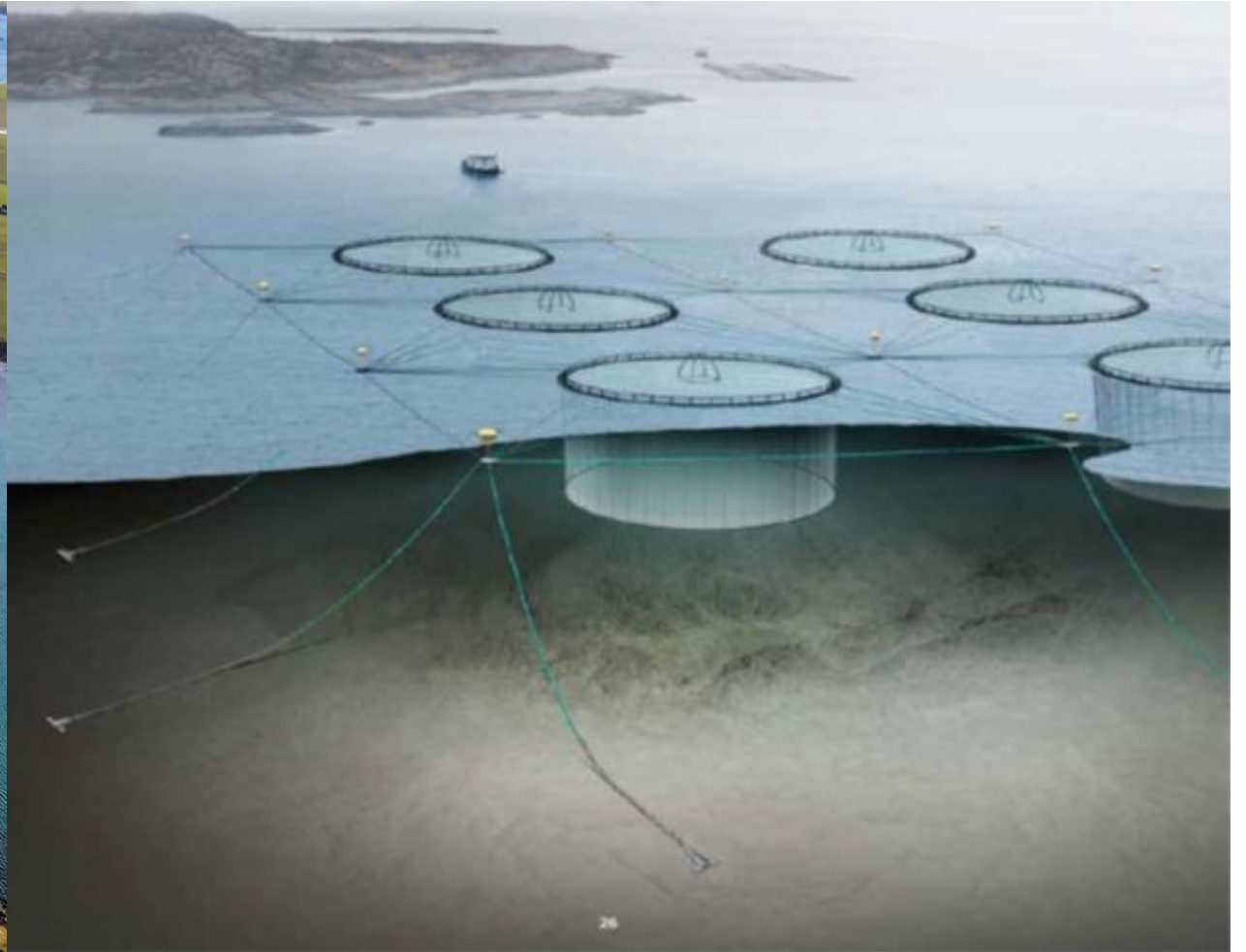


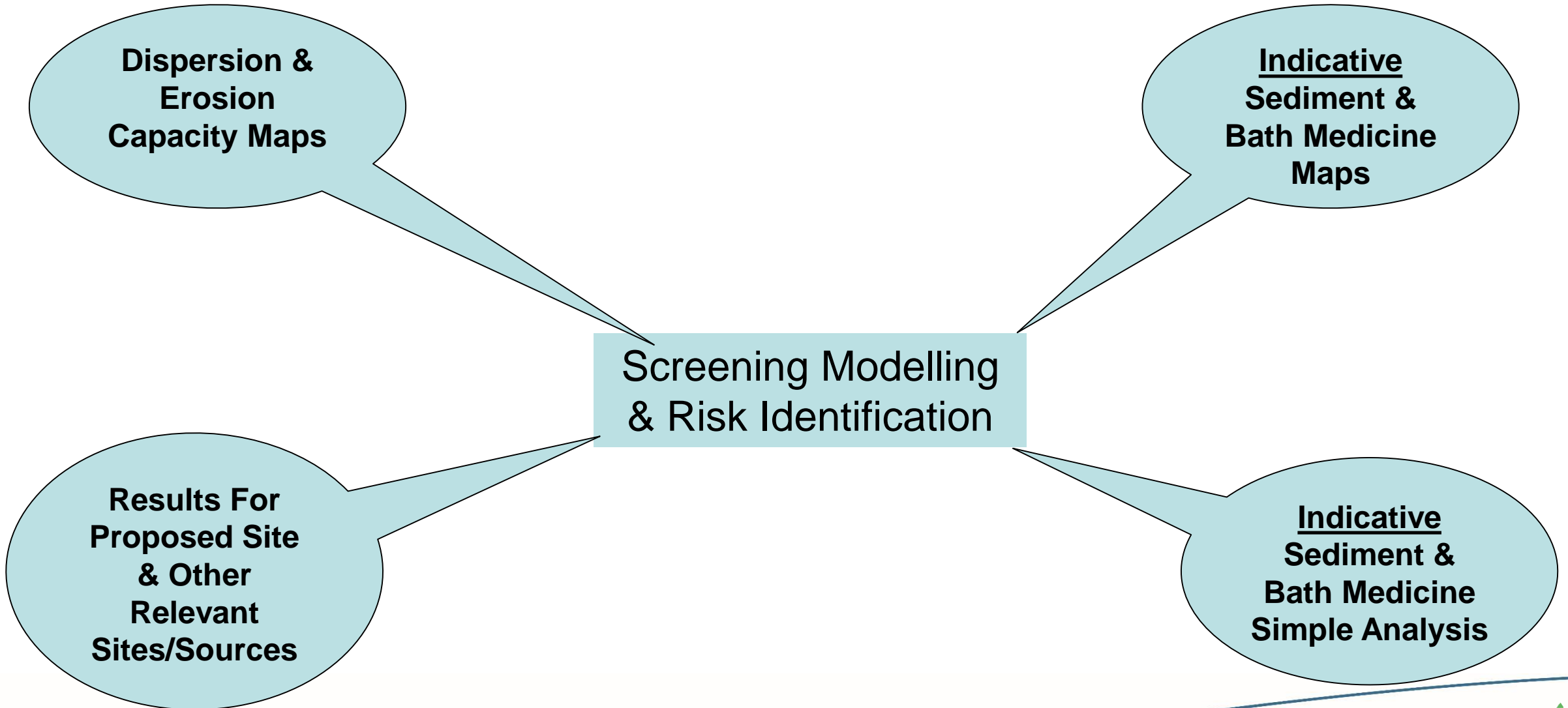
# Aquaculture Modelling - Update



# Presentation Structure

- Outline the objectives of Screening and Risk Identification.
- Some important points about the example report.
- Review the structure and content of the example report.
- Screening models update.
- Questions and feedback on example report.
- Update on NewDepomod. Questions.
- Summary of key points, next steps.

