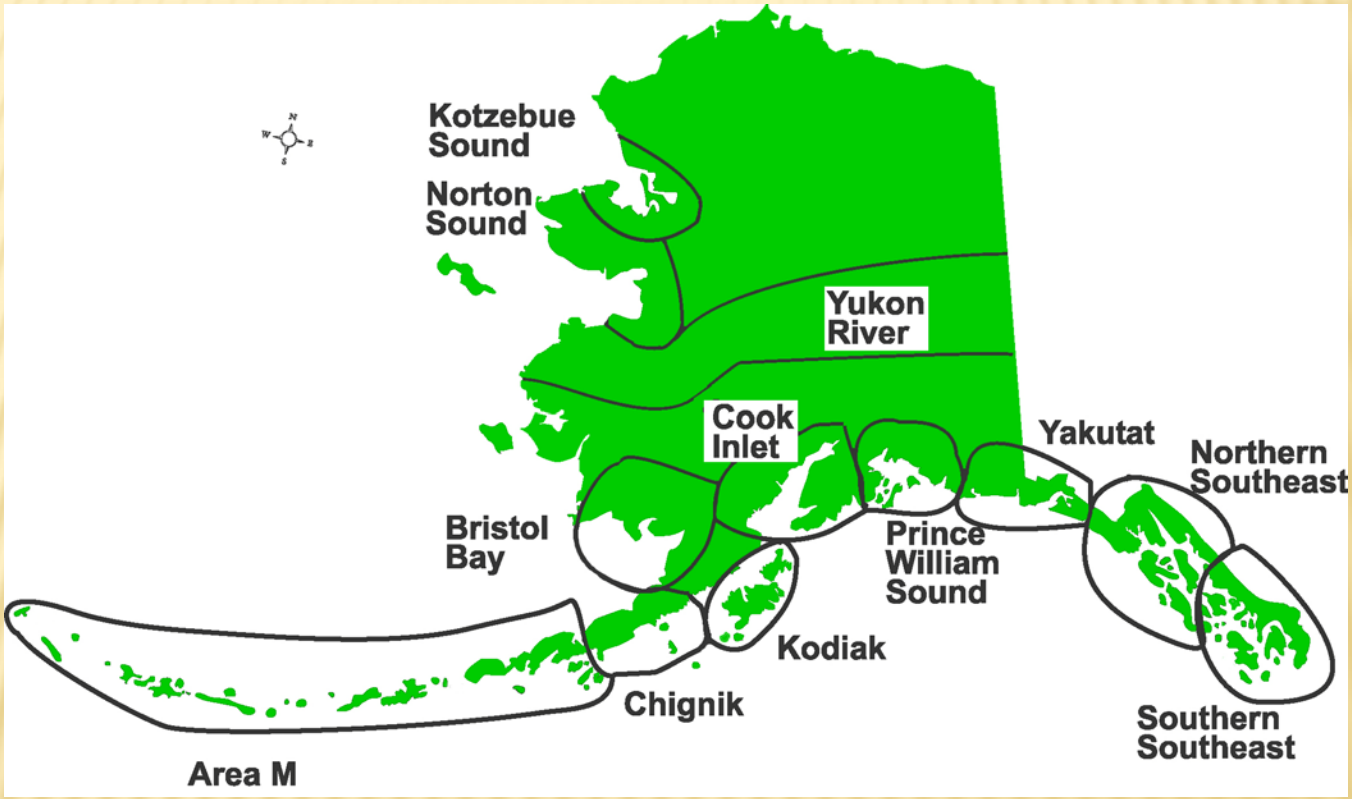
ALASKA'S PROGRAM IS STAKEHOLDER DRIVEN

- 1976 – Regional Planning and Regional Aquaculture Association Statutes were enacted giving oversight over salmon fishery enhancement activities to regional stakeholders, primarily limited entry permit holders.

- The users of the resource within each region determine what fishery enhancement is desirable and the ADF&G determines what is appropriate within their mandate to protect natural production.

- The mechanism for this cooperative effort is the Regional Aquaculture Association working with ADF&G within the Regional Planning Team (RPT) process.

