NOAA Scientific Atlases for Offshore Aquaculture

The most advanced spatial analyses performed for any U.S. ocean region

"The aquaculture Atlases apply the latest ocean data and information to advance sustainable business development. This will help us continue to sustainably support the blue economy, which provides clear benefits for our country, our economy, and the planet."

Gina M. Raimondo, U.S. Secretary of Commerce

The Atlases announced from the National Oceanic & Atmospheric Administration (NOAA) are powerful scientific tools that identify areas in U.S. waters that are optimal to produce seafood through offshore aquaculture. The areas are the most suitable for aquaculture when considering all factors related to the environment and ocean and are used to inform the siting and identification of Aquaculture Opportunity Areas (AOAs) in the Gulf and California. The data was based on:

- Administrative boundaries
- National security (i.e., military)
- Navigation and transportation
- Energy and industry
- Natural and cultural resources infrastructure
- Oceanography
- Commercial and recreational fishing

Why are These Atlases Important?

The Atlases provide scientific data to advance food security for all Americans and improve sustainable food production. This will not only pave the way for America to be a top global seafood producer, but is critical for the economic and environmental resilience of our coastal communities.

Where are These Areas in the U.S.?

NOAA's National Centers for Coastal Ocean Science published two Atlases identifying 19 small areas (500 to 2,000 acres) that may be suitable for marine aquaculture across two regions.

In the Gulf of Mexico, there are four distinct study areas with over 200 data layers included in the analysis. The result is nine options. *See Figure 1.*

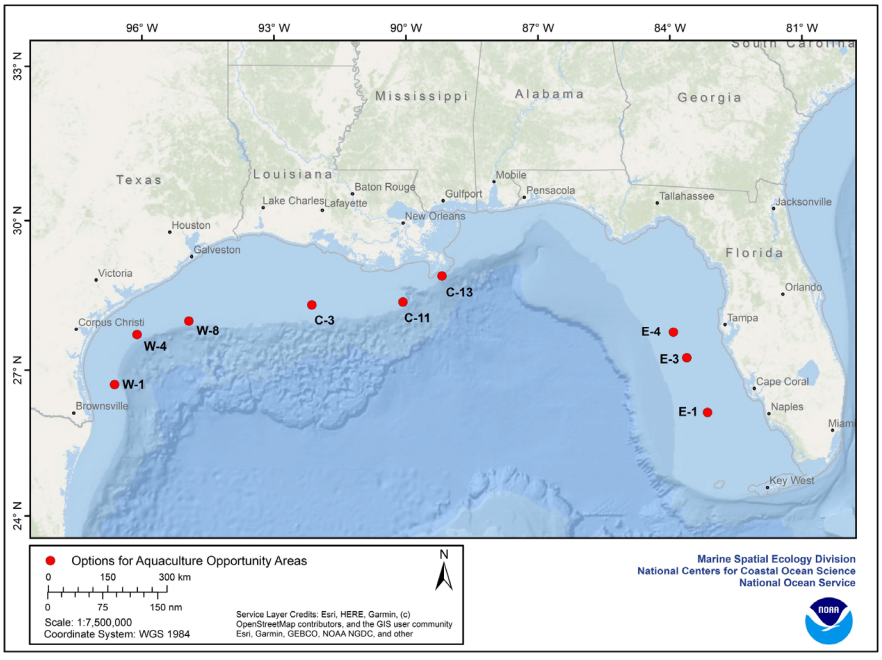

FIGURE 1. The red circles represent the identified options in U.S. federal waters in the Gulf of Mexico.