# Screening & Risk Assessment Objectives - 1



# Screening & Risk Assessment Objectives - 2

**Identify  
Features Which  
May Be At Risk:  
Table/Maps**

**Summarise  
Proposal Waste  
Dispersion  
Suitability**

**Recommend  
Modelling  
Method &  
Model Size**

**Screening Modelling  
& Risk Identification**

**Applicant  
Submits  
Method  
Statement  
Following  
Screening**

**Report  
Reviewed  
Following  
Stakeholder  
Meeting**

**First Report  
Informs  
Stakeholder  
Meeting**

# Example Report: Important Points

**Fictional Sites  
With 3500t In A  
Range Of  
Locations**

**Precautionary  
Approach To  
Sediment And  
Bath Modelling**

**Indicative &  
Predicted  
Spread Of  
Material, Not  
Real**

**Example Report**

**Promote a  
Common  
Understanding  
Of The  
Situation**

**More Detailed  
Modelling  
Carried Out By  
Applicant**

**Output Used To  
Generate List of  
Features At  
Risk Of Impact**

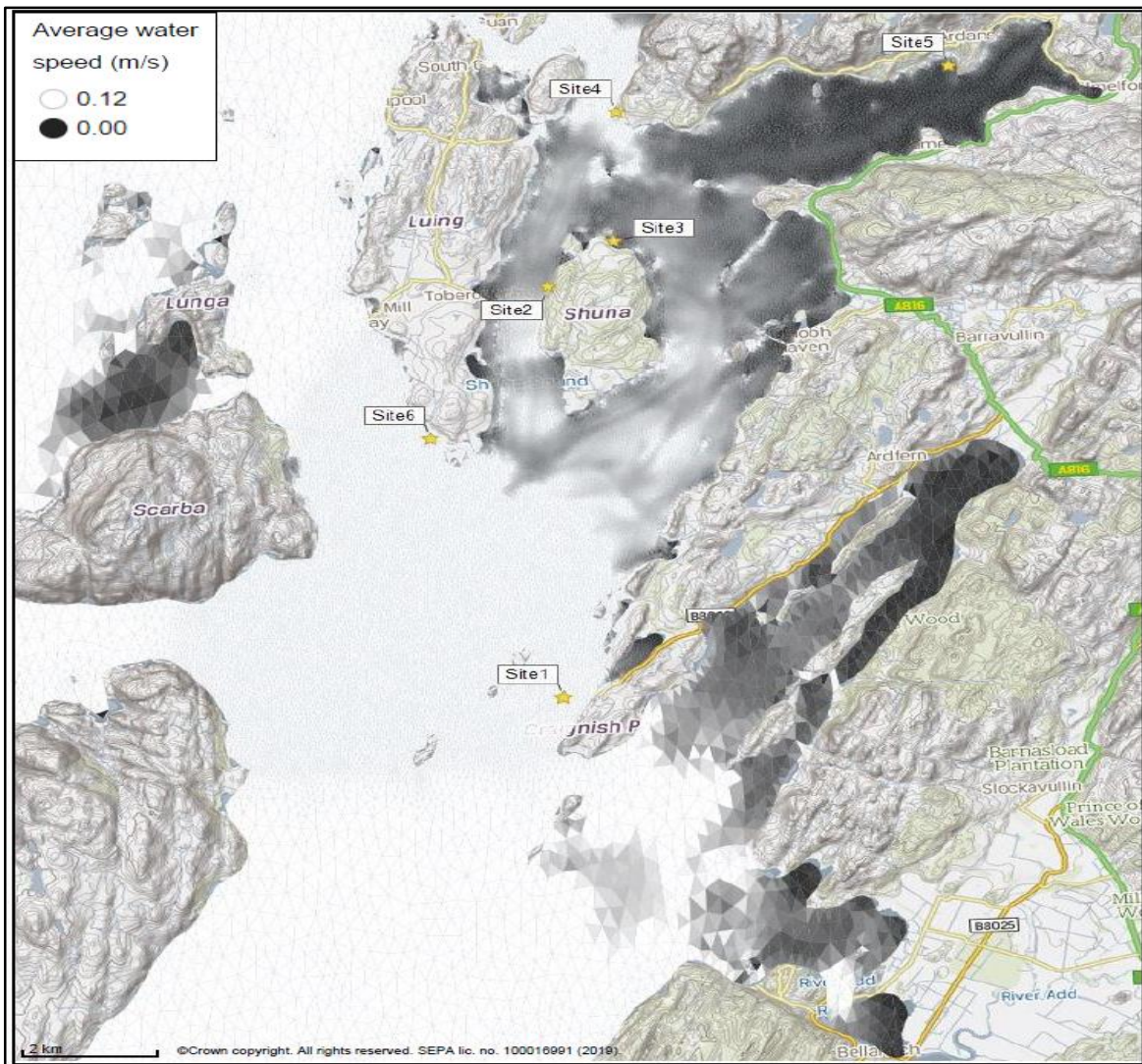


Figure 2: Modelled average water speed (metres per second – m/s) in the sea area surrounding the proposed site (Site 1).

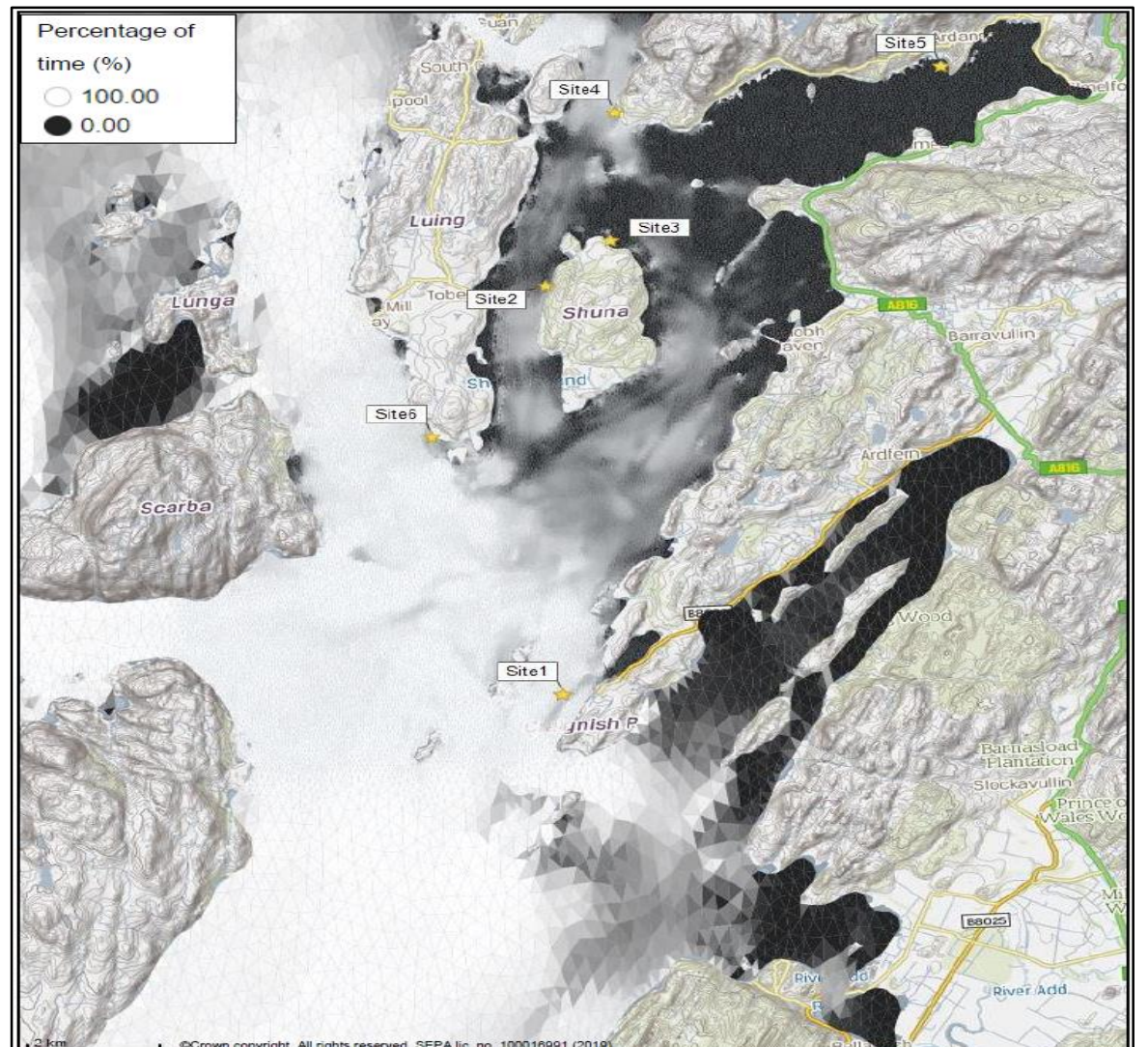


Figure 3: Modelled percentage of time the water flow speed is above 0.095 m/s in the sea area surrounding the proposed site (Site 1).