SALMON PLANNING REGIONS



THE PRIMARY RESPONSIBILITY OF THE RPT IS REGIONAL COMPREHENSIVE SALMON PLANNING

5 AAC 40.340. Regional planning team responsibility

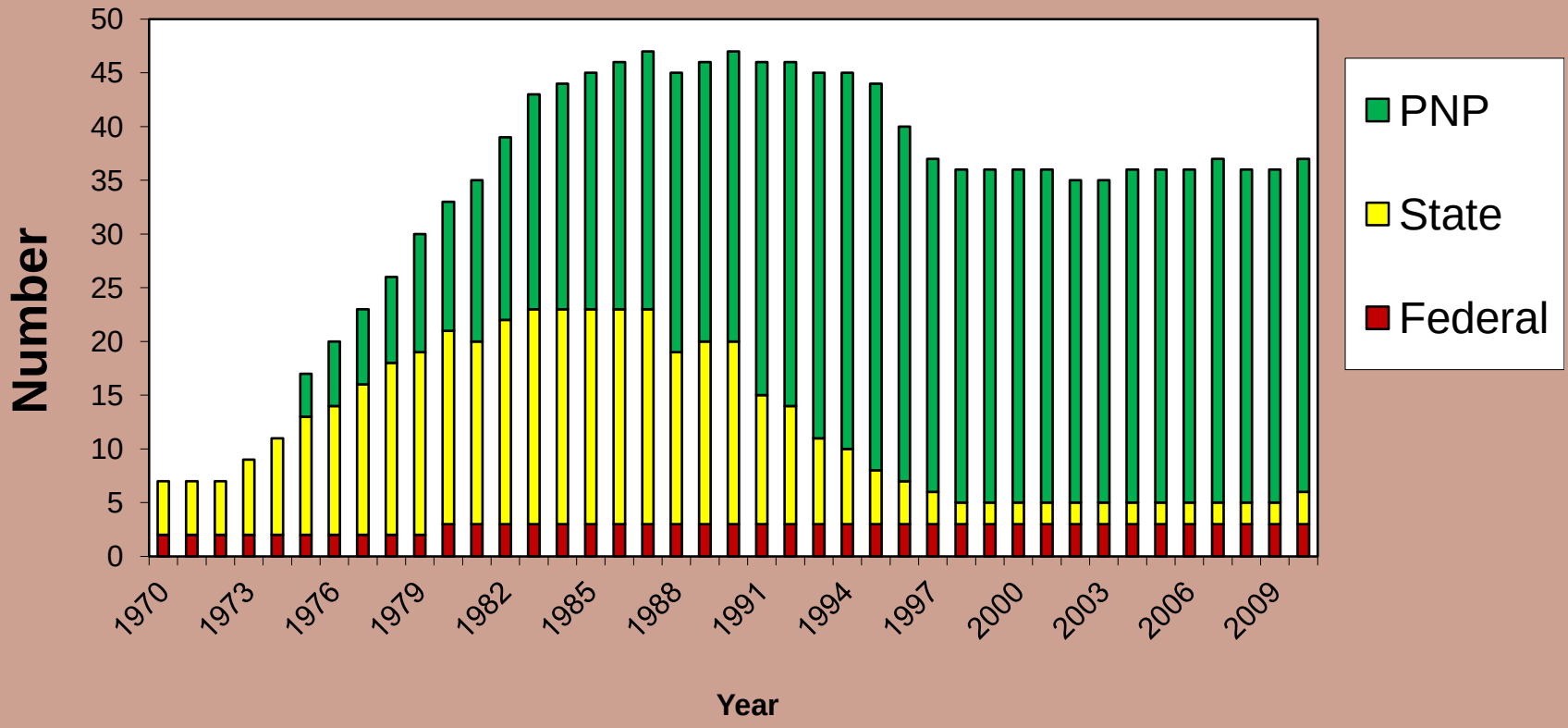
Each regional planning team shall prepare a regional comprehensive salmon plan, for the appropriate region, to rehabilitate natural stocks and supplement natural production, with provisions for both public and private nonprofit hatcheries. Each regional planning team shall consider the needs of all user groups and ensure that the public has opportunity to participate in the development of the comprehensive salmon plan. Each regional comprehensive plan must define regional production goals by species, area, and time.