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Along the coast of Southern California, there were four distinct study areas with over 200 data layers collected. The result is ten options. *See Figure 2.*

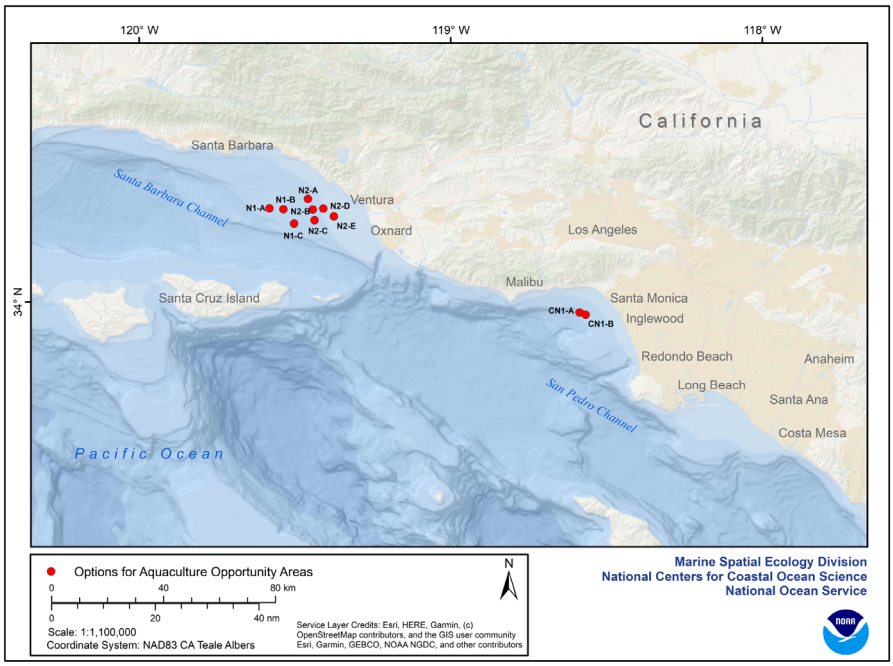


FIGURE 2. The red circles represent the identified options in U.S. federal waters off the Southern California Coast.

Why are Aquaculture Opportunity Areas Essential to the Aquaculture Industry?

Identifying AOAs is an opportunity to use the best global science and guidance on sustainable aquaculture management to support the "triple bottom line" of environmental, economic, and social sustainability. Areas in the Atlases have characteristics expected to support multiple types of aquaculture, including finfish, shellfish, seaweed, or some combination. NOAA previously identified these regions for their potential to host sustainable commercial aquaculture development in the United States following a May 2020 Presidential Executive Order. While informed by the Atlases and other relevant information, the decision to identify an AOA will only be made after completion of the National Environmental Policy Act Programmatic Environmental Impact Statement, which will assess the impacts of siting aquaculture facilities in different potential locations.

What are the Benefits of Offshore Aquaculture?

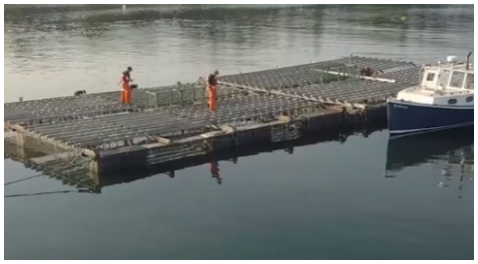
- Creates U.S. jobs
- Boosts U.S. economy
- Positions U.S. as top seafood producer
- Ensures access to fresh, local seafood
- Helps address climate change as an alternative food source
- Helps reduce climate impacts with low impact production
- Assists ocean conservation efforts with restorative aquaculture

Untapped U.S. Potential

Driven by imports, the U.S. seafood trade deficit has grown to $16.9 billion in 2019. Aquaculture has the potential to play a major role in ending the deficit, yet the U.S. is a minor aquaculture producer, ranked just 17TH globally.

In one year, fish harvested from aquaculture around the globe amounted to 114.5 million metric tons, an estimated first-sale value of $160.2 billion. Global aquaculture production is dominated by Asia at 92 percent. The farmed species imported to the United States is dominated by shrimp, Atlantic salmon, tilapia, and shellfish. Asian countries and Ecuador supply most of the shrimp to the U.S. market while Canada, Norway, and Chile supply most of the imported Atlantic salmon.

Imagine the potential for America!



Full reports:

An Aquaculture Opportunity Area Atlas for the U.S. Gulf of Mexico

An Aquaculture Opportunity Area Atlas for the Southern California Bight