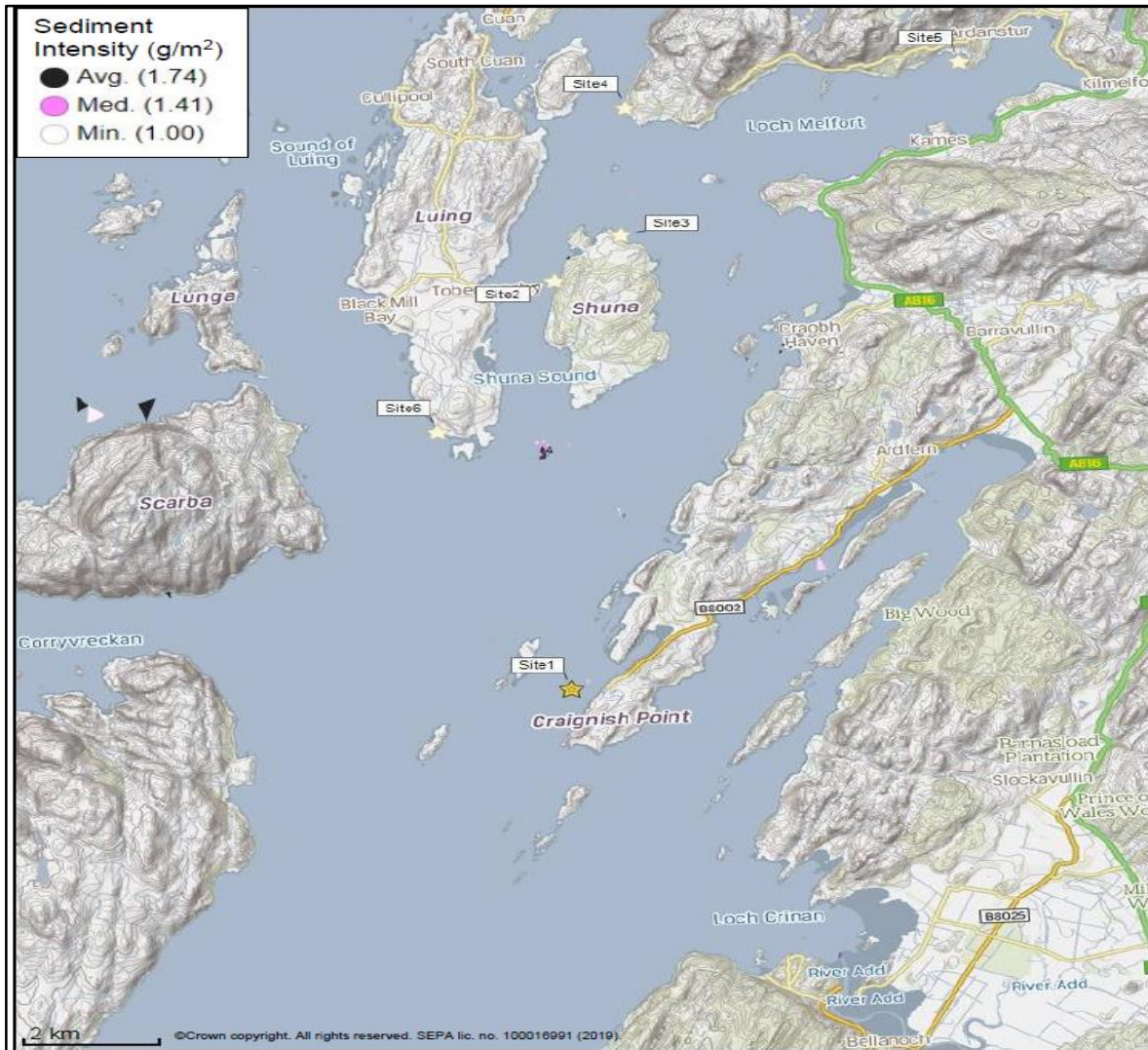


Figure 4: Modelled average sediment intensity over one month for the proposed site only (Site 1).

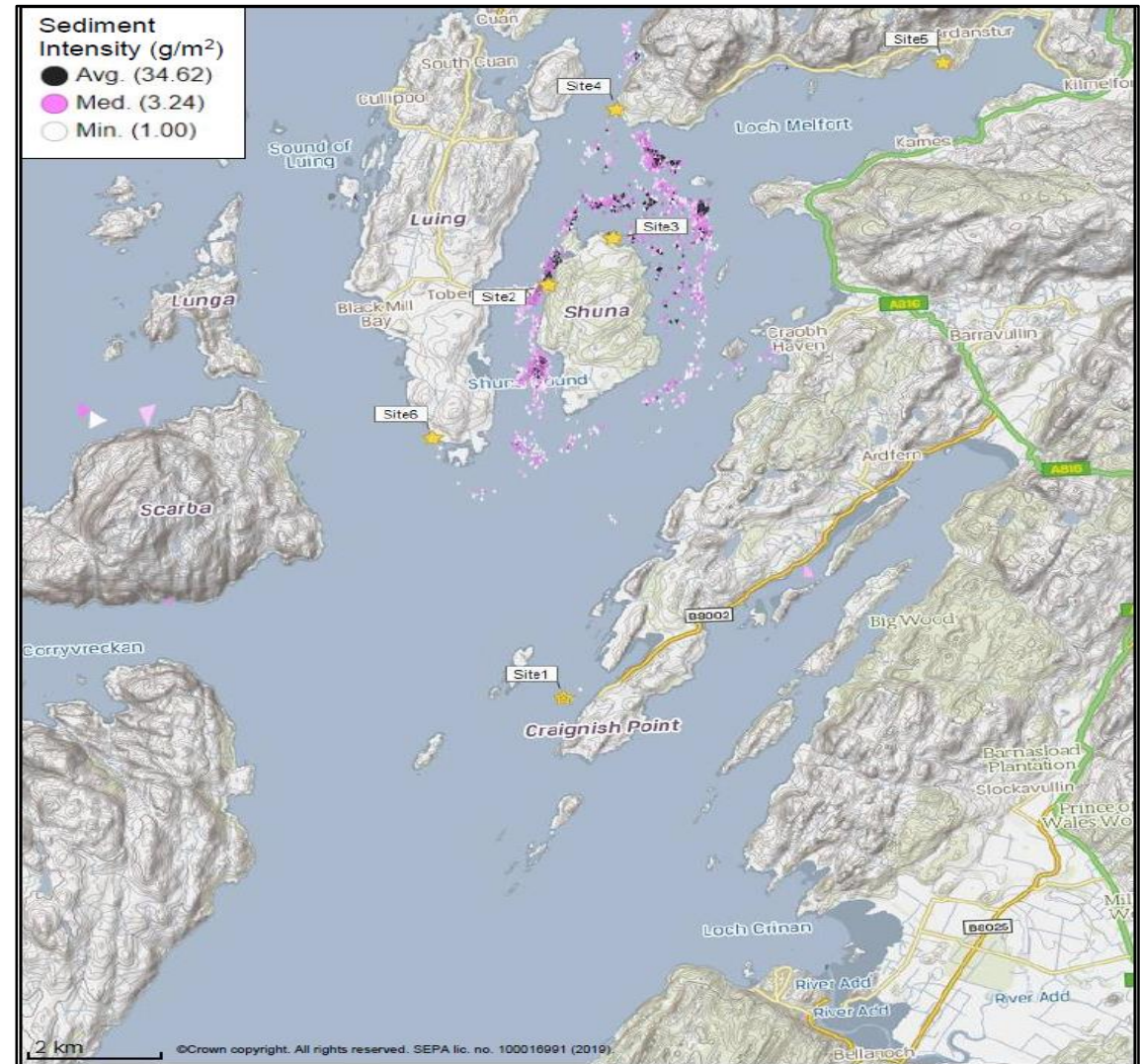


Figure 5: Modelled average sediment intensity over one month for the proposed site (Site 1) and other relevant sites.

