

Nordic Aquafarms presentation
for Humboldt County

Nordic Aquafarms Inc
July 23rd, 2019

Our Fredrikstad Seafoods Facility



*“Aquaculture, not the internet, represents
the most promising investment opportunity
for the 21th century”*



Peter Drucker
Nobel Laureate

The case for producing a lot more seafood in the US
- the US is currently ranked # 16 in aquaculture (NOAA)

High growth:

**7.4 % seafood
consumption increase
in 2017 in the US**

Intrafish

High trade deficit:

**The US has a
94 % and growing
seafood deficit**

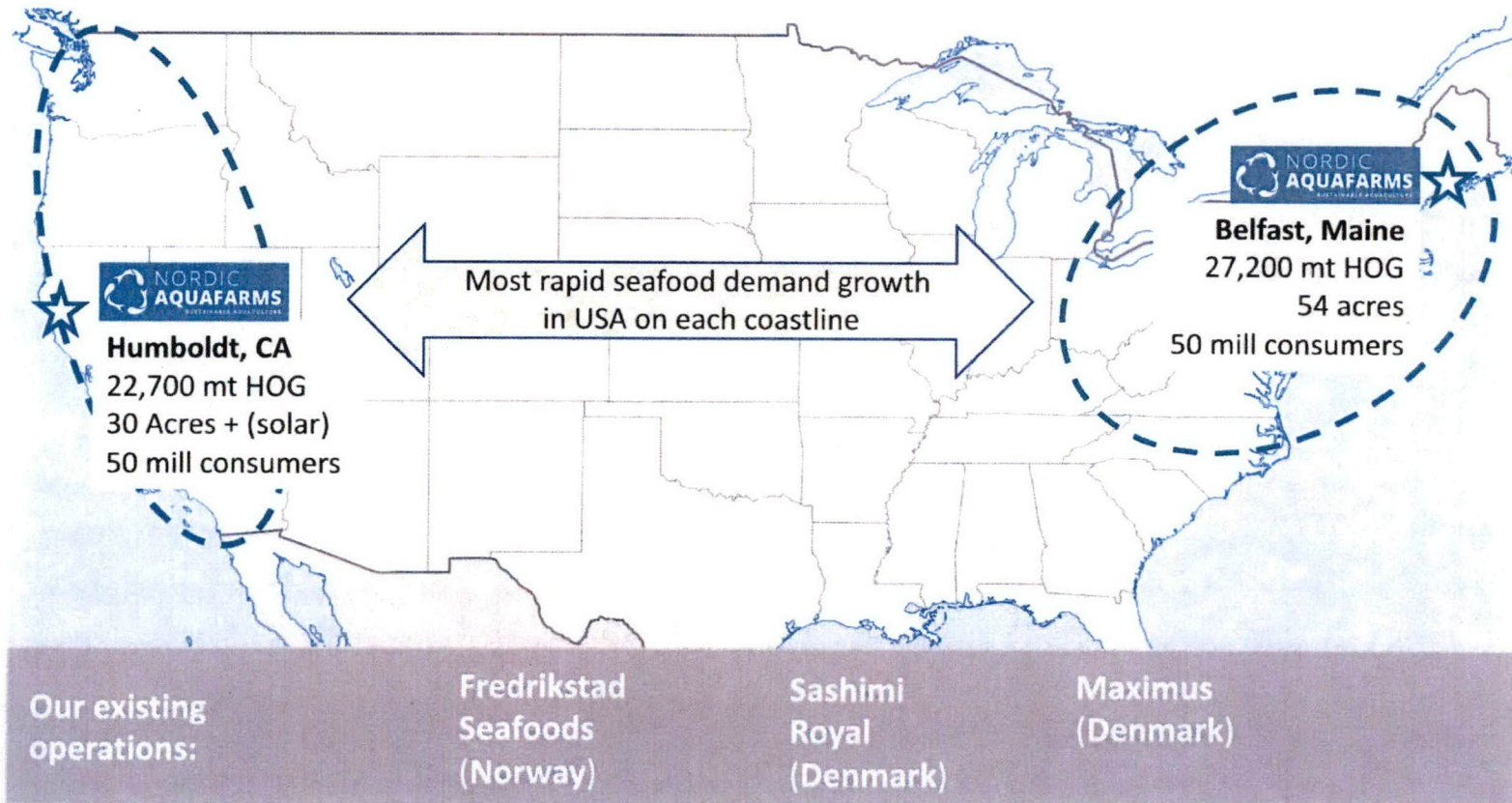
FDA

Low traceability:

