McKINLEY RESEARCH GROUP, LLC

801 West 10th Street, Suite 100B
Juneau, AK 99801

To: Alaska Mariculture Cluster

From: McKinley Research Group and Pacific Shellfish Institute

Date: June 13, 2025

Re: Alaska Mariculture Industry Update, Spring 2025

The Alaska Mariculture Cluster (AMC) contracted with McKinley Research Group and the Pacific Shellfish Institute to provide AMC and the broader mariculture industry with current information about topics including oyster and seaweed harvest, farm utilization, seed supply and quality, and growing techniques.

This memo updates 2024 and 2025 harvest estimates and forecasts based on 2024 farm annual report data published by the Alaska Department of Fish and Game in spring 2025 and summarizes additional information about 2025 aquatic lease applications and oyster seed imports.

## Oyster Harvest 2024

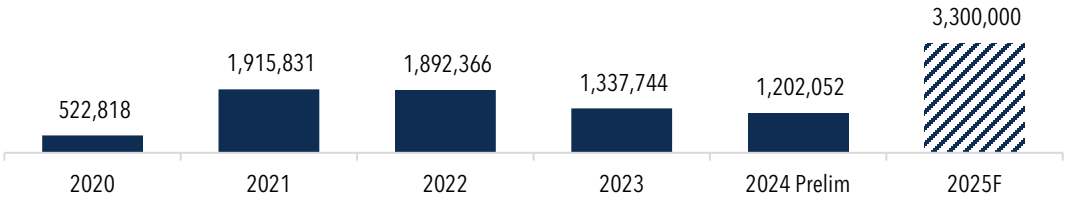
The 2024 harvest totaled 1.2 million oysters for final consumption (also known as "farm gate" harvest). A 10% decline from 2023, this level of harvest is substantially lower (down 50%) than the harvest forecast developed in fall 2024.

Reasons for the lower-than-anticipated 2024 harvest may include:

1) **Missing and underreported harvest**: Current annual report data is preliminary and is missing reports from some farms, although totals are not expected to change dramatically with data from additional reports. Some farmers may undercount the number of oysters sold in annual reports, an issue observed in other jurisdictions.
2) **Farmer estimates:** The 2024 forecast was based extensively on farmer estimates and observations from summer and fall 2024. Lower than expected grow out survival rates can influence the accuracy of these estimates.
3) **Imputed estimates:** While many farms participated in the survey or interview process in fall 2024, the research team imputed harvest estimates for those who did not participate based on prior research, second-hand accounts, and farm size. Comparing 2024 estimates with 2025 actual numbers this year should improve the accuracy of these estimates in future years.

The 2025 oyster forecast has been revised down from 3.9 million to 3.3 million based on reevaluation of harvest estimates for farms that did not participate in surveys or interviews.

**Figure 1. Alaska Oyster Harvest, (count of oysters sold*), 2020 – 2025 Forecast**

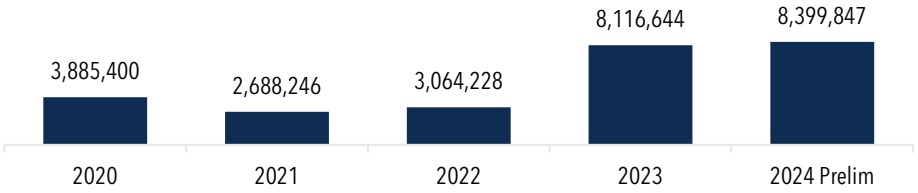



Sources: Alaska Department of Fish & Game (2020-2024), MRG/PSI forecast (2025)
*Excludes sale of oysters between farms.

### FARM-TO-FARMER OYSTER TRANSFERS

Annual report data from farm-to-farm transfers provides another perspective on the size of the oyster sector. Increasing farm transfer volumes (as occurred in 2024) can be a sign of a large class of oysters moving through Alaska's farms and can indicate increased farm gate sales in one to two years, or longer. However, final consumption sales volumes have not yet responded to the doubling of farm-to-farm transfers that occurred in 2023. Growth from farms that raise both juvenile and final grow-out oysters can obscure the usefulness of farm-to-farm transfers as an indicator of future final-consumption harvests. Farm-to-farm transfers may also not result in higher farm-gate sales in years with higher-than-expected mortality.