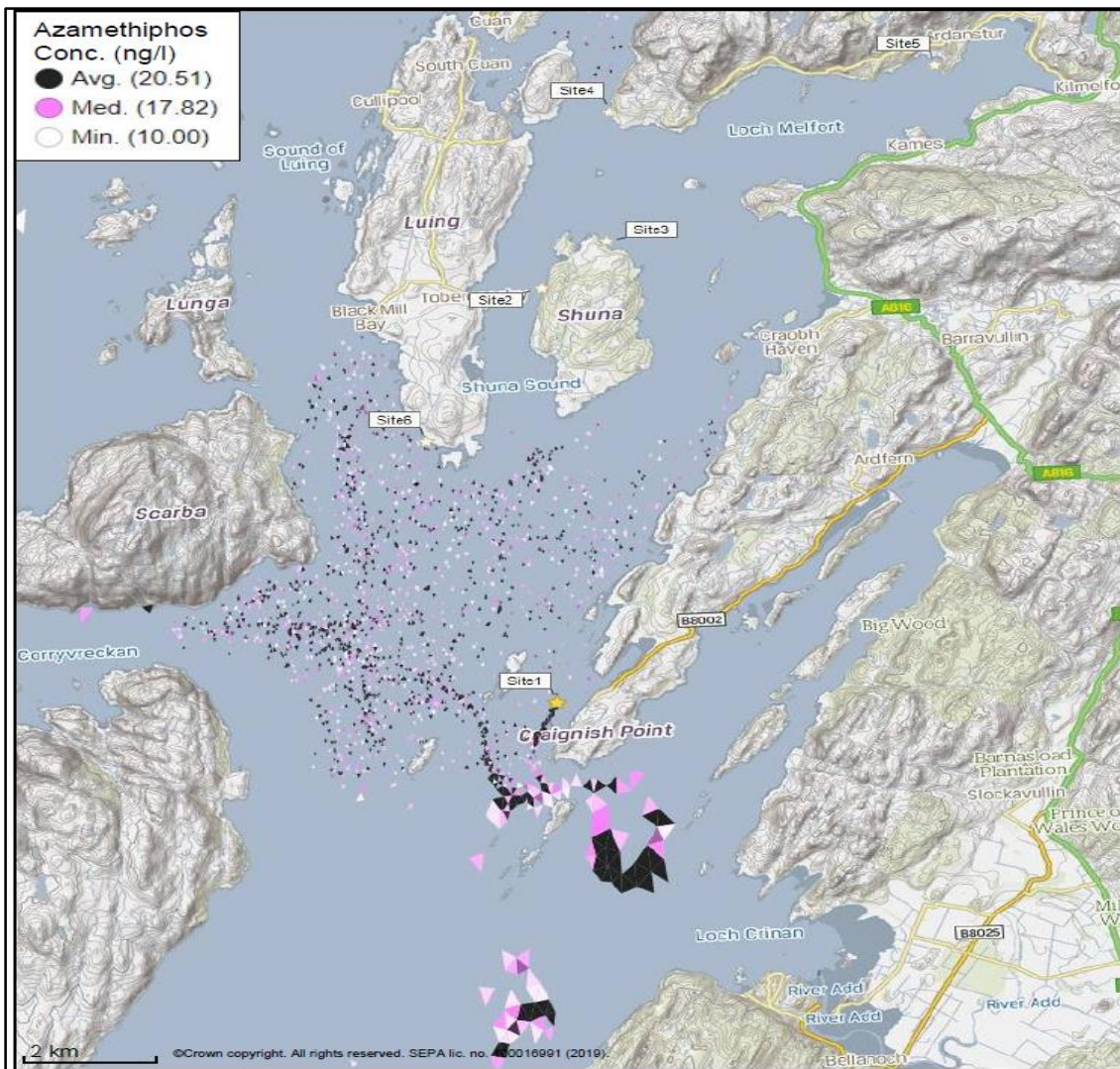


Figure 6: Modelled average Azamethiphos concentration over four days from neap tide release for the proposed site only (Site1).

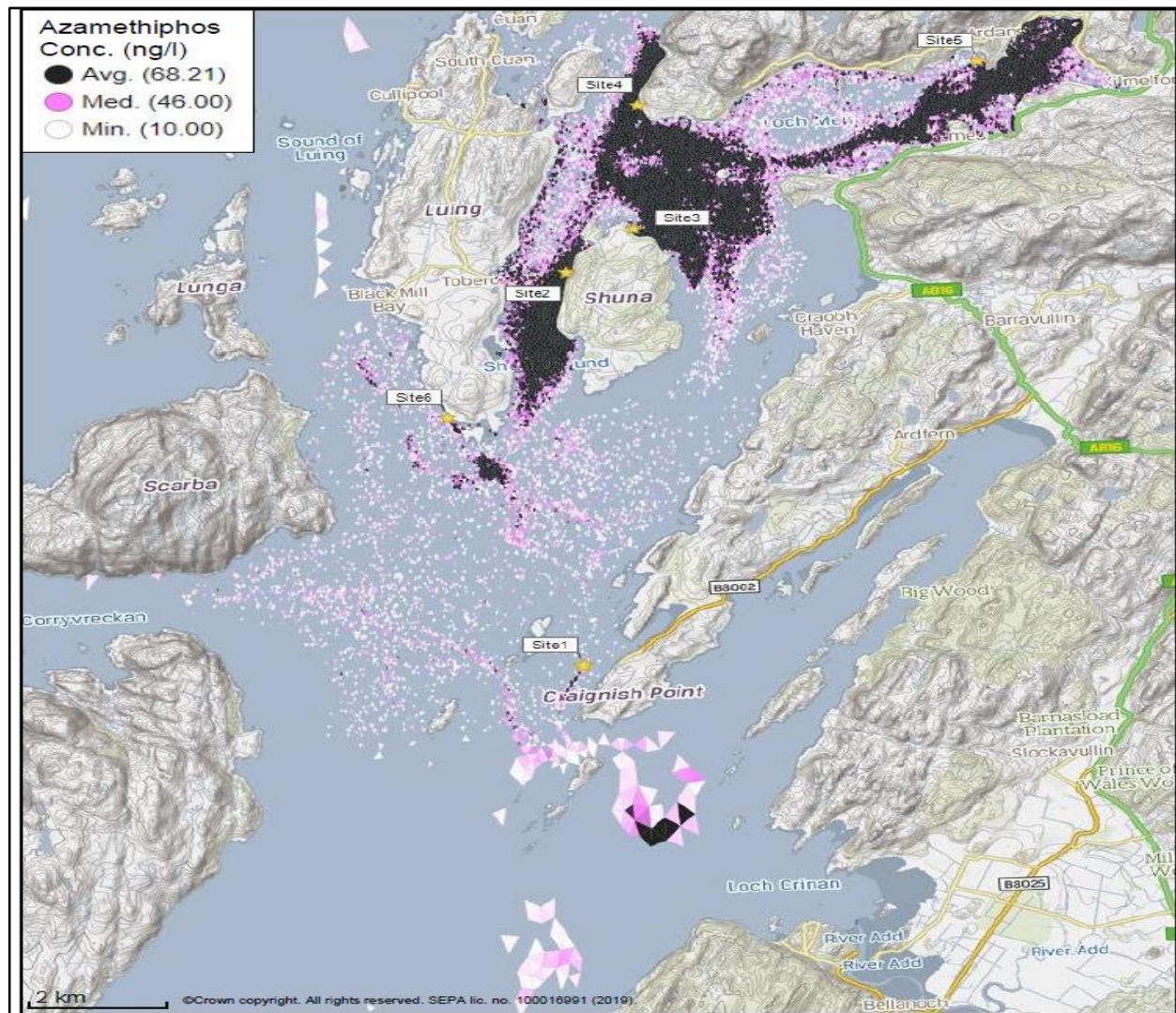


Figure 7: Modelled average Azamethiphos concentration over four days from neap tide release for the proposed site (Site1) and other relevant sites.



# Simple Sediment Analysis

Table 1: Sediment impact information for each site.

Site Name	Average Impact (g/m <sup>2</sup> )	Impact Area (km <sup>2</sup> )	Median Impact (g/m <sup>2</sup> )	Max weight Of Fish (tonnes)
Site1	1.74	0.39	1.41	3500
Site2	9.58	1.11	3.16	3500
Site3	50.03	0.67	4.82	3500
Site4	17.50	1.46	2.51	3500
Site5	2751.51	0.02	555.68	3500
Site6	1.78	0.53	1.65	3500

- The total area of sediment impact from the six sites modelled is estimated to be 3.41 square kilometres (km<sup>2</sup>).
- As shown in Figure 5, the average and median impacts over this area are 34.62 and 3.24 g/m<sup>2</sup> respectively.
- The total weight of fish that generates this modelled impact is 21000 tonnes.

# Simple Bath Medicine Analysis

Table 2: Azamethiphos impact information for each site.

Site Name	Average Impact (ng/l)	Impact Area (km <sup>2</sup> )	Median Impact (ng/l)	Weight Of Fish (tonnes)
Site1	20.51	9.03	17.82	3500
Site2	110.13	5.42	43.19	3500
Site3	83.68	7.57	51.77	3500
Site4	64.74	9.23	35.98	3500
Site5	93.67	6.50	59.88	3500
Site6	20.24	12.87	17.89	3500

- The total area of AZA impact from all sites modelled is estimated to be 42.25 square kilometres (km<sup>2</sup>).
- As shown in Figure 5, the average and median concentrations over this area are 68.21 and 46.00 ng/l respectively.
- The total weight of fish that generates this modelled impact is 21000 tonnes.