**Less than 1 percent
of imported seafood
to the US is inspected**

FDA

Our US case: fresh food close to large consumer markets



Key facts about the proposed Nordic Aquafarms project in Humboldt

**100 %
land-based operation**

all indoors with 99%
recirculation levels

Fully traceable seafood

from egg to harvest in
one location

Approx. 400 Mill USD

Multi-stage development
project

80 + direct local jobs

And many secondary
jobs and economic effects

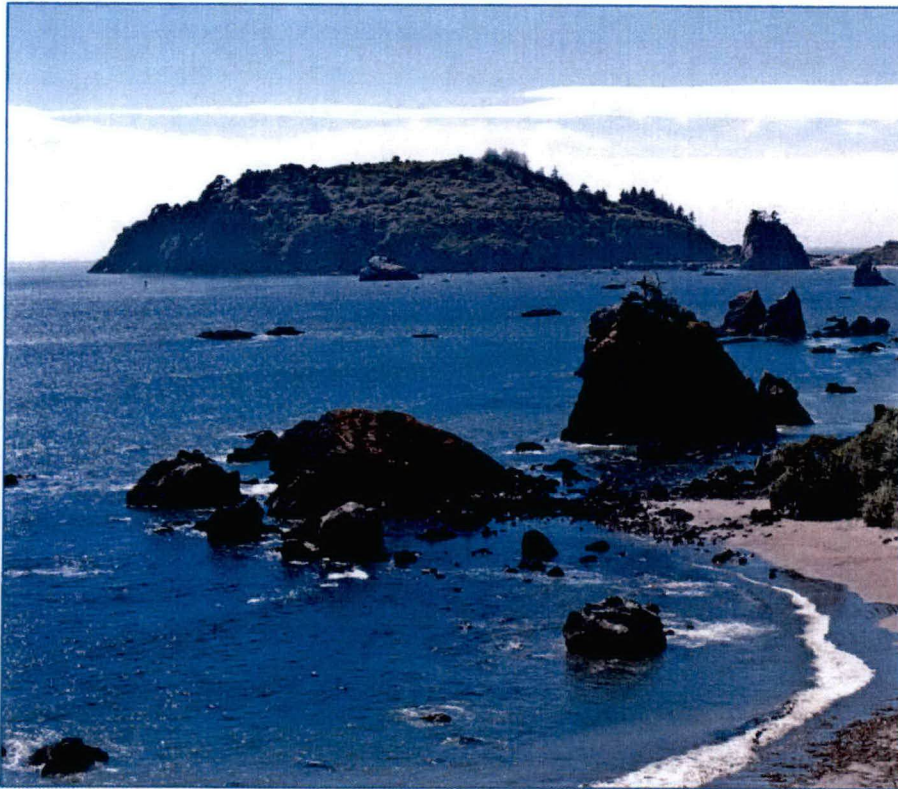
**Ultimate capacity
22,700 metric tons
gutted fish / year**

**“Made in Humboldt”
seafood product...**

for West coast consumers

Benefits for Humboldt County

- Significant economic development benefits will be realized



- Diversification of the local seafood economy and synergies with existing seafood industry in the County
- At least 80 direct jobs, plus many indirect jobs (i.e. construction)
- Local workforce development activities / work with local academic institutions
- Approx. 400 mill USD local investment and tax revenue
- 200 million USD in annual revenues when fully developed
- Clean-up of a brown-field problem
- An anchor tenant for green development on the Samoa Peninsula
- Participating in a new innovative segment of the global seafood industry, with other value chain opportunities
- Prevailing wages in construction
- Community engagement and contributions

Nordic Aquafarms as an employer

An equal opportunity employer

Emphasis on local hiring

We invest in our employees

Full-time positions

Competitive pay

Good benefits

Strong focus on health & safety

Career opportunities as the company grows



From construction phase in Norway

Identified challenges in the Humboldt location

- Local fresh- and seawater requires rigorous treatment to meet aquaculture standards
- Demolition and clean-up costs of the site will be significant, with potential unknown risks
- Permitting in California can be unpredictable and costly – a risk for the project
- Extra costs related to tsunami risk
- High energy costs compared to alternative locations
- Somewhat isolated location – potential transport issues, particularly if roads close

The effect of these various issues may significantly raise capital cost, increase project timelines, and increase local production cost. Business disruption is also a risk we are assessing.

Financial incentives

- mitigation of local risks and show-stoppers for the project

Moving forward involves establishing that a competitive project can be developed in Humboldt.

