Division of Commercial Fisheries
Sam Rabung, Director

Homer Office
3298 Douglas Place
Homer, AK 99603

Alaska Department of Fish and Game
Doug Vincent-Lang, Commissioner

PO Box 115526
Juneau, AK 99811-5526
www.adfg.alaska.gov

Advisory Announcement

For Immediate Release: **February 14, 2020**

CONTACT: Glenn Hollowell
Area Management Biologist
(907) 235-8191

2020 Lower Cook Inlet Commercial Salmon Fishery Outlook

General Information

This outlook is provided to assist the commercial salmon industry in planning for the 2020 season in the Lower Cook Inlet (LCI) Management Area. Area-wide preseason forecasts for each species were derived by fitting historical commercial common property harvest data to four trend forecast models and selecting the model with the best performance metrics (e.g., bias, mean square error, mean absolute percentage error, etc.). Forecasts for LCI can be found on the Alaska Department of Fish and Game (ADF&G) web site:

http://www.adfg.alaska.gov/index.cfm?adfg=commercialbyarealci.salmon#forecasts

Cook Inlet Aquaculture Association (CIAA) manages the Trail Lakes Hatchery (TLH), Port Graham Hatchery (PGH), and Tutka Bay Lagoon Hatchery (TBLH). Hatchery forecasts can be found by contacting CIAA directly or through the CIAA web site:

http://www.ciaanet.org

Inseason modifications to harvest projections, season opening dates, and strategies for weekly fishing periods may occur as fisheries develop.

The 2020 LCI management area forecast includes the expected commercial common property fishery (CCPF) harvests for wild- and hatchery-stock pink and sockeye salmon and wild-stock chum, coho, and Chinook salmon (Table 1). The wild-stock pink salmon harvest forecast was derived from a 2-year running average model using log-transformed even-year harvest data from 1960–2018. The wild-stock sockeye and chum salmon harvest forecasts were derived from exponential smoothing (ES) models based on historical, log-transformed (sockeye) and non-transformed (chum) harvests from 1960–2019 (all years). The Chinook and coho salmon forecasts were derived by 2-year running average models using non-transformed historical harvest data from 1960–2019 (all years). Because these models generate area-wide forecasts, we used the recent 5-year average CCPF harvest (by district and gear type) to apportion the area forecast into harvest projections by district and gear type (Table 2). Projected runs of hatchery-origin salmon were provided by CIAA (Tables 1 and 2). Together, these projections of hatchery and wild stock runs will provide the basis for early-season management in all districts, with other management tools such as aerial survey estimates, weir counts, remote video monitoring and anticipated run strength used as the season progresses.

Management of LCI commercial salmon fisheries is based in the Homer ADF&G area office. Fishery announcements from the Homer office will routinely occur on Fridays at 2:00 p.m., or earlier, if possible. Announcement recordings will be available for commercial fisheries at 907-235-7307.

Emergency order announcement information is also transmitted by email to all registered processors, local radio stations, news media and interested members of the public. Harvest information and fisheries announcements are located on the ADF&G web site: http://www.adfg.alaska.gov/index.cfm?adfg=commercialbyarealci.salmon

In addition, interested individuals may sign up to receive email announcements:

http://www.adfg.alaska.gov/index.cfm?adfg=cfnews.main

The first announcement is anticipated to be released at 2:00 p.m., Friday, April 24.

CIAA anticipates a total of 621,100 hatchery-produced sockeye and 2.9 million pink salmon to return to LCI release sites in 2020. CIAA anticipates harvesting 410,100 of the sockeye and 1.8 million of the pink salmon for cost recovery and broodstock, with the remainder available to common property fisheries. The overall commercial common property harvest from LCI is anticipated to be 1.7 million salmon, of which, 74.2% are anticipated to be of hatchery origin harvested from special harvest areas (SHAs). Additional hatchery-origin fish are harvested with wild fish outside of SHAs (Table 2).

