



H2020

TOOLS IMPLEMENTATION EXAMPLE



Where

Argyll, Scotland

Issue type(s):

Policy and management, public perception, spatial limitations, pests and diseases

Specific Issue:

Expansion of aquaculture in Argyll is limited by the planning and licencing regime, perceived conflict with other sectors such as marine tourism, varying levels of social licence to operate linked with governance and corporate social responsibility, pests and diseases, and biophysically-determined spatial boundaries.

Case study:

14. Argyll, Scotland

Objective:

Characterisation of public perception and social licence issues, mapping of spatial opportunities and constraints, modelling sea lice connectivity

Tool(s):

Hydrodynamic model (FVCOM),

GIS multicriteria analysis (MaRS),

AquaSpace tool,

Public Comment Analysis

How tool(s) has/have been implemented:

Hydrodynamic modelling of sea lice dispersal based on finfish farm location, management units, hydrological and climatological data

GIS multicriteria analysis for locational guidance of opportunity and constraint based on legislation, interactions with other sectors, socio-cultural constrictions and biophysical boundaries

AquaSpace tool was used in conjunction with the MaRS with locally relevant data layers substituted for the original European level data layers.

Public Comment Analysis was developed and applied to characterise the social interactions of communities (both of interest and spatially defined) with new aquaculture developments within the current planning structure and using social licence to operate theory.



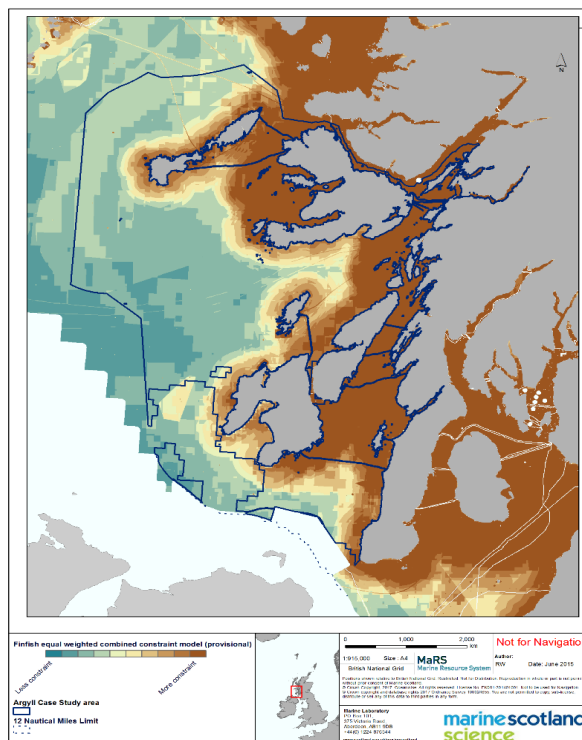
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Results:

Hydrodynamic modelling provides data on parasite impacts (sea lice) on new sites with relevance for existing and future management units. MaRS provides spatially relevant locational guidance for development of the industry in relation to other sectors and designations, it highlights the need for effective inshore MSP. The AquaSpace tool can be used to support MaRS, but there are data limitations. Public comment analysis provides information on why there might be objections or support for new site development and advice on mitigation measures to reduce conflict.



MaRS results – map of areas where constraints on finfish aquaculture are greatest (in brown).

Links:

AquaSpace D4.2 at aquaspace-h2020.eu on Library/Reports page

MaRS output files available at [the NMPi public portal for Marine Scotland](http://theNMPi.org).

References

- Adams, T. P., D. Aleynik & K. D. Black (2016). Temporal variability in sea lice population connectivity and implications for regional management protocols. *Aquaculture Environment Interactions* 8: 585-596. doi: 10.3354/aei00203
- Billing, S.-L. (2018). Using public comments to gage social licence for finfish aquaculture Aquaspace (H2020 project 6333476) and Laurence Mee Centre for Society and the Sea, Working Paper. Oban, Scotland, SAMS. 38 pp. Available from aquaspace-h2020.eu on Library/Other documents page

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