Financial incentives/funding are needed for two key risk and potential “no-go” areas:

1) Secure infrastructure for the Water District to deliver clean water to the Peninsula. The available surface water has high and variable turbidity. Cost of water to be clarified.

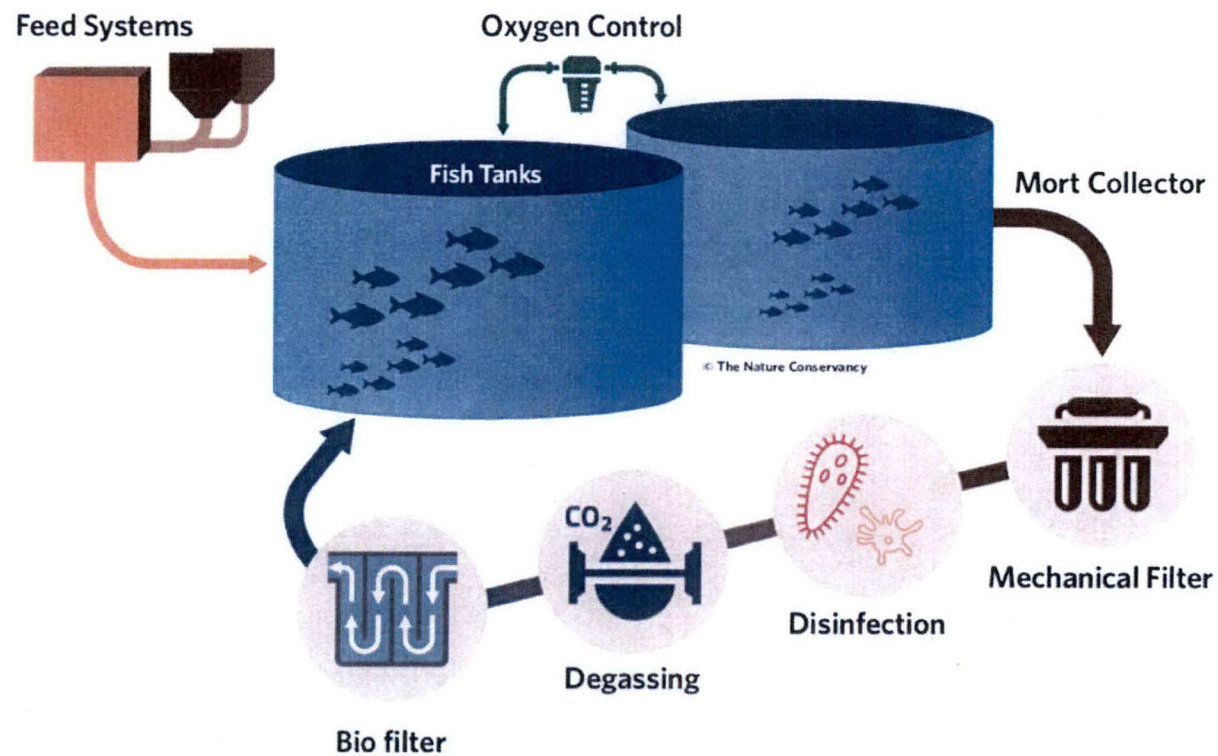
2) Brown-field clean-up with unknown risks and costs.

