# Arctic-Yukon-Kuskokwim Region

**Seafood Industry Impact on Regional Economy, 2015/2016 Avg.**

| | Number of Workers | FTE Jobs | Labor Income ($Millions) | Output ($Millions) |
|---|---|---|---|---|
| Commercial Fishing | 2,300 | 100 | $7 | $11 |
| Processing | 800 | 400 | $9 | $10 |
| Mgmt./Other | 100 | 100 | $5 | - |
| **Direct Total** | **3,300** | **600** | **$21** | **$20** |
| **Secondary Total** | **-** | **300** | **$14** | **$29** |
| **Total Impacts** | **-** | **900** | **$36** | **$49** |

- Total annual seafood industry-related labor income in the AYK region is estimated at approximately $36 million and the total regional economic impact is measured at $49 million.
- Commercial fisheries are an important source of cash income in remote Western Alaska communities. Seasonal income from seafood supports subsistence lifestyles for many AYK families.
- Lower salmon prices have hit AYK especially hard. Commercial salmon fishing on the Kuskokwim river has been effectively closed for the past two years (2016/2017) due to lack of buyers, putting nearly 400 boats out of business.
- AYK has a unique collection of fisheries that reflect the resourcefulness of its residents. Virtually all salmon are caught with setnets or fishwheels, king crab pots in Norton Sound are hauled up through ice holes, and it is the only region in the state where lamprey are harvested.
- AYK is home to three (of the six) CDQ entities. CDQ groups, which own several processing plants, shares of many vessels, and fund community development/assistance programs, are among the largest private sector employers in the region.

## Key Ports:

Emmonak Savoonga
Unalakleet Nome Quinhagak


*Map courtesy of the Western Alaska Community Development Association.*

AYK Region includes: Bethel Census Area, Denali Borough, Fairbanks Northstar Borough, Kusilvak Census Area, Nome Census Area, North Slope Borough, Northwest Arctic Borough, Southeast Fairbanks Census Area, and Yukon-Koyukuk Census Area.

2016 Figures

*AYK setnet fishermen display their catch (above). Salmon account for most of the region's ex-vessel value, but there are also fisheries for red king crab, halibut, Bering cisco, and lamprey.*

## Harvesting

**623** *Resident-owned Fishing Vessels*

**2,240** *Resident Fishermen*

**$12** *Million Harvest Value*

**14.0** *Million Pounds of Seafood Harvested*

*0.7% of Alaska Total*

## Processing

**6** *Shore-based Processing Facilities*

**1,055** *Shoreside Processing Workers (2015)*

**$22** *Million Wholesale Value*

**7.2** *Million Pounds of Seafood Produced*

*0.5% of Alaska Total*

| AYK Region CDQ Group | NSEDC | YDFDA | CVRF |
|---|---|---|---|
| Communities (Residents) | 15 (9,300) | 6 (3,400) | 20 (9,400) |
| Net Assets (2015) | $207 million | $87 million | $257million |

## Regional Economic Trends in Seafood Industry

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|---|
| Resident Commercial Fishermen | 3,274 | 3,351 | 3,406 | 3,526 | 3,364 | 3,177 | 2,240 |
| Gross Earnings ($Millions)* | $18 | $21 | $19 | $18 | $21 | $16 | $18 |
| Average Processing Employment | 265 | 191 | 341 | 351 | 354 | 452 | 3 |
| Peak Processing Employment | 898 | 684 | 1,089 | 1,203 | 1,132 | 1,138 | 1,0 |
| Wages/Salaries ($Millions) | $5.6 | $4.6 | $10.4 | $10.9 | $11.6 | $21.7 | $2 |
| Regional Harvest Value ($Millions)* | $10 | $12 | $11 | $12 | $13 | $9 | |
| First Wholesale Value ($Millions)* | $18 | $20 | $19 | $21 | $21 | $19 | |

*2016 data is preliminary.

# Bristol Bay Region

**Seafood Industry Impact on Regional Economy, 2015/2016 Avg.**

| | Number of Workers | FTE Jobs | Labor Income ($Millions) | Output ($Millions) |
|---|---|---|---|---|
| Commercial Fishing | 8,000 | 2,300 | $105 | $159 |
| Processing | 4,200 | 1,200 | $52 | $316 |
| Mgmt./Other | 200 | 100 | $5 | - |
| **Direct Total** | **12,400** | **3,500** | **$162** | **$475** |
| **Secondary Total** | **-** | **800** | **$35** | **$71** |
| **Total Impacts** | **-** | **4,400** | **$197** | **$547** |


*Crew of the F/V Maggie, a Bristol Bay gilnetter owned by Lyle Wilder of Port Alsworth, Alaska.*

**Top Port:** Naknek $292M*

**Other Key Ports:**

Dillingham Egegik $35M* Togiak
Port Moller Ekuk

*Avg. 2015/2016 FW Value.

- Commercial fisheries in the Bristol Bay region directly employ 12,400 people and generate $162 million in labor income.
- Bristol Bay is a unique region when it comes to seafood. While other regions rely on a diverse portfolio of species, virtually all of Bristol Bay's value comes from sockeye and production is generally limited to June-July.
- The region accounted for 44 percent of the world's sockeye harvest over the past 25 years. The 134-year old fishery produced its 2 billionth salmon in 2016.
- Over 1,440 Alaska residents own Bristol Bay commercial salmon fishing permits. Resident permit ownership is split almost evenly between regional residents and other Alaskans.
- Bristol Bay sockeye has successfully reinvented itself over the past couple decades. Historically, most fish was eithe canned or sold to Japan as a frozen H&C product. Now, the fishery's products and markets are much more diversified.

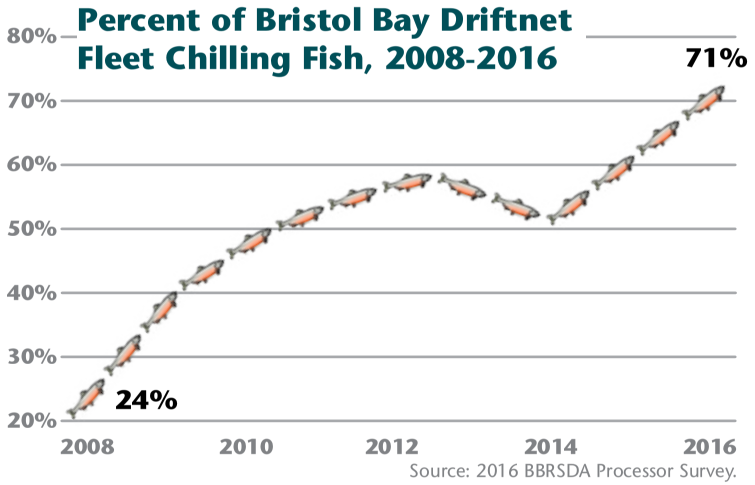
Bristol Bay Region includes: Bristol Bay Borough, Dillingham Census Area, and Lake and Peninsula Borough (less Chignik area communities).

## Share of Regional Ex-Vessel Value, 2015/2016

**97%**
*Sockeye Salmon*

**3%**
*All Other Species*

Bristol Bay fishermen have invested millions of dollars to improve fish quality through on-board chilling systems. These investments create jobs for refrigeration equipment manufacturers, supply companies, installation technicians, and others.




Source: 2016 BBRSDA Processor Survey.

*2016 Figures*

## Harvesting

**512**
*Resident-owned Fishing Vessels*

**1,576**
*Resident Fishermen*

**$191** *Million*
*Harvest Value*

**242**
*Million Pounds of Seafood Harvested*

*11% of Alaska Total*

## Processing

**26**
*Shore-based Processing Facilities*

**4,157**
*Shoreside Processing Workers*
*(2015)*

**$525** *Million*
*Wholesale Value*

**180**
*Million Pounds of Seafood Produced*

*13% of Alaska Total*

## Bristol Bay Salmon Fisheries

| *Gear Type** | Driftnet | Setnet |
|---|---|---|
| *Harvest Value* | $115 Million | $25 Million |
| *Permits Fished* | 1,542 | 872 |

* 2015/2016 Avg.

## Regional Economic Trends in Seafood Industry

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|---|
| Resident Commercial Fishermen | 1,506 | 1,598 | 1,654 | 1,609 | 1,663 | 1,607 | 1,576 |
| Gross Earnings ($Millions)* | $18 | $28 | $24 | $26 | $36 | $20 | $33 |
| Average Processing Employment | 1,401 | 1,535 | 1,514 | 1,514 | 1,542 | 1,095 | 1,2 |
| Peak Processing Employment | 5,257 | 5,460 | 5,037 | 5,312 | 5,374 | 4,309 | 5,1 |
| Wages/Salaries ($Millions) | $46 | $53 | $47 | $51 | $54 | $49 | $ |
| Regional Harvest Value ($Millions)* | $171 | $170 | $151 | $157 | $224 | $127 | $1 |
| First Wholesale Value ($Millions) | $459 | $404 | $329 | $359 | $449 | $426 | $5 |

*2016 data is preliminary.

# Bering Sea & Aleutian Islands Region

**Seafood Industry Impact on Regional Economy, 2015/2016 Avg.**

| | Number of Workers | FTE Jobs | Labor Income ($Millions) | Output ($Millions) |
|---|---|---|---|---|
| Commercial Fishing | 4,600 | 4,600 | $441 | $991 |
| Processing | 8,600 | 4,700 | $227 | $1,494 |
| Mgmt./Other | 400 | 200 | $21 | - |
| **Direct Total** | **13,500** | **9,500** | **$689** | **$2,485** |
| **Secondary Total** | **-** | **800** | **$36** | **$74** |
| **Total Impacts** | **-** | **10,400** | **$725** | **$2,559** |

**Top Port:** Dutch Harbor $474M*

**Other Key Ports:** Akutan, King Cove, St. Paul Island $74M*, Sand Point, False Pass, Adak, Atka

*Avg. 2015/2016 FW Value.