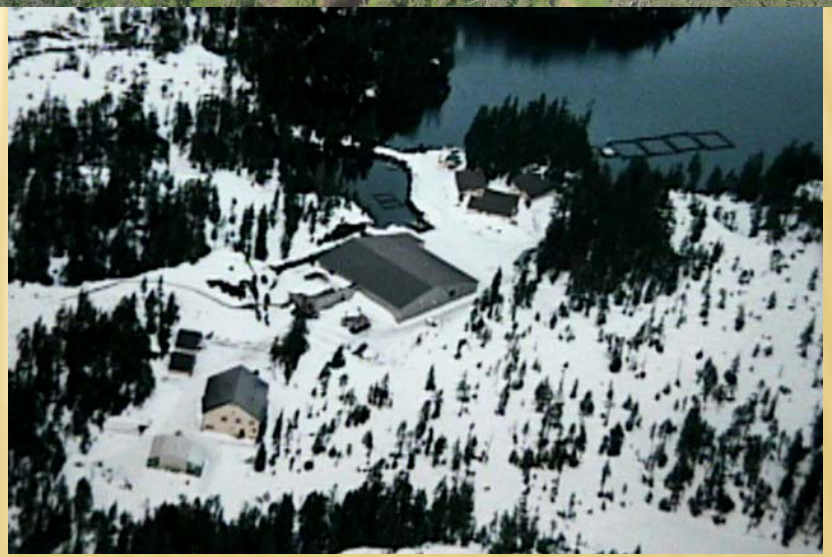
WHITMAN LAKE HATCHERY

EVOLUTION OF ALASKA'S MODERN SALMON FISHERY ENHANCEMENT PROGRAM

- 1959 – At statehood, there were two Federal facilities and three territorial hatcheries operating, by 1969 , two state hatcheries had been constructed.
- 1971 – FRED Division was created and in 1974 PNP Hatcheries were authorized.
- 1988– There were three federal, 20 State, and 23 PNP hatcheries operating when contracting the operation of State hatcheries to PNPs was authorized.
- 1993 – FRED Division merged with CFD.

ACTIVE SALMON HATCHERIES IN ALASKA





MAIN BAY HATCHERY

35 Facilities in Operation in 2011

- 3 State-owned and operated (SFD)
- 2 Federal research facilities
- 1 Federal/Tribal
- 18 PNP-owned and operated
- 11 State-owned – PNP-operated (29 total PNP)

- PNP combined permitted capacity of 2.35 billion salmon eggs

ACTIVE FACILITIES IN ALASKA IN 2011

Southeast

Whitman Lake
Neets Bay
Burnett Inlet
Crystal Lake
Hidden Falls
Medvejie Creek
Sawmill Creek
Haines Projects

Port Armstrong
Macaulay
Snettisham
Sheep Creek
Deer Mountain
Gunnuk Creek
Klawock
Port Saint Nicholas
Sheldon Jackson

Tamgas Creek (Metlakatla)
Little Port Walter (NMFS)
Auke Creek (NMFS)

Prince William Sound

Armin Koernig
Wally Noerenberg
Cannery Creek
Main Bay
Gulkana
Solomon Gulch

Cook Inlet

Trail Lakes
Port Graham
Fort Richardson (SF)
William Jack Hernandez (SF)
Tutka Bay
Eklutna