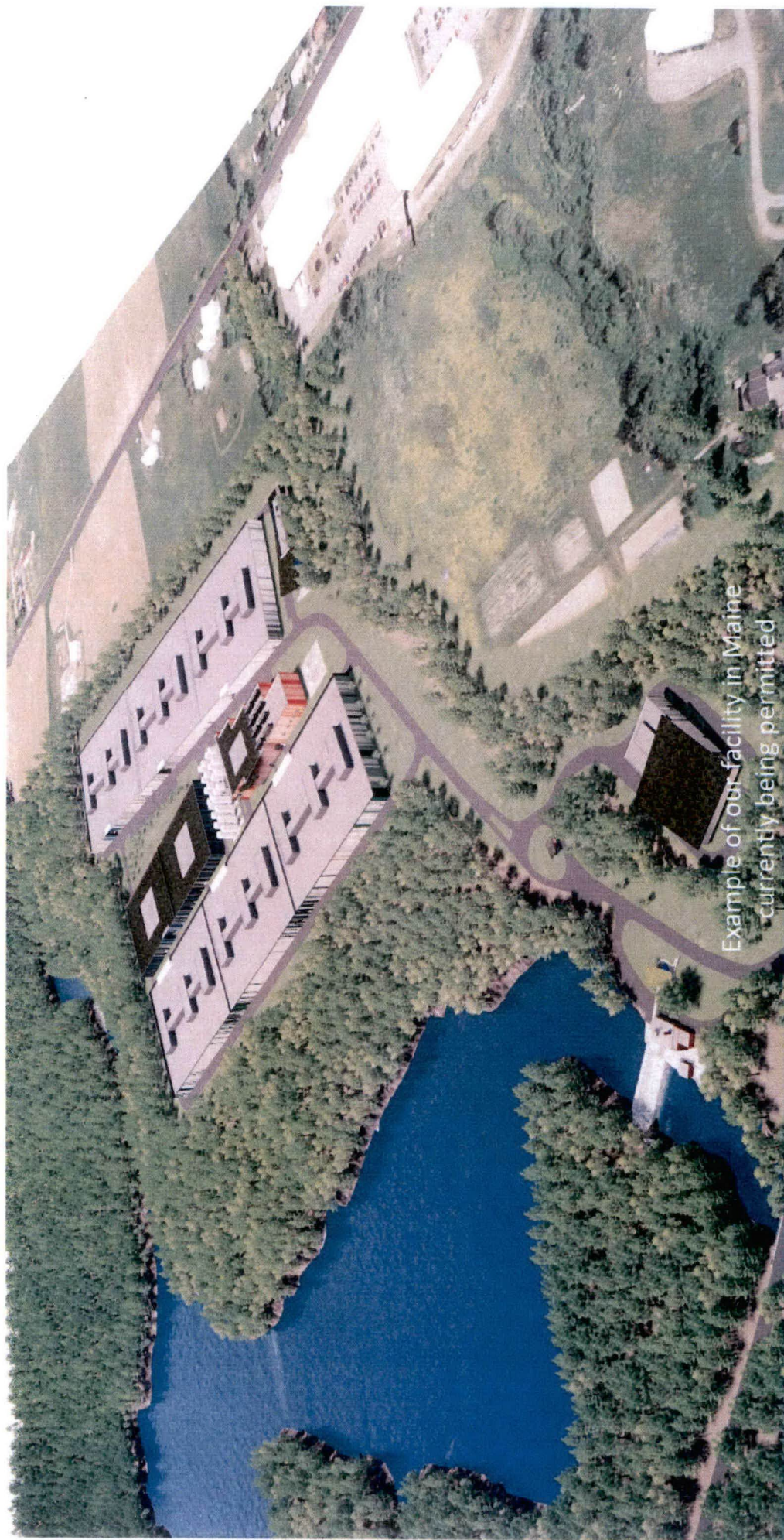
The above are local risks that our projects normally would not have to deal with, and thus we would not incur costs on.

Our request is specifically related to risk and cost alleviation related to these issues.

We appreciate that the County has established a taskforce (REDI), and the County’s continued support for this project.

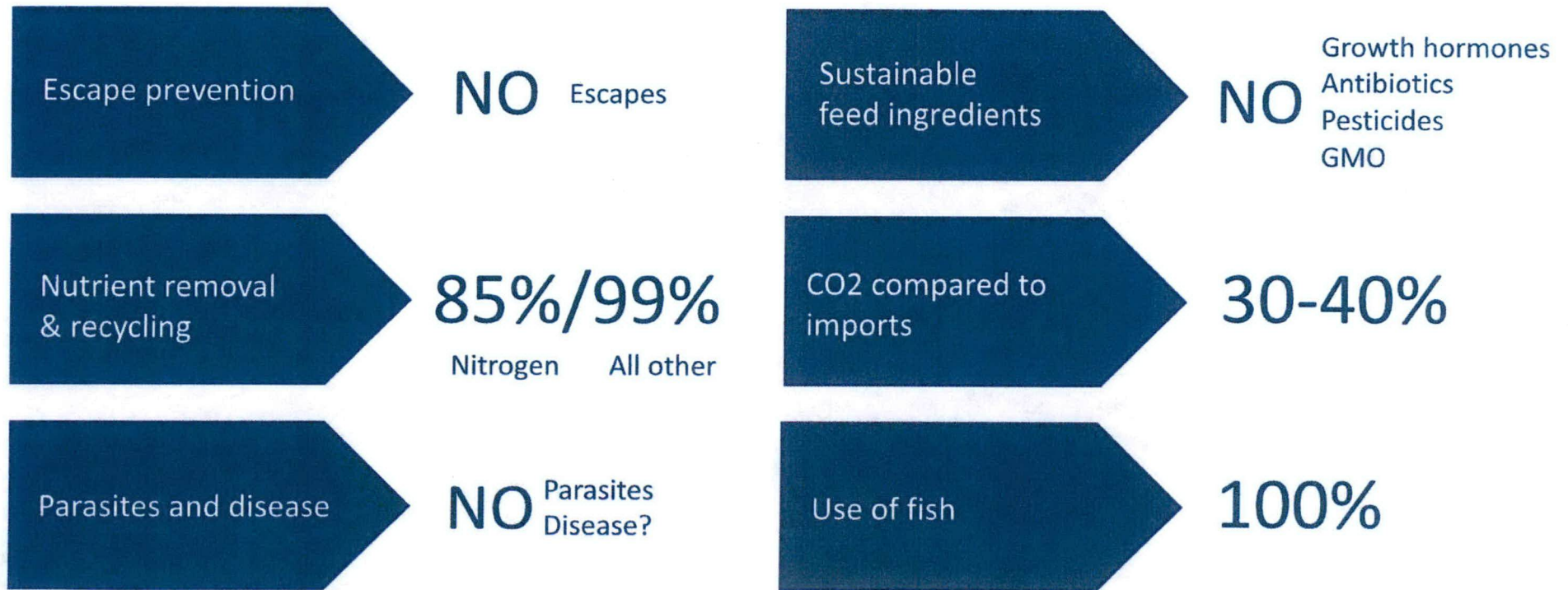
What are recirculating aquaculture systems (RAS)?





