

PRODUCTION TRENDS AND PLANNING EFFORTS

ALASKA FISHERY ENHANCEMENT PROGRAM

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Private Nonprofit Hatchery Program Coordinator, Aquaculture Section, ADF&G

Alaska Board of Fisheries Hatchery Committee Meeting – Tab 1

March 23, 2022

Anchorage



OUTLINE

1. PRODUCTION TRENDS

ANNUAL REPORT

STATEWIDE TRENDS

REGIONAL TRENDS

ANTICIPATED FUTURE PRODUCTION

NEW OR CHANGED PROGRAMS

FORECASTED RETURNS

2. PLANNING EFFORTS

ANNUAL MANAGEMENT PLANS

PRIVATE NONPROFIT CORPORATIONS

PRODUCTION PLANNING AND HARVEST

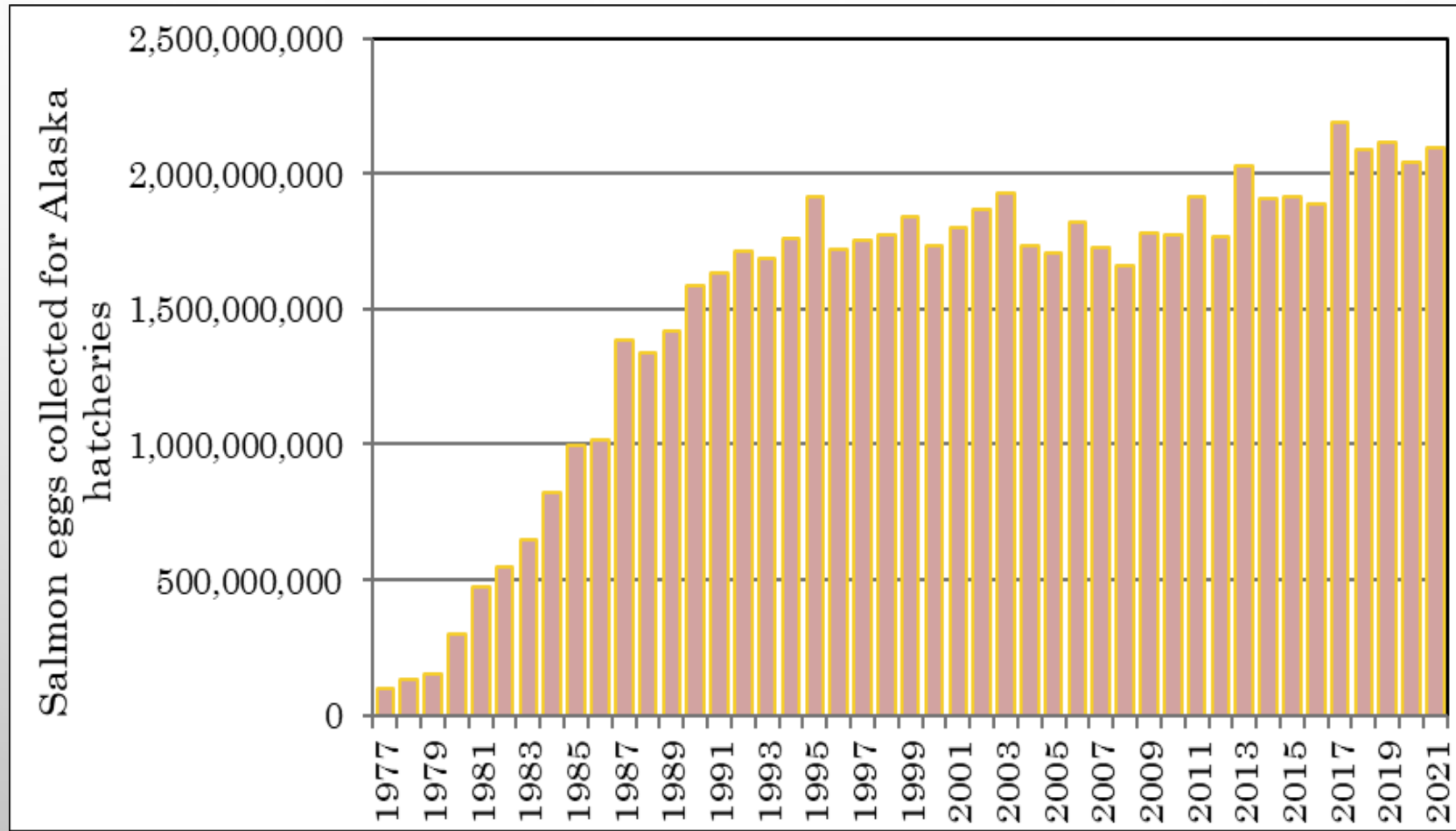
HATCHERY ANNUAL REPORT

- NONPROFIT HATCHERY PERMIT REQUIRES AN ANNUAL REPORT NO LATER THAN DECEMBER 15 EACH YEAR
- DIVISION OF SPORT FISH HATCHERIES ALSO SUBMIT ANNUAL REPORTS
- METLAKATLA INDIAN COMMUNITY - ANNETTE ISLAND RESERVE - TAMGAS CREEK HATCHERY
- MUST INCLUDE INFORMATION PERTAINING TO:
 - SPECIES
 - BROODSTOCK SOURCE AND BROODSTOCK NUMBERS
 - NUMBER OF EGGS TAKEN AND FRY/SMOLT RELEASED
 - ADULT RETURNS ATTRIBUTABLE TO THE HATCHERY
 - COST RECOVERY HARVEST AND COMMON PROPERTY CONTRIBUTION (COMMERCIAL, SPORT, PERSONAL USE, AND SUBSISTENCE)
 - ESCAPEMENT, IF REQUIRED
- AS 16.10.470

HATCHERY ANNUAL REPORT

- PROVIDES DEPARTMENT OVERSIGHT TO ENSURE PRODUCTION IS AS PERMITTED
- PREPARE DEPARTMENT SEASON SUMMARIES AND ANNUAL FISHERY MANAGEMENT REPORTS
- PREPARE ADF&G HARVEST PROJECTIONS FOR THE SUBSEQUENT YEAR
- PREPARE A COMPREHENSIVE ANNUAL REPORT FOR THE LEGISLATURE (AS 16.05.092)
 - [HTTP://WWW.ADFG.ALASKA.GOV/FEDAIDPDFS/RIR.5J.2022.02.PDF](http://www.adfg.alaska.gov/fedaidpdfs/rir.5j.2022.02.pdf)
- PROVIDE TO DEPT. OF COMMERCE PER 5 AAC 40.890
 - FISHERIES ENHANCEMENT LOAN PROGRAM (AS 16.10.500-16.10.560)
- ECONOMIC INTERESTS
 - ONE EXAMPLE, MCKINLEY RESEARCH (MCDOWELL GROUP) ECONOMIC REPORTS
- RESEARCH
 - CORRELATIONS WITH HATCHERY PRODUCTION

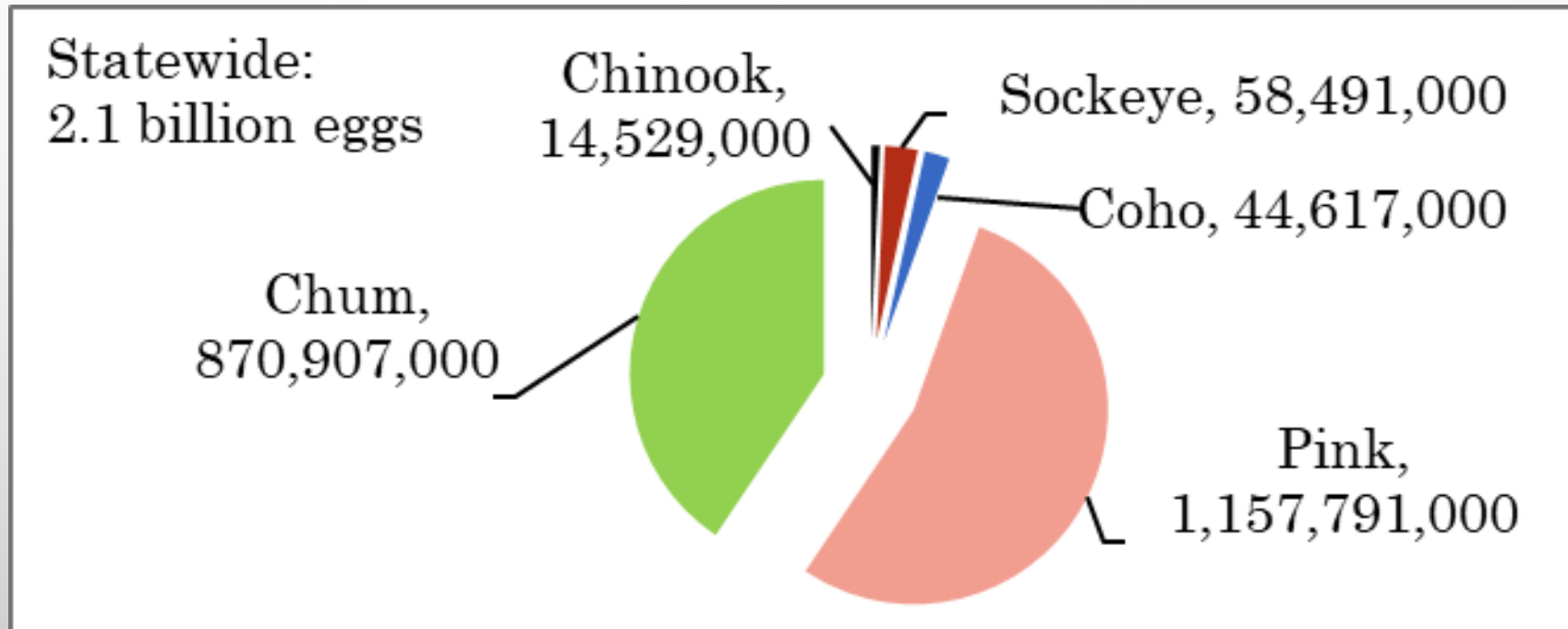
STATEWIDE SALMON EGGS COLLECTED 1977-2021



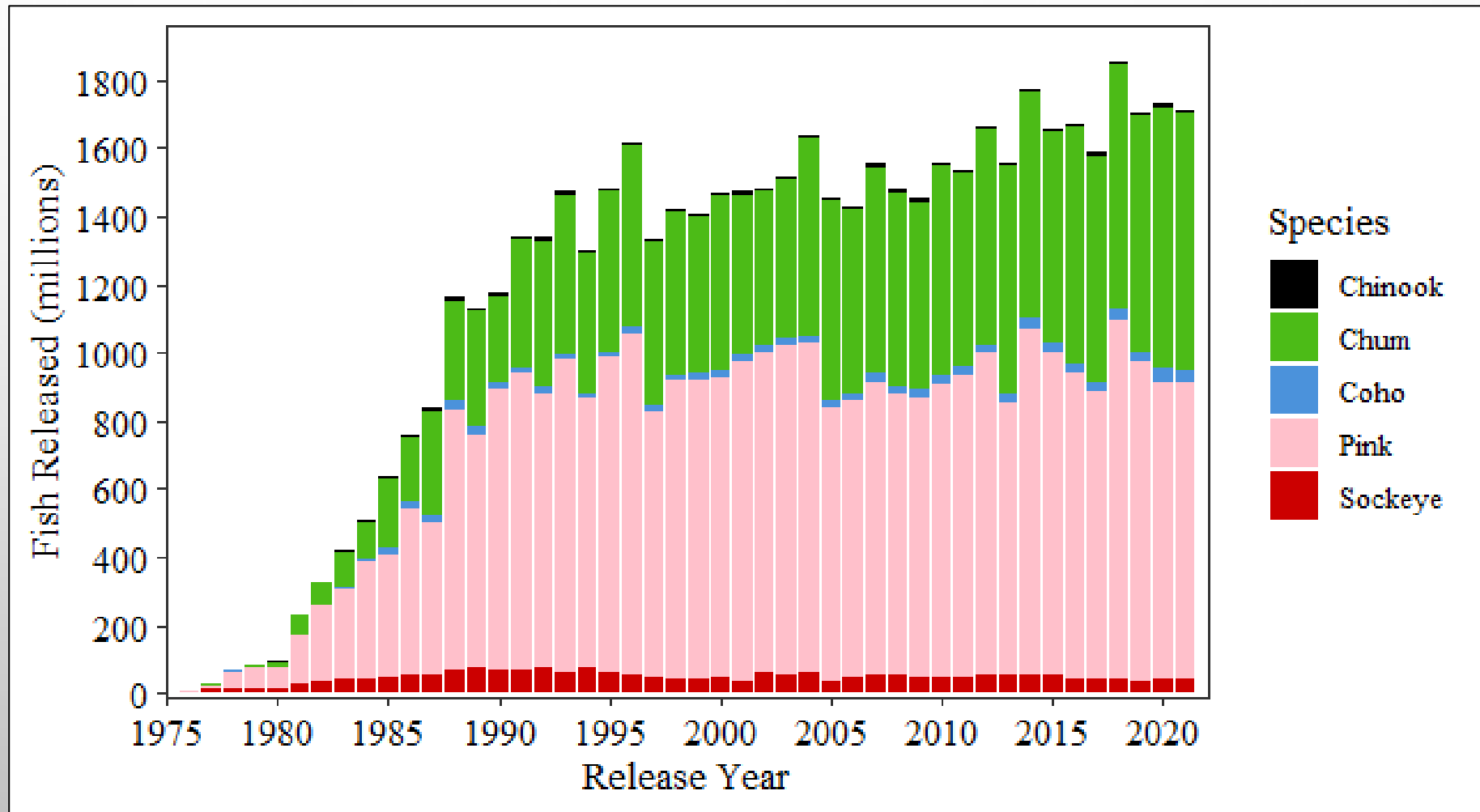
In 2021, 2.1 billion eggs were collected.

Hatcheries in Alaska are currently permitted to take a total of 2.6 billion eggs.