- The BSAI region accounts for 59 percent of the industry's first wholesale value (2015/2016).
- BSAI commercial fisheries created 10,400 FTE jobs and $725 million of labor income in 2015/2016.
- The resident population in the BSAI region is approximately 8,500, far too small to catch, cut, and ship the region's vast seafood resources. As a result, most seafood workers come from the lower 48 or elsewhere in Alaska to work in the industry.
- Dutch Harbor is consistently the nation's top seafood port by volume, and second-largest in terms of ex-vessel value. In 2015, the port took in 787 million pounds of seafood - an average of 15.2 million pounds per week.
- Western Alaska residents also benefit from the Community Development Quota (CDQ) program, which allocates approximately 10 percent of groundfish and crab quotas to six regional entities. These groups collectively held nearly a billion dollars in net assets as of 2015.


*The C/P Starbound is one of 17 AFA Catcher Processors vessels operating in the Bering Sea. AFA CPs primarily target pollock and can have crews of 100 or more. The Starbound was lengthened 60' in 2015 to accommodate a fish meal plant and other upgrades.*

BSAI Region includes: Aleutians East Borough and Aleutians West Census Area.

**Share of Regional Ex-Vessel Value, 2015/2016***

**42%**
*Pollock*

**23%**
*King, Snow, & Tanner Crab*

**16%**
*Pacific Cod*

**3%**
*Halibut & Black Cod*

**6%**
*Flatfish (Sole & Flounder)*

**3%**
*Atka Mackerel & Other Species*

*Common property fisheries only.

**4%**
*All Salmon*

*2016 Figures*

## Harvesting

**240**
*Resident-owned Fishing Vessels*

**538**
*Resident Fishermen*

**$943** *Million*
*Harvest Value*

**4,523**
*Million Pounds of Seafood Harvested*

*56% of Alaska Total*

## Processing

**21**
*Shore-based Processing Facilities*

**6,411**
*Shoreside Processing Workers*
*(2015)*

**$2,538** *Million*
*Wholesale Value*

**1,994**
*Million Pounds of Seafood Produced*

*61% of Alaska Total*

| *Regional Shoreside vs. At-Sea* | **Shoreside** | **At-Sea** |
|---|---|---|
| *Round Processed lbs. (Millions)* | 658 | 1,336 |
| *FW Value ($Millions)* | $1,067 | $1,471 |

## Regional Economic Trends in Seafood Industry

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|---|
| Resident Commercial Fishermen | 738 | 729 | 727 | 700 | 667 | 677 | 538 |
| Gross Earnings ($Millions)** | $40 | $58 | $45 | $47 | $42 | $50 | $4 |
| Average Processing Employment* | 3,360 | 3,698 | 3,606 | 3,712 | 3,834 | 3,813 | 3,9 |
| Peak Processing Employment* | 5,121 | 5,535 | 5,576 | 5,557 | 5,860 | 5,216 | 5,8 |
| Wages/Salaries ($Millions)* | $113 | $128 | $130 | $137 | $146 | $171 | $2 |
| Regional Harvest Value ($Millions)** | $800 | $1,137 | $1,198 | $1,029 | $1,052 | $1,039 | $9 |
| First Wholesale Value ($Millions) | $2,020 | $2,667 | $2,712 | $2,371 | $2,435 | $2,432 | $2,5 |

*Figures may not include processing activity from catcher/processor vessels. **2016 data is preliminary.

# Kodiak Region

**Top Port:** Kodiak $262M*

**Other Key Ports:** Larsen Bay
Alitak Bay Old Harbor Chignik

*Avg. 2015/2016 FW Value.

**Seafood Industry Impact on Regional Economy, 2015/2016 Avg.**

| | Number of Workers | FTE Jobs | Labor Income ($Millions) | Output ($Millions) |
|---|---|---|---|---|
| Commercial Fishing | 2,500 | 1,600 | $67 | $140 |
| Processing | 2,900 | 1,700 | $65 | $161 |
| Direct Support | 1,000 | 800 | $87 | - |
| **Direct Total** | **6,400** | **4,100** | **$219** | **$301** |
| **Secondary Total** | - | **1,900** | **$79** | **$174** |
| **Total Impacts** | - | **5,900** | **$297** | **$475** |

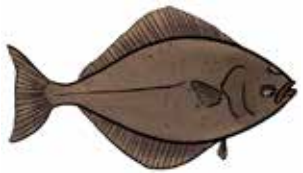
*Kodiak jig fisherman Darius Kasprzak of the FV Marona.*

- Kodiak was the second largest commercial fishing port in the U.S. by volume landed in 2015, and third in terms of ex-vessel value. The industry drives the regional economy and is responsible for much of the region's economic activity and population base.
- Seafood accounts for approximately 40 percent of the region's employment.
- Kodiak's seafood processors employ the highest percentage of local residents of any major production region in Alaska. On average during 2005-2014, 48 percent of processing workers were year-round residents of Kodiak.
- The region tends to have higher rates of resident employment because Kodiak waters produce several commercial species leading to more consistent production throughout the year. As a result, resident processing workers earn a higher share of income and are more likely to work in senior positions.
- The U.S. Coast Guard maintains a large presence in Kodiak, using the community as a staging area for safety and rescue missions in both the Gulf of Alaska and Bering Sea.

Kodiak Region includes: Kodiak Island Borough and the communities of Chignik, Chignik Lake, Chignik Lagoon, and Perryville.

## Share of Regional Ex-Vessel Value, 2015/2016*

**24%**
*Pollock*



**13%**
*Halibut*

**16%**
*Sockeye Salmon*

**11%**
*Black Cod*

**9%**
*Pink Salmon*

**14%**
*Pacific Cod*

**4%**
*Rockfish*

**9%**
*Flatfish & Other Species*

*Common property fisheries only.

*2016 Figures*

## Harvesting

**469**
*Resident-owned Fishing Vessels*

**1,291**
*Resident Fishermen*

**$128** *Million*
*Harvest Value*

**427**
*Million Pounds of Seafood Harvested*

*8% of Alaska Total*

## Processing

**15**
*Shore-based Processing Facilities*

**2,586**
*Shoreside Processing Workers*
*(2015)*

**$243** *Million*
*Wholesale Value*

**208**
*Million Pounds of Seafood Produced*

*6% of Alaska Total*

## Regional Salmon Fisheries

| *Gear Type** | **Seine** | **Setnet** |
|---|---|---|
| *Harvest Value* | $30 Million | $4.0 Million |
| *Permits Fished* | 243 | 146 |

* 2015/2016 Avg., includes Chignik seine fishery.

## Regional Economic Trends in Seafood Industry

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|---|
| Resident Commercial Fishermen | 1,408 | 1,529 | 1,463 | 1,432 | 1,342 | 1,424 | 1,291 |
| Gross Earnings ($Millions)** | $140 | $185 | $166 | $164 | $154 | $134 | $118 |
| Average Processing Employment* | 1,724 | 1,816 | 1,821 | 1,799 | 1,598 | 1,803 | 1,5 |
| Peak Processing Employment* | 2,094 | 2,339 | 2,254 | 2,480 | 2,088 | 2,397 | 1,9 |
| Wages/Salaries ($Millions)* | $70 | $74 | $77 | $73 | $68 | $77 | $ |
| Regional Harvest Value ($Millions)** | $140 | $206 | $192 | $194 | $135 | $153 | $1 |
| First Wholesale Value ($Millions) | $322 | $383 | $401 | $436 | $331 | $359 | $2 |

*Figures may not include processing activity from catcher/processor vessels. **2016 is preliminary.

# SOUTHCENTRAL ALASKA

**Seafood Industry Impact on Regional Economy, 2015/2016 Avg.**

| | Number of Workers | FTE Jobs | Labor Income ($Millions) | Output ($Millions) |
|---|---|---|---|---|
| Commercial Fishing | 6,700 | 1,900 | $101 | $184 |
| Processing | 3,800 | 1,200 | $51 | $257 |
| Mgmt./Hatcheries | 500 | 300 | $29 | - |
| **Direct Total** | **11,000** | **3,500** | **$180** | **$441** |
| **Secondary Total** | **-** | **3,300** | **$161** | **$374** |
| **Total Impacts** | **-** | **6,700** | **$342** | **$814** |

## Regional Ports

(2015/16 Avg. FW Value)

Cordova $134M
Kenai $84M
Seward $83M
Anchorage $50M
Valdez $50M
Homer $15M
Whittier
Kasilof
Nikiski
Anchor Pt.

## Resident Seafood Workers by Borough or Census Area

| | |
|---|---|
| Kenai Peninsula Borough | 3,796 |
| Anchorage Municipality | 2,232 |
| Valdez-Cordova CA | 1,031 |
| Mat-Su Borough | 697 |

- The seafood industry directly employs 11,000 workers and creates approximately 6,700 FTE jobs including multiplier effects (as a result of seafood caught and processed within the region, not including impacts from Southcentral residents bringing home earnings from other Alaska fisheries in other regions).