**Figure 2. Alaska Oyster Farm-to-Farm Transfers, (count of oysters transferred), 2020 – 2024 Preliminary**



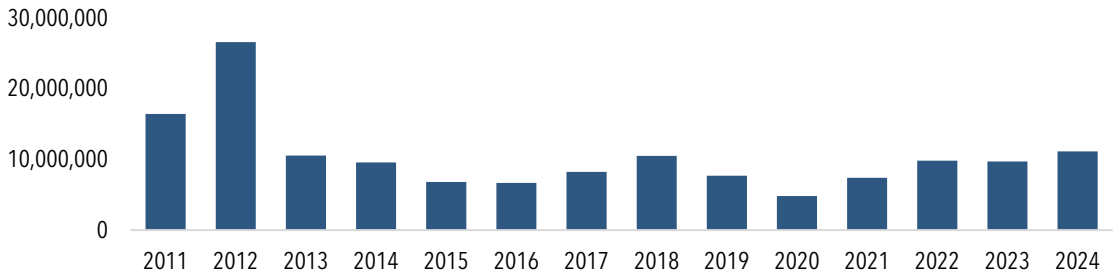

Source: Alaska Department of Fish & Game

## Oyster Seed Import

Because Pacific oysters are not native to Alaska and do not naturally reproduce in the state's cold waters, aquatic farms depend on oyster seed imported into the state. Oyster seed import data are another indication that harvest volumes are likely to increase in subsequent years.

The figures below show the number of imported juvenile oysters, the life stage at which most Alaska farms/nurseries bring oysters to the state. The number of juvenile oysters imported into Alaska has trended up since 2020. About 11 million juvenile oysters were imported in 2024, the largest number since 2012. In Alaska it typically takes between one and three years for a juvenile oyster to grow to a consumable size.

### Figure 3. Count of Juvenile Oysters Imported into Alaska, 2011-2024



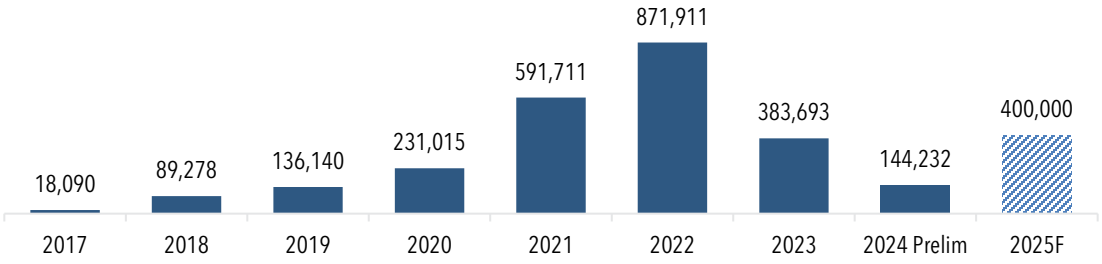

Source: Alaska Department of Fish & Game

A large number of less-developed eyed-larvae are also brought to Alaska, mainly for research, because oysters at this early life stage are cheap to purchase and ship to Alaska, but also have very low survival rates. For example, in 2015 through 2018, significant eyed larvae (78M – 105M) were imported from Hawaiian Shellfish to Oceans Alaska in Ketchikan. Unfortunately, those eyed larvae did not result in any increase in juvenile oyster seed production or sales during that period. As with most nascent industries, oyster seed production involves trial and error, and many hatcheries experience substantial losses, even after decades of production. In general, survival rates and risk of loss increases as the size of oysters decreases, with eyed larvae being the most vulnerable.

## Seaweed Harvest 2024

Seaweed harvest in 2024 fell to less than 150,000 pounds, a 60% decrease from 2023. This was the smallest statewide seaweed harvest since 2019, falling about 25% short of the early estimate of 200,000 pounds. As discussed in the fall, low demand and poor seed yields contributed to lower seaweed harvests in 2024.

### Figure 4. Alaska Seaweed Harvest (wet pounds), 2017-2025 Forecast

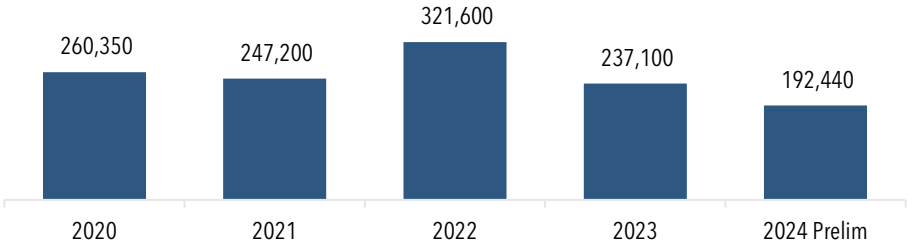



Sources: Alaska Department of Fish & Game (2020-2024), MRG/PSI forecast (2025)

#### SEEDED LINE SALES

Sales of seeded line for growing seaweed also fell in 2024. Despite declining seed sales in 2024, seaweed harvest is expected to increase to 400,000 pounds in 2025 based on higher yield expectations. This forecast will be reviewed in fall 2025.