STATEWIDE SALMON EGGS COLLECTED, 2021

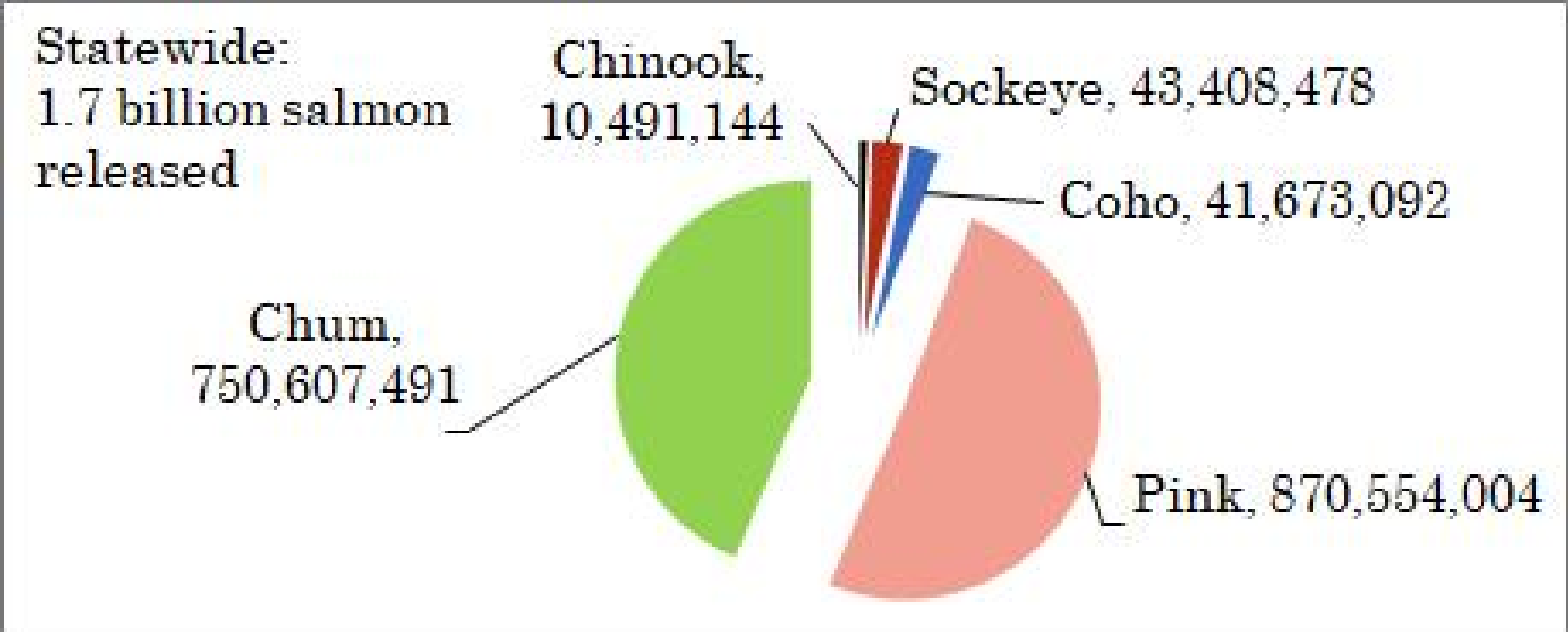


STATEWIDE RELEASES 1974-2021

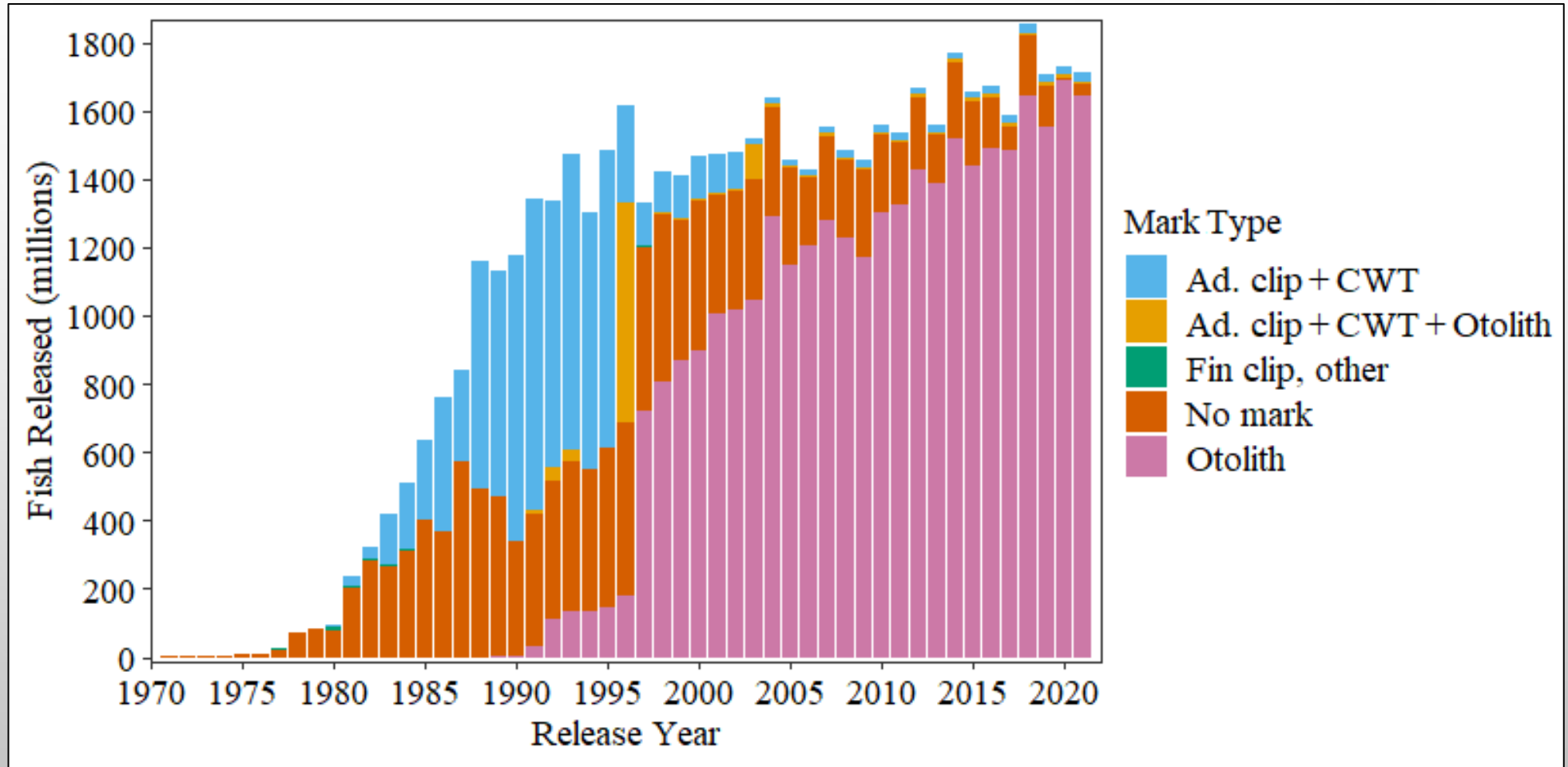


1.7 billion juvenile salmon were released in 2021

STATEWIDE RELEASES 2021

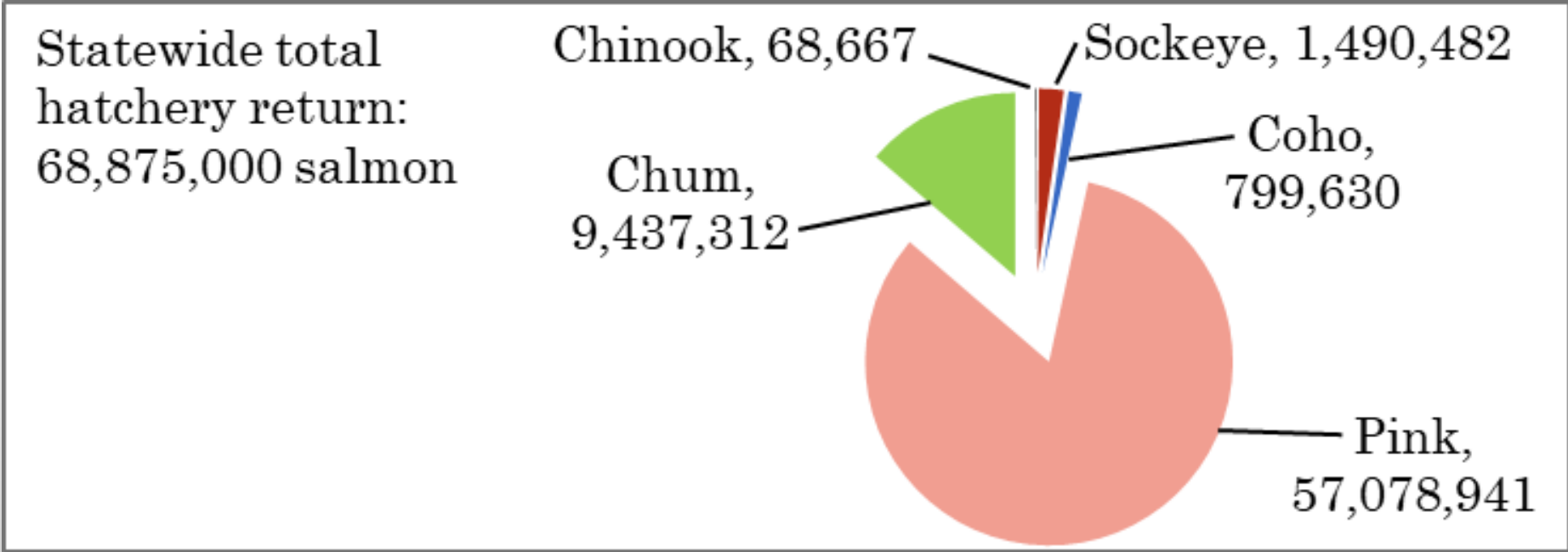


STATEWIDE RELEASES BY MARK TYPE



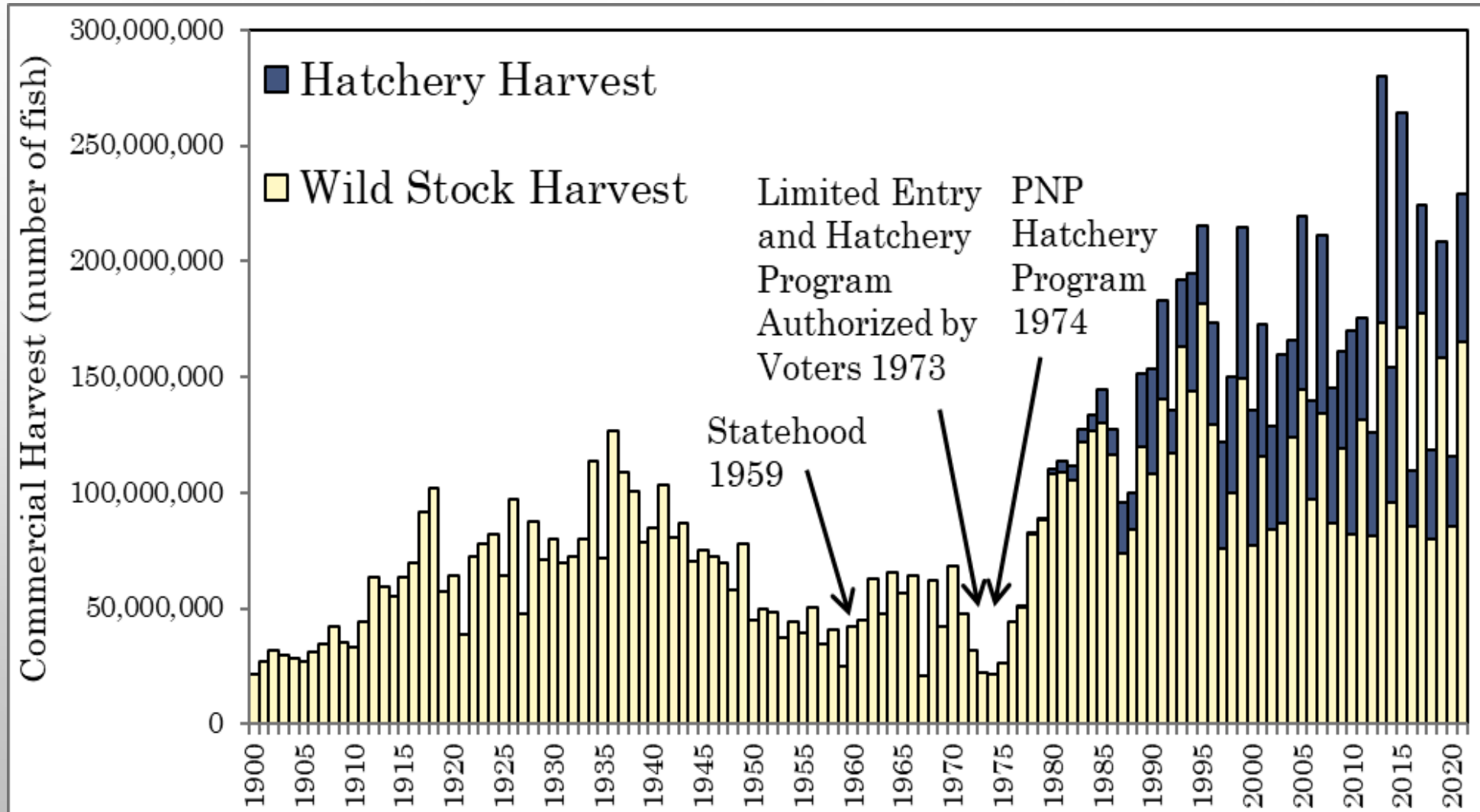
Juvenile salmon released by Alaska hatcheries by mark type, 1970–2021

STATEWIDE TOTAL HATCHERY RETURN 2021



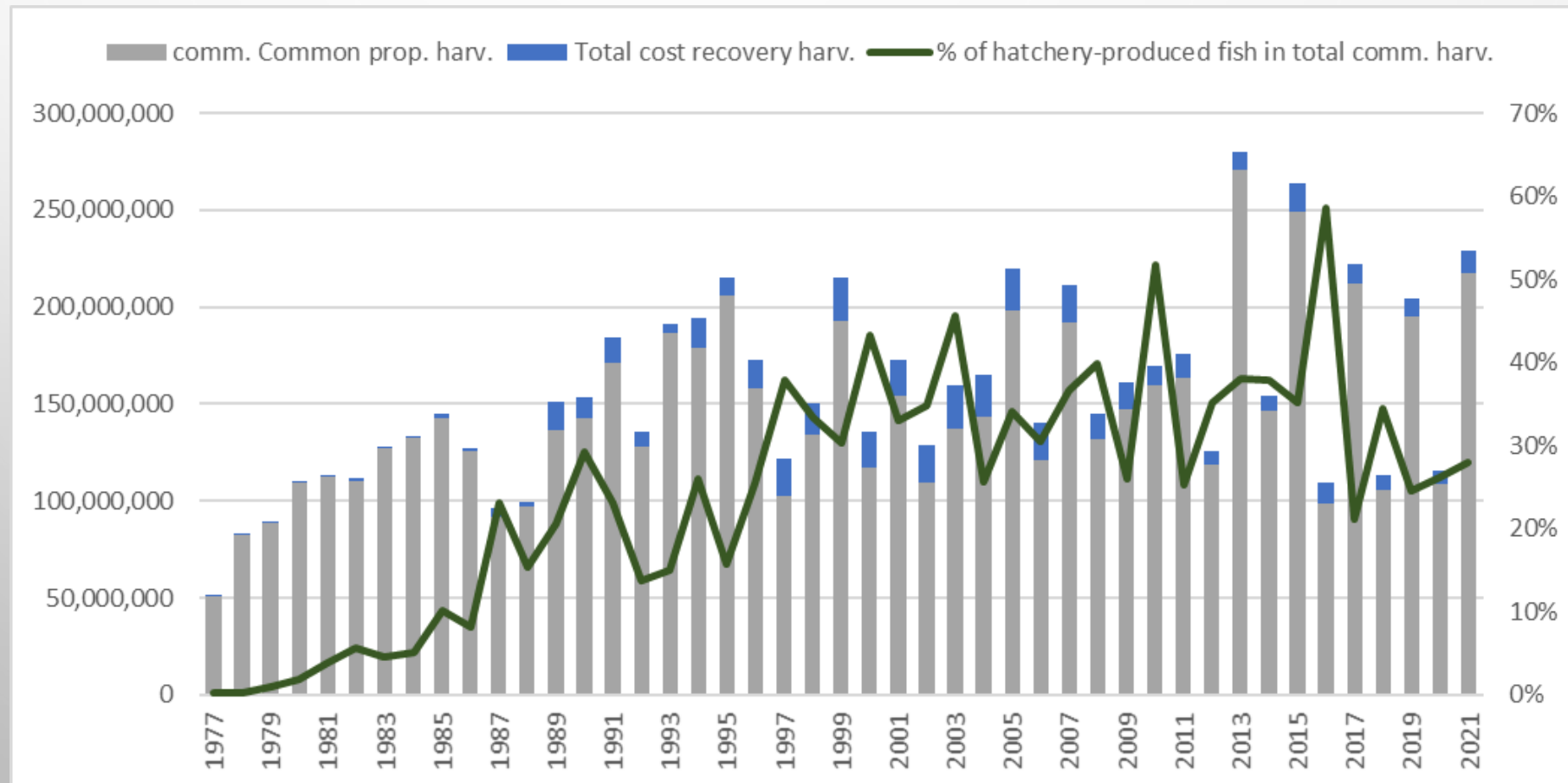
Alaska hatchery total salmon return as reported by operators by species, 2021.