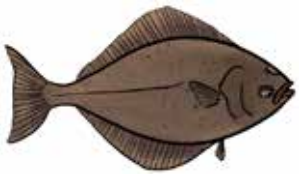
*Three generations of Cook Inlet setnetters.*

- 36 percent of Alaska's resident commercial fishermen live in Southcentral, more than any other region.
- Southcentral featured 17 communities with gross resident fishing earnings greater than $1 million in 2016, and 6 communities with more than $5 million.
- Limited entry fishing permits and IFQ shares for halibut and black cod owned by Southcentral residents were worth an estimated $343 million in 2016.
- Regional fishing employment and gross fishing earnings fell sharply in 2016, due to poor salmon runs.
- Southcentral residents earn nearly half of their gross fishing income from fisheries outside the region. Bristol Bay and Kodiak salmon fisheries include many Southcentral residents.
- Anchorage is a critical hub for fresh seafood shipments, seafood workers, and fishery management meetings; all of which benefit the regional economy.

Southcentral Region includes: Anchorage Municipality, Kenai Peninsula Borough, Matanuska-Susitna Borough, and Valdez-Cordova Census Area.

## Share of Regional Ex-Vessel Value, 2015/2016*

**30%**
*Sockeye Salmon*



**20%**
*Halibut*

**24%**
*Pink Salmon*

**14%**
*Black Cod*

**9%**
*Other Salmon*

**2%**
*Crab, Rockfish & Other Species*

*Common property fisheries only.

*2016 Figures*

## Harvesting

**2,021**
*Resident-owned Fishing Vessels*

**5,557**
*Resident Fishermen*

**$150** *Million*
*Harvest Value*

**136**
*Million Pounds of Seafood Harvested*

*9% of Alaska Total*

## Processing

**51**
*Shore-based Processing Facilities*

**4,482**
*Shoreside Processing Workers*
*(2015)*

**$375** *Million*
*Wholesale Value*

**101**
*Million Pounds of Seafood Produced*

*9% of Alaska Total*

## Regional Salmon Fisheries

| *Gear Type** | Driftnet | Seine | Setnet | Total |
|---|---|---|---|---|
| *Harvest Value* | $47 Million | $42 Million | $14 Million | $103 Million |
| *Permits Fished* | 999 | 232 | 558 | 1,789 |

* 2015/2016 Avg.

## Regional Economic Trends in Seafood Industry

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|---|
| Resident Commercial Fishermen | 5,592 | 5,890 | 5,882 | 5,808 | 5,980 | 5,909 | 5,557 |
| Gross Earnings ($Millions)* | $264 | $306 | $290 | $321 | $274 | $259 | $218 |
| Average Processing Employment | 959 | 1,268 | 1,320 | 1,341 | 1,415 | 1,238 | 1,2 |
| Peak Processing Employment | 2,873 | 3,632 | 3,258 | 3,167 | 3,300 | 3,241 | 3,5 |
| Wages/Salaries ($Millions) | $33 | $32 | $46 | $54 | $51 | $48 | $ |
| Regional Harvest Value ($Millions)* | $296 | $272 | $246 | $283 | $209 | $218 | $1 |
| First Wholesale Value ($Millions)* | $511 | $429 | $470 | $687 | $488 | $507 | $3 |

*2016 data is preliminary.

# Southeast Alaska

**Seafood Industry Impact on Regional Economy, 2015/2016 Avg.**

| | Number of Workers | FTE Jobs | Labor Income ($Millions) | Output ($Millions) |
|---|---|---|---|---|
| Commercial Fishing | 6,100 | 2,900 | $121 | $221 |
| Processing | 4,100 | 1,600 | $62 | $228 |
| Direct Support FN | 1,100 | 800 | $80 | - |
| **Direct Total** | **11,300** | **5,300** | **$264** | **$449** |
| **Secondary Total** | **-** | **2,900** | **$116** | **$257** |
| **Total Impacts** | **-** | **8,200** | **$379** | **$706** |

- Seafood is the largest private sector industry in Southeast Alaska, in terms of workforce size and labor income. Seafood accounted for 15 percent of the regional employment in 2015/2016, including multiplier impacts.
- Southeast residents own more commercial fishing boats and IFQ (individual fishing quota) shares than any other region.
- Seafood is an important part of most local economies in Southeast, but provides an economic foundation for Sitka, Petersburg, Wrangell, Prince of Wales Island, Hoonah, Haines, and Yakutat.

*Marsh & Nora Skeele, Sitka Salmon Shares fishermen.*

## Regional Ports (2015/2016 Avg. FW Value)

Sitka $121M
Ketchikan $93M
Petersburg $83M
Juneau $53M
Wrangell
Excursion Inlet
Craig $14M
Yakutat $13M
Hoonah
Metlakatla
Haines
Pelican
Gustavus
Hyder
Klawock

## Resident Seafood Workers by Community

| | |
|---|---|
| Sitka | 1,329 |
| Petersburg | 960 |
| Ketchikan Borough | 905 |
| Juneau | 901 |
| Prince of Wales Is. | 697 |
| Wrangell | 448 |
| Hoonah/Angoon/Skagway | 268 |
| Yakutat | 232 |
| Haines | 196 |

## Resident IFQ Quota & Limited Entry Permit Value by Community ($Millions)

| | |
|---|---|
| Petersburg | $186 |
| Sitka | 145 |
| Juneau | 81 |
| Ketchikan Borough | 49 |
| Wrangell | 36 |
| Prince of Wales Is. | 36 |
| Hoonah/Angoon/Skagway | 28 |
| Haines | 18 |
| Yakutat | 5 |
| **Southeast Total** | **$583** |

Southeast Region includes: Haines Borough, Hoonah-Angoon Census Area, Juneau Borough, Ketchikan Gateway Borough, Petersburg Borough, POW-Hyder Census Area, Sitka Borough, Skagway Borough, Wrangell Borough, and Yakutat Borough.

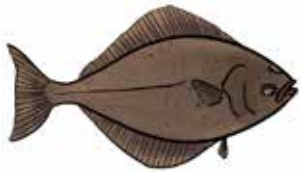
## Share of Regional Ex-Vessel Value, 2015/2016*

**19%**
Keta (Chum) Salmon

**17%**
Coho+Chinook

**12%**
Pink Salmon

**5%**
Sockeye Salmon



**18%**
Halibut

**16%**
Black Cod

**14%**
Crab, Herring, & Other Species

*Common property fisheries only.

*2016 Figures*

## Harvesting

**2,683**
Resident-owned Fishing Vessels

**4,283**
Resident Fishermen

**$218** Million
Harvest Value

**221**
Million Pounds of Seafood Harvested

*13% of Alaska Total*

## Processing

**50**
Shore-based Processing Facilities

**4,433**
Shoreside Processing Workers
(2015)

**$432** Million
Wholesale Value

**173**
Million Pounds of Seafood Produced

*10% of Alaska Total*

## Regional Salmon Fisheries

| *Gear Type** | Seine | Troll | Driftnet | Total |
|---|---|---|---|---|
| *Harvest Value* | $46 Million | $29 Million | $21 Million | $96 Million |
| *Permits Fished* | 268 | 1,036 | 423 | 1,727 |

* 2015/2016 Avg.

## Regional Economic Trends in Seafood Industry

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|---|
| Resident Commercial Fishermen | 4,641 | 4,586 | 4,685 | 4,733 | 4,686 | 4,545 | 4,283 |
| Gross Earnings ($Millions)* | $228 | $278 | $262 | $258 | $233 | $198 | $198 |
| Average Processing Employment | 1,443 | 1,610 | 1,595 | 1,747 | 1,840 | 1,747 | 1,3 |
| Peak Processing Employment | 3,972 | 4,324 | 3,974 | 4,551 | 4,775 | 4,615 | 3,2 |
| Wages/Salaries ($Millions) | $49 | $57 | $54 | $66 | $68 | $72 | $ |
| Regional Harvest Value ($Millions)* | $265 | $346 | $309 | $345 | $266 | $224 | $2 |
| First Wholesale Value ($Millions)* | $473 | $628 | $516 | $641 | $511 | $466 | $4 |

*2016 data is preliminary.

# National Impact of Alaska Seafood

**National Impacts of Alaska Seafood Industry, 2015/2016 Avg.**

| | Number of Workers | FTE Jobs | Labor Income ($Millions) | Output ($Millions) |
|---|---|---|---|---|
| Commercial Fishing | 29,200 | 13,700 | $824 | $1,738 |
| Processing | 28,700 | 14,400 | $563 | $2,446 |
| Mgmt./Other | 4,100 | 2,900 | $287 | - |
| Distributors | 800 | 800 | $64 | $131 |
| Grocers | 4,400 | 4,400 | $133 | $237 |
| Restaurants | 12,700 | 12,700 | $349 | $892 |
| **Direct Total** | **79,900** | **48,900** | **$2,218** | **$5,444** |
| **Secondary Total** | - | **50,100** | **$2,949** | **$7,315** |
| **Total Impacts** | - | **99,000** | **$5,167** | **$12,758** |


*Alaska seafood is sold at thousands of restaurants and grocery stores around the U.S., creating tens of thousands of American jobs.*

- Alaska's seafood industry accounts for 99,000 FTE jobs in the U.S., including jobs throughout the entire production, distribution, and retail chain. Workers in these jobs earned an estimated $5.2 billion in total annual labor income.
- The national economic impact of Alaska's seafood industry includes an estimated 48,900 FTE jobs in fishing, processing, fisheries management, transportation and distribution, and in stores and restaurants. It also includes 50,100 secondary jobs throughout the economy created as a result of spending by businesses in the supply chain and their employees.
- Among all the participants in the national seafood supply chain, fishermen earn the largest share of labor income at $824 million, or 37 percent of all direct labor income generated by Alaska's seafood industry.
- U.S. economic output related to Alaska's seafood industry totals $12.8 billion including all direct and multiplier impacts. Total output is defined as the value of Alaska's seafood resource, as it moves from the fishing vessel to the consumer's plate, plus output arising from secondary impacts.

