

# **AQUACULTURE MARINE DEBRIS** REDUCTION PROJECT

#### PROJECT OVERVIEW

The Aquaculture Marine Debris Reduction Project is a collaborative initiative with the Oregon Sea Grant Natural Resource Policy Fellowship Program.

The project targets debris from oyster aquaculture, particularly polystyrene docks.

By engaging with local oyster farmers, community members, and policymakers, the project seeks to **reduce pollution**, **protect** marine ecosystems, and promote best practices in Oregon's oyster industry.

#### THE ISSUE

In Oregon, polystyrene in dock floats **must** be encapsulated to prevent breakdown, but enforcement is inconsistent.

Volunteer-led cleanups in Yaquina Bay help reduce pollution but are costly to the **community** and do not solve the problem. Without enforcement of encapsulation rules or pollution violations, foam continues to persist in the environment.

Encapsulation rule: <u>OAR 250-010-0700 to 250-010-0715</u>

#### WHAT WE ARE DOING



## Analyzing plastic use in oyster operations

Exploring best management practices and strategies to reduce plastic use in oyster farming operations.



## **Evaluating agency enforcement**

Assessing how agencies implement and enforce Oregon's polystyrene foam encapsulation requirements.



# **Leading cleanups**

Hosting a "Foam Fighters" volunteer cleanup series in Yaquina Bay to remove foam dock debris.



# **Raising Awareness**

Educating the public about the risks of polystyrene pollution in aquatic environments via social media.

Contact

Sarah Wolf

swolf@surfrider.org

Learn more and become a Foam Fighter:



# EXPANDED POLYSTYRENE (EPS) IN AQAUTIC ENVIRONMENTS

#### FROM DOCK TO DEBRIS



# NEGATIVE IMPACTS OF EPS 🗥

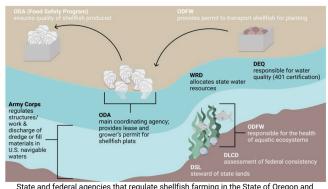
The monomer styrene that makes up EPS is a **hazardous chemical** that can leach into aquatic environments as foam breaks down. In Yaquina Bay, a known **invasive isopod** bores into the polystyrene, further breaking it into brittle, small pieces. Styrene is known to impair neurological function in animals, reproductive processes in oysters, and has been classified as a **probable human carcinogen**.



#### CHALLENGES TO ENFORCEMENT

Aquaculture is regulated by multiple agencies, but encapsulation requirements for foam docks are **not consistently enforced**.

Old permits often don't require renewal, allowing **outdated practices** to continue without updates to regulations.



State and federal agencies that regulate shellfish farming in the State of Oregon and a description of their roles (Green et al 2023).

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