STATEWIDE COMMERCIAL HARVEST 1900-2021

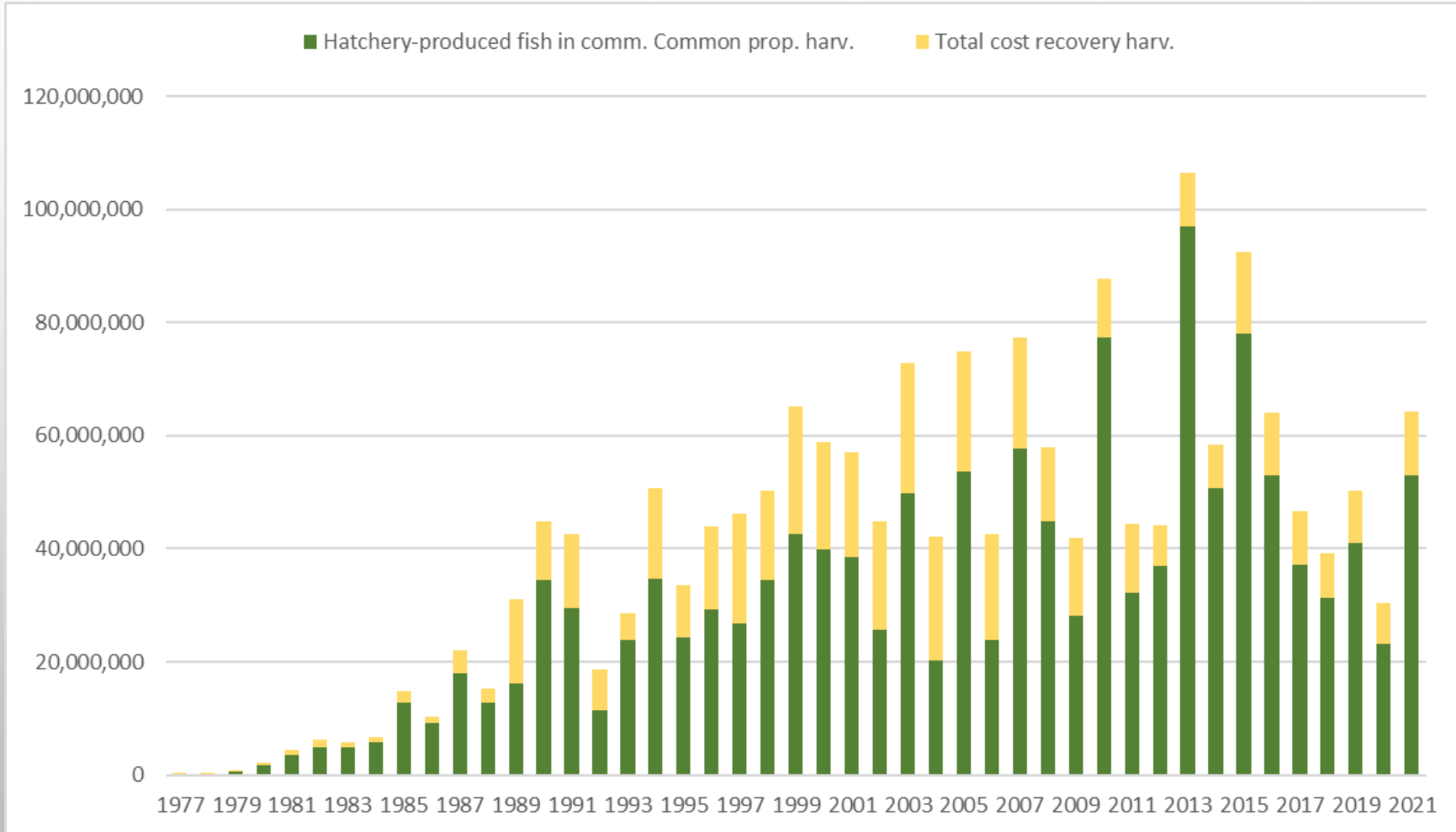


STATEWIDE COMMERCIAL FISHERY CONTRIBUTION

- THE COMMERCIAL SALMON FISHERY:
 - (1) THE COMMERCIAL COMMON PROPERTY FISHERIES OPEN TO FISHERMEN HOLDING SALMON PERMITS
 - (2) COST RECOVERY FISHERIES, HARVESTED BY PNP HATCHERIES WITH PERMITS.
- THE 2021 HATCHERY CONTRIBUTION WAS 28% OF THE STATEWIDE COMMERCIAL SALMON HARVEST.



STATEWIDE COMMERCIAL FISHERY CONTRIBUTION



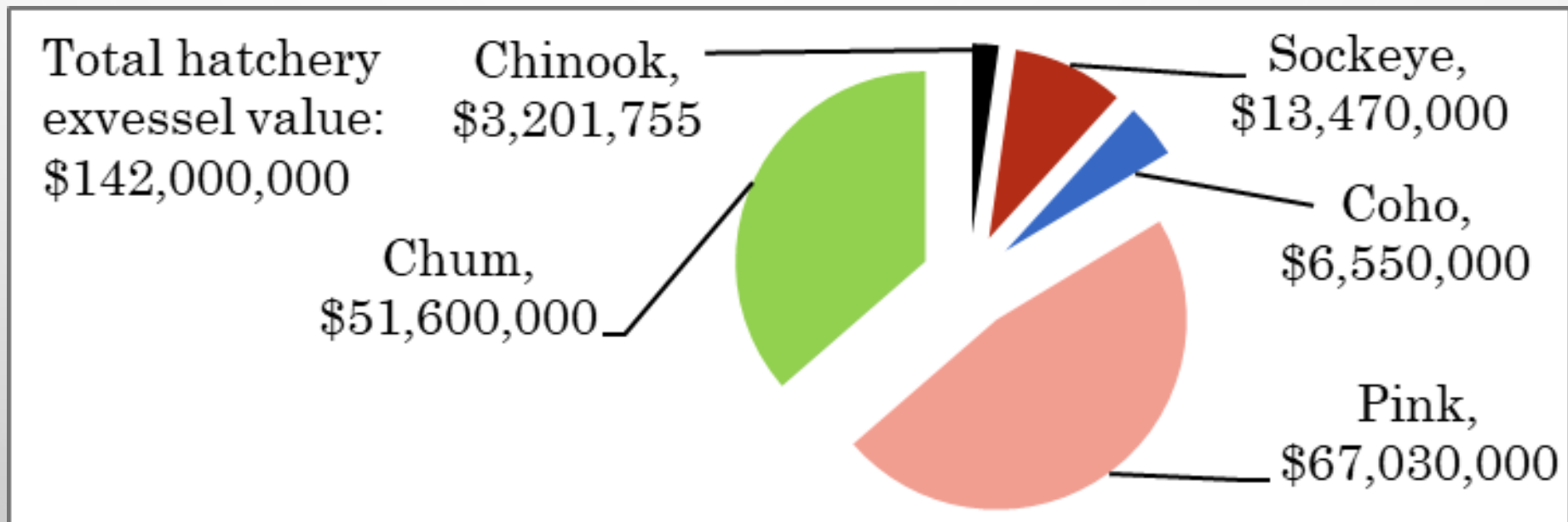
64 million hatchery-produced salmon in the commercial fisheries

- 53 million commercial common property
- 11 million cost recovery fisheries

The 2021 commercial harvest of hatchery-produced salmon ranked 8th since 1977.

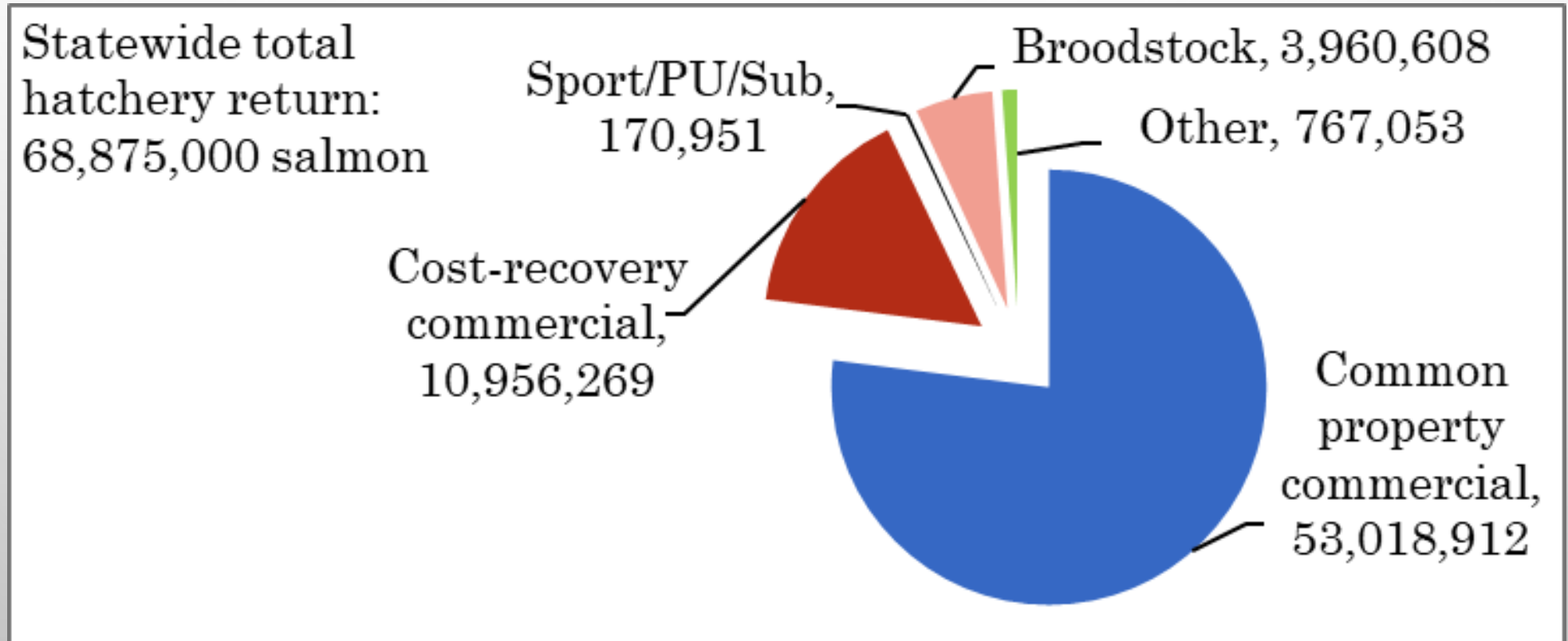
STATEWIDE COMMERCIAL FISHERY CONTRIBUTION 2021

Hatcheries contributed 25% of the statewide commercial harvest exvessel value.



Species composition of the 2021 Alaska hatchery contribution to the commercial harvest, with the exvessel value by species.

STATEWIDE TOTAL RETURN BY CATEGORY 2021



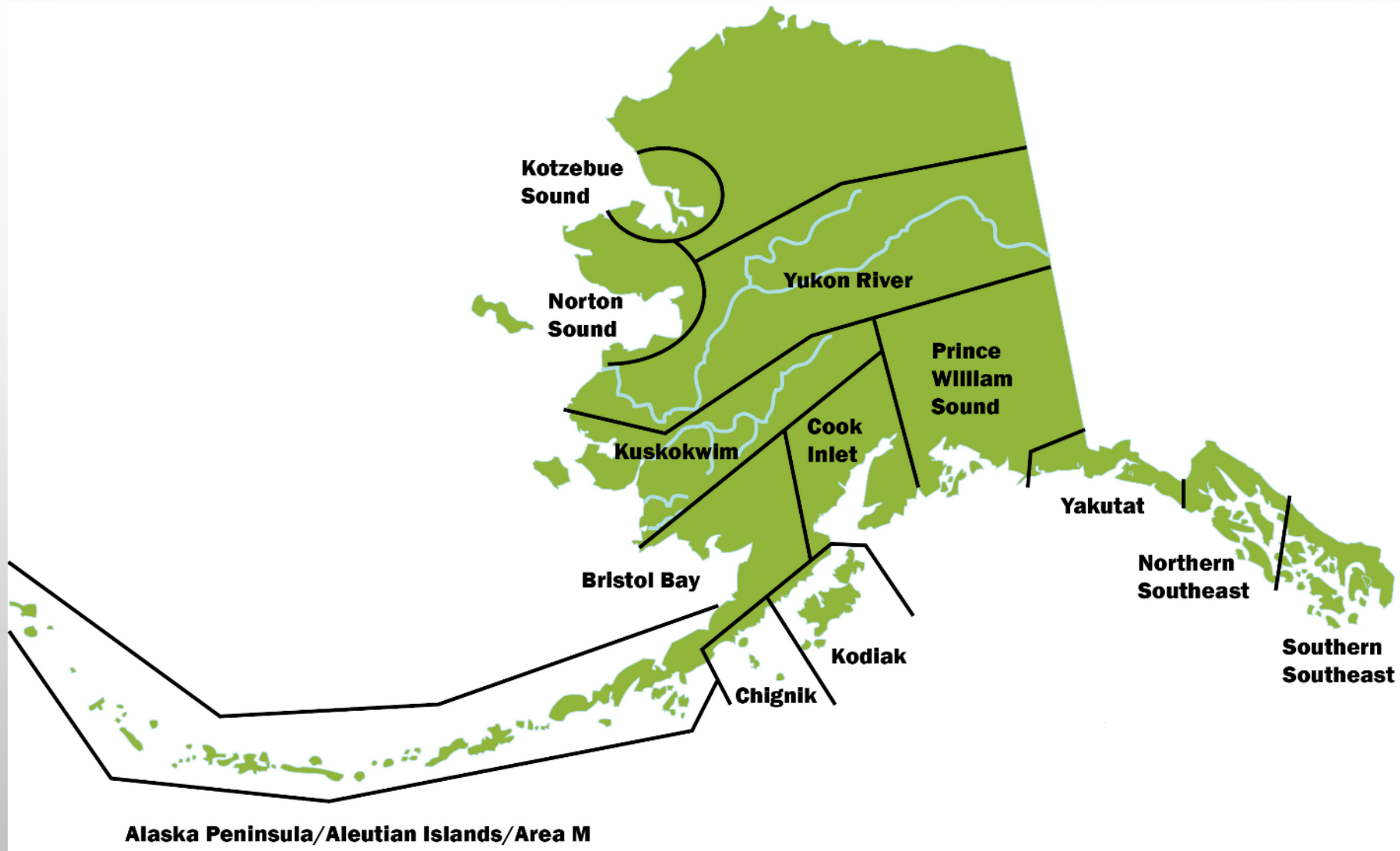
Alaska salmon hatchery returns as reported by operators by return category, 2021

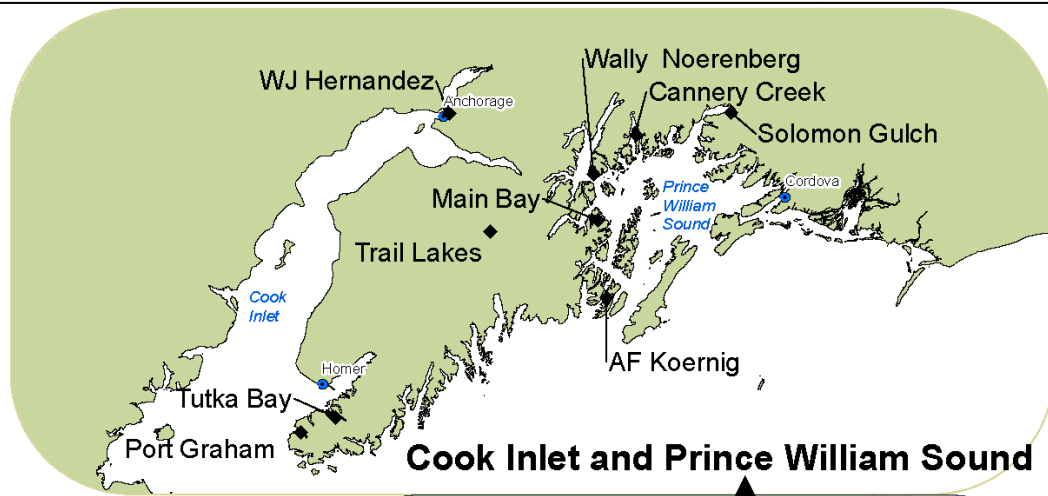
STATEWIDE SPORT, PERSONAL USE, AND SUBSISTENCE HARVEST 2021

Estimated sport, personal use, and subsistence harvest of hatchery-produced fish, 2021.

