

# Tutka Bay Lagoon: A Hatchery Profile

For almost five decades, the salmon hatchery at Tutka Bay Lagoon has provided millions of pounds of fish and hundreds of local jobs.

BY [CIAA STAFF](#) | JANUARY 28, 2022



Aerial view of Tutka Bay Lagoon Hatchery

The Cook Inlet Aquaculture Association (CIAA) has operated the Tutka Bay Lagoon Hatchery since 1991. [The goal of the hatchery](#) is to help to

support CIAA's funding while enhancing salmon fisheries for the common property.

In the past couple of years, the hatchery has been the subject of increased public interest with Alaska State Representative Sarah Vance's introduction of [House Bill 52](#), which would remove 123.45 acres containing the hatchery from the state park while maintaining its status as state land. Additionally, the bill would add 266 acres of state land to the north boundary of the park.

Learn more about the history of the Tutka Bay Lagoon Hatchery, its role today in enhancing the sockeye and pink salmon fisheries of Kachemak Bay and Lower Cook Inlet, and its future role in the area's commercial, sport, and personal use fisheries.

## A Brief History

The Tutka Bay Lagoon Hatchery was originally established as a state-owned hatchery. The state built the hatchery after determining that its operations were consistent with both the Kachemak Bay State Park and the Kachemak Bay Critical Habitat Area.

Here is a timeline of the hatchery's history:

- **1974** — The Alaska Department of Fish and Game (ADF&G) completes land surveys of Tutka Bay Lagoon to build the hatchery and finalizes its initial design.
- **1976** — The state builds the hatchery at Tutka Bay Lagoon to enhance pink and chum salmon runs in Tutka Creek. The state first releases pink salmon into Tutka Creek.
- **1978** — ADF&G secures an agreement for land use from the Alaska Department of Natural Resources (ADNR).
- **1991** — The state contracts with CIAA to operate the hatchery in a public-private partnership.
- **1994** — CIAA takes over operations of the hatchery while the state retains ownership of the facility. The state awards CIAA a permit to incubate up to 125 million pink salmon eggs and 20 million chum eggs. The hatchery no longer incubates chum eggs.
- **2004** — CIAA suspends pink salmon operations due to low market prices.

- **2005** — CIAA begins to use Tutka Bay Lagoon Hatchery for the short-term rearing of sockeye fry and smolt and the resulting egg take on the adult returns. These fish continue to be incubated at Trail Lakes Hatchery under that hatchery's permit.
- **2011** — CIAA resumes pink salmon operations.



The spawn crew at CIAA's Tutka Bay Lagoon Hatchery

## Present Status

CIAA operates Tutka Bay Lagoon Hatchery under an operating agreement with the State of Alaska that expires in 2031. Like its other hatcheries, CIAA pays the state annual permit fees to operate an aquaculture program according to state law.

[CIAA produces pink salmon fry](#) for release into the nearby lagoon, which provides for pink salmon harvests in Kachemak Bay. ADF&G regularly reviews all Alaska salmon hatcheries. [A 2012 ADF&G review](#) did not find concerns with hatchery stock interacting with pink salmon hatched in the wild. While its operating permit with the state limits CIAA to 125 million eggs a year, the hatchery has steadily improved on adult returns through infrastructure upgrades. In fact, the association considers Tutka Bay Lagoon a flagship hatchery. The operation has the potential to



provide 55 to 65 percent of the association's operating income when the hatchery reaches full production capacity. When this milestone is reached, CIAA can allow more common property fishing in other areas such as China Poot.



A dipnet fisherman at China Poot Falls. *Don Pitcher.*

## China Poot Lake and Other Lower Cook Inlet Releases

For nearly five decades, CIAA and the State of Alaska has released sockeye fry into China Poot Lake, also known as Leisure Lake. Before this release, there was no sockeye salmon run in the area. Returning adult salmon can't reach the lake to spawn because of waterfalls. These natural barriers have become the site of a popular, picturesque dipnet fishery at China Poot. Over the past ten years, CIAA sockeye releases to Leisure Lake have ranged between 275,000 and 2.1 million fish. The average annual release has been 1.3 million fish.

CIAA supports the China Poot fry release by collecting broodstock from adult salmon that return to Tutka Bay Lagoon. Both milt and eggs are collected and flown to Trail Lakes Hatchery, the Association's only sockeye hatchery. There, hatchery workers fertilize and incubate the eggs, raise them to fry or smolt, and transport

the juvenile salmon for release at Hazel Lake, China Poot Lake, Kirschner Lake, and Tutka Bay Lagoon to benefit all Lower Cook Inlet users.

The logistics of producing the sockeye run that provides China Poot sockeyes is complex. The program requires both Tutka Bay Lagoon and Trail Lakes hatcheries, but CIAA has found no alternative. The state's strict genetic policies do not allow Trail Lakes Hatchery, for instance, to use Resurrection Bay sockeye for Lower Cook Inlet fisheries.



An underwater photo of pink salmon spawning at Tutka Creek. *Kentaro Yasui*

## Why Tutka Bay Lagoon Hatchery Matters

CIAA has reached the permitted 125 million pink salmon egg take a number of times. The overall 10-year average production is 67 million eggs. CIAA has improved the hatchery by moving the pink egg collection to Tutka Creek to improve egg quality, renovate shops and outbuildings, and upgrade the generator and boiler. In fact, these improvements have brought Tutka Bay Lagoon closer to a fully-realized adult pink salmon run, which means:

- **Successful adult returns.**
- A cost recovery program that provides funds for the hatchery and other CIAA projects.
- Increased common property harvesting.

Tutka Bay Lagoon Hatchery will remain key to supporting the Lower Cook Inlet sockeye salmon harvest. CIAA will continue to collect sockeye broodstock from Tutka Lagoon. In addition, the association will keep incubating the eggs and raising fry and smolt at Trail Lakes Hatchery. The association must continue to release sockeye smolt back at Tutka Lagoon. This will provide the broodstock necessary to maintain the stocking cycle.