# Alaska's Commercial Fishermen

**Alaska Skippers and Crew, by State of Residence, 2016**

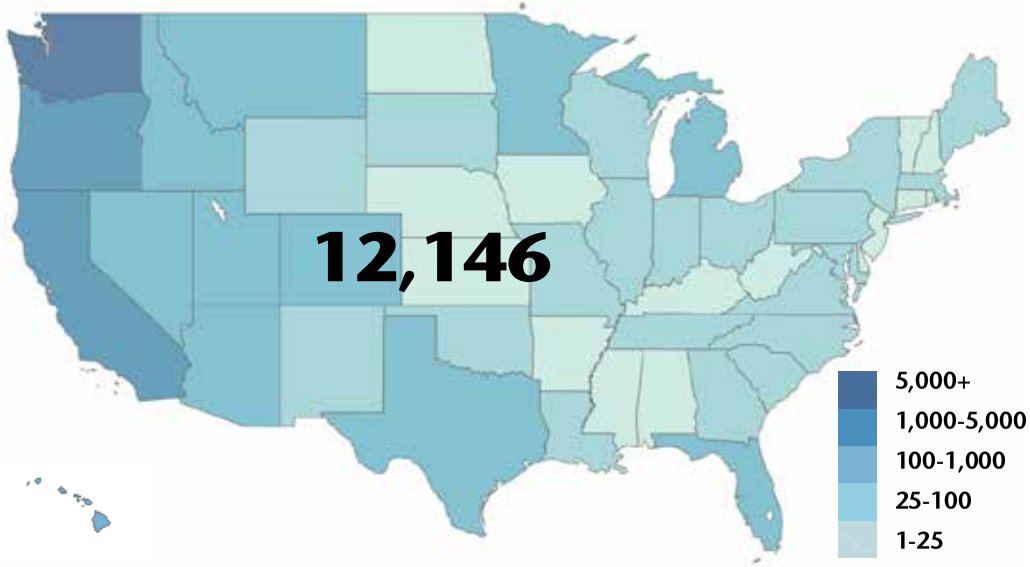

People from every U.S. state participate in Alaska's commercial fisheries. The maps on this page indicate the concentration of Alaska skippers, permit owners, and crew by state of residence.

In 2016, 62 percent of the industry's skippers, active permit owners, and crew were Alaska residents, totaling 15,592 fishermen.

Thousands more come to Alaska each year to work in processing plants or aboard processing vessels. Similar data for processing workers is not available.

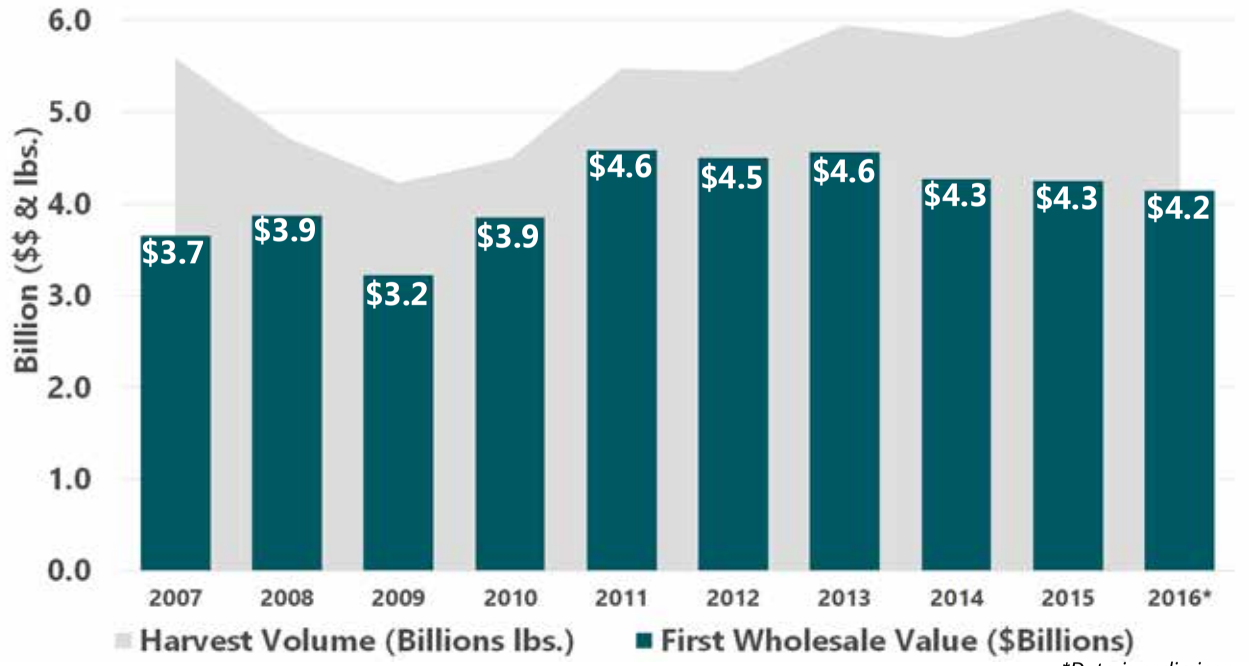
Nonresident fishermen and processors play a key role in Alaska's seafood industry. Without their contributions, it is unlikely the state could provide enough workers to capitalize on available fishery resources. Residents of every U.S. state participate in Alaska fisheries.

Regardless of where fishermen live, their earnings contribute to local economies in Alaska and around the country.




# Value of Alaska Seafood

The first wholesale value of Alaska seafood was $4.19 billion in 2016. Of this total, fishermen earned $1.67 billion in ex-vessel value while processors, both shoreside and at-sea, added $2.52 billion in value. The industry typically harvests between five and six billion pounds of seafood each year.




*Data is preliminary.

The value of Alaska seafood has declined in recent years, primarily due to a stronger U.S. dollar and lower halibut, black cod, crab, and sole harvests. A strong dollar is bad for Alaska's seafood industry because it makes domestic products relatively more expensive than competing foreign products. Since 2011, the U.S. dollar index has strengthened by 27 percent and ex-vessel value has declined by 22 percent.

Alaska Seafood Marketing Institute

*"ASMI's mission is to enhance the value of Alaska seafood, a natural resource that supports thousands of Alaskans in communities all across the state."*

*-Alexa Tonkovich,*
*Executive Director, ASMI*

## U.S. Dollar Index & Ex-Vessel Value of Alaska Seafood

| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 20 |
|---|---|---|---|---|---|---|---|---|---|---|
| U.S. Dollar Index (Low = Good for AK) | 80.4 | 77.1 | 80.7 | 81.5 | 76.3 | 80.4 | 81.5 | 83.1 | 96.8 | 9 |
| Ex-Vessel Value ($Billions, nominal) | $1.65 | $1.89 | $1.44 | $1.69 | $2.13 | $2.11 | $2.01 | $1.92 | $1.77 | $1. |

Sources: OANDA.com and McDowell Group estim

# Competing in a Global Seafood Market

Alaska is a major seafood producer on a global scale. The state produces more wild seafood than all other U.S. states combined. If it were a country, Alaska would rank #7 among seafood exporting nations (in 2015). However, Alaska seafood is a small part of a global supply chain that encompasses large volumes of competing wild and farmed species. Supply and demand for competing species impacts prices for Alaska seafood products. The species below account for 80% of Alaska's ex-vessel value but each faces significant competition from other global producers.

Although Alaska seafood is essentially a commodity, Alaska is a high-cost environment. It is virtually impossible to compete on price alone. Luckily for Alaska, it is the largest seafood producing state in America with sustainable management practices and pristine marine waters - attributes no foreign or domestic competitor can match. Therefore, maximizing the resource value will require market differentiation, product development, and consumer awareness. Alaska and the seafood industry must continue to invest in these endeavors in order to maximize the economic benefits.



## POLLOCK

**AK Pct. of Global Supply: 44%**
Pct. of AK Ex-Vessel Value: 27%
Pct. of AK Harvest: 54%

Pollock is the most abundant wild whitefish species on the planet. Alaskan pollock competes with Russian pollock, as well as tilapia and pangasius - farmed species whose combined production is nearly twice that of pollock.

## SALMON

**AK Pct. of Global Supply: 14%**
Pct. of AK Ex-Vessel Value: 27%
Pct. of AK Harvest: 18%

Despite a record harvest, Alaska accounted for just 14% of global salmon supply in 2015. Farmed salmon production outnumbers wild harvests 2.5-to-1. Farmed production increased 43% (1.06 MMT) from 2010 to 2015.

## COD

**AK Pct. of Global Supply: 16%**
Pct. of AK Ex-Vessel Value: 11%
Pct. of AK Harvest: 12%

Alaska's Pacific cod harvests pale in comparison to the more valuable Atlantic cod species. Global cod harvests increased 31 percent (417,500 MT) from 2010 to 2015.

## CRAB

**AK Pct. of Global Supply: 29%**
Pct. of AK Ex-Vessel Value: 15%
Pct. of AK Harvest: 1.5%

Alaska is known for world-class king and snow crab harvests, but Canada produces more snow crab while Russia produces more king crab. Pacific Northwest states also produce more Dungeness than Alaska.