Region	Chinook	Sockeye	Coho	Pink Chum	Arctic char	Rainbow trout	Arctic grayling	Landlocked salmon	Total
Southeast	6,098	4,481	40,990	1,516	2,726	0	0	0	55,811
Prince William Sound	9,922	32,070	20,208	10,067	0	0	0	0	72,267
Cook Inlet	3,815	31,900	7,821	350	0	0	0	0	43,886
Kodiak	9	353	8,550	0	0	0	0	0	8,912
Southcentral lakes	0	0	0	0	0	688	16,898	0	17,586
Interior lakes	0	0	0	0	0	1,101	16,550	489	21,482
Total	19,844	68,804	77,569	11,933	2,726	1,789	33,448	489	3,342219,944

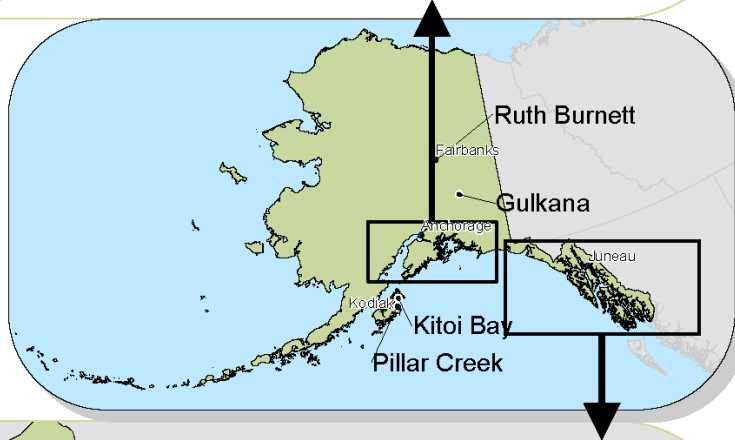
Alaska Salmon Fishery Enhancement Planning Regions



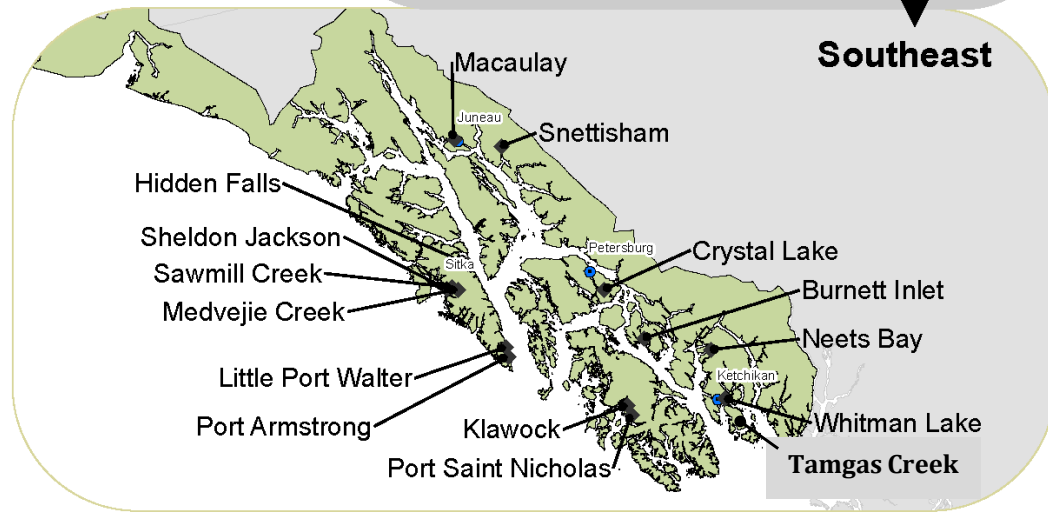


Cook Inlet and Prince William Sound

Locations of Alaska Hatcheries



Southeast



2021

30 production hatcheries

1 research hatchery

- 26 hatcheries are operated by PNPs
 - 11 owned by the state operated by PNPs on the state's behalf at no cost to the state
 - 15 are owned by PNPs
- Non-PNP hatcheries
 - NMFS Little Port Walter research operations
 - ADF&G sport fish hatcheries
 - William Jack Hernandez Hatchery in Anchorage
 - Ruth Burnett Hatchery in Fairbanks
 - Annette Island Metlakatla Indian Community Tamgas Creek Hatchery



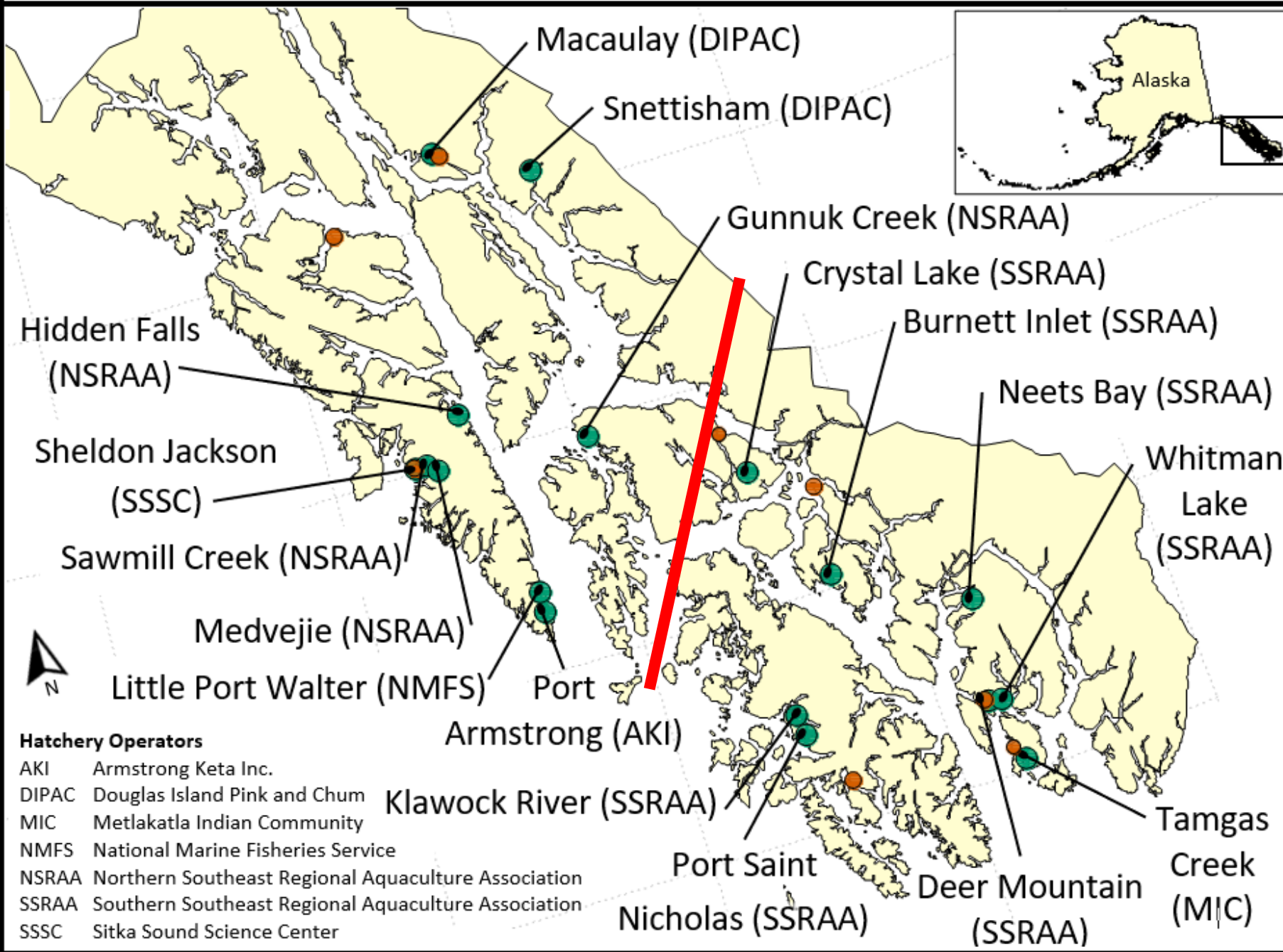
Loading eggs into a tray at Macaulay Salmon Hatchery
DIPAC

REGIONAL PRODUCTION

ALASKA TOTAL OF 2.6 BILLION EGGS

- PRINCE WILLIAM SOUND 1 BILLION EGGS
- SOUTHEAST 975 MILLION EGGS
- COOK INLET 309 MILLION EGGS
- KODIAK 275 MILLION EGGS
- HATCHERIES DO NOT ALWAYS TAKE THEIR PERMITTED CAPACITY DUE TO:
 - LOW NUMBERS OF RETURNING SALMON
 - SHIFTING PROGRAM PRIORITIES
 - BUILDING THEIR REARING CAPACITY
 - OTHER REASONS

Locations of Hatcheries within Southeast Alaska



Southern SE

SSRAA

- Burnett Inlet
- Neets Bay
- Whitman Lake
- Deer Mountain
- Klawock River
- Port Saint Nicholas
- Crystal Lake Hatchery

MIC

- Tamgas Creek

Northern Southeast

NSRAA

- Gunnuk Creek
- Hidden Falls
- Medvejie Creek
- Sawmill Creek

AKI

- Port Armstrong

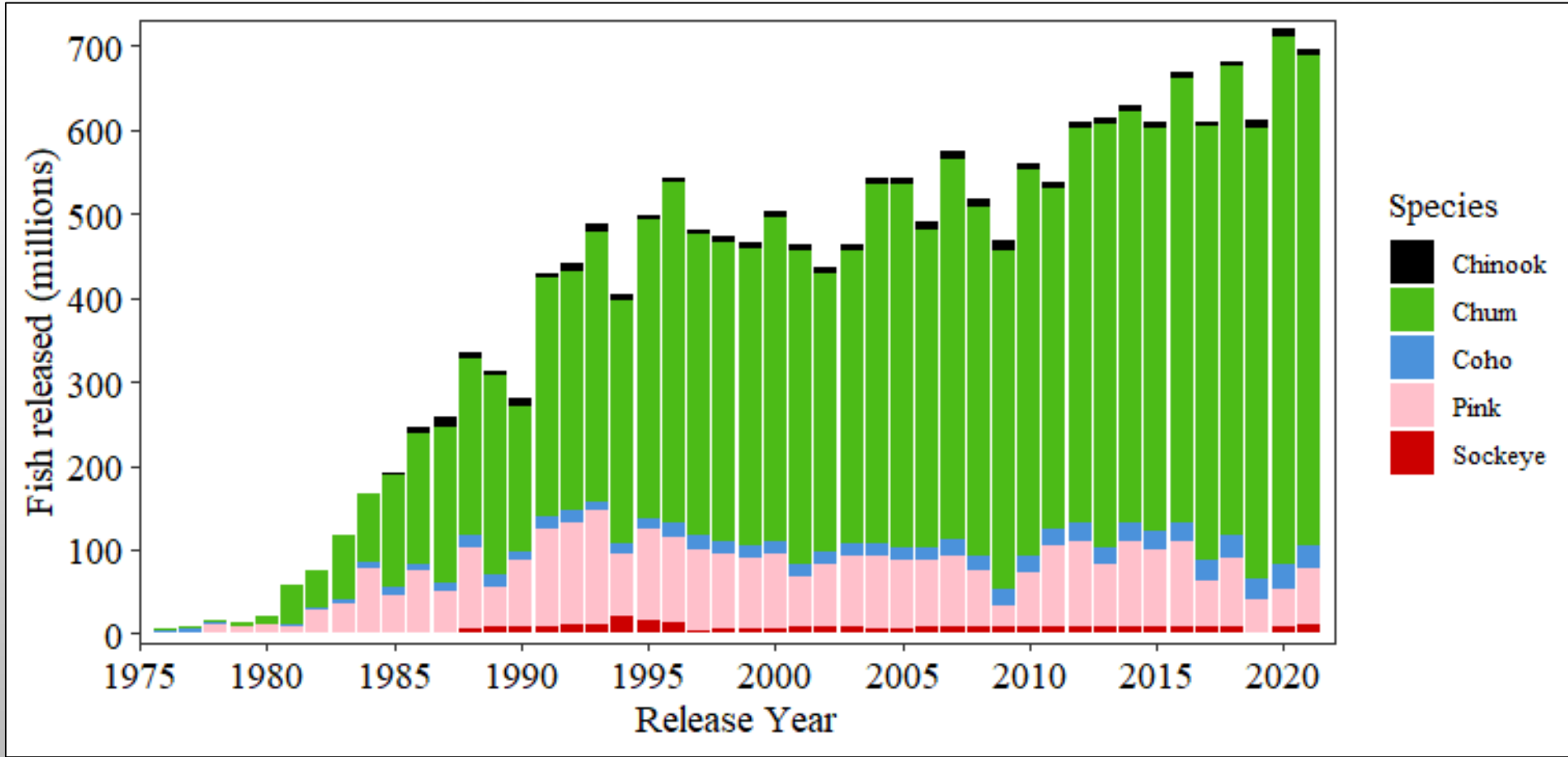
DIPAC

- Macaulay
- Snettisham

SSSC

- Sheldon Jackson

SOUTHEAST RELEASES

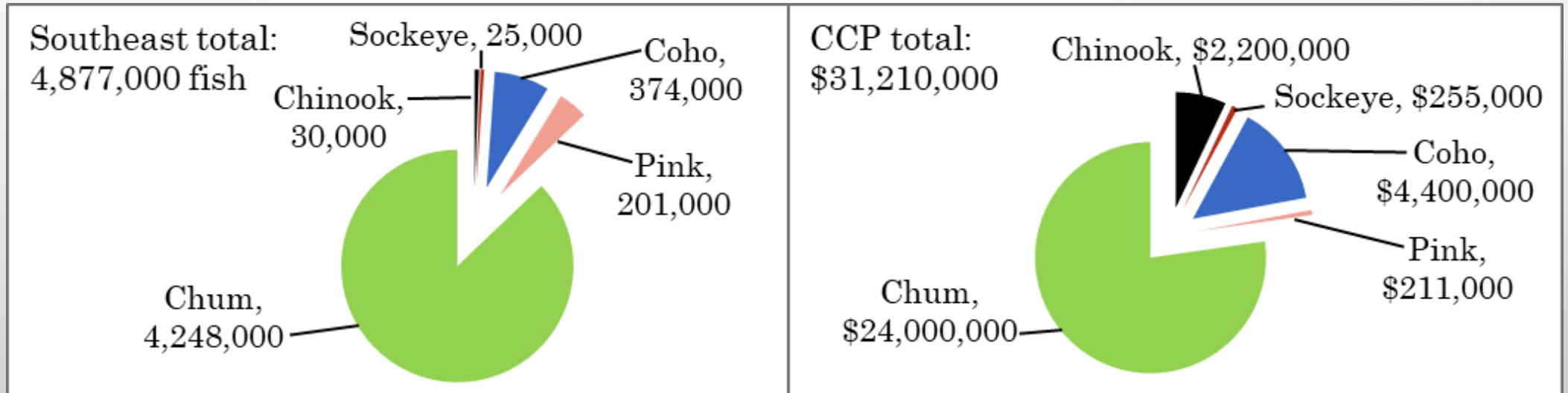


In 2021, 696 million juvenile salmon:

- 583 million chum
- 65 million pink
- 28 million coho
- 11 million sockeye
- 8 million Chinook
- 45 thousand rainbow trout

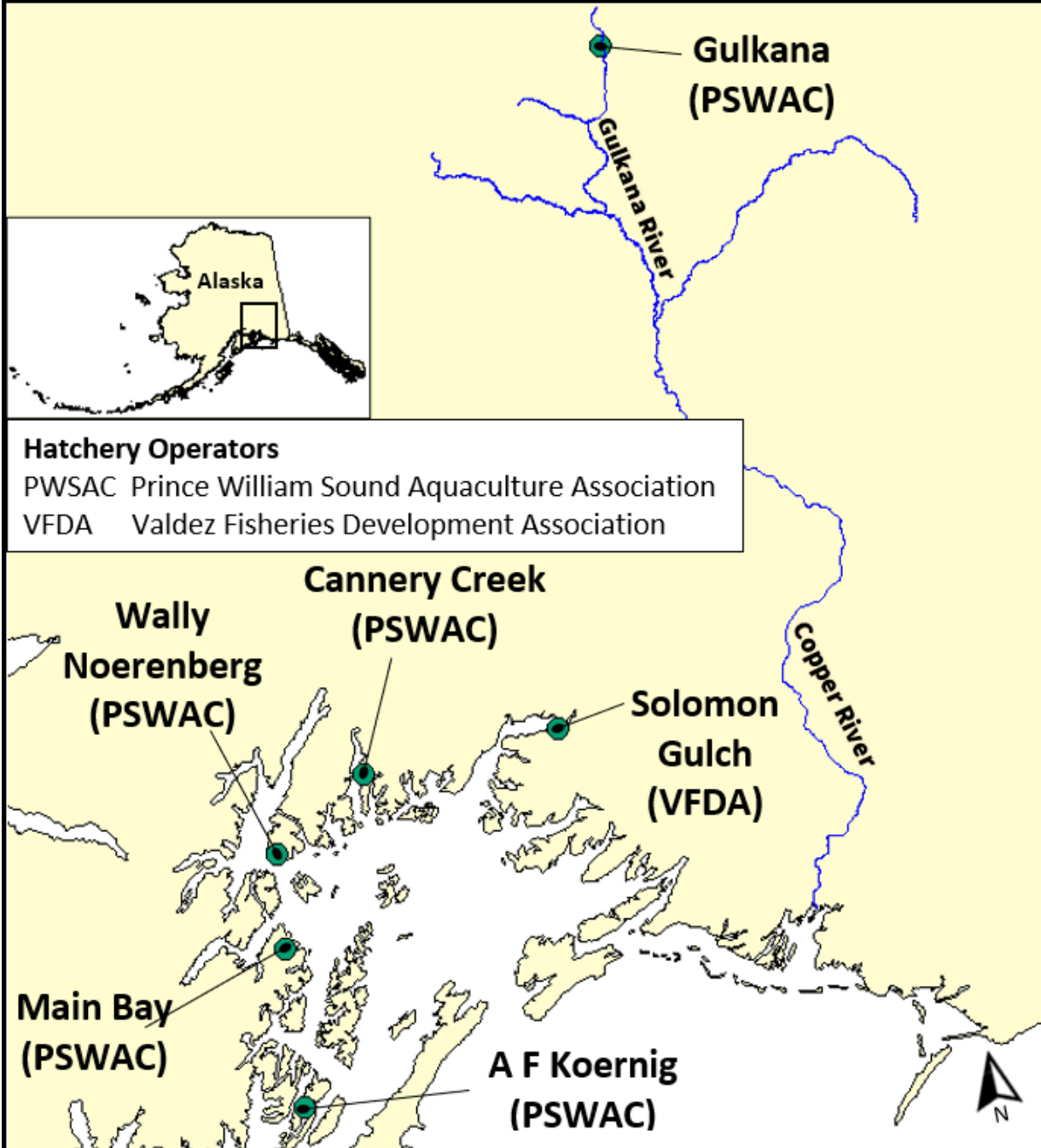
TOTAL SALMON RELEASED FOR SOUTHEAST ALASKA HATCHERY PROGRAMS, 1975–2021

SOUTHEAST COMMERCIAL COMMON PROPERTY



Commercial common property hatchery harvest in numbers of fish and exvessel value of commercial common property hatchery harvest in Southeast, 2021.