# Risk Identification

Table 3: Table of identified features

No.	Feature Name	Feature Type	Location (Easting, Northing)	Brief Reason For Identification
1	Marine Feature One	MPA	(172877, 702836)	At risk from sediment impact.
2	Marine Feature Two	PMF: Species Name	(174557, 700252)	At risk from bath medicine impact.
3	Marine Feature Three	SAC	(178531, 707216)	At risk from sediment and bath medicine impact.

May Include Maps

Additional Comments

Modelling Output Requirements

# Conclusion Of Screening Modelling & Risk I.D.

**Screening  
Modelling  
Conclusions**

**Risk  
Identification  
Conclusions**

**Recommendation:  
Site Suitability**

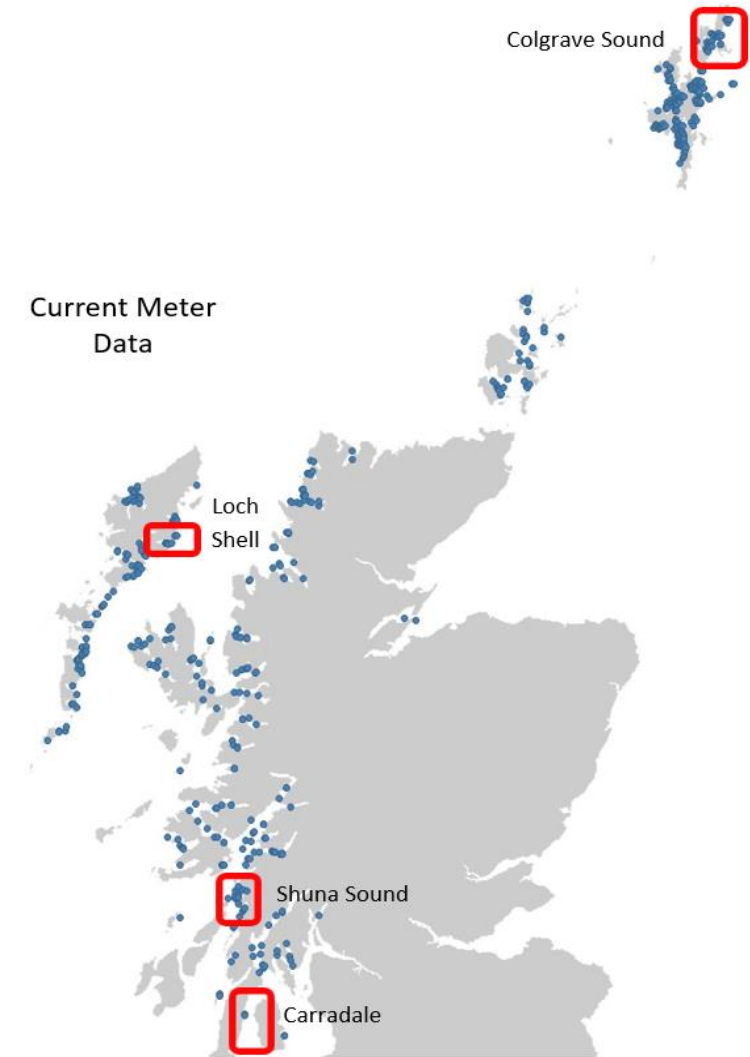
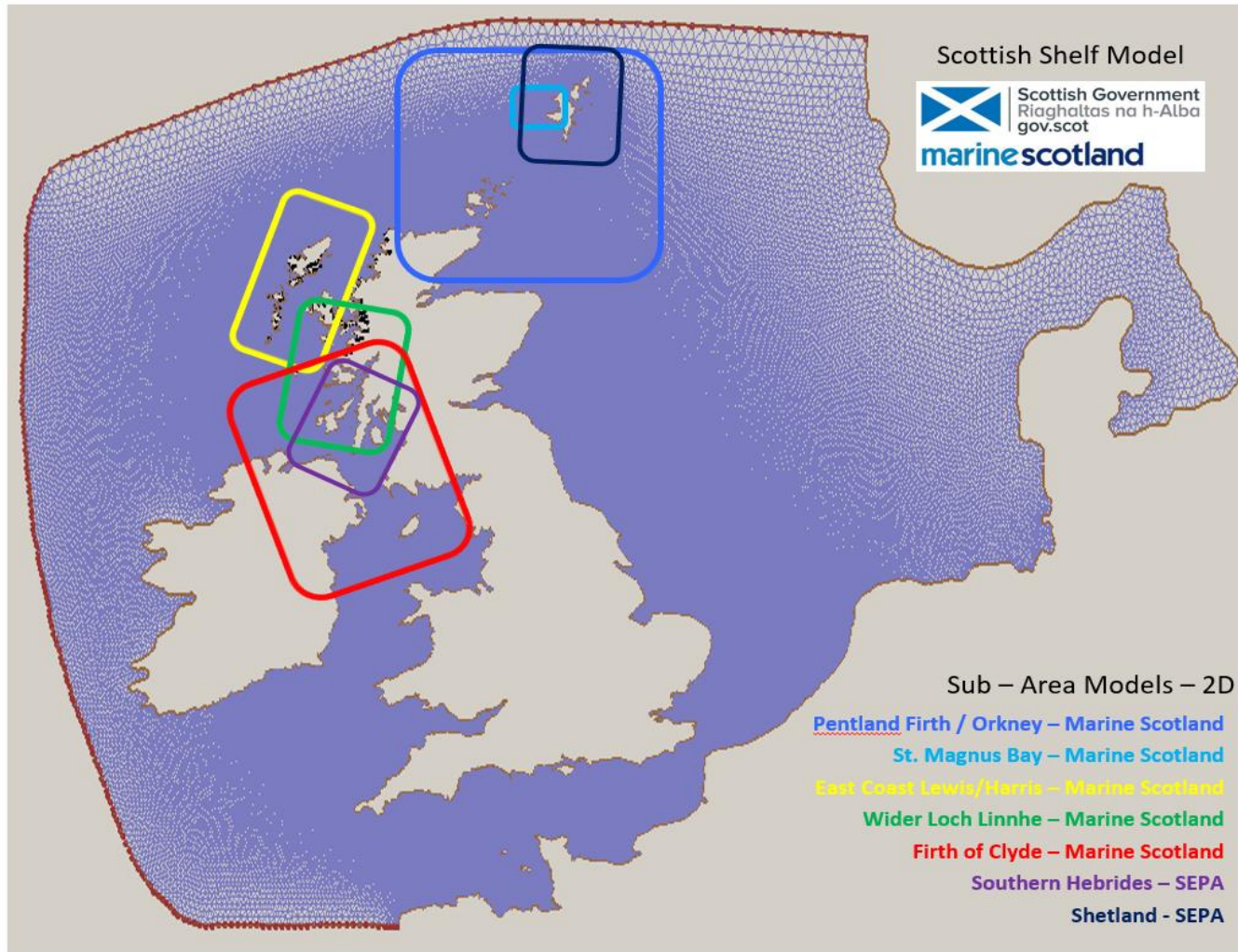
**Report**