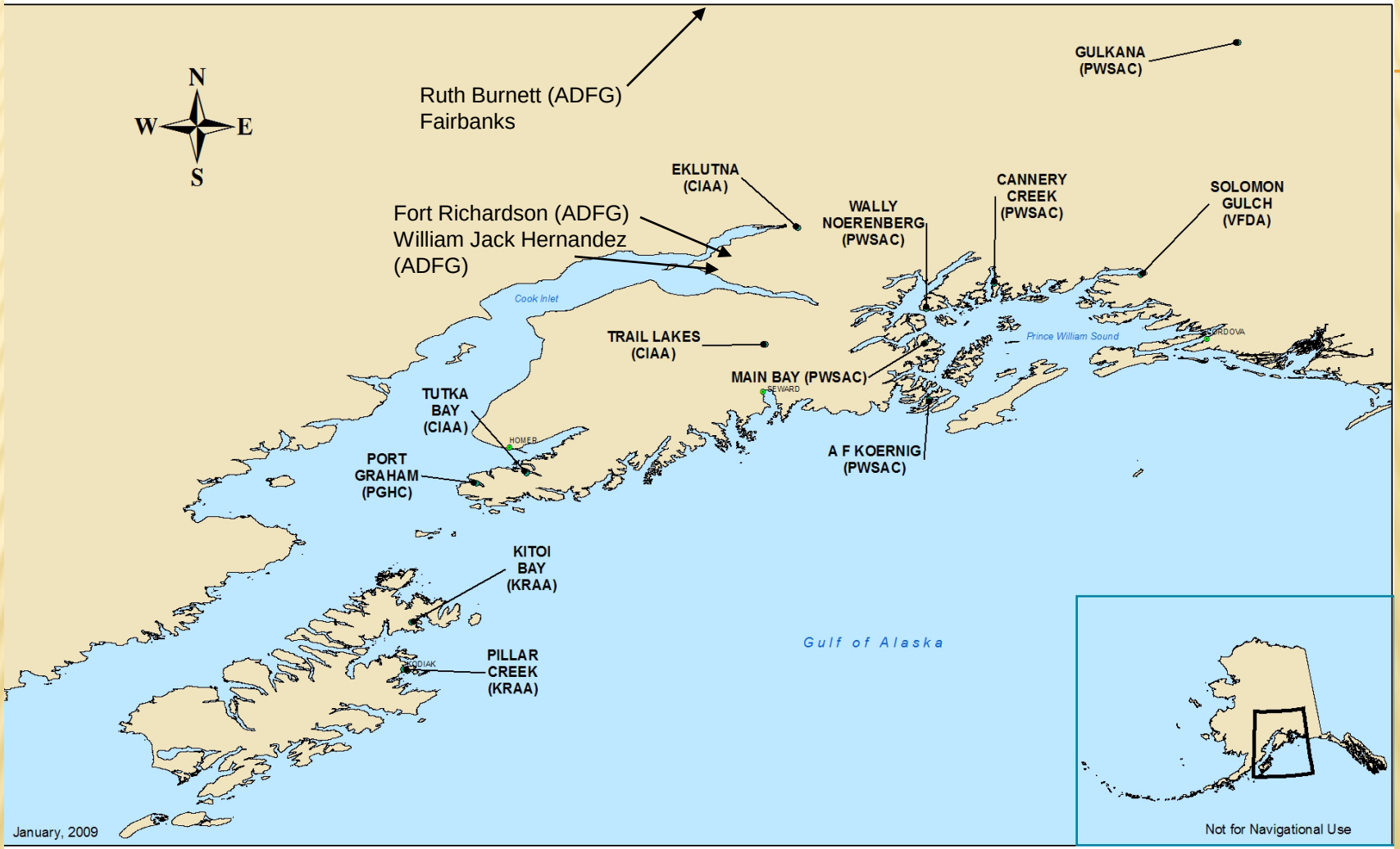
Kodiak

Kitoi Bay
Pillar Creek

Interior

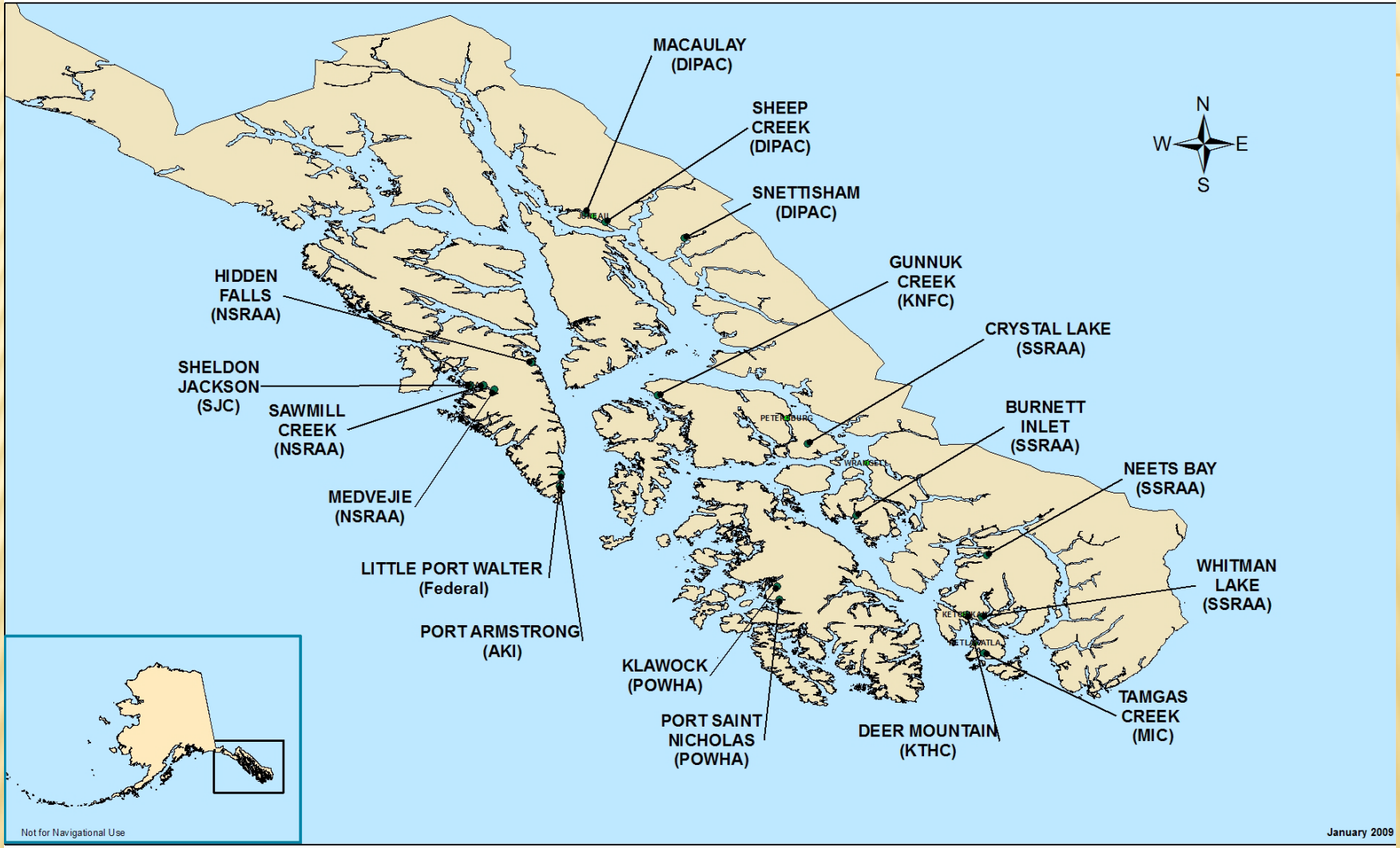
Ruth Burnett (SF)

Locations of Hatcheries within Southcentral Alaska



Kodiak	Cook Inlet	Prince Willam Sound
KRAA: Kodiak Regional Aquaculture Association	CIAA: Cook Inlet Aquaculture Association	PWSAC: Prince William Sound Aquaculture Association
	PGHC: Port Graham Hatchery Corporation	VFDA: Valdez Fisheries Development Association

Locations of Hatcheries within Southeast Alaska



SSRAA: Southern Southeast Regional Aquaculture Association
NSRAA: Northern Southeast Regional Aquaculture Association
AKI: Armstrong-Keta, Inc.