**Figure 5. Alaska Seaweed Seeded Line Sales and Transfers (feet of seeded line), 2020-2024 Preliminary**




Source: Alaska Department of Fish and Game

## New Aquatic Lease Applications

The Alaska Department of Natural Resources (DNR) received 17 applications for aquatic farms through the calendar year 2025 application deadline of April 30, 2025. Aquatic farms in Alaska usually use state tidal or submerged lands and require a lease from DNR to use this public resource. Most hatchery and nursery facilities are land or dock-based and do not require a DNR lease, although they (like aquatic farms) need a permit to operate from the Alaska Department of Fish and Game.

**Table 1. Summary of New Alaska Aquatic Lease Applications, 2019-2025**

| Year | Applications Received | Current Year Applications Withdrawn |
|---|---|---|
| 2019 | 13 | 4 |
| 2020 | 17 | 2 |
| 2021 | 7 | 1 |
| 2022 | 20 | 3 |
| 2023 | 11 | 1 |
| 2024 | 14 | 0 |
| 2025 | 17 | 0 |

Source: Alaska Department of Natural Resources

The 17 new lease applicants in 2025 include eight unique applicants. Nine leases (each 30-acres) were proposed by Native Sea Trust, Inc. in the Metlakatla area of Southern Southeast Alaska. Two additional leases (each about 100 acres) have been proposed by Pacific Kelp Co., which has another lease proposal from 2023 under review. All of the proposed farms are in Southeast Alaska, except one near Valdez and one near Ouzinkie (proposed by the City of Ouzinkie) in the Kodiak archipelago. Twelve of the proposed leases mention only plans to grow kelp, four mention only oysters, and one plans to grow both kelp and oysters.

### Table 2. New 2025 Alaska Aquatic Farm Lease Applicants

| Region | Nearest Community | Primary Business Name | Contact | Size (Acres) | Site Name | Type of Farm (oysters/kelp) |
|---|---|---|---|---|---|---|
| SC | Valdez | Aurora Seaweed | Jason Rogers | 29.7 | Jack Bay | Kelp |
| SE | Ketchikan | Pacific Kelp Co. | John Smet | 102.0 | Mary Island | Kelp |
| SE | Ketchikan | Pacific Kelp Co. | John Smet | 100.0 | Cat Island | Kelp |
| SE | Ketchikan | Sunword LLC | Xinwen Li | 52.0 | Blank Island | Kelp and oysters |
| SE | Klawock | Southeast Alaska Oyster Farm | Clint Boon | 1.0 | Klawock Inlet | Oysters |
| SE | Metlakatla | Native Sea Trust, Inc. | Keolani Booth | 30.0 | Bokan Kendrick One | Kelp |
| SE | Metlakatla | Native Sea Trust, Inc. | Keolani Booth | 30.0 | Bokan Kendrick Two | Kelp |
| SE | Metlakatla | Native Sea Trust, Inc. | Keolani Booth | 30.0 | Bokan Kendrick Three | Kelp |
| SE | Metlakatla | Native Sea Trust, Inc. | Keolani Booth | 30.0 | Moria Bay One | Kelp |
| SE | Metlakatla | Native Sea Trust, Inc. | Keolani Booth | 30.0 | Moria Bay Two | Kelp |
| SE | Metlakatla | Native Sea Trust, Inc. | Keolani Booth | 30.0 | Duke Island Dog Bay | Kelp |
| SE | Metlakatla | Native Sea Trust, Inc. | Keolani Booth | 30.0 | Duke Island Pond Bay | Kelp |
| SE | Metlakatla | Native Sea Trust, Inc. | Keolani Booth | 30.0 | Percy One | Kelp |
| SE | Metlakatla | Native Sea Trust, Inc. | Keolani Booth | 30.0 | Percy Two | Kelp |
| SE | Sitka | Kasiana Shellfish Co. LLC | Daniel Lomax | 0.2 | Stephenson Island | Oysters |
| SE | Wrangell | Green Wave Robotics | Alexa Romersa | 52.0 | Baht Harbor | Oysters |
| WE | Ouzinkie | City of Ouzinkie | Vickie Novak | 1.0 | Big Lagoon | Oysters |

Source: Alaska Department of Natural Resources