**Promote a  
Common  
Understanding  
Of The  
Situation**

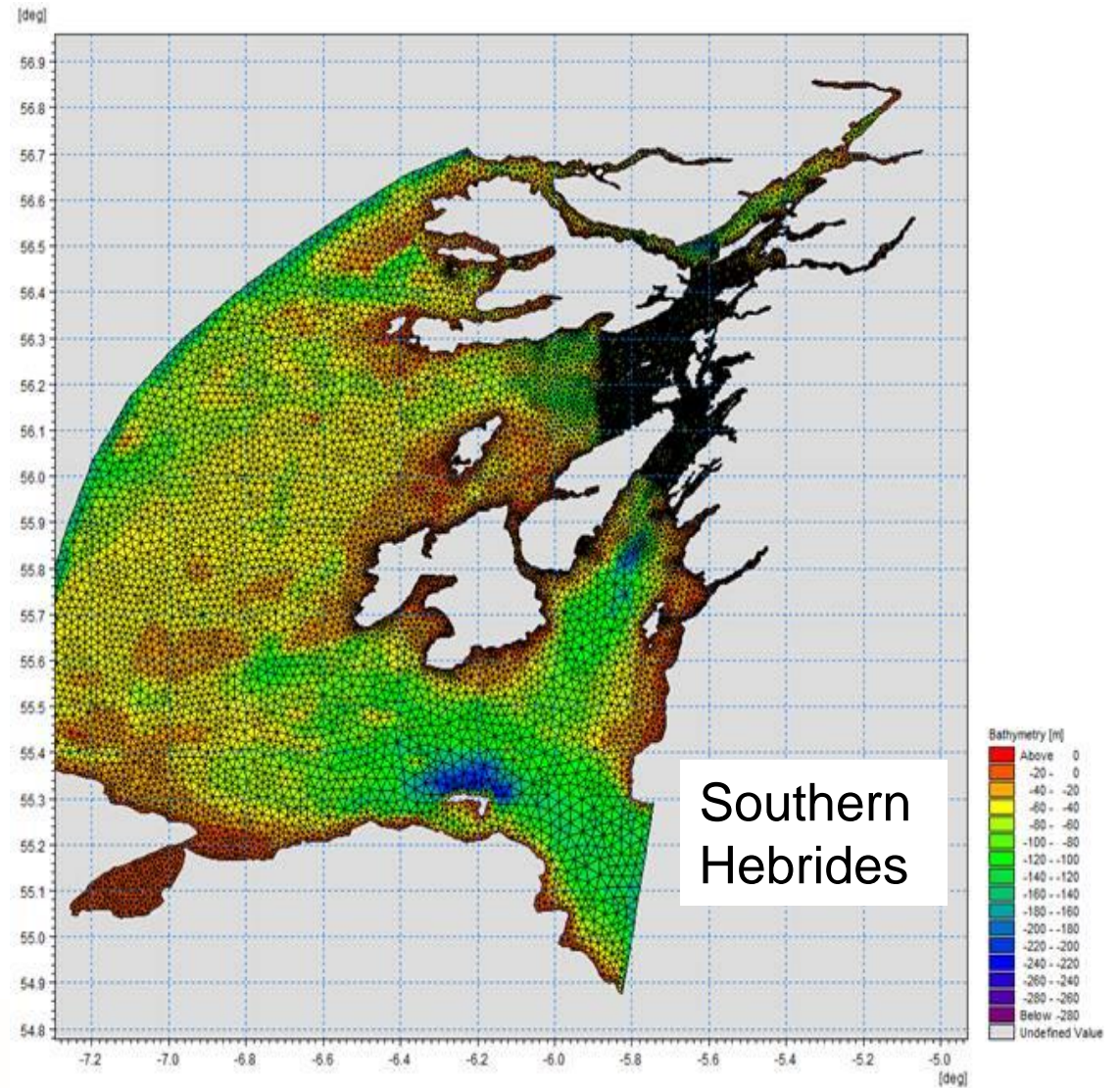
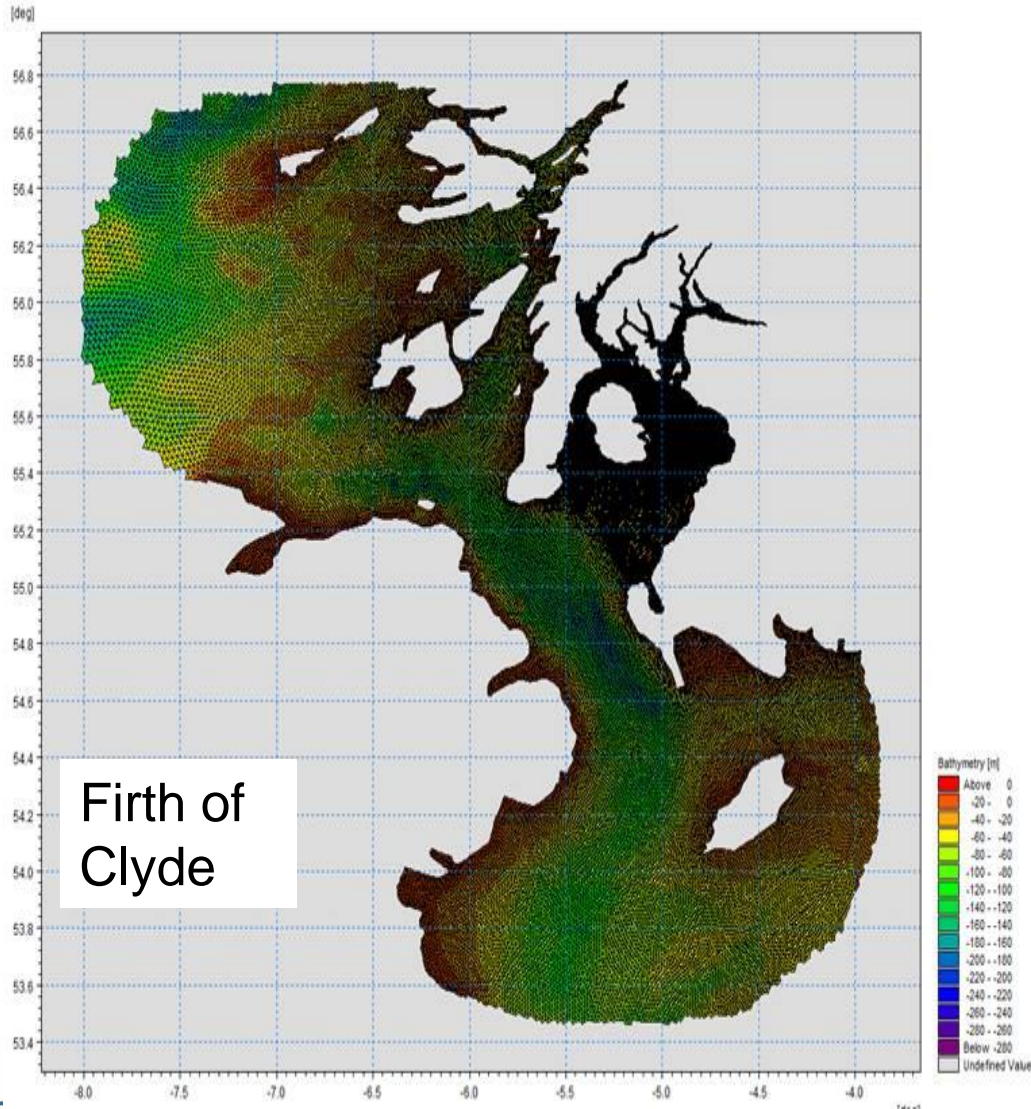
**Possible to  
Comment on  
Additional  
Information**