Hatchery locations near Prince William Sound Alaska



Prince William Sound Aquaculture Corporation

- Armin F. Koernig
- Main Bay
- Wally Noerenberg
- Cannery Creek
- Gulkana

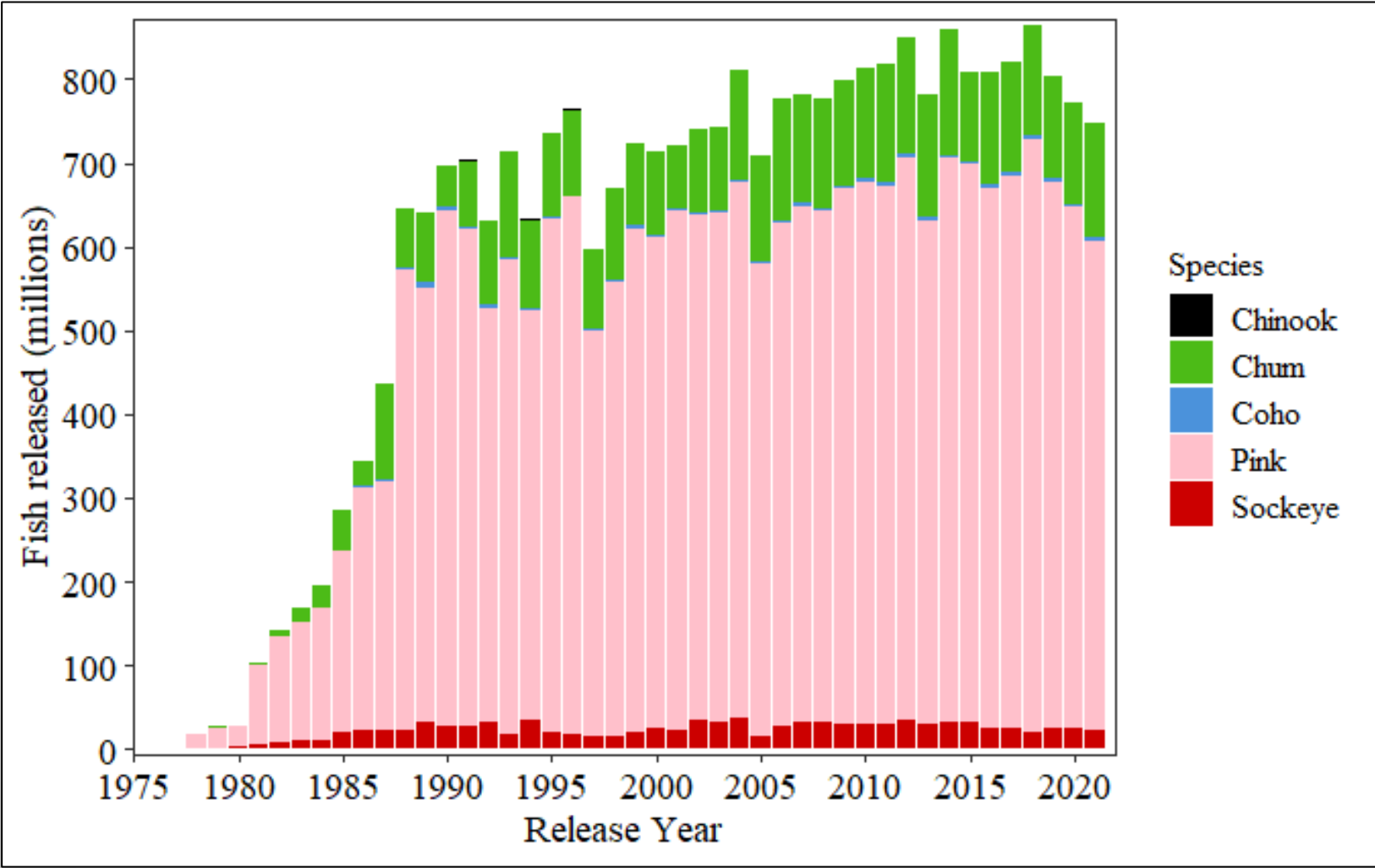
Valdez Fisheries Development Association

- Solomon Gulch Hatchery



Solomon Gulch Hatchery
VFDA

PRINCE WILLIAM SOUND RELEASES

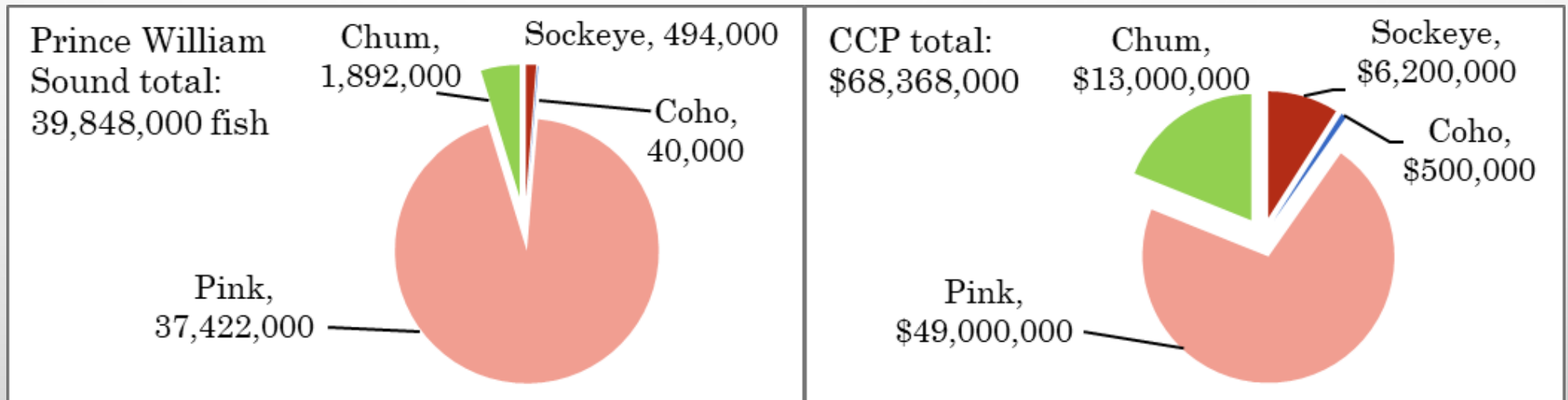


In 2021, 748 million juvenile salmon:

- 583 million pink
- 137 million chum
- 5 million coho
- 23 million sockeye salmon

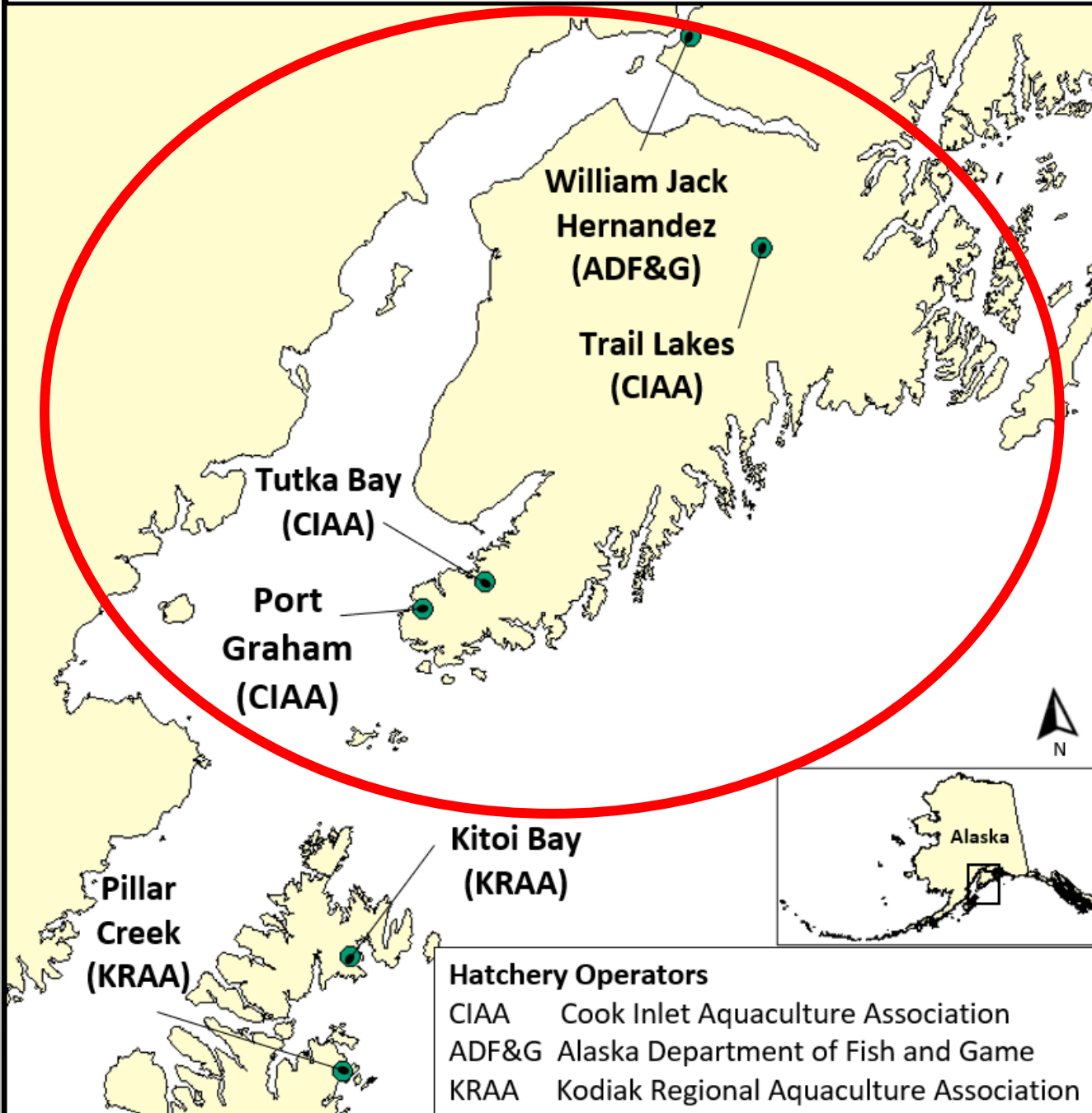
TOTAL SALMON RELEASED FOR PRINCE WILLIAM SOUND ALASKA HATCHERY PROGRAMS, 1975–2021

PRINCE WILLIAM SOUND



Commercial common property hatchery harvest in numbers of fish and exvessel value of commercial common property hatchery harvest in Prince William Sound, 2021.

Hatchery locations in Cook Inlet and Kodiak Alaska

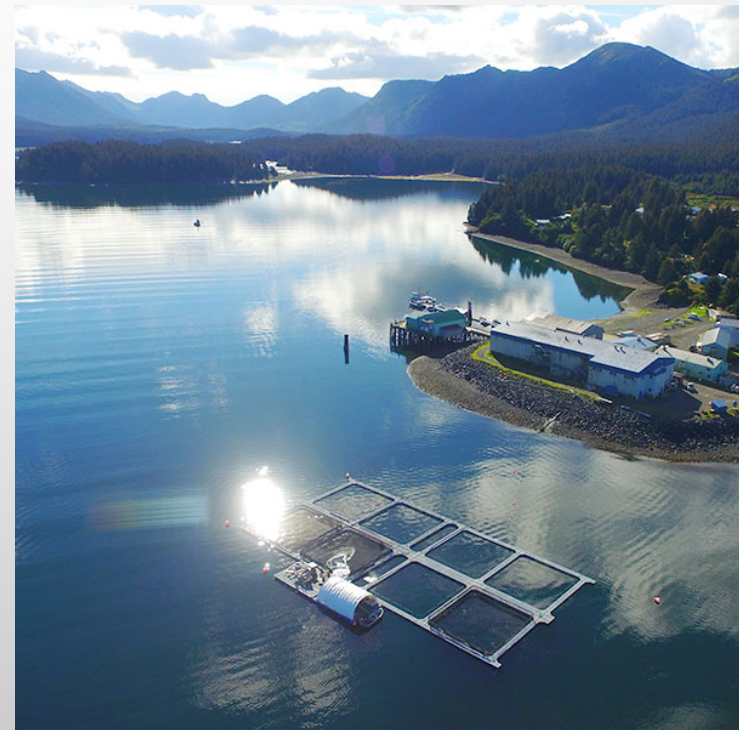


Cook Inlet Aquaculture Association (CIAA)