*2015 Figures*

# Seafood & Alaska's Economic Future

Seafood is Alaska's most valuable renewable natural resource. With a continued commitment to careful resource management, Alaska will continue to produce large volumes of high-value seafood in perpetuity.

Though already a cornerstone of Alaska's economy, seafood holds great potential for additional economic benefit for the state. The resource is highly regarded by consumers around the world, with demand for tasty, sustainable seafood generally increasing faster than production from wild fisheries and aquatic farms. A stronger U.S. dollar has led to lower prices over the past few years, but with continued market development and promotion, the prospects are excellent in the long-term.

While the seafood industry and other industries cannot fill the hole in State General Fund revenues left by declining oil prices, seafood can play an increasingly important role in Alaska's economy by creating employment and income opportunities for Alaskans.

The seafood industry represents a unique opportunity for young Alaskans, in particular. The Alaska Maritime Workforce Development Plan, vocational training programs, revolving loan programs, and other economic development projects/programs will be critical in attracting Alaskans to the industry and developing the industry's next-generation workforce. In general, expanding employment and resource value in the seafood industry will require the following:

- Local or in-state training programs that help fisheries and processing companies replace an aging workforce.
- A stable tax/fee structure that considers fishery management, marketing, administrative, and other management costs, and preserves incentives for fishermen and processors to continue investing in the industry.
- Continued commitment to market development in order to maximize the value of Alaska seafood products.

## Mariculture in Alaska

Mariculture, the practice of farming aquatic shellfish and plants, holds significant promise in Alaska. The Alaska Mariculture Task Force was established by Gov. Walker in 2016 to develop a comprehensive plan to expand t mariculture industry in Alaska. Growi oysters, kelp, and other species cou play a key role in expanding the val of Alaska seafood.

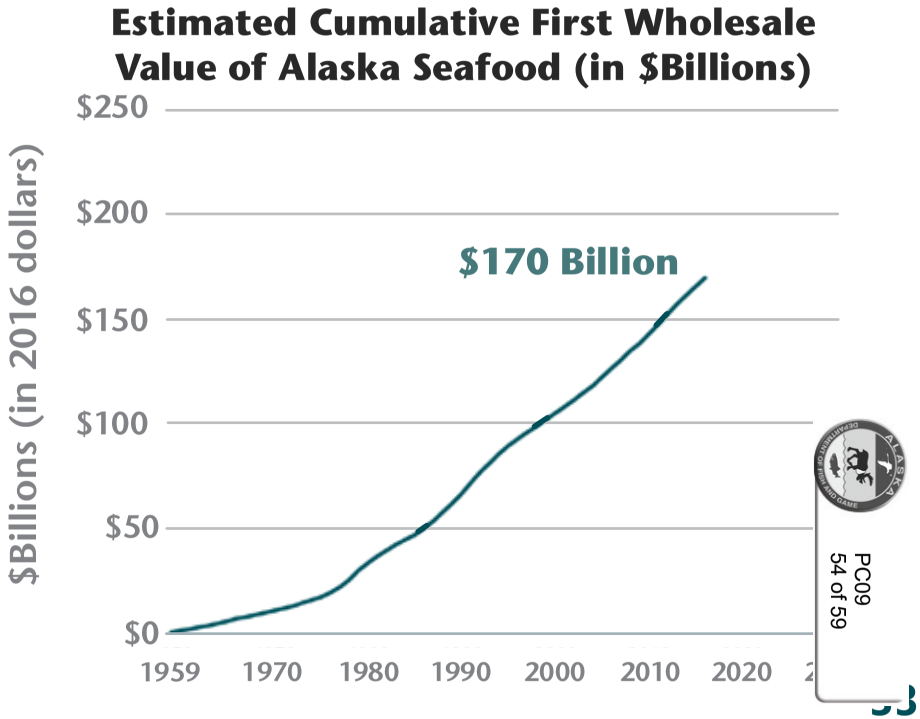
# - Seafood Value since Alaska Statehood -

Photo Credit: Ward Wells Collection, Anchorage Museum.

*"Double-ender" sailboats were used to haul gillnets in Bristol Bay until the 1950s. Nets are now reeled in using hydraulics, but the fish are still picked by hand in gillnet fisheries.*

Seafood has been a commercial enterprise in Alaska since the 1860's, making the industry more than twice as old as the state itself. The abundance of Alaska seafood is truly astounding. Through salmon traps, foreign offshore drift nets, and the crab frenzy, Alaska waters continue to produce billions of pounds of seafood each year.

Since statehood in 1959, Alaska's seafood industry has harvested an estimated cumulative total of 169 billion pounds of fish and shellfish, with a first wholesale value of $170 billion, in 2016 dollars. Cumulative ex-vessel earnings since statehood total $84 billion (adjusted for inflation) through 2016. Adjusted for inflation, the highest annual first wholesale value was produced in 1992 ($5.5 billion). The largest harvest occurred in 2015, when fishermen hauled in 6.1 billion pounds.



# Industry Tax Revenues

Commercial fishing and processing businesses incur substantial costs to operate in Alaska, including taxes, fees, and self-assessments of more than **$146.2 milion in 2016**. These revenue sources include:

- **Unencumbered taxes** are used to fund local, state, and federal government. The Fisheries Business Tax is the largest of these taxes and is especially important as half of the receipts are distributed to local governments, many of which have few other sources of revenue. Taxes not included due to a lack of data include property taxes and federal income taxes, among many others.
- **Agency fees and cost recovery** collections are designed to pay for specific services provided by state/federal government, and non-profit salmon hatchery operators. State fees on permits, leases, and vessels, as well as test fishery receipts, are generally used to pay for administrative costs associated with commercial fishery management. Federal cost recovery fees are collected for halibut, black cod, crab, and other fisheries. Salmon hatcheries, which benefit many user groups, are funded almost entirely through cost recovery harvests and enhancement taxes derived from the commercial fishing industry. Data were not available for a number of other agency fees, including those related to business licensing, port and harbor fees, federal vessel documentation fees, and federal fishery endorsements, among others.
- **Industry self-assessments** are collected to fund industry-supported projects, such as seafood marketing efforts through the Alaska Seafood Marketing Institute and Regional Seafood Development Associations.

Overall, of the taxes and fees collected on the Alaska seafood industry and for which data are available, **40%** goes to state government ($58.0 million), **31%** goes to local governments ($45.8 million), **20%** to salmon hatcheries ($29.8 million), and **9%** to the federal government ($12.6 million).

| | 2016, $Millions |
|---|---|
| **Taxes** | **$74.5** |
| Fisheries Business Tax | $39.9 |
| Fisheries Resources Landing Tax | $9.8 |
| Marine Motor Fuel Tax | $3.0 |
| Corporate Income Tax | $3.2 |
| Local Raw Fish and Other Taxes | $18.7 |
| **Agency Fees & Cost Recovery** | **$53.2** |
| CFEC Permit and Vessel Fees | $8.2 |
| Crew License Sales | $3.4 |
| Test Fishery Reciepts | $3.0 |
| Processing/Mariculture/Other Fees | $1.0 |
| Salmon Hatchery Cost Recovery* | $23.0 |
| Federal Cost Recovery Fees** | $10.8 |
| Federal Observer Program | $3.9 |
| **Industry Self-Assessments** | **$18.4** |
| Seafood Marketing (ASMI) | $9.7 |
| Salmon Enhancement | $6.8 |
| Seafood Development (RSDAs) | $1.4 |
| Dive Fishery Management | $0.5 |
| Common Property Assessment | <$0 |
| **Total** | **$146** |

*Note: Data are for FY 2016. Totals may not sum due to rounding.*
**Earnings are retained by salmon hatcheries, and account for the majority hatchery operating revenues. **Roughly $2M goes to state government.*
*Sources: ADOR, CFEC, DCCED, ADF&G, NMFS, OMB, & McDowell Gr estimates.*