**Recommendation:  
Further Modelling**

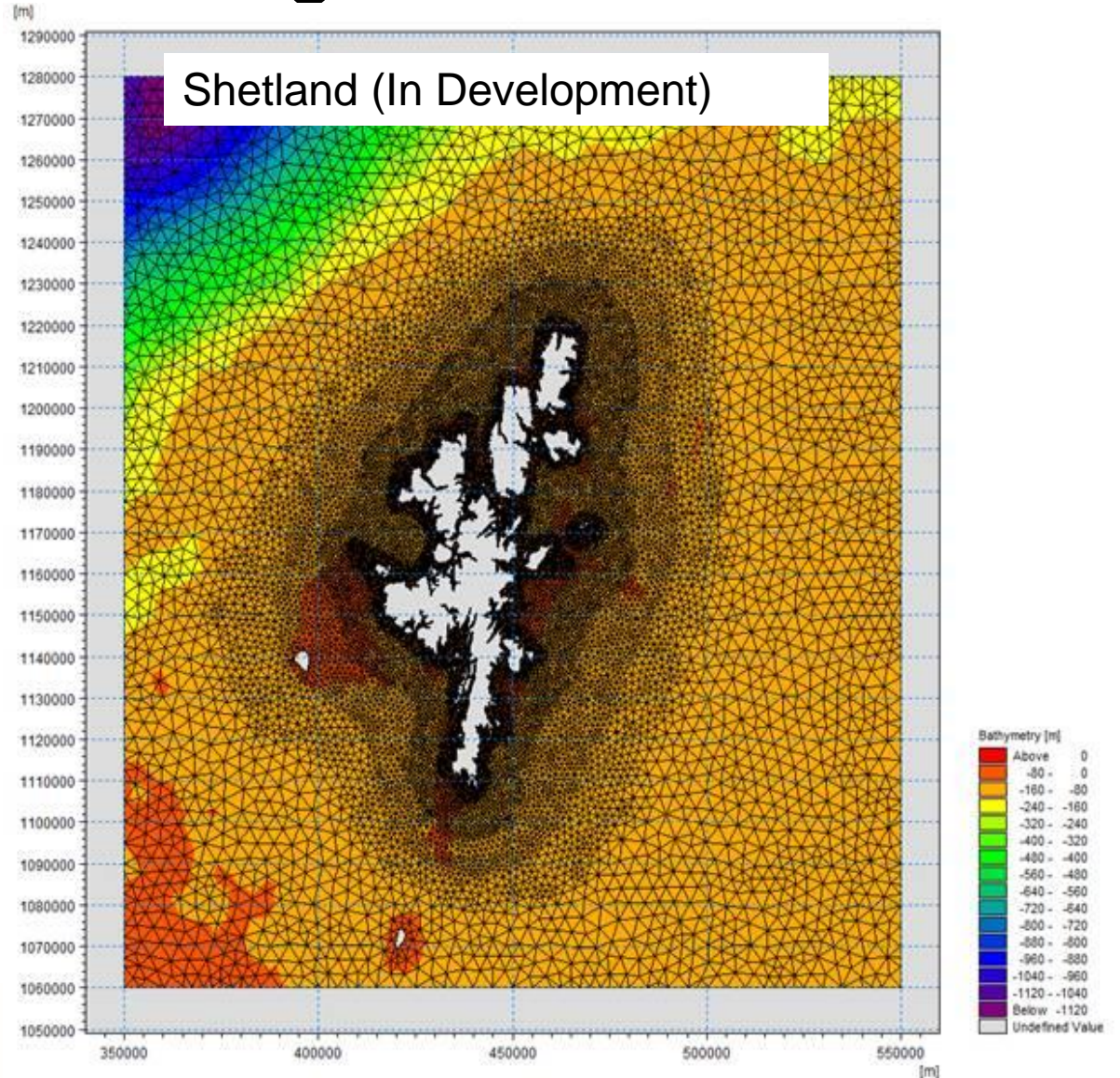
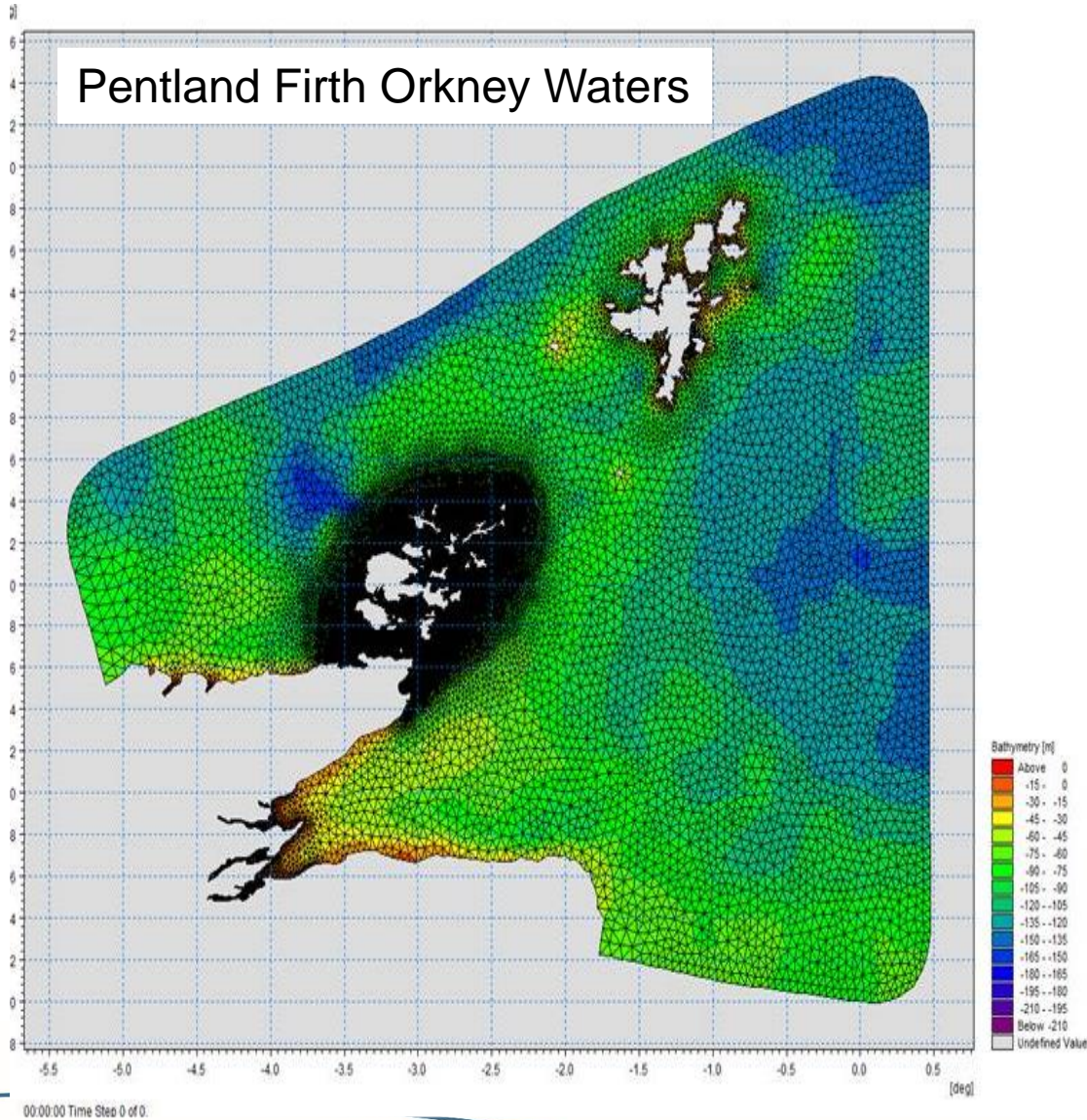
# Screening Modelling – Coverage – 2D Models