- Trail Lake
- Tutka Bay Lagoon
- Port Graham

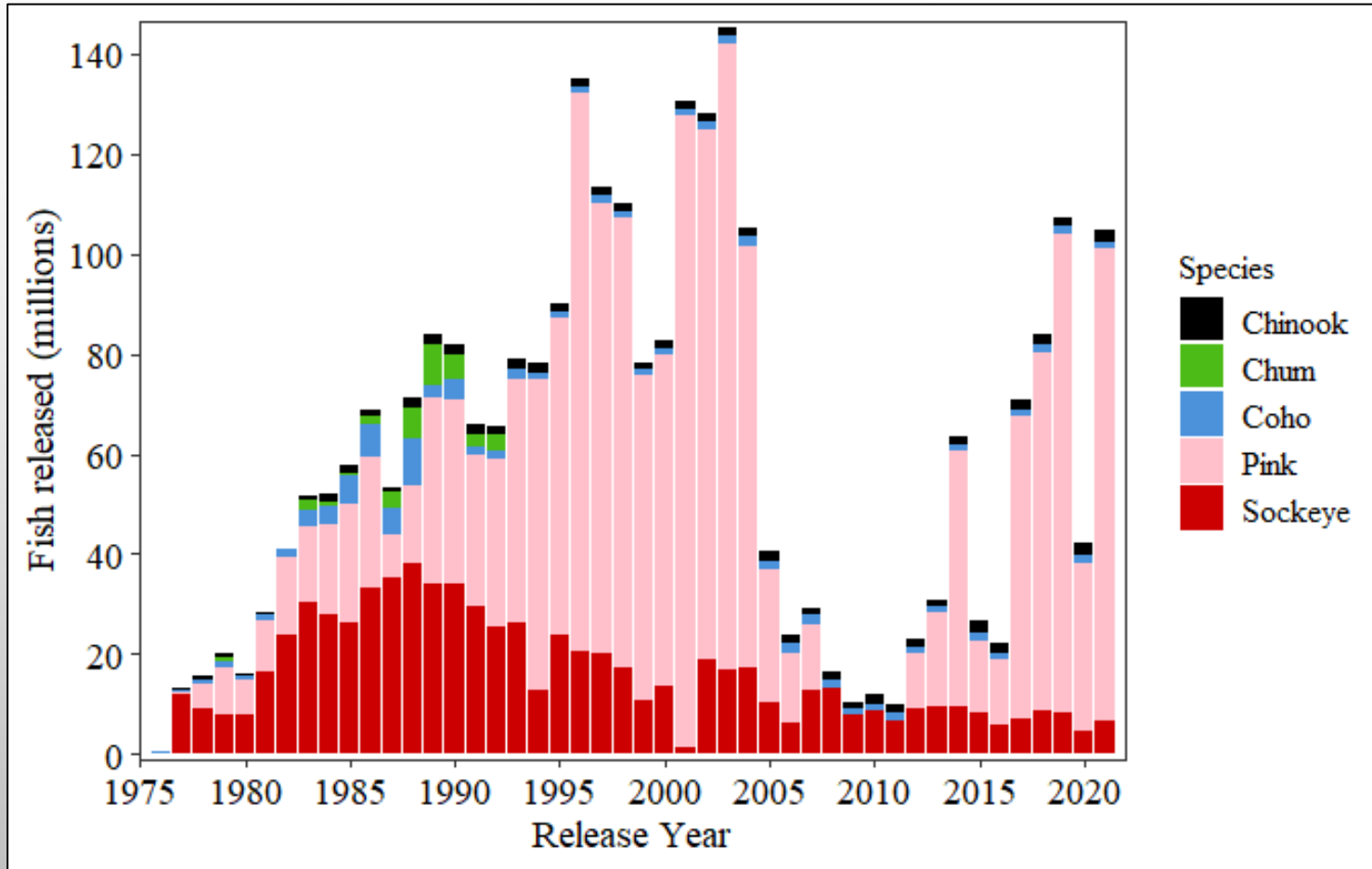
ADF&G Sport Fish

- William Jack Hernandez Sport Fish Hatchery Anchorage



Port Graham Hatchery
CIAA

COOK INLET RELEASES

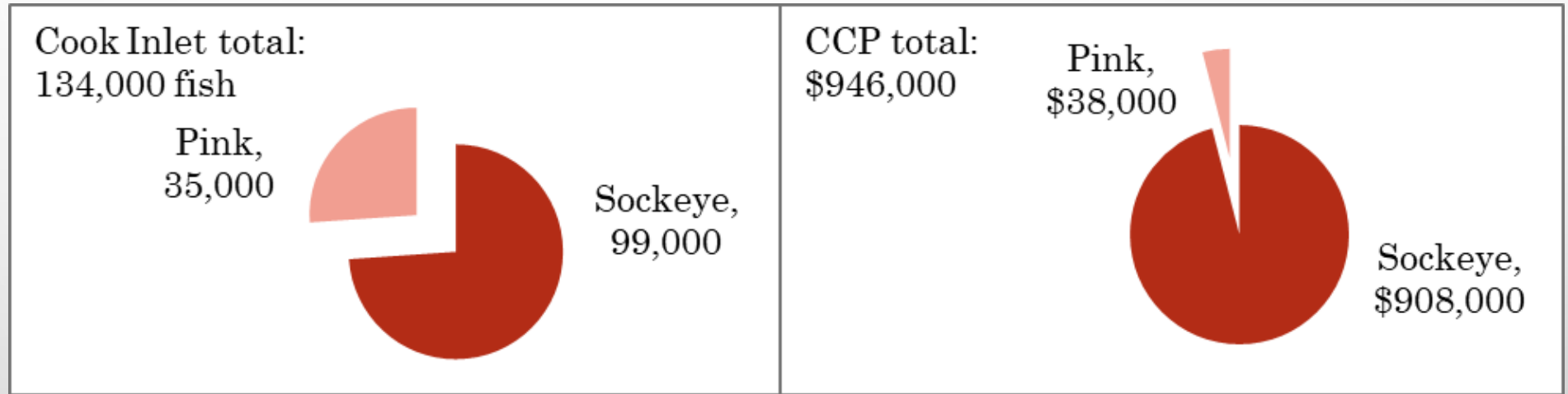


In 2021, 105 million juvenile salmon:

- 94 million pink
- 6.6 million sockeye
- 2.1 million Chinook salmon
- 1.5 million coho
- 701 thousand rainbow trout
- 55 thousand Arctic char

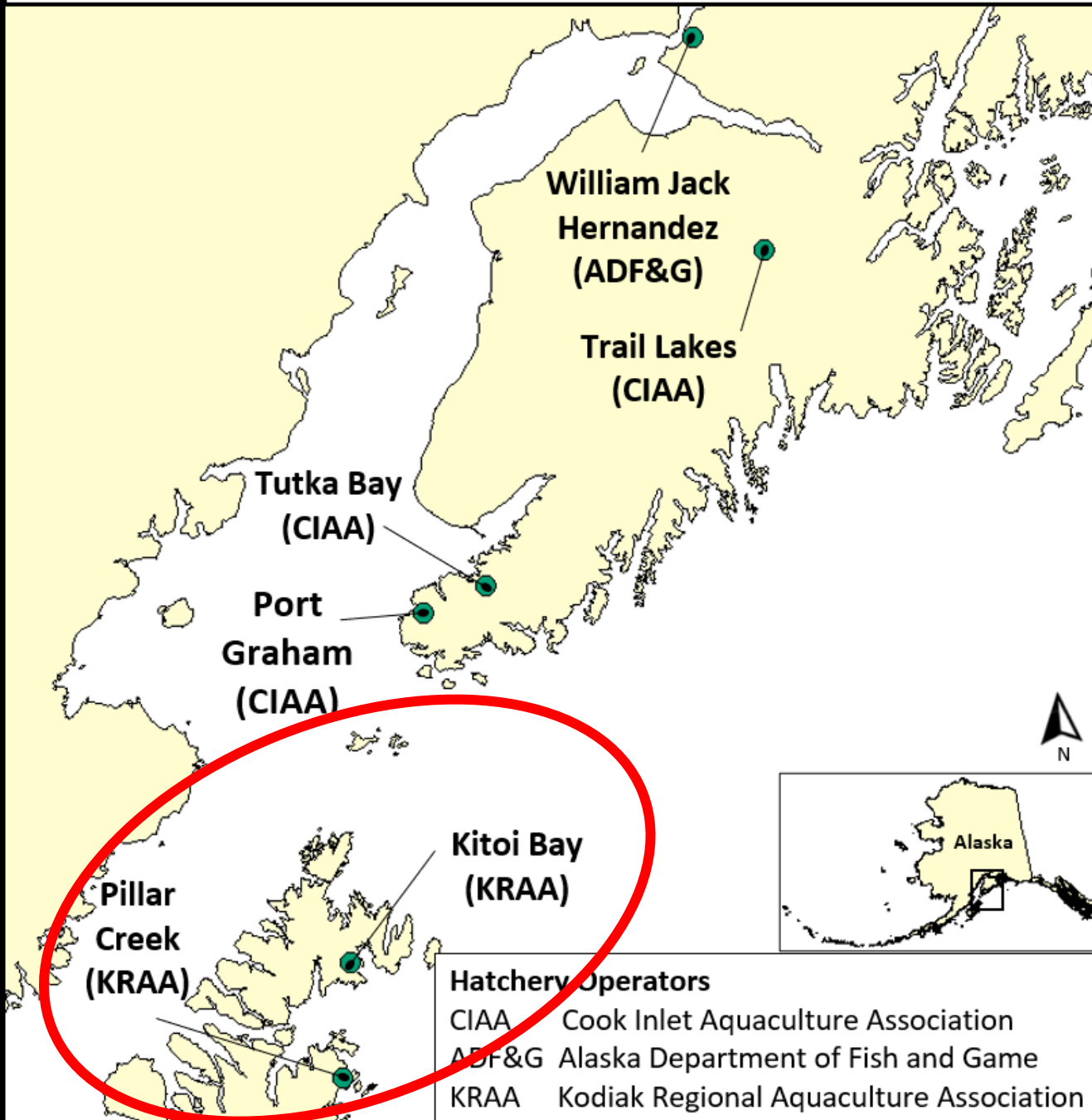
TOTAL SALMON RELEASED FOR COOK INLET ALASKA
HATCHERY PROGRAMS, 1975–2021

COOK INLET



Commercial common property hatchery harvest in numbers of fish and exvessel value of commercial common property hatchery harvest in Cook Inlet, 2021.

Hatchery locations in Cook Inlet and Kodiak Alaska



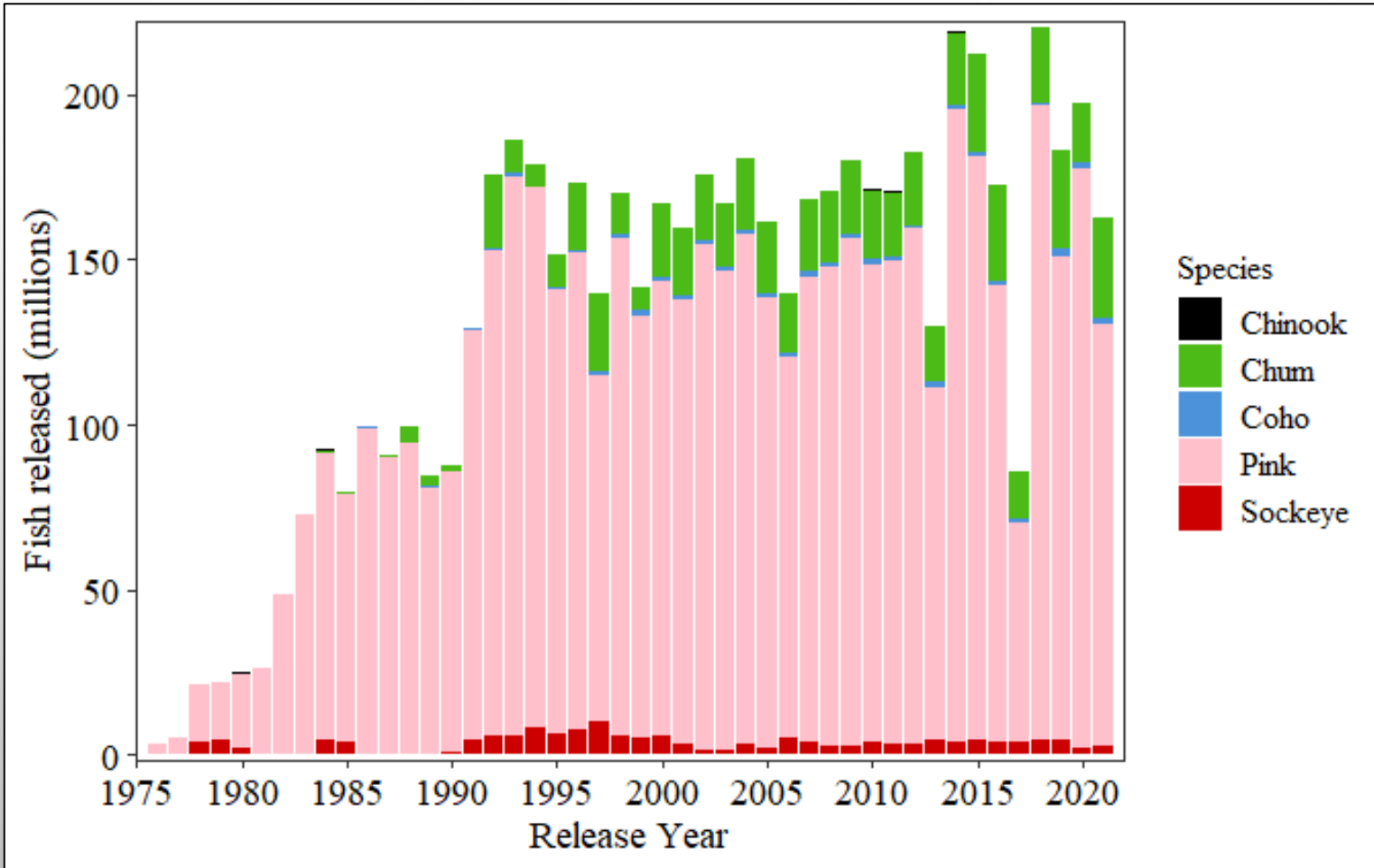
Kodiak Regional Aquaculture Association

- Kitoi Bay
- Pillar Creek



Pillar Creek Hatchery
KRAA

KODIAK RELEASES

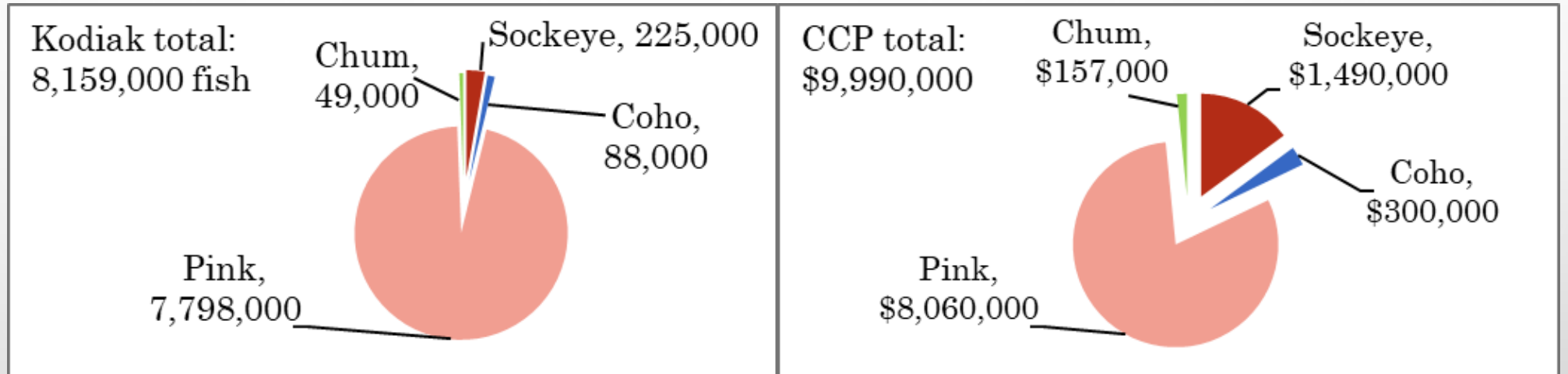


In 2021, 162 million juvenile salmon:

- 128 million pink
- 30 million chum
- 2.5 million sockeye
- 1.9 million coho
- 27 thousand Chinook

TOTAL SALMON RELEASED FOR KODIAK ALASKA
HATCHERY PROGRAMS, 1975–2021

KODIAK



Commercial common property hatchery harvest in numbers of fish and exvessel value of commercial common property hatchery harvest in Kodiak, 2021.

CHANGES IN PRODUCTION

- PERMIT ALTERATION REQUEST (PAR)
 - PNP CORPORATION BOARD OF DIRECTORS DECISION
 - REQUESTS MUST BE RECEIVED BY FEBRUARY 15 OF THE CALENDAR YEAR THAT THE PROPOSED ALTERATION IS TO OCCUR
 - COMMISSIONER MAY EXTEND THE DEADLINE IF THE REQUEST IS JUSTIFIED BY EXTRAORDINARY CIRCUMSTANCES OR EMERGENCY
 - MANAGEMENT, PATHOLOGY, GENETICS, AND AQUACULTURE SECTIONS REVIEW
 - REGIONAL PLANNING TEAM SPRING MEETING REVIEW
 - EARLY MARCH – END OF APRIL
 - COMMISSIONER DECISION APRIL - MAY
 - 5 AAC 40.850

PERMIT ALTERATIONS SOUTHERN SOUTHEAST

2020

BURNET INLET HATCHERY INCREASED EGG CAPACITY TO 15.2M SUMMER CHUM FOR NAKAT INLET; REMOVED 10M SUMMER CHUM FROM KENDRICK BAY AND WHITMAN LAKE INCREASED EGG CAPACITY TO 44.7M SUMMER CHUM FOR KENDRICK BAY; REMOVED 9.2 SUMMER CHUM/NAKAT INLET. NO OVERALL CHANGE TO RELEASE NUMBERS.

2021

WHITMAN LAKE HATCHERY PERMITTED CAPACITY FOR CHINOOK SALMON INCREASED BY 200,000 GREEN EGGS FOR RELEASE AT PORT SAINT NICHOLAS. NO CHANGE TO RELEASE NUMBERS AT PORT SAINT NICHOLAS.