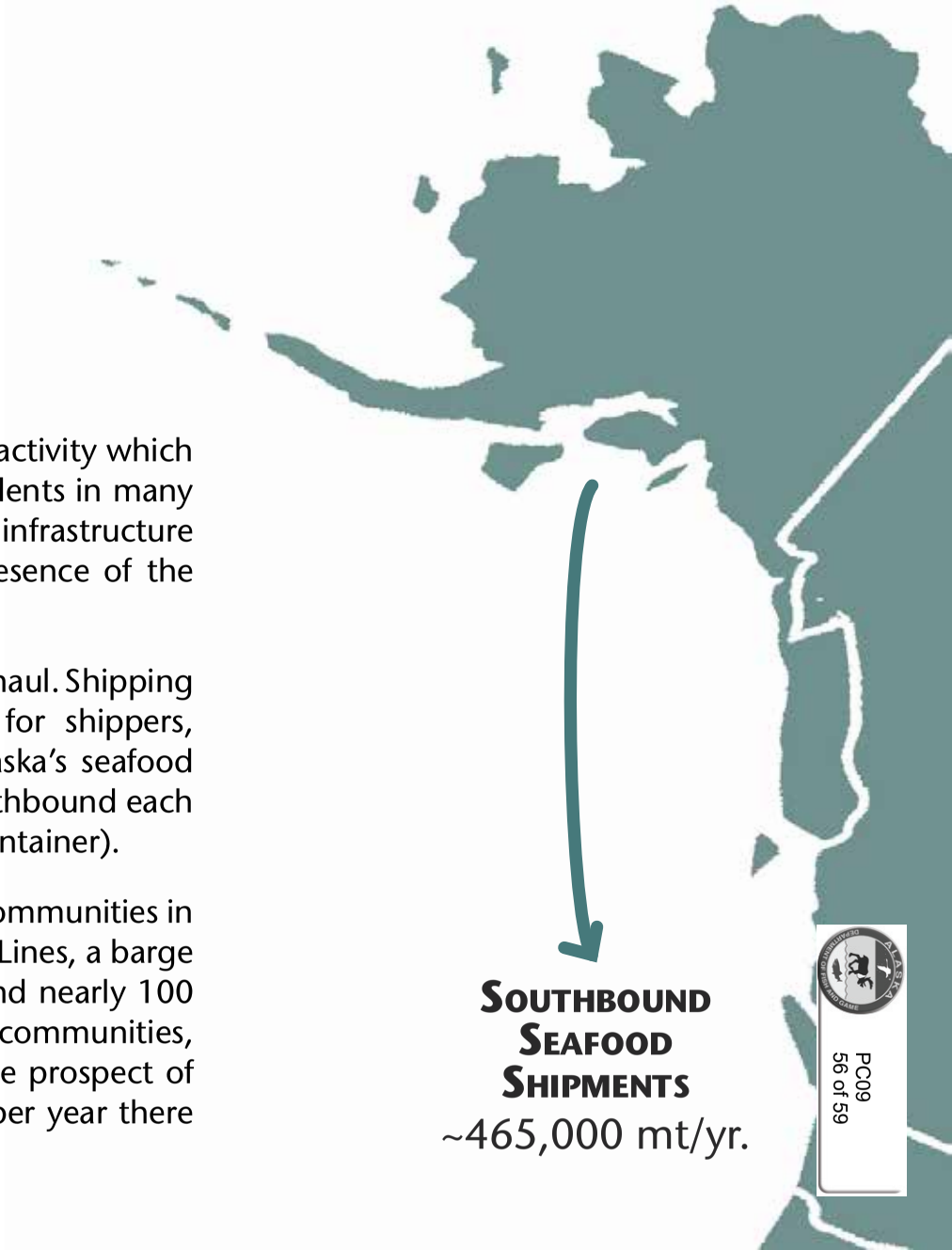
# Lowering the Cost of Living in Alaska


The seafood industry provides economies of scale and economic activity which lowers the cost of utilities, shipping, fuel, and local taxes for residents in many Alaska communities. Fishing communities also benefit from marine infrastructure and support services, which are more expansive due to the presence of the commercial seafood industry.

The majority of Alaska's consumer freight is a one-way, northbound haul. Shipping seafood on southbound routes provides "backhaul" revenue for shippers, allowing for more competitive rates on northbound freight. Alaska's seafood industry ships approximately 1 billion lbs. of finished product southbound each year, or the equivalent of roughly 23,000 containers (at 20 mt/container).

"Everyone benefits from the seafood industry, especially smaller communities in Western Alaska," says Kevin Anderson, president of Alaska Marine Lines, a barge transportation company that provides service between Seattle and nearly 100 ports and villages throughout Alaska. "Our ability to serve smaller communities, like those in Bristol Bay, would be drastically reduced without the prospect of southbound seafood shipments. Instead of six or seven sailings per year there might only be enough freight to support one or two."

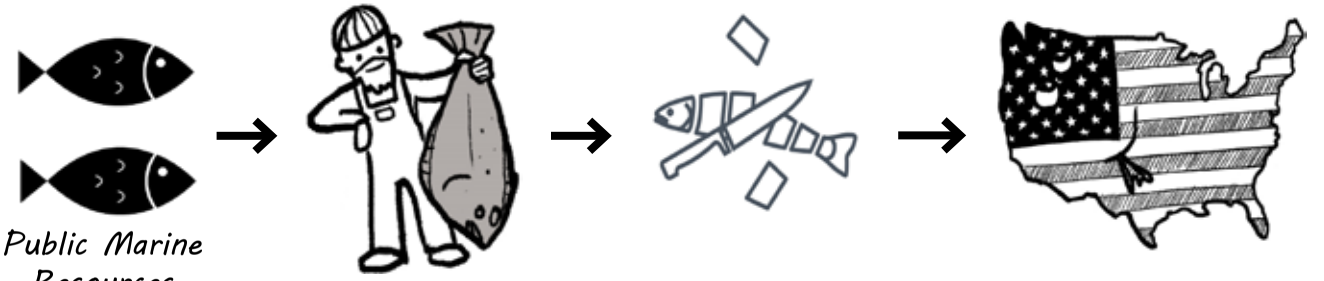
*Photo credit: Alaska Marine Lines.*



# Feeding the World

Marine resources like fish and shellfish are public goods that belong to all Alaskans and other Americans. Alaska's seafood industry allows all consumers to efficiently access the resource, not just those who live nearby or have the means to access them with private boats. Commercial fishermen and processing companies are the conduit through which hundreds of millions of Americans can enjoy Alaska seafood.

The commercial seafood industry also converts this public marine resource into economic benefits for Americans, such as jobs, tax revenue, and exports (which help offset the U.S. trade deficit).




Alaska's marine resources are so prolific, they could feed the entire world at least one serving of delicious, healthy seafood each year, or to all American consumers every day for more than a month.

## There's Plenty of Fish in the Sea When it Comes to Alaska Seafood

*Number of Servings by Product Type in 2015*

| Fillets & Fish Meat | Surimi | Roe | Crab | Other Products |
|---|---|---|---|---|
| 8.7 Billion | 2.4 Billion | 1.6 Billion | 296 Million | 12 Million |

*TOTAL:*

**12.9**

***BILLION SERVINGS***

## *Fishermen & Processors Invest in Alaska*

Fishermen and processors have made significant investments in the future of Alaska seafood. A survey of processors found that seven of the 10 largest shoreside processors invested a total of over **$100 million** per year in capital expenditures over the past five years (2012-2016). The massive investment by this limited sample of Alaska processors underscores the commitment the processing sector has made to the industry's future - in addition to supporting its present through buying over $1 billion of fish and shellfish per year.

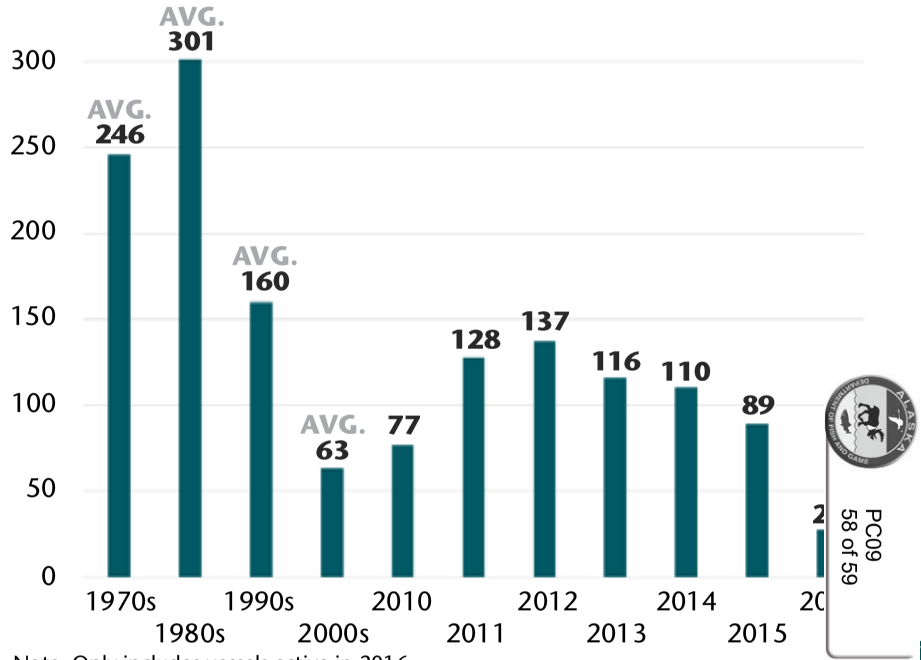
Processors' investment and multiplier impacts are closely tied to resource value. Expanding value provides processing companies capital to modernize plants, expand production lines, and pay higher fish prices. All of these benefit local communities in Alaska and provide growth elsewhere in the U.S. economy.

*Kodiak, shown above, is home to several large fish processing plants. Construction of a new Trident Seafoods plant (large blue building, closest to the harbor) is an example of seafood processors' investment in Alaska.*

Alaska's commercial fishing fleet has expanded over the past five years. An average of 96 newly-built boats were added to the fleet during 2012-2016, representing an average investment of more than **$60 million** per year. These new fishing assets will pay dividends to owners and their local economies for decades to come. Some Alaska fishing fleets are aging and must continue to retire/replace old vessels.

Modernizing the fleet is a critical part of sustaining the industry and creates many secondary jobs for American workers. However, investment in new vessels requires a healthy resource value. Today's ex-vessel value becomes tomorrow's capital investment. Unfortunately, investment in new vessels declined significantly in 2016 with lower seafood values. Raising the value of Alaska seafood is an excellent economic driver as it stimulates investment, brings new money into the economy through exports, and creates more jobs both, directly and indirectly, in Alaska and the Lower 48.

**New Commercial Fishing Boats Added to Alaska Fleet**




Note: Only includes vessels active in 2016.
Source: CFEC 2016 Vessel File, compiled by McDowell Group.

Fishermen from Juneau-based direct marketing firm Taku River Reds take a break on the bow of F/V Heather Anne. Pictured from left to right: Bottom row: Winston Warr, Athena Rose, Renee Warr, Heather Hardcastle, Kirk Hardcastle; Top row: Shelia and Len Peterson.