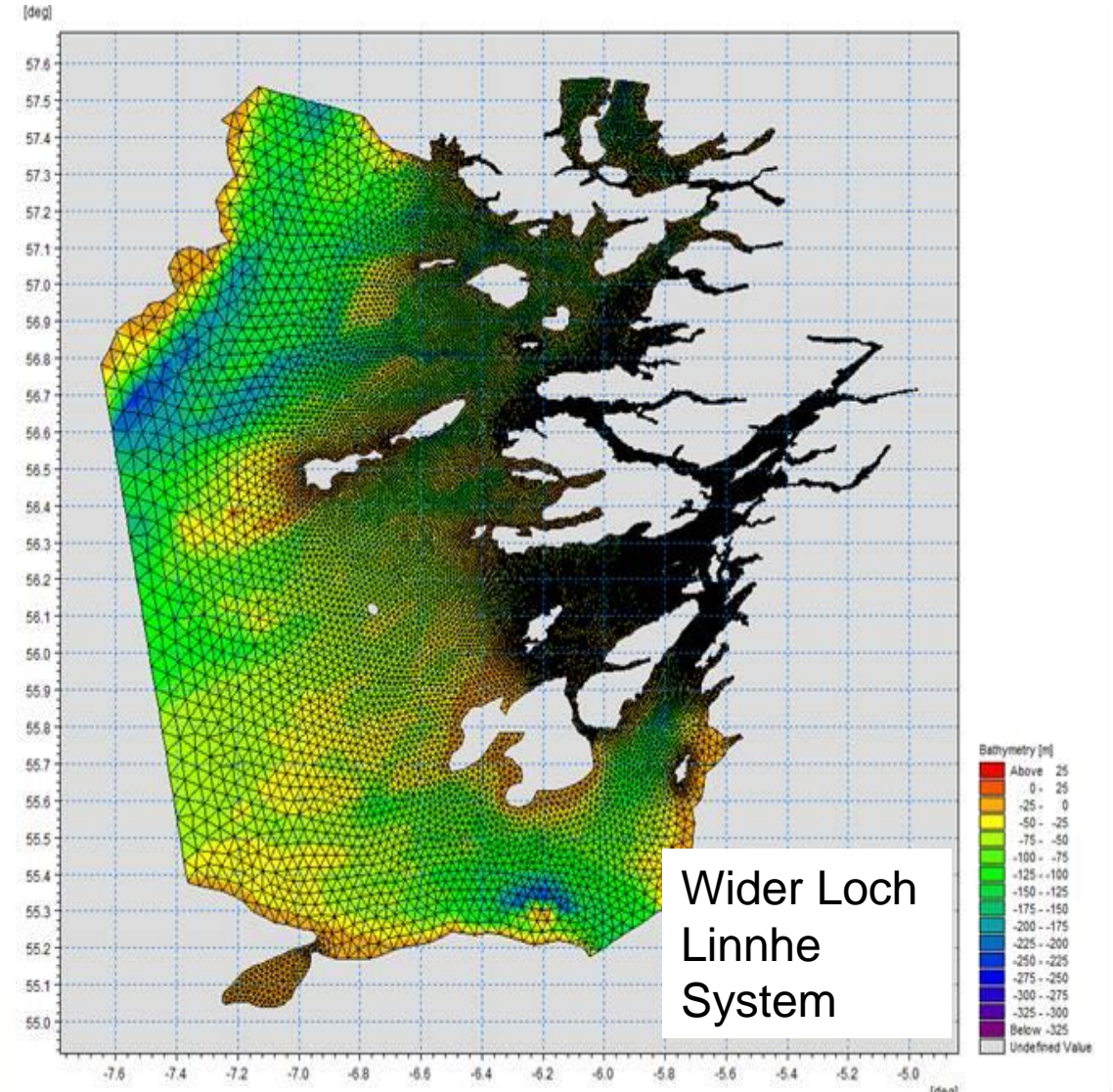
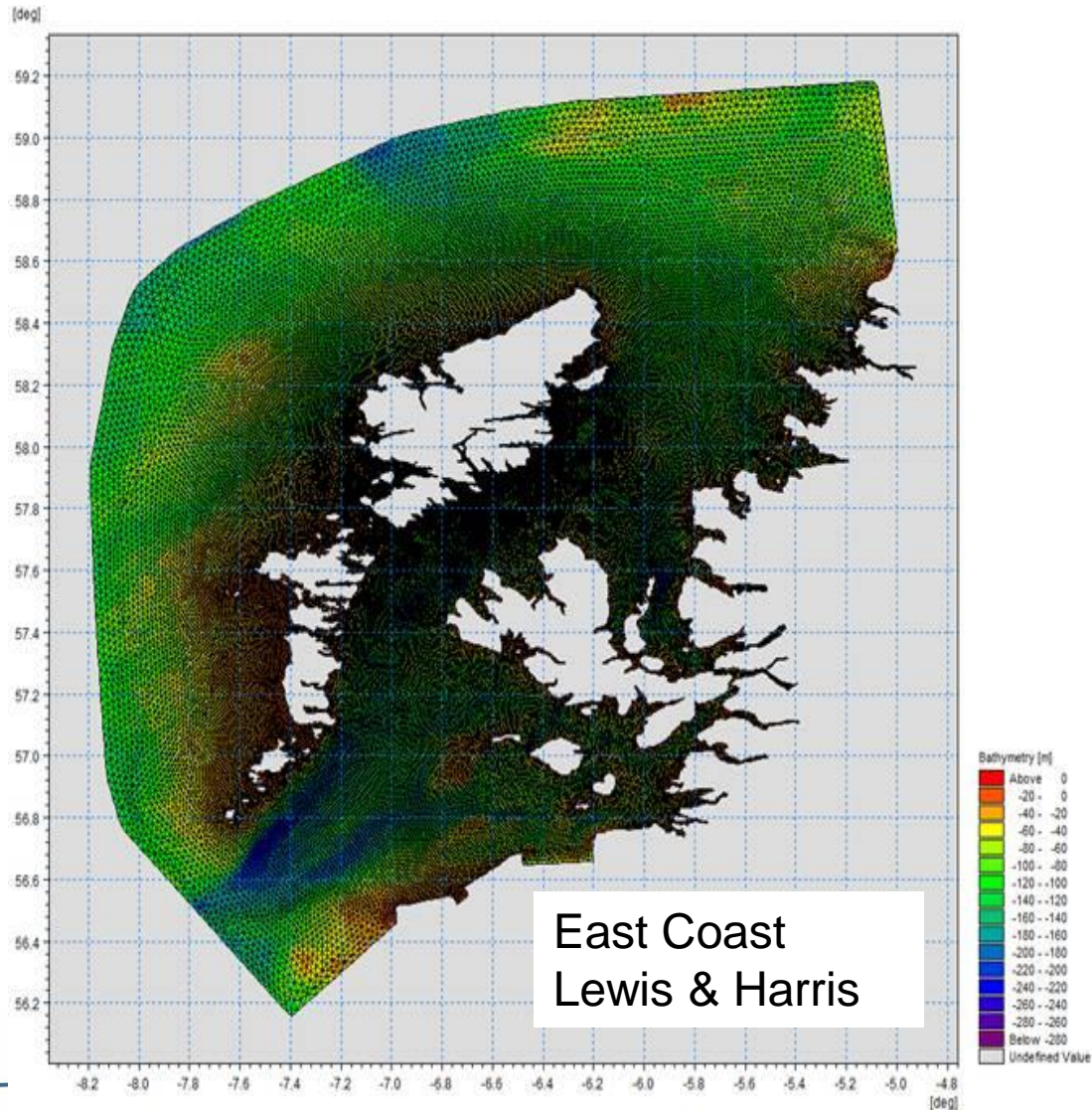
# Screening Modelling – Coverage – 2D Models



# Screening Modelling – Coverage – 2D Models

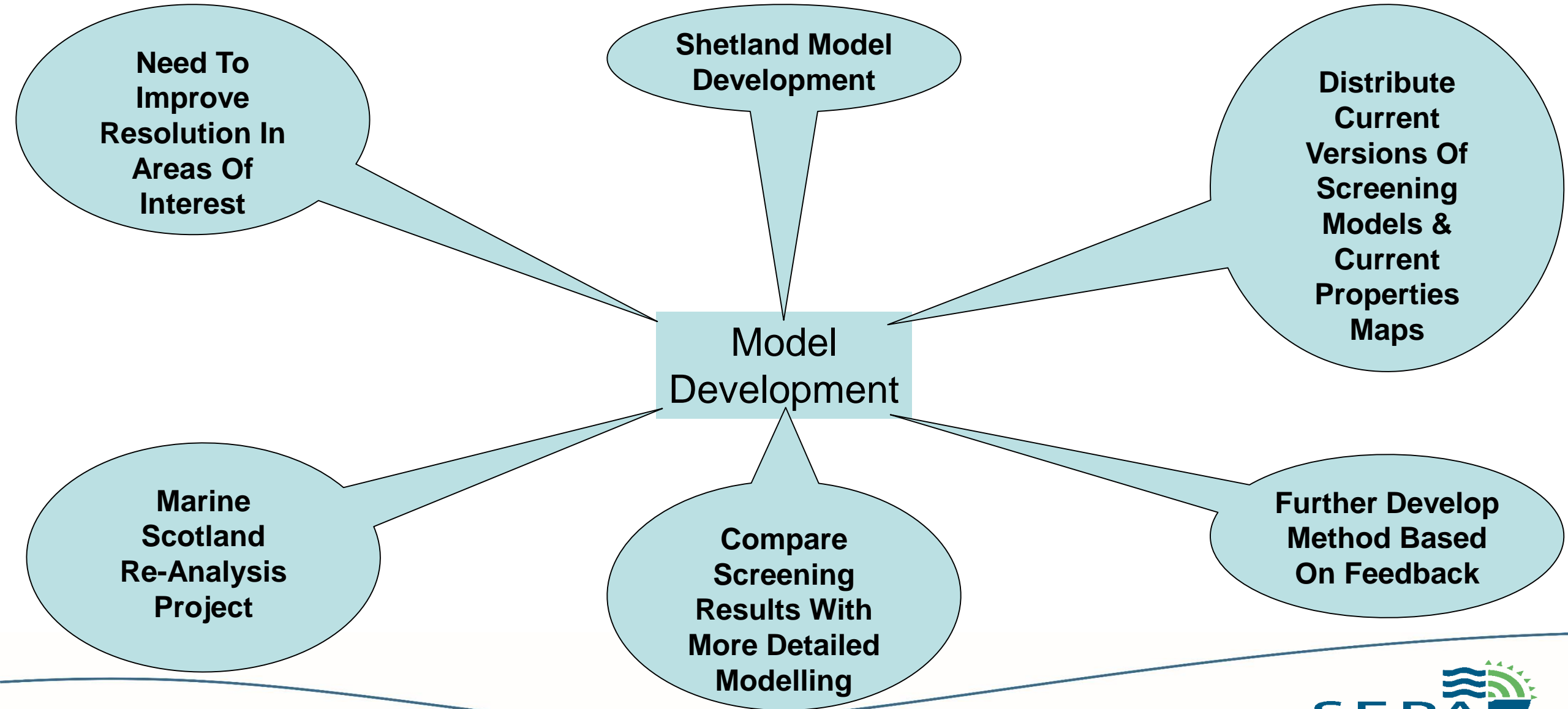


# Screening Modelling – Coverage – 2D Models





# Screening Modelling Development



# Aquaculture Modelling - Update

- Questions and feedback on example report.
- Update on NewDepomod. Questions.

# Summary Of Key Points