THE DEER MOUNTAIN HATCHERY PERMITTED CAPACITY FOR RAINBOW TROUT EGGS INCREASED FROM 100,000 TO 200,000 TO ACCOUNT FOR POOR SURVIVAL OF CERTIFIED ALL-FEMALE TRIPLOID EGGS SHIPPED FROM ANCHORAGE TO KETCHIKAN; THERE WAS NO CHANGE IN RELEASE NUMBERS OR STOCKING LOCATIONS.

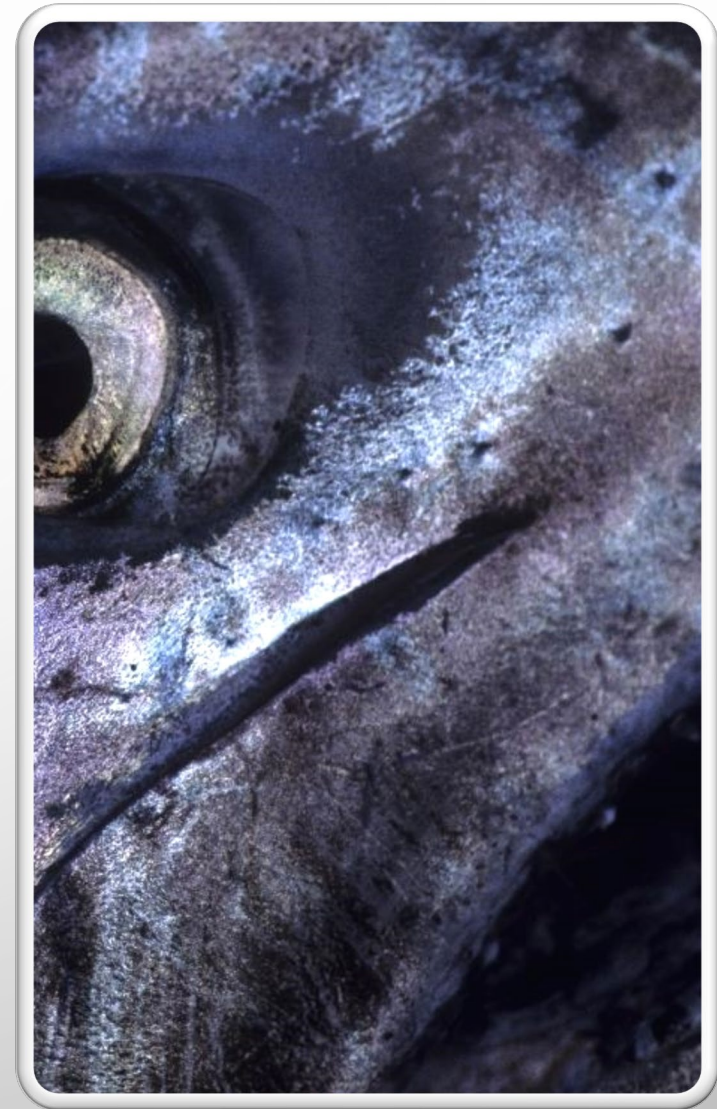
THE KLAWOCK RIVER HATCHERY PERMITTED COHO SALMON RELEASE AT KLAWOCK RIVER WAS INCREASED FOR ONE YEAR, BROOD YEAR 2019, TO ALLOW THE RELEASE OF COHO SALMON ORIGINALLY INTENDED FOR PORT ASUMCION (THE PORT ASUMCION COHO PROGRAM SUSPENDED).

PERMIT ALTERATIONS NORTHERN SOUTHEAST

- ADD SOUTHEAST COVE AS RELEASE SITE FOR UP TO 700K CHINOOK SMOLT FROM HIDDEN FALLS HATCHERY CURRENT CAPACITY
- NO INCREASE IN PERMITTED CAPACITY



Hidden Falls Hatchery
NSRAA





Cannery Creek Hatchery
PWSAC

NO PERMIT ALTERATION REQUESTS
SUBMITTED FOR CONSIDERATION
IN 2020 OR 2021 FOR PRINCE
WILLIAM SOUND, COOK INLET, OR
KODIAK HATCHERIES.



PENDING PERMIT ALTERATION REQUESTS

2021 PENDING DECISION

- REQUEST FOR NEETS BAY HATCHERY TO ADD PORT ASUMCION AS A RELEASE SITE FOR UP TO 15 MILLION CHUM SALMON
 - NO OVERALL INCREASE IN CHUM SALMON PERMITTED CAPACITY
 - CHUM SALMON NORMALLY RELEASED AT NEETS BAY WOULD INSTEAD BE RELEASED AT PORT ASUMCION

2022 PENDING DECISION

- REQUEST FOR WALLY NOERENBERG HATCHERY TO RELEASE CORBIN CREEK STOCK COHO SALMON AT FLEMING SPIT
 - NO INCREASE IN CAPACITY OR RELEASE NUMBERS
- REQUEST IS FOR HIDDEN FALLS HATCHERY TO RELEASE UP TO 1 MILLION KETA RIVER STOCK CHINOOK SALMON AT LITTLE PORT WALTER
 - NO INCREASE IN CAPACITY OR RELEASE NUMBERS
 - ADDITION OF A NEW RELEASE SITE FOR EXISTING CAPACITY

PROJECTED HATCHERY RETURNS IN 2022

- **44.2 MILLION SALMON TOTAL**
- 31.0 MILLION PINK SALMON
- 11.4 MILLION CHUM SALMON
- 1.6 MILLION SOCKEYE SALMON
- 1.1 MILLION COHO SALMON
- 91,000 CHINOOK SALMON

REFLECTION 2021

Estimated hatchery return 68.8 million fish

Forecasted 65.8 million fish





QUESTIONS?

Burnett Inlet Hatchery
SSRAA

PLANNING EFFORTS

OUTLINE

- ANNUAL MANAGEMENT PLAN
 - WHAT IT IS
 - WHY IT HAPPENS
 - HOW IT HAPPENS
 - WHO IS INVOLVED
- PRIVATE NONPROFIT CORPORATIONS
 - STRUCTURE
 - FISCAL PLANNING

ANNUAL MANAGEMENT PLAN (AMP)

- THE DEPARTMENT WILL PREPARE, IN CONJUNCTION WITH THE PERMIT HOLDER, AN ANNUAL MANAGEMENT PLAN TO GUIDE AND CONDITION HATCHERY OPERATIONS.
- THE PLAN MUST ORGANIZE AND GUIDE THE HATCHERY'S OPERATIONS REGARDING PRODUCTION GOALS, BROODSTOCK DEVELOPMENT, AND HARVEST MANAGEMENT OF HATCHERY RETURNS.
- THE AMP MUST BE CONSISTENT WITH THE HATCHERY PERMIT AND BASIC MANAGEMENT PLAN.
- 5 AAC 40.840

ANNUAL MANAGEMENT PLAN

- CURRENT YEAR'S EGG-TAKE GOALS
- PLANNED JUVENILE RELEASES
- REMAINING FISH INVENTORY FOR RELEASE THE FOLLOWING YEAR
- EXPECTED ADULT RETURNS
- HARVEST MANAGEMENT PLANS FOR ALL FISHERIES
- FISH TRANSPORT PERMITS (FTPS) REQUIRED
- PRODUCTION STRATEGIES
- EVALUATION PLANS (MARKING, SAMPLING, ETC.)

ANNUAL MANAGEMENT PLAN

THE PROCESS

- PNP COORDINATOR REQUESTS DRAFT AMPS FOR THE CURRENT YEAR
- PNPS AND DIVISION OF SPORT FISH SUBMIT DRAFT AMPS
- ADF&G REVIEW
 - PERMITTING
 - HATCHERY RETURNS MANAGEMENT
- REGIONAL PLANNING TEAM MAY REVIEW
- APPROVED AMPS ARE AVAILABLE ON OUR WEBSITE:

[HTTP://WWW.ADFG.ALASKA.GOV/INDEX.CFM?ADFG=FISHINGHATCHERIESPLANNING.ANNUAL](http://www.adfg.alaska.gov/index.cfm?adfg=fishinghatcheriesplanning.annual)

TERMS DEFINED

- PRIVATE NONPROFIT CORPORATIONS (PNPS) OPERATE HATCHERIES
- A PNP CORPORATION MAY BE CALLED A:
 - REGIONAL CORPORATION
 - NONREGIONAL CORPORATION.
- WHAT'S THE DIFFERENCE?

REGIONAL AQUACULTURE ASSOCIATION

- DESIGNATED BY ADF&G COMMISSIONER
- MUST HAVE A BOARD OF DIRECTORS THAT INCLUDES REPRESENTATIVES FOR:
 - COMMERCIAL SALMON FISHING PERMIT HOLDERS
 - REPRESENTATIVES OF OTHER STAKEHOLDER GROUPS SUCH AS SPORT AND SUBSISTENCE HARVESTERS, PROCESSORS, AND CITY OFFICIALS.
- REGIONAL AQUACULTURE ASSOCIATION (RAA) EXIST FOR MANY OF ALASKA'S SALMON PLANNING REGIONS
- CAN ONLY BE ONE PER REGION
- REGIONAL CORPORATION = RAA
- AN RAA MUST FORM A PNP CORPORATION TO OPERATE A HATCHERY
- AS 16.10.380

PRIVATE NONPROFIT CORPORATION

- PNP HATCHERY OPERATOR NOT THE RAA = NONREGIONAL CORPORATION
- PNP BOARD OF DIRECTORS ESTABLISH HATCHERY PRODUCTION GOALS AND OVERSEE BUSINESS OPERATIONS.
- EXECUTIVE COMMITTEES
- FINANCE, PRODUCTION PLANNING, BOARD DEVELOPMENT, COST RECOVERY, AMONG OTHER COMMITTEES.
- PNP CORPORATION OVERSIGHT PROVIDED BY THE ALASKA NONPROFIT CORPORATION ACT (AS 10.20)
- ADF&G HAS NO OVERSIGHT ON PNP CORPORATION BOARD STRUCTURE

SOUTHERN SOUTHEAST REGIONAL AQUACULTURE ASSOCIATION

PRIVATE NONPROFIT CORPORATION

BOARD OF DIRECTORS, REPRESENTATIVES OF STAKEHOLDER IN THE AREA (21)

- SEINE REPRESENTATIVES (4)
- GILLNET REPRESENTATIVES (4)
- POWER TROLL REPRESENTATIVES (4)
- HAND TROLL
- REPRESENTATIVE (1)
- PROCESSOR APPOINTEE
- SPORT FISH APPOINTEE
- CHAMBER OF COMMERCE
- MUNICIPALITY
- SUBSISTENCE APPOINTEE
- NATIVE CORPORATION APPOINTEE
- PUBLIC AT LARGE (2)

NORTHERN SOUTHEAST REGIONAL AQUACULTURE ASSOCIATION

PRIVATE NONPROFIT CORPORATION

BOARD OF DIRECTORS, REPRESENTATIVES OF STAKEHOLDER IN THE AREA (25)

- AT LARGE TROLL
- CONSERVATION
- SUBSISTENCE
- MUNICIPALITY
- AT LARGE SEINE (5)
- AT LARGE GILLNET (5)
- PROCESSOR
- INTERESTED PERSON (2)
- AT LARGE POWER TROLL (2)
- NATIVE ORGANIZATION
- CREW MEMBER (2)
- SPORTS
- RURAL TROLL
- SITKA POWER TROLL

THE SOUTHEAST NONREGIONAL CORPORATIONS

ARMSTRONG KETA, INC. (AKI)

PRIVATE NONPROFIT CORPORATION

BOARD OF DIRECTORS, REPRESENTATIVES OF STAKEHOLDER IN THE AREA (9)

[HTTPS://WWW.ARMSTRONGKETA.ORG/](https://www.armstrongketa.org/)

SITKA SOUND SCIENCE CENTER (SSSC)

PRIVATE NONPROFIT CORPORATION

BOARD OF DIRECTORS, REPRESENTATIVES OF STAKEHOLDER IN THE AREA (7)

[HTTPS://SITKASCIENCE.ORG/VISIT/HATCHERY/](https://sitkascience.org/visit/hatchery/)

DOUGLAS ISLAND PINK AND CHUM (DIPAC)

PRIVATE NONPROFIT CORPORATION

BOARD OF DIRECTORS, REPRESENTATIVES OF STAKEHOLDER IN THE AREA (13)

[HTTP://WWW.DIPAC.NET/BOARD](http://www.dipac.net/board)

PRINCE WILLIAM SOUND AQUACULTURE CORPORATION

PRIVATE NONPROFIT CORPORATION

BOARD OF DIRECTORS, REPRESENTATIVES OF STAKEHOLDER IN THE AREA (45)

- DRIFT GILLNET (10)
- SEINE (10)
- DUAL PERMIT (6)
- SET GILLNET SEAT
- 18 DESIGNATED REPRESENTATIVES FROM MUNICIPALITIES, NATIVE ASSOCIATIONS, PROCESSORS, SPORT FISHERIES, PERSONAL USE FISHERIES, AND SUBSISTENCE USERS.

[HTTPS://PWSAC.COM/BOARD-OF-DIRECTORS/](https://pwsac.com/board-of-directors/)

PRINCE WILLIAM SOUND NONREGIONAL CORPORATION

VALDEZ FISHERIES DEVELOPMENT ASSOCIATION

PRIVATE NONPROFIT CORPORATION

BOARD OF DIRECTORS, REPRESENTATIVES OF STAKEHOLDER IN THE AREA (7)

[HTTPS://WWW.VALDEZFISHERIES.ORG/ABOUT-VFDA/BOARD-OF-DIRECTORS/](https://www.valdezfisheries.org/about-vfda/board-of-directors/)



COOK INLET AQUACULTURE ASSOCIATION

PRIVATE NONPROFIT CORPORATION

BOARD OF DIRECTORS, REPRESENTATIVES OF STAKEHOLDER IN THE AREA (28)

- COOK INLET FISHERMEN'S FUND (2)
- COOK INLET SEINERS ASSOCIATION (2)
- INLET WIDE COMMERCIAL FISHERMEN REPRESENTATIVES (5)
- KENAI PENINSULA FISHERMAN'S ASSOCIATION (2)
- NORTH PACIFIC FISHERIES ASSOCIATION (2)
- NORTHERN DISTRICT SET NETTERS OF COOK INLET (2)
- UNITED COOK INLET DRIFTERS ASSOCIATION (2)
- CITY OF HOMER (1)
- CITY OF KACHEMAK (1)
- CITY OF SEWARD (1)
- COOK INLET REGION, INC. (1)
- KENAI PENINSULA BOROUGH (1)
- MATANUSKA-SUSITNA BOROUGH (1)
- MUNICIPALITY OF ANCHORAGE (1)
- PROCESSOR REPRESENTATIVE (3)
- PORT GRAHAM/NANWALEK REPRESENTATIVE (1)

KODIAK REGIONAL AQUACULTURE ASSOCIATION

PRIVATE NONPROFIT CORPORATION

BOARD OF DIRECTORS, REPRESENTATIVES OF STAKEHOLDER IN THE AREA (15)

- PURSE SEINE (4)
- WESTSIDE SET NET SOUTH
- WESTSIDE SET NET NORTH
- BEACH SEINE
- SET NET AT-LARGE
- ALITAK SET NET
- SUBSISTENCE
- ANY GEAR AT-LARGE (2)
- MARKETING
- SPORT FISH
- PROCESSOR

PRODUCTION PLANNING

- TRADEOFFS BETWEEN THE COSTS OF PRODUCTION AND THE VALUE OF FISH AT HARVEST THAT MAKE SOME SALMON MORE ECONOMICAL TO PRODUCE THAN OTHERS.
- HATCHERY PRODUCTION IS LIMITED BY THE AVAILABLE FRESHWATER CAPACITY, FRESHWATER REARING SPACE, REARING TIME, AND COSTS OF PRODUCTION.
- COSTS OF PRODUCTION INCLUDE FEED, THE REARING FACILITY, AND FACILITY OPERATIONS.
- THE VALUE OF THE FISH AT HARVEST IS LIMITED BY THE VALUE OF FISH AT RETURN AND THE NUMBER OF FISH THAT RETURN.

