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# TOOL FACTSHEET



## Tool name

WATER - Where Aquaculture Thrives in EuRope

## Tool type

Model / Site-selection tool (Spatial analysis model)

## Short description of the tool

Where Aquaculture Thrives in EuRope (WATER) is a web-based site-selection tool for aquaculture based on observed and modelled data of basic parameters, conditioning the biology of the species and the operational aspect of the production. Water temperature, Salinity, Dissolved Oxygen, Chlorophyll, Current Velocity and Significant Wave Height from observed and modelled data are combined using variable-specific algorithms and variable-combining indexes together with species-related and operational-related thresholds from the database to yield georeferenced images. Ranked suitability is presented for each of the requested exclusive economic zones and area per suitability class.

## Source (where/ link)

<http://longline.co.uk/water>

## Licence cost or other type of costs (e.g. maintenance)

Context-dependent, please use contacts above.

## General requirements (technical and input data)

Up-to-date html 5.1 compatible web-browser.

## Management dimension for which the tool could be used

- Policy / Management
- Environmental
- Economic / Market
- Other sectors

## Main functionality

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Site identification | <input type="checkbox"/> Modelling                                |
| <input checked="" type="checkbox"/> Mapping             | <input checked="" type="checkbox"/> Stakeholder engagement        |
| <input checked="" type="checkbox"/> Economic analysis   | <input checked="" type="checkbox"/> Ecosystem services assessment |
| <input checked="" type="checkbox"/> Scenario analysis   | <input type="checkbox"/> Other: (Please specify)                  |



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### **Fields of application (i.e. issue to be solved)**

WATER is designed to identify best placement for new aquaculture sites in Europe. Due to its current 1 km resolution, this analysis should be made at the EEZ scale and not at the local scale.

### **Circumstances in which it can be implemented (strength and opportunities)**

The tool is already implemented for the current EU EEZ base data, thus it can be readily applied to this region.

### **Limitations**

This tool is limited by the resolution of the source data. Typically, the products used for input range between 10 – 60 km, overlaid and regrided to 1 km resolution. Hence, the tool is only fit for regional analysis.

### **Technical skills needed to operate the tool**

None.

### **Background knowledge needed to implement the tool**

None.

### **How can the tool contribute to the EAA**

The EAA steps that the tool can contribute:

1.  Scoping
2.  The identification of issues and opportunities
3.  Prioritisation of issues
4.  Objectives
5.  Management actions
6.  Monitoring



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### How can the tool contribute to the MSP

The MSP steps that the tool can contribute:

1.  Define goals and objectives
2.  Gather data and define current conditions
3.  Identify issues, constraints, and future conditions
4.  Develop alternative management actions
5.  Evaluate alternative management actions
6.  Monitor and evaluate management actions
7.  Refine goals, objectives and management actions

### AquaSpace case studies in which it has been implemented

Case study name:

NA.

Reference and link to tool report and Masters Module:

AquaSpace D2.5 at [www.aquaspace-h2020.eu](http://www.aquaspace-h2020.eu) on Library/Reports page

Masters Module unit 5 at [www.aquaspace-h2020.eu](http://www.aquaspace-h2020.eu) on Masters Module page

### Other bibliographic references

none

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