Prepared for:

Alaska Seafood Marketing Institute

Prep

McDow
GROUP

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Cordova District Fishermen United
PO Box 939 | 509 First Street |
phone. (907) 424 3447 |
web. www.cdfu.org



November 16, 2017

Alaska Department of Fish and Game
Boards Support Section
Attn: Board of Fisheries
P.O. Box 115526
Juneau, AK 99811-5526

Members of the Board of Fisheries:

Please find below written comments from Cordova District Fishermen United regarding the upcoming Prince William Sound Finfish Board of Fisheries meeting proposals to be discussed in Valdez, Alaska on December 1-5, 2017. Please don't hesitate to contact CDFU with any questions whatsoever. Thank you for your consideration.

**PROPOSAL 10**
**OPPOSE**

The Copper River has seen strong and consistent returns of sockeye salmon using the current sustainable escapement goal (SEG). Therefore, there is no mandate or need to create a new optimal escapement goal (OEG). The lowest threshold of the proposed number would be higher than the current upper escapement goal. The Copper River is a mixed management watershed and is very different geographically from the Kenai. Fisheries and watersheds are not one size fits all. There is no data to support the development of an OEG for the Copper River that is not provided for the established SEG of sockeye. Additionally, there is no data to support the proposals statement that the current SEG set by ADF&G is artificially low and is used to exploit chinook harvests. ADF&G continues to monitor the watershed and makes management decisions based on the best available science. The Copper River has a directed king salmon fishery which is not incidental catch, but rather, a targeted and historical catch that has been part of the Copper River commercial fishery since its inception. Furthermore, revising an escapement goal is the role of ADF&G and the department's analysis of best available science.

Cordova District
PO Box 939 | 509 First Street |
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web. www.cdfu.org



**PROPOSAL 13**
**SUPPORT**

The use of boats in the Chitina dipnet fishery has continued to expand over the years and certain restrictions must be implemented in order to restrict the commercialization of this personal use fishery. Dipnetting from a river boat has become increasingly popular and improperly licensed commercialized charter services have capitalized on dipnetters fishing from boats in order to access fish in a timelier manner. Restricting dipnetters to fish from the beach would result in less strain on the resource and would equalize the access of all dipnetters. CDFU is supportive of the observations of local subsistence users and the observations of the Ahtna C&T Use Committee.

**PROPOSAL 14**
**OPPOSE**

CDFU supports sustainable and strong king escapement, but it is inefficient and unreasonable to mandate management measures based on a preseason forecast. ADF&G has the ability to manage the timing of season openings for all fisheries if required under the existing management plan language.

Forecasts are a prediction of potential species returns. ADF&G has been transparent about the fact that in season harvest data is the best and most reliable mechanism for management decisions. It is effective and timely in this case specifically to utilize in season data when it comes to management decisions.

**PROPOSAL 15**
**SUPPORT**

Gillnet web tangles fish more than other types of web which makes release without harm more difficult. Persons engaged in personal use fisheries are often seeking a specific harvest or catch by species. The use of monofilament increases the chance of entanglement and struggle, and therefore increases the mortality rates of unintended catch. In this case, CDFU defers to and supports the observations of subsistence users in the region.

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PO Box 939 | 509 First Street |
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**PROPOSAL 17**
**OPPOSE**

If implemented, this proposal would more than double the size of the current Chitina subdistrict personal use fishery. Extending this harvest boundary would have great negative implications on the Native Village of Eyak mark-recapture study which helps to determine overall inriver abundance and contributes to estimates of run size and spawning escapement. This study has been conducted annually since 2003 and is integral to ADF&G and stakeholder knowledge of the Copper River fishery. This study increases the department's ability to make data driven management decisions to protect the health and sustainability of the run. Extending this harvest area would increase mortality which would impact the ability of scientists overseeing the mark-recapture study to accurately estimate chinook returns. This information is invaluable to all user groups for in season management as well as the long term health of Copper River chinook. If implemented, this expansion would also increase the burden on law enforcement in the Chitina subdistrict by increasing the area of enforcement by roughly 18 miles of river bank area that is difficult to navigate due to many overlapping shallow channels.

**PROPOSAL 18**
**OPPOSE**

If the commercial fishery is closed for more than thirteen days, there is clearly an abundance concern to which management must respond. In such an event, increasing harvest potential to any one gear group over another would be irresponsible and short sighted. Depending on the time of year and the strength of the season, one or all gear groups may be impacted, which is simply the natural result of managing a natural resource that fluctuates in its abundance from year to year. CDFU supports all user groups sharing in the burden of conservation.

Cordova District
PO Box 939 | 509 First Street |
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web. www.cdfu.org



**PROPOSAL 19**
**OPPOSE**

CDFU supports increased subsistence opportunity when sockeye and chinook run strength warrants it. CDFU maintains that in season management tools are an effective and sustainable method that outweigh the value of any mandatory regulatory decision. ADF&G management has the EO authority to expand subsistence openings and area in season and demonstrated that authority during the 2017 season. The department demonstrated this type of management during the 2017 season by leaving area open to subsistence users that was closed to the commercial fleet. CDFU supports the discretion of the department in regards to subsistence openings and subsistence access.

**PROPOSAL 21**
**OPPOSE**

CDFU opposes Proposal 21 due to the ambiguity of its language and intent. However, CDFU agrees that some restrictions and monitoring of subsistence herring is important and merits discussion.

**PROPOSAL 22**
**OPPOSE**

The health and abundance of herring stocks in Prince William Sound have been in question for decades and lower than the necessary threshold for regular harvest. There is no surplus of herring to justify opening a personal use fishery in Prince William Sound. State residents currently have access to the herring subsistence fishery.

**PROPOSAL 23**
**SUPPORT**

CDFU supports prohibiting catch and release in spawning habitat and the intent language of proposal twenty-three. If we truly wish to protect the longevity and health of salmon runs in this region, the salmon should not be harmed while spawning.

Cordova District
PO Box 939 | 509 First Street |
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**PROPOSAL 27**
**OPPOSE**

CDFU opposes sport fishing in spawning waters. As Alaskans and as fishermen, we have a duty to respect and protect the health and abundance of the resource for generations to come. Increasing harvest or access in historical spawning waters is destructive to the future of the salmon and returns.

**PROPOSAL 29**
**OPPOSE**

ADF&G has EO authority that is needed to effectively manage in season depending on abundance and other factors. There is no evidence that this extreme measure is necessary for the sustainable management of the Copper River District.

This proposal states that chinook salmon are a stock of concern. This is inaccurate. On October 2nd, 2017, ADF&G released memorandum RC5 which states that "currently, there are no stocks of concern in the Prince William Sound management area." (See Memorandum RC 5, PWS Management Area Stock of Concern Recommendation) Limiting the harvest area of the Copper River drift fleet to this extent is unreasonable and lacks scientific data to support it.

This proposal also states that the 2016 and 2017 commercial harvest of chinook salmon resulted in the elimination of "all opportunity for upriver users." This is also inaccurate. It was ADF&G's pre-season forecast, not the commercial fleets harvest, that prematurely limited opportunity for upriver users which was immediately rescinded upon the finding of contradictions between the preseason forecast and in season abundance numbers.

Additionally, the proposal states that chinook salmon are incidental catch. This is false. Chinook salmon are directed and historical catch. Chinook salmon make up a part of the Copper River driftnet fishery which takes place in an area that has harvested chinook, red, and silver salmon since its inception.

**PROPOSAL 31**
**OPPOSE**

The Copper River commercial fishery is a multi-stock fishery and is not limited to sockeye salmon. Reducing the depth of gillnets in the Copper River District would result in prohibitive and unreasonable cost burdens for the commercial fleet and lost financial opportunity for the State of Alaska. The Copper River has a directed king salmon fishery which is not incidental catch, but rather, a targeted and historical catch that has been part of the Copper River commercial fishery since its inception. In years past as well as the Summer of 2017, CDFU has publicly opposed premature restrictions on subsistence users that are based on a forecast or related assumptions.

The 3,500 chinook harvest goal is not a commercial catch goal. It is simply a forecasted projection of a potential goal. ADF&G raises or lowers goals based on all available data and in season harvest indications. Additionally, reducing gear depth would limit sockeye harvest which could result in over escapement.

This proposal states that chinook salmon are a stock of concern. This is inaccurate. There are no species of salmon that are listed as a stock of concern in the Prince William Sound or Copper River District. Limiting the harvest area of the Copper River drift fleet to this extent is unreasonable and lacks scientific or data to support it.

**PROPOSAL 32**
**OPPOSE**

Mandated regulations should not be implemented based on a forecast. According to ADF&G, the forecast range has an 80% confidence level for the total run forecast. The earliest chinook count data regarding inriver abundance estimates used by ADF&G is from 1999; therefore, there is not enough data to create a 20-year average. ADF&G also states that Chinook total salmon run forecasts between 1998-2007 were not generated as the inriver abundance and spawning escapement estimates were inadequate. In the January 20th forecast summary for Chinook ADF&G states that if the 2017 forecast was realized it would tie with the 2016 total run forecast as the smallest run since 1980.This forecast was not realized for the year of 2017. There is a pattern of these forecasts being misleading and resulting in frustration, for all user groups, when mandated regulations are placed prior to in season monitoring, based off information that is just an estimate of total run sizes for the year.

This proposal states that chinook salmon are a stock of concern. This is inaccurate. There are no species of salmon that are listed as a stock of concern in the Prince William Sound or Copper River District. Limiting the harvest area of the Copper River drift fleet to this extent is unreasonable and lacks scientific or data to support it.