Set Gillnet Fishery

The **Southern District** is anticipated to open for the 2020 season on Monday, June 1 at 6:00 a.m. for a 48-hour period. Following periods will likely be 48-hours in length beginning at 6:00 a.m. on Monday and Thursday, as specified in regulation. Harvests for 2020 are anticipated to be similar to the historic average. The harvest projections for this district and gear are 400 Chinook, 5,500 coho, 4,900 chum, 29,300 sockeye, and 13,900 pink salmon (Table 2). Extended fishing periods may occur in the Barabara and Tutka subdistricts in August if pink salmon returns to the Tutka Bay hatchery occur as anticipated. The Port Graham Subdistrict is anticipated to open to commercial set gillnet harvest on June 1 and remain on a schedule concurrent with other areas in the Southern District for this gear. Fishing time in the Port Graham Subdistrict will be closely linked to escapement levels in English Bay and Port Graham rivers. Management priority will be to provide for subsistence needs (4,800–7,200 salmon). Further information regarding previous years' hatchery releases and commercial harvests may be found in Annual Management Reports for this area at:

http://www.adfg.alaska.gov/index.cfm?adfg=commercialbyarealci.salmon#management

Purse Seine Fishery

Portions of the **Southern District** are anticipated to open to purse seine harvest in mid-June, coinciding with enhanced runs to Leisure and Hazel lakes. Historically, this run peaks from July 12–18 (statistical week 29). CIAA anticipates a return of 40,000 sockeye salmon to Leisure and Hazel lakes combined, as well as 52,400 sockeye salmon to Tutka Bay.

Commercial fishing time after mid-July will be correlated to pink salmon escapement at Humpy Creek, Seldovia Bay, Port Graham and other locations in this district. A total of 2.9 million hatchery-produced pink salmon are anticipated to return to release sites in the Southern District.

Hatchery sockeye salmon runs to the **Eastern District** are forecasted by CIAA to be 494,200 fish (Table 2). Of those, 144,400 may be available for CCPF harvest with the balance required for cost recovery and broodstock purposes. Wild stock harvest opportunity in the Eastern District will be linked to aerial survey observations of wild sockeye and pink salmon escapements to Aialik Lake and other spawning systems in this district. In addition,

surveys of chum salmon stocks in Resurrection Bay and Day Harbor may be flown, weather, time, and budget permitting.

Portions of the **Outer District** may open to CCPF harvest in mid-July focusing on sockeye salmon runs to McCarty Fjord lakes. In recent years, escapement to these systems has been monitored by aerial survey (Delight, Desire, and Delusion lakes) as well as by a weir at Delight Lake. Sockeye salmon escapement into Delight Lake may be monitored again by CIAA using a weir in 2020. In addition, waters in the western portion of this district may be open by mid-July, focusing on pink and chum salmon runs to Port Dick, as well as Windy and Rocky bays. There are numerous other smaller stocks in the Nuka Passage area that are also monitored for chum and pink salmon. In the far west end of this district, stocks with the latest run timing, i.e., Dogfish Bay, Chugach Bay and Port Chatham, will be evaluated for chum and pink salmon harvest potential from August to early September. The harvest projections for this district are 3,800 sockeye, 60,600 chum, and 78,400 pink salmon.

Portions of the **Kamishak Bay District** typically open by regulation to commercial harvest on June 1. Commercial common property harvest projections for this district are 51,000 sockeye, 14,100 chum salmon, and 7,500 pink salmon. The majority of the sockeye salmon harvest is expected to come from the Chenik Lake run and the chum salmon harvest has historically been spread throughout the district. Chenik Lagoon is anticipated to open in mid-June and remain open throughout much of the season. Hatchery-released sockeye salmon returns to the Kirschner Lake outfall remote release site are anticipated to be 34,500 fish, of which approximately half are anticipated to be required for hatchery cost recovery. The department tracks salmon escapement in this district using remote video monitoring sites at Chenik and Mikfik lakes, as well as regular aerial survey observations of pink and chum salmon index streams (e.g., Big and Little Kamishak rivers, Bruin River, Cottonwood Creek).