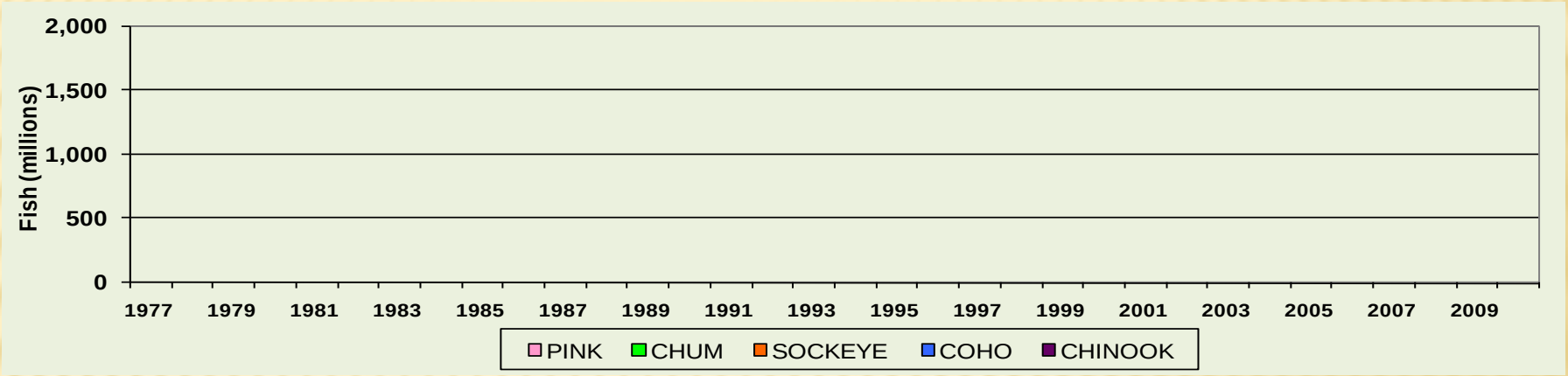
DIPAC: Douglas Island Pink and Chum, Inc.
KTHC: Ketchikan Tribal Hatchery Corporation
KNFC: Kake Nonprofit Fisheries Corporation

POWHA: Prince of Wales Hatchery Association
SJC: Sheldon Jackson College
MIC: Metlakatla Indian Corporation

