

**ALASKA DEPARTMENT OF FISH AND GAME
DIVISION OF COMMERCIAL FISHERIES
NEWS RELEASE**



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2019 LOWER COOK INLET SALMON FISHERY OUTLOOK

General Information

This outlook is provided to assist the commercial salmon industry in planning for the 2019 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.ciaa.net.org>

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

The LCI management area forecast for commercial common property fishery (CCPF) harvests by species are summarized in Table 1. The wild-stock pink salmon harvest forecast was derived from an exponential-smoothing (ES) model based on historical odd-year harvests (1961–2017). The wild-stock sockeye and Chinook salmon harvest forecasts were derived from ES models based on historical, log-transformed harvests from 1960–2018 (all years). The chum and coho salmon forecasts were derived by ES and 2-year running average models, respectively, using non-transformed historical harvest data from 1960–2018 (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 26.

CIAA anticipates a total of 467,400 hatchery-produced sockeye and 2.1 million pink salmon to return to LCI release sites in 2019. CIAA anticipates harvesting 5.2 million dollars of hatchery-produced salmon with the remainder available to common property fisheries. The overall commercial common property harvest from Lower Cook Inlet is anticipated to be 3.7 million salmon, of which, 29.0% are anticipated to be of hatchery origin harvested from Special Harvest Areas (SHA). 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 2019 season on Monday, June 3 at 6:00 a.m. for a 48-hour period. Subsequent periods will likely be 48-hours in length beginning at 6:00 a.m. on Monday and Thursday, as specified in regulation. Harvests for 2019 are anticipated to be similar to the historic average. The harvest projections for this district and gear are 400 Chinook, 6,700 coho, 5,200 chum, 30,300 sockeye, and 20,000 pink salmon (Table 2). The Port Graham Subdistrict is anticipated to open to commercial set gillnet harvest on June 3 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 around July 14–20 (week 29). CIAA anticipates a return of 69,400 sockeye salmon to Leisure and Hazel lakes combined, as well as 53,400 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 2.1 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 305,600 fish. Of those, 61,900 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 and time 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). Sockeye salmon escapement into Delight Lake may be monitored by CIAA using a weir in 2019. 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 5,700 sockeye, 68,100 chum, and approximately 2.2 million 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 39,300 sockeye, 9,800 chum salmon, and 106,900 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 the season. Hatchery-released sockeye salmon to the Kirschner Lake outfall remote release site are anticipated to be 39,000 fish, all of which will likely 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). In 2018, CIAA released 305,000 pink salmon into upper Paint Lake; of those, approximately 9,200 are anticipated to return in 2019.

Table 1.—Lower Cook Inlet management area commercial common property fishery (CCPF) harvest forecast summary, 2019 (thousands of fish).

Production Type	Species	Forecast Type	Point Forecast	Forecast Range	% Above/Below Recent 5-yr Average
Wild	Pink Salmon	Harvest	2,403.7	892.2–3,915.3	25% Above
Hatchery	Pink Salmon	Harvest	944.2	233.3–1,663.1	N/A
Wild	Sockeye Salmon	Harvest	125.8	49.2–321.6	3% Above
Hatchery	Sockeye Salmon	Harvest	131.4	62.3–178.2	N/A
Wild	Chum Salmon	Harvest	84.8	6.3–163.4	16% Below
Wild	Coho Salmon	Harvest	13.7	3.7–23.8	104% Above
Wild	Chinook Salmon	Harvest	0.5	0.2–1.1	24% Below
All	All	Harvest	3,704.1	1,247.2–6,266.5	

Table 2.—Projected commercial common property fishery (CCPF) harvests and hatchery runs for Lower Cook Inlet, 2019. *Note: Rows and columns may not total exactly due to rounding to the nearest hundred fish.*

SOCKEYE SALMON		Total anticipated harvest =		257,100
Natural stocks, (area-wide commercial harvest)^a				125,800
Southern District, (purse seine, excluding hatchery SHAs)				50,400
Southern District, (set gillnet)				30,300
Eastern District, (Aialik Bay)				0
Outer District				5,700
Kamishak Bay District, (excluding Kirschner Lake Subdistrict)				39,300
		Cost		
	Hatchery	Broodstock	recovery	CCPF harvest
	return	harvest	harvest	
Sockeye salmon hatchery programs^b				
Resurrection Bay	305,600	12,760	230,900	61,900
China Poot and Hazel lakes	69,400	0	0	69,400
Tutka Bay Lagoon	53,400	4,500	48,900	0
Kirschner Lake	39,000	0	39,000	0
Port Graham Bay	0	0	0	0
English Bay Lakes	0	0	0	0
Hatchery stocks (area-wide totals)	467,400	17,260	318,800	131,300
PINK SALMON		Total anticipated harvest =		3,347,900
Natural stocks, (area-wide commercial harvest)^a				2,403,700
Southern District (purse seine, excluding hatchery SHAs)				106,500
Southern District (set gillnet)				20,000
Eastern District				100
Outer District				2,170,100
Kamishak Bay District				106,900
		Cost		
	Hatchery	Broodstock	recovery	CCPF harvest
	return	harvest	harvest	
Pink salmon hatchery programs^b				
Tutka Bay Lagoon	1,501,200	176,800	744,400	580,000
Port Graham Bay	625,500	108,000	162,500	355,000
Paint River fish ladder	9,200	0	0	9,200
Hatchery stocks (area-wide totals)	2,135,900	284,800	906,900	944,200
CHUM SALMON – Natural production^a		Total anticipated harvest =		84,800
Southern District (purse seine)				1,700
Southern District (set gillnet)				5,200
Eastern District				100
Outer District				68,100
Kamishak Bay District				9,800
COHO SALMON – Natural production^a		Total anticipated harvest =		13,700
Southern District (purse seine)				2,700
Southern District (set gillnet)				6,700
Eastern District				0
Outer District				200
Kamishak Bay District				4,100
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 =				3,704,000

^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.