Table 1.–Lower Cook Inlet management area commercial common property fishery harvest forecast, 2020 (thousands of fish).

Production Type	Species	Forecast Type	Point Forecast	Forecast Range	% Above/Below Recent 5-yr Average
Wild	Pink Salmon	Harvest	202.3	41.4–989.1	27.9% Below
Hatchery	Pink Salmon	Harvest	1,034.8	109.0–1,982.5	N/A
Wild	Sockeye Salmon	Harvest	135.6	53.4–344.8	7.1% Above
Hatchery	Sockeye Salmon	Harvest	211.2	146.0–270.5	N/A
Wild	Chum Salmon	Harvest	80.8	2.1–159.5	16.9% Below
Wild	Coho Salmon	Harvest	13.0	3.0–23.0	44.4% Above
Wild	Chinook Salmon	Harvest	0.5	0.0–1.0	23.5% Below
All	All	Harvest	1,678.1	354.9–3,762.4	

Table 2.–Projected commercial common property fishery (CCPF) harvests and hatchery runs for Lower Cook Inlet, 2020.

Note: Rows and columns may not total exactly due to rounding to the nearest hundred fish.

SOCKEYE SALMON			Total anticipated harvest =	**346,700**
Natural stocks, (area-wide commercial harvest)[a]				**135,600**
Southern District, (purse seine, excluding hatchery SHAs)				51,600
Southern District, (set gillnet)				29,300
Eastern District, (Aialik Bay)				0
Outer District				3,800
Kamishak Bay District, (excluding Kirschner Lake Subdistrict)				51,000
Sockeye salmon hatchery programs[b]	**Hatchery return**	**Broodstock harvest**	**Cost recovery harvest**	**CCPF harvest**
Resurrection Bay	494,200	12,800	337,000	144,400
China Poot and Hazel lakes	40,000	0	0	40,000
Tutka Bay Lagoon	52,400	5,000	38,000	9,400
Kirschner Lake	34,500	0	17,300	17,200
Port Graham Bay	0	0	0	0
English Bay Lakes	0	0	0	0
Hatchery stocks (area-wide totals)	**621,100**	**17,800**	**392,300**	**211,000**

PINK SALMON			Total anticipated harvest =	**1,237,000**
Natural stocks, (area-wide commercial harvest)[a]				**202,300**
Southern District (purse seine, excluding hatchery SHAs)				102,400
Southern District (set gillnet)				13,900
Eastern District				100
Outer District				78,400
Kamishak Bay District				7,500
Pink salmon hatchery programs[b]	**Hatchery return**	**Broodstock harvest**	**Cost recovery harvest**	**CCPF harvest**
Tutka Bay Lagoon	2,567,400	176,800	1,434,400	956,200
Port Graham Bay	304,300	108,000	117,800	78,500
Hatchery stocks (area-wide totals)	**2,871,700**	**284,800**	**1,552,000**	**1,034,700**

CHUM SALMON - Natural production[a]			Total anticipated harvest =	**80,800**
Southern District (purse seine)				1,200
Southern District (set gillnet)				4,900
Eastern District				0
Outer District				60,600
Kamishak Bay District				14,100

COHO SALMON - Natural production[a]			Total anticipated harvest =	**13,000**
Southern District (purse seine)				2,700
Southern District (set gillnet)				5,500
Eastern District				0
Outer District				1,000
Kamishak Bay District				3,800

CHINOOK SALMON – Natural production[a]			Total anticipated harvest =	**500**
Southern District (purse seine)				100
Southern District (set gillnet)				400
Eastern District				0
Outer District				0
Kamishak Bay District				0
Total LCI anticipated commercial common property harvest- all salmon species =				**1,678,000**

[a] Area-wide harvest forecasts for natural production were produced by ADF&G using trend forecast models based on historical harvests (http://www.adfg.alaska.gov/index.cfm?adfg=commercialbyarealci.salmon#forecasts).

[b] Provided by Cook Inlet Aquaculture Association, based on parent year releases and recent ocean survival.