CDFU defers to the department and its scientists to manage based on a combination of past data and in season abundance. CDFU supports the department's conclusion that in season abundance is the least biased and most accurate mechanism.

**PROPOSAL 33**
**OPPOSE**

The Copper River commercial fishery is a multi-stock fishery and is not limited to sockeye salmon. The Copper River has a directed king salmon fishery which is not incidental catch, but rather, a targeted and historical catch that has been part of the Copper River commercial fishery since its inception. In years past as well as the Summer of 2017, CDFU has publicly opposed premature restrictions on subsistence users that are based on a forecast or related assumptions. The commercial fleet experiences significant restrictions on area and reduced fishing time in order to conserve chinook salmon when abundance is low.

**PROPOSAL 34**
**OPPOSE**

CDFU defers to the fisheries biologists who understand the timing of salmon runs up river, but it is imperative to recognize that many factors contribute to the rate and pace at which fish pass the sonars up river. ADF&G and other stakeholders are working to provide additional tools to monitor in river data and the movement of salmon up river in the near future. Consequently, we should avoid locking ADF&G's management options up in this proposed regulation.

For example, the 2013 salmon season presents a strong contradiction to this proposal. The first commercial opener was a strong harvest but no fish had passed the sonar. As a result, fishing was closed. Then a massive number of fish passed the sonar and the season was consequently over escaped. The rate at which salmon move up river varies from season to season and depends upon low or high water levels, weather, temperature, and the pace at which the river ice melts.

CDFU maintains that in season management tools are an effective and sustainable management tool that outweigh the value of any mandatory regulatory decision. ADF&G management has the EO authority to expand subsistence openings in season. CDFU supports the discretion of the department in regards to subsistence openings and subsistence access.

**PROPOSAL 37**
**SUPPORT**

Kayak Island is traditional and historical area for the Copper River gillnet fleet. CDFU would like to see the Board of Fisheries and Department of Fish and Game explore the intent of this proposal based on best available science.

**PROPOSAL 40**
**OPPOSE**

CDFU opposes this due to the fact that it would be impossible to enforce and would burden fishermen to validate the 4 fathoms rule. For example, a set that is made legally could then become illegal due to tide fluctuation. Regulation is already in place that makes it illegal for a gillnet to be anchored.

**PROPOSAL 41**
**SUPPORT**

CDFU supports increasing access to the drift gillnet fleet where there are viable waters to fish or where it is feasible to legally set a gillnet.

Cordova District
PO Box 939 | 509 First Street |
phone. (907) 424 3447 |
web. www.cdfu.org



Sincerely,

Jerry McCune
President of the Board, CDFU
Gillnet Fisherman, F/V Wudahad
jmccune59@hotmail.com
Mobile: 907.200.0240

Rachel Kallander
Executive Director, CDFU
Rachel@CDFU.org
Mobile: 206.334.4618

CC: John Renner, Vice President & Herring Division Representative
Seine, Herring & Gillnet Fisherman
F/V Shadow Dawn & F/V Never Enough

Curt Herschleb, Director
Gillnet & Groundfish Fisherman
F/V Chilkat

Gus Linville, Groundfish Division Representative
Seine, Tender & Groundfish Fisherman
F/V Frisian Lady

Robert Eckley, Groundfish Division Representative
Seine, Gillnet, Herring & Groundfish Fisherman
F/V Ariel, F/V Coghill, F/V Alaganik & F/V Cape Fear

Trae Lohse, Gillnet Division Representative
Gillnet & Groundfish Fisherman
F/V Catalyst

Red Culbertson, Seine Division Representative
Shrimp & Seine Fisherman
F/V Ninkasi

Vic Jones, Herring Division Representative
Seine, Gillnet & Herring Fisherman
F/V Valkyrie & F/V Chelsea Dawn

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Mike Mickelson, Director
Gillnet & Seine Fisherman
F/V Amy & F/V Mariah

Ezekiel Brown, Director
Gillnet & Seine Fisherman
F/V Viking Maid & F/V Meshed Up

Galen Meyer, Seine Division Representative
Seine Fisherman
F/V Tina

James Honkola, Gillnet Division Representative
Gillnet Fisherman
F/V Sportsman

Kal Kuzmin, Director
Gillnet Fisherman
F/V Sea Glider

# CITY OF CORDOVA

November 17, 2017

Alaska Department of Fish and Game
Boards Support Section
Attn: Board of Fisheries
P.O. Box 115526
Juneau, AK 99811-5526

Members of the Board of Fisheries:

The City of Cordova is a commercial fishing community with state-wide and national participation. There are also residential subsistence, recreational, and sport fishing groups in Cordova. Approximately $1,000,000,000 of commercial fisheries infrastructure has been built and maintained in Cordova to deliver some of the highest quality seafood in the world to the global market. Approximately 90% of Cordova's economy can be directly attributed to the harvest, processing, and delivery of this seafood, and represents a renewable, sustainable economy of which the Copper River fishery is a key element. If commercial fisheries are balanced with the needs of the subsistence, recreational, and commercial sport fishing user groups, the Copper River can sustain multiple Alaskan communities at a time when strong communities are vital to the sustainability of a strong state.

Cordova supports consistency in management, reporting, and harvest by the various user groups of the Copper River Fisheries. This consistency would suggest that all user groups are limited in the growth of their share of the harvest by managing either the number of permits issued or the percentage of harvest allocated to each group. To measure annual abundance of the resource, consistency in the timeliness of reporting amongst user groups is paramount. If twenty-four hour harvest data is required for one user group, it should be required for all user groups, and modern technology makes this feasible.

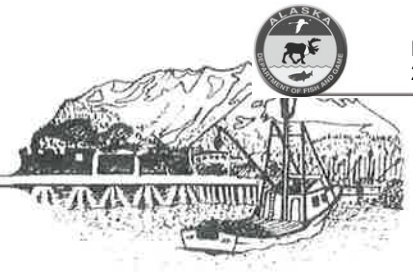
When evaluated against the objective of maintaining a balance between the user groups with an emphasis upon economic sustainability, the City of Cordova submits as follows:

Opposition to proposal 10, which represents a reallocation of more of the resource to upper river user groups by proposing larger relative escapements.

Support for proposal 13 which would prevent the growth and conversion of a personal use fishery to a quasi-commercial fishery.

Opposition to proposal 14 which would allocate resources based on forecasted resource abundance rather than the superior accuracy of empirical data generated by actual harvest of the early season commercial fisheries at the mouth of the Copper River.

# CITY OF CORDOVA



Support for proposal 15 which supports conservation of fisheries resources by limiting unnecessary mortality.

Opposition to proposal 17 which potentially expands the harvest percentage of the personal use fishery, interferes with accurate measurement of the resource by the Native Village of Eyak, and expands enforcement requirements exacerbating the shrinkage of enforcement resources.

Opposition to proposal 19 deferring to the subsistent management tools of the Department, but encouraging immediate reporting of subsistence catch to improve the timeliness and accuracy of data to the Department.

Opposition to Proposal 21 and 22; supporting the prioritization of subsistence harvest of herring within the reasonable harvest constraints of subsistence use and prioritizing the restoration of historical commercial harvest of herring before developing new personal use fisheries in Prince William Sound.

Support for Proposals 23 and 27 to protect the vigor and success of spawning salmon in their spawning habitat.

Opposition to Proposals 29, 31, 32, 33, 34 which appear to be short-sighted responses to an enormous gap between forecast and actual abundance in 2017 supported by inaccurate perceptions, and to preference for forecasted rather than in-season data, and to preference for management by policy rather than science-based management by the Department.

Respectfully Submitted,

Clay R. Koplin

Mayor Clay Koplin, City of Cordova

602 Railroad Avenue P.O. Box 1210 Cordova, Alaska 99574 Telephone (907) 424-6200 Fax (907) 424-6000

# Prince William Sound/Upper Copper River/Upper Susitna River Fisheries Proposals

Without regard to any particular proposal, we note some general principles. First and foremost, appropriate subsistence use of the fishery must be protected, even as against other uses. While commercial and sport fishing are important to the livelihood and enjoyment of Alaskans and visitors, actual subsistence use is the difference between a healthy, well-nourished population and an under-nourished one. Second, while the various fisheries must be managed for abundance, in the face of scarcity neither the commercial nor the sport fishery should be made to bear the brunt of limitations. Instead, all non-subsistence users should share in the conservation effort. Third, while modern learning is critically important to effective management of fisheries, attention must also be given to traditional ways of knowing. In particular, the Ahtna have been managing fish and game in the Copper River Basin for over 10,000 years, and understand things about the populations, means, and methods that can be helpful. This traditional knowledge is a valuable management resource, and should be integrated with other tools to obtain the best results. Finally, hard numeric limits interfere with the ability of professional managers to manage based on the rapidly-changing conditions in the Basin. Things like mandatory openings on a certain date, while convenient in avoiding paperwork and administrative burden, undermine the flexibility of the system. Until there are enough salmon for all users to get what they need and want without undermining future returns, the resource will have to be carefully managed notwithstanding the overhead involved in doing it.

## Copper River Escapement Goal (1 Proposal)

**PROPOSAL 10**
**5 AAC 24.360. Copper River District Salmon Management Plan.** By Fairbanks Fish and Game Advisory Committee.

**Comments:**

We oppose Proposal 10. A sustainable escapement goal (SEG) should be set at a level that allows maximum harvest while sustaining the resource. The Copper River habitat and what it will support has nothing to do with the Kenai habitat. In addition, king harvest is a separate issue from the sockeye SEG.