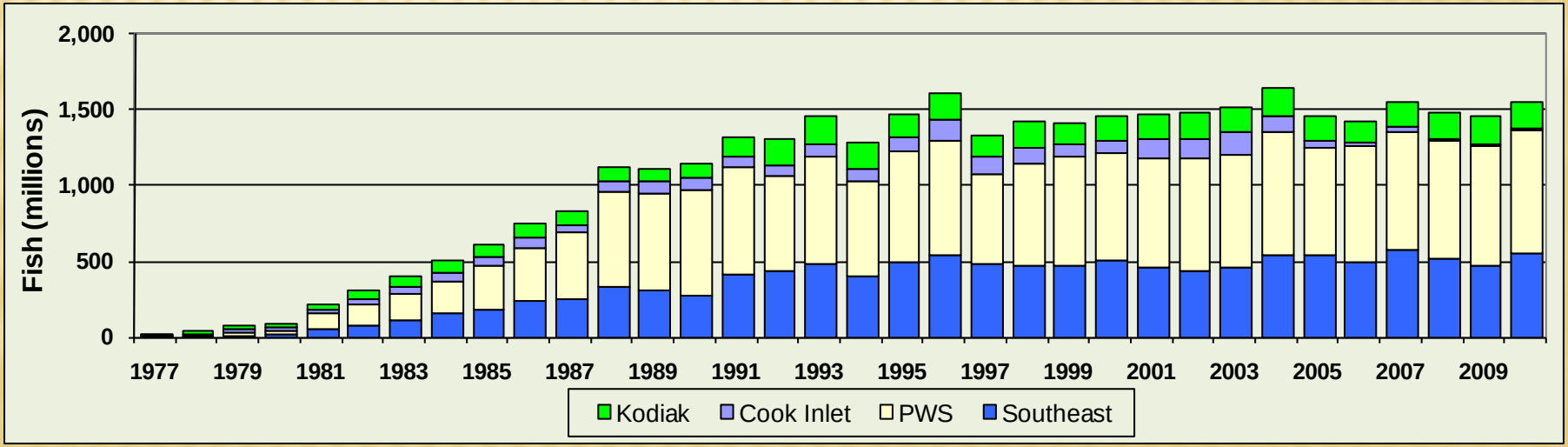
GULKANA HATCHERY

STATEWIDE ENHANCED PRODUCTION 1977-2010

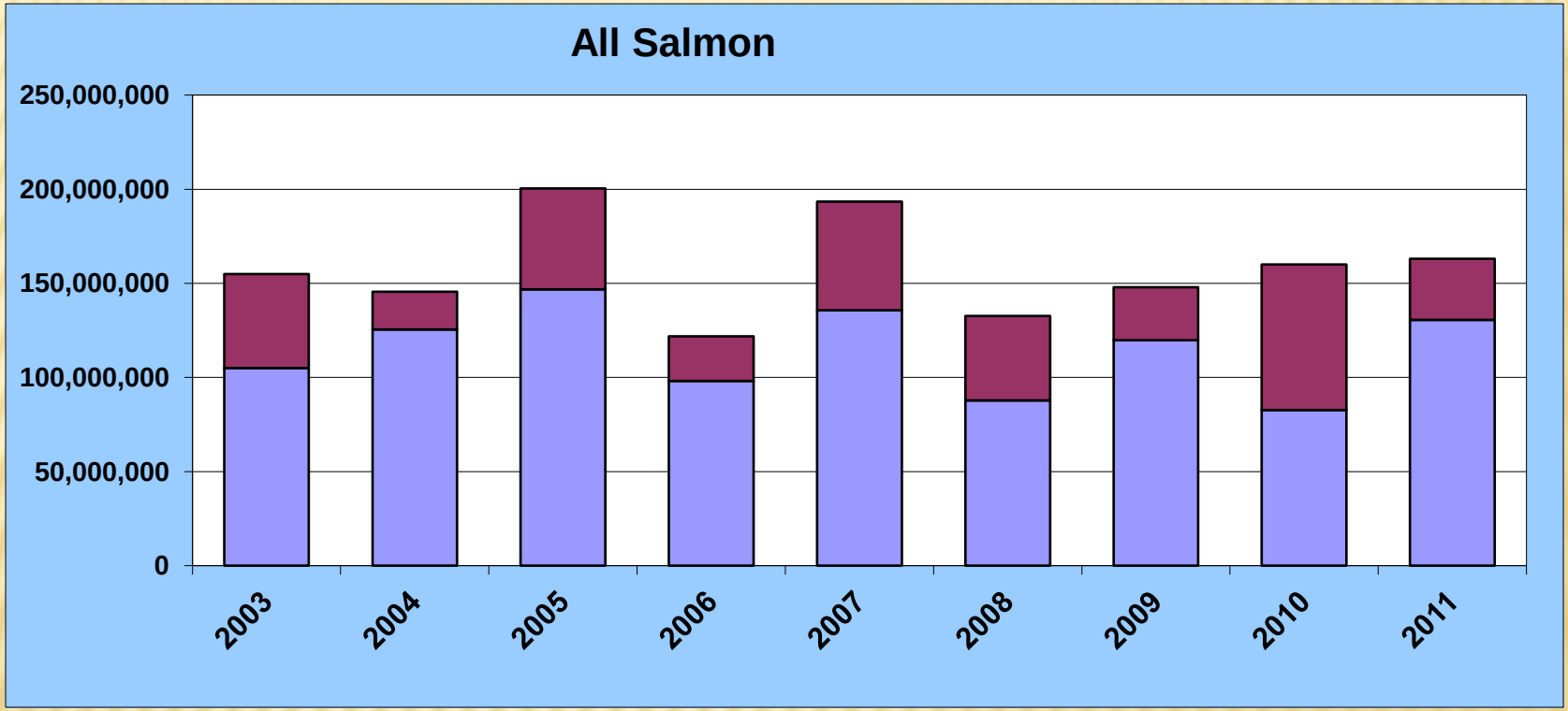
Releases by Species



Releases by Region

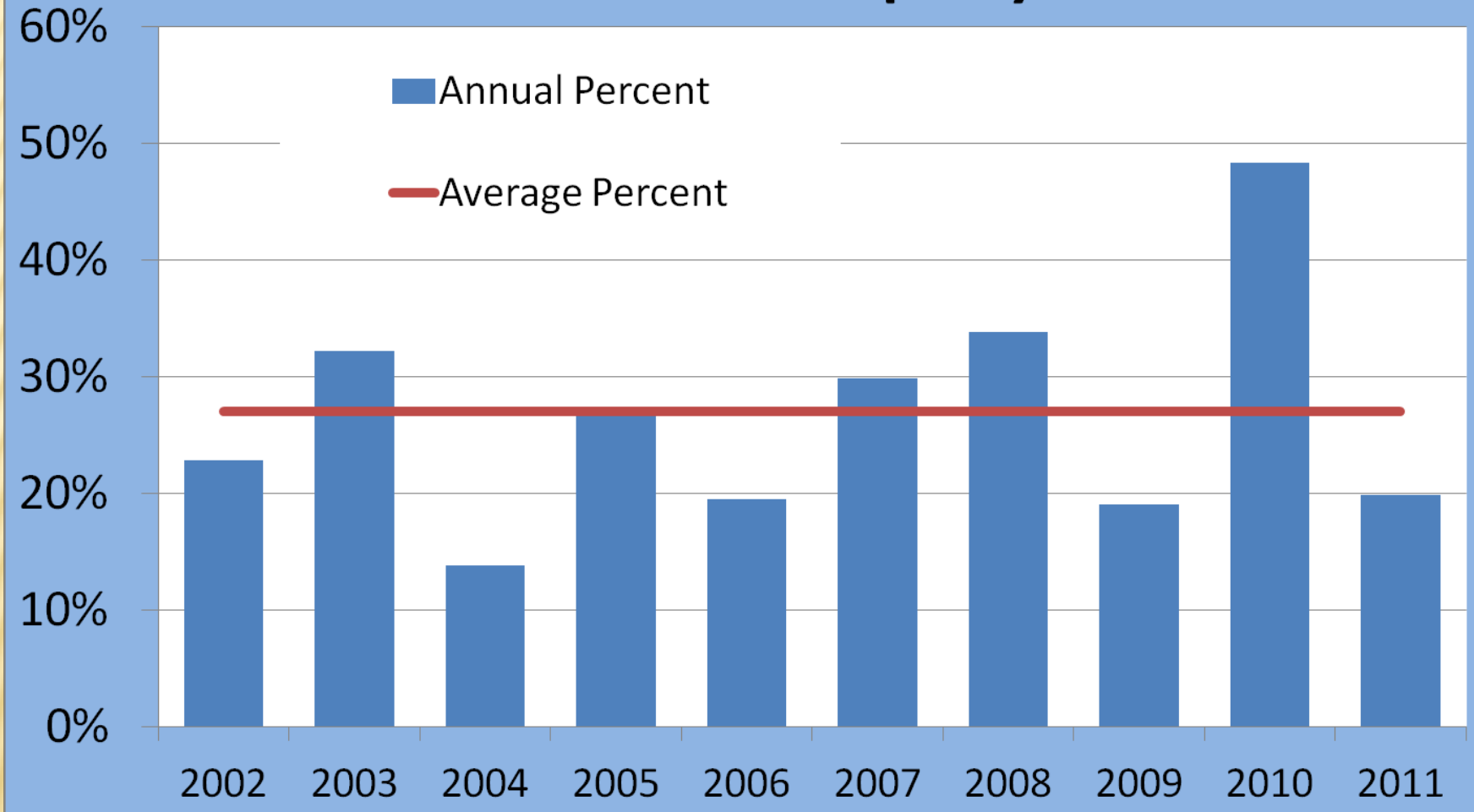


COMMERCIAL COMMON PROPERTY HARVEST OF SALMON IN ALASKA 2003-2011*



•Excludes cost recovery harvest

Percentage of Hatchery Salmon in Statewide Common Property Harvests



TOTAL COMMERCIAL SALMON HARVESTS IN ALASKA FROM 1900 TO 2011