FISH ECONOMICS

- PINK SALMON ARE THE MOST ECONOMICAL TO REAR
 - SHORT REARING TIME, ONE WINTER IN THE HATCHERY
 - SHORTEST LIFE CYCLE OF PACIFIC SALMON, TWO YEARS
 - PROVIDE A QUICK RETURN ON INVESTMENT
 - PROVIDE THE HIGHEST ECONOMIC RETURN FOR THE PRODUCTION COSTS



FISH ECONOMICS

- CHUM SALMON

- SHORT REARING TIME, ONE WINTER IN THE HATCHERY
- HAVE A LIFE CYCLE OF THREE TO FOUR YEAR AT SEA
- LONGER RETURN ON INVESTMENT



Pink and chum salmon are the bulk of Alaska hatchery production because they have the highest return on investment for the cost of production.



Pink and chum salmon have high market demand.

FISH ECONOMICS

- CHINOOK, SOCKEYE, AND COHO SALMON ARE THE LEAST ECONOMICAL TO PRODUCE
 - LONG REARING TIMES AT THE HATCHERY, TYPICALLY A YEAR OR MORE
 - LONGER LIFE CYCLES, SO THEY HAVE A LONG RETURN ON INVESTMENT



Chinook, sockeye, and coho salmon have higher prices per pound at harvest



A longer rearing time means that they are expensive, therefore lower production numbers

TERMINAL HARVEST AREAS

- THA: "TERMINAL HARVEST AREA" MEANS AN AREA DESIGNATED BY THE COMMISSIONER, BOARD OF FISHERIES REGULATION, OR DEPARTMENT EMERGENCY ORDER WHERE HATCHERY RETURNS HAVE ACHIEVED A REASONABLE DEGREE OF SEGREGATION FROM NATURALLY OCCURRING STOCKS AND MAY BE HARVESTED BY THE COMMON PROPERTY FISHERY WITHOUT ADVERSE EFFECTS.
- SHA: "SPECIAL HARVEST AREA" MEANS AN AREA DESIGNATED BY THE COMMISSIONER OR THE BOARD OF FISHERIES REGULATION WHERE HATCHERY RETURNS ARE TO BE HARVESTED BY THE HATCHERY OPERATORS, AND, IN SOME SITUATIONS BY THE COMMON PROPERTY FISHERY.
- AN SHA MAY ALSO BE DESIGNATED BY EMERGENCY ORDERS ISSUED BY THE COMMISSIONER.

5 AAC 40.005, 5 AAC 40.990

TERMINAL AND SPECIAL HARVEST AREA OPPORTUNITY

- SEGREGATION OF HATCHERY-ORIGIN AND WILD STOCK RETURNS
- FISHERY OBJECTIVES FOR WILD STOCKS, SUCH AS SALMON ESCAPEMENT GOALS
- INCREASE IN FISHING OPPORTUNITIES.
 - WHEN WILD STOCK PRODUCTION PROVIDES SURPLUS FISH FOR HARVEST, FISHERS MAY TARGET THOSE FISH DURING OPEN FISHING PERIODS IN TRADITIONAL FISHING AREAS.
 - WHEN THOSE FISHING PERIODS CLOSE, FISHERS CAN MOVE TO THE HATCHERY RELEASE SITES THAT REMAIN OPEN AND CONTINUE FISHING THERE UNTIL THE WILD STOCK AREAS REOPEN.
- MAY EXCLUSIVELY TARGET HATCHERY FISH IN THE TERMINAL HARVEST AREAS, EVEN WHEN WILD STOCK AREAS ARE OPEN, WHICH MAY REDUCE HARVEST RATES ON WILD STOCKS.
- HATCHERY TERMINAL AREAS PROVIDE THE FISHING FLEET WITH MORE TIME AND AREA TO FISH.

COST RECOVERY HARVEST

AS 16.10.455. COST RECOVERY FISHERIES.

(A)(1)

A HATCHERY PERMIT HOLDER MAY HARVEST SALMON FOR A FACILITY IN A SPECIAL HARVEST AREA THROUGH AGENTS, OR EMPLOYEES OF OR PERSONS UNDER CONTRACT WITH THE PERMIT HOLDER AS PROVIDED UNDER A PERMIT FROM THE DEPARTMENT OR REGULATIONS OF THE BOARD OF FISHERIES.

- Issued Special Harvest Area (SHA) Entry Permit
- SHA Entry Permits allow for fish ticket reporting

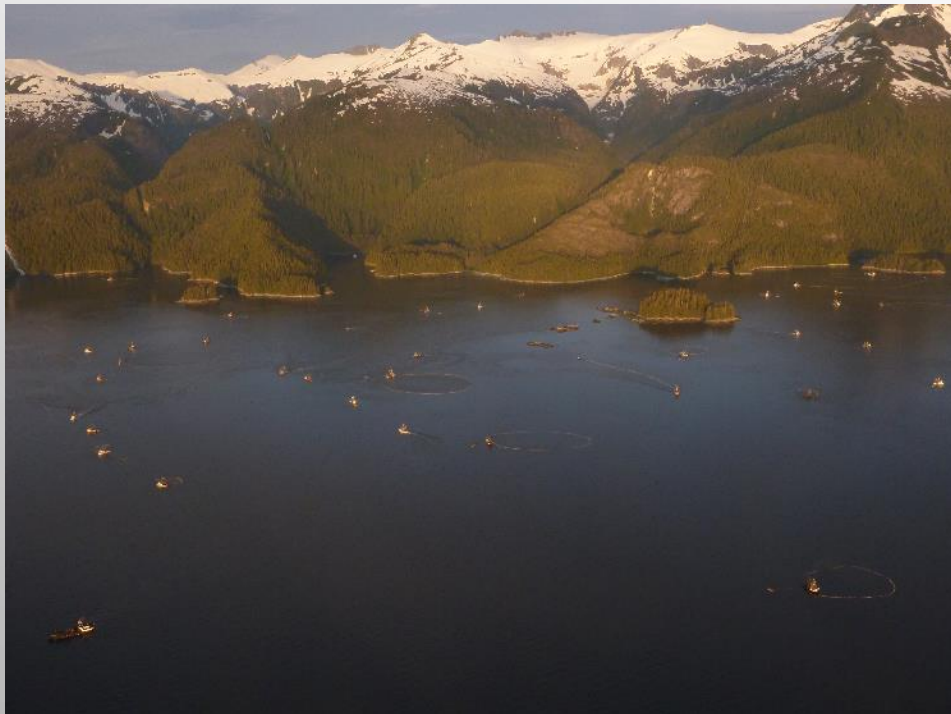


COST RECOVERY HARVEST

AS 16.10.455. COST RECOVERY FISHERIES. (A)(2)

A HATCHERY PERMIT HOLDER MAY HARVEST SALMON FOR A FACILITY IN A TERMINAL HARVEST AREA THROUGH THE COMMON PROPERTY FISHERY UNDER THIS SECTION.

- FISHERY ASSESSMENT



Fishery Assessment
Hidden Falls Terminal Harvest Area
Southeast Alaska

COST RECOVERY HARVEST



NSRAA
Beach Seining Chinook
Medvejie Creek Hatchery



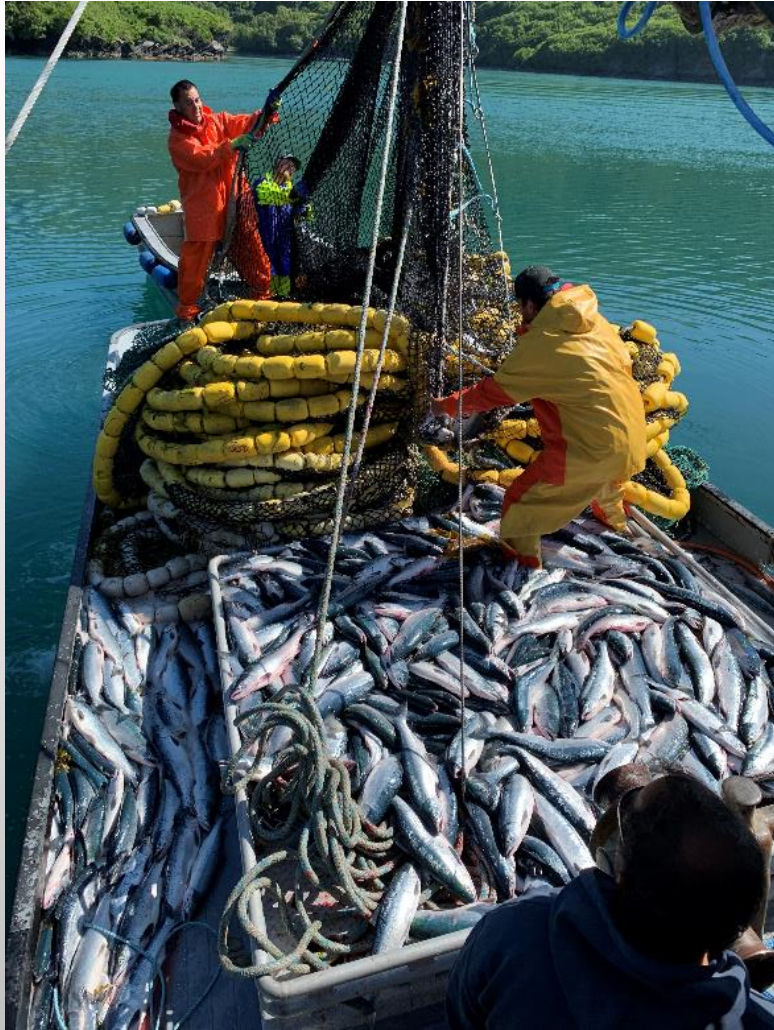
NSRAA
Seining chum

COST RECOVERY HARVEST



SSRAA
Neck Lake Cost Recovery Program
Snow Pass Coho
Prince of Wales Island

COST RECOVERY HARVEST



KRAA
Spiridon sockeye



KRAA
Kitoi Bay

COST RECOVERY HARVEST

USE OF COST RECOVERY HARVEST REVENUE BY PNP HATCHERY OPERATORS

- REASONABLE OPERATING COSTS, INCLUDING:
 - DEBT RETIREMENT
 - EXPANDING FACILITIES
 - SALMON REHABILITATION PROJECTS
 - FISHERIES RESEARCH
 - COSTS OF OPERATING THE RAA
- “SHALL EXPEND THE REMAINING FUNDS ON OTHER FISHERIES ACTIVITIES OF THE RAA”

AS 16.10.450 SALE OF SALMON AND SALMON EGGS; USE OF PROCEEDS

COST RECOVERY HARVEST

WHAT HAPPENS WHEN CR GOALS ARE NOT MET?

- DEPENDENT ON MANY FACTORS – HATCHERY LOCATION, FISHING PRESSURE, OCEAN SURVIVAL, AND OTHER VARIABLES
- PNPS MUST MAKE BUSINESS DECISIONS TO REMAIN VIABLE
- EACH CORPORATION HAS UNIQUE NEEDS
- OPTIONS:
 - BUDGET CUTS
 - PRIORITIZATION OF PROJECTS
 - ELIMINATION OF PROGRAMS THAT MAY CHANGE CONTRIBUTION TO USER GROUPS
 - FISHERIES ENHANCEMENT REVOLVING LOAN FUND

PNP FUNDING SOURCES

FISHERIES ENHANCEMENT REVOLVING LOAN FUND

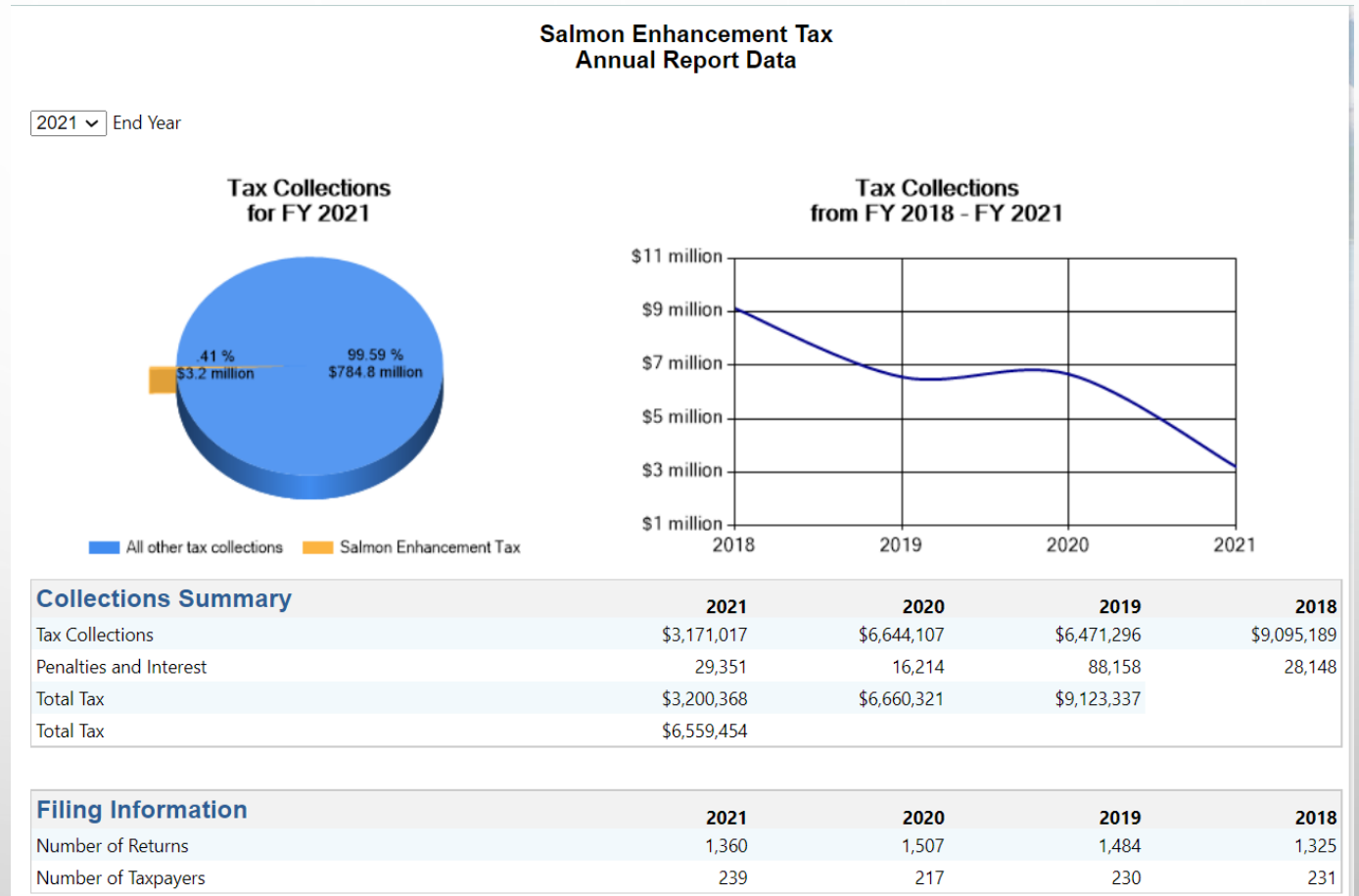
- QUALIFIED PNP CORPORATIONS WITH PNP HATCHERY PERMIT
- FOR PLANNING, CONSTRUCTION, AND OPERATIONS OF FISH HATCHERY FACILITIES
- MUST BE SECURED BY COLLATERAL, WHICH MAY INCLUDE A LIEN ON BUILDINGS, EQUIPMENT, MACHINERY, LAND, MARKETABLE SECURITIES, APPROVED ASSIGNMENT OF ENHANCEMENT TAX RECEIPTS, OR SALE OF SURPLUS FISH FROM THE HATCHERY.
- THE DEPARTMENT OF COMMERCE, COMMUNITY AND ECONOMIC DEVELOPMENT
 - THE DIVISION OF ECONOMIC DEVELOPMENT

AS 16.10.500-560

PNP FUNDING SOURCES

SALMON ENHANCEMENT TAX (SET)

- COMMERCIAL FISHERMEN VOTE TO SELF IMPOSE A TAX ON THE SALE OF ALL SALMON IN THEIR REGION
- DISTRIBUTED TO THE RAA TO FINANCE HATCHERY OPERATIONS OR OTHER ENHANCEMENT AND REHABILITATION ACTIVITIES.
- NONREGIONAL PNP OPERATORS DO NOT RECEIVE SALMON ENHANCEMENT TAX FUNDS; ONLY RAAS RECEIVE THE TAX FUNDS.



Source: Alaska Dept. of Revenue Tax Division

<http://tax.alaska.gov/programs/programs/reports/AnnualData.aspx?60632>

QUESTIONS?