Example of our facility in Maine
currently being permitted

We are an international leader in “clean” production designs



We searched the entire Western coastline in 2018 for a site based on high-level criteria*

Logistical requirements

1. Seawater source (<1,500 m away)

2. Freshwater source (clean, 1,600 gpm)

3. Deepwater discharge location (well-mixed)

4. Operational criteria

a. Energy (3-phase power supply)

b. Transportation (marine, ground, air)

c. Stable, appropriate water temperature

d. Site layout (size, topography)

5. Regulatory criteria

a. Economic Opportunity Zone

b. No related impairments in receiving waters

c. Compatible zoning

6. Community features

a. Labor force, local college

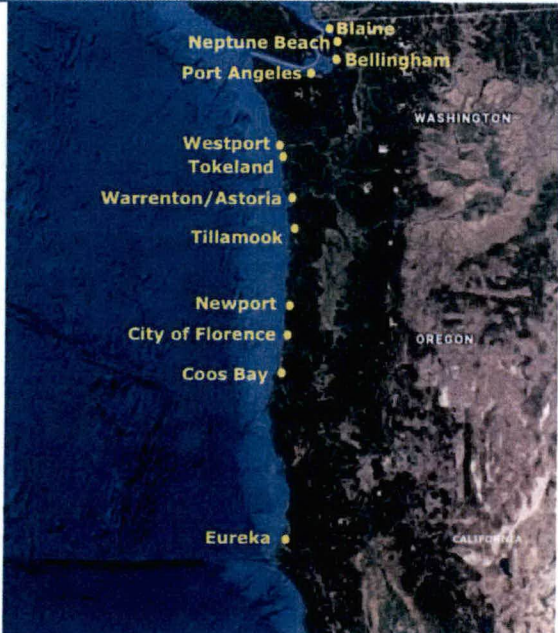
b. "Livable" community

c. Maritime/fisheries culture

d. Supportive of development projects

* More refined criteria were applied on the final candidate site locations

Humboldt emerged with a number of strengths

Locations considered		Strengths of the Somoa site • Fresh- and seawater access • Existing outfall pipe • Substation on site • Existing zoning for aquaculture • Mid-coast location • Available property • HSU resources in town • Community positive to development
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Based on negotiations, Humboldt was chosen as the finalist to complete due diligence.

Key facts about the proposed facility

- **Main development area is approx. 30 acres**
 - 5 production modules
 - Hatchery
 - Fish processing
 - Waste water treatment
 - Other support functions
- **An additional 20 acre solar power park to be added - looking at options now**
- **Due diligence planned complete in August**
- **Engineering and permitting to start this fall, provided acceptable due diligence outcome**



Illustration: The Nature Conservancy

Investment decision to follow due diligence phase

2019

- **Brown-field clean-up scope**
- **Demolition of existing structures**
- **Fresh- and seawater quality**
- **Tsunami and seismic assessments**
- **Planning of permitting process**

September 2019

Provided satisfactory due diligence results, we will move into permitting this fall.

2019/2020

- **Establish offices in Humboldt**
- **Facility lay-out & design**
- **Site civil engineering**
- **CEQA process + assessments**
- **Submission of permit applications**



NORDIC **AQUAFARMS**

SUSTAINABLE AQUACULTURE

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