

S-122 Revision Progress

- It's a “work in progress”
- Two pronged approach
 - Migrate to Edition 5.0
 - Evaluate and apply any changes resulting from proposals
- How do we balance MSDI requirements with navigational ones?
- Proposed activities
 - Deal with proposals
 - Application Schema / model
 - FC, PC and GML Schema
 - Documentation review and modification to edition 5.0.0
 - Harmonise activities with S-127

Work Items

Application schema	Needs to be harmonised with S-127 work.	???
GML schema	Should follow straight from FC (edition 5.0.0)	???
Feature Catalogue	From Application Schema	???
Portrayal Catalogue	Initial version is available. Needs work	???
Exchange Catalogue	Follows from Part 17	???
Multilingual support		???
Data protection		???
Pending change proposals integration	Needs assessing	???
Pending change recommendations from S-122 related projects	Are there any? OGC?	???
UML diagrams	From Application Schema assessment	???
Underlying schemas and example resources		???
Final product specification update and editorial review		???
DCEG		???



The current S-122 model is fairly basic in terms of its representation of MPA data. It allows for a single feature (Marine Protected Area). The model clearly shows how MPAs (implemented with curve or surface geometry) have a single mandatory attribute representing the IUCN category, a simple enumeration for jurisdiction, status and restrictions which may be in place for the MPA. Restrictions, in this case, are purely maritime in nature and profiled from the IHO registry code list.

This encoding, whilst a good fit for maritime use cases, does not currently reflect the broader application of MPAs in different geospatial agencies and the richer attribution required for those uses. The proposed amendments to the data model are an initial proposal which need

A number of proposed suggestions have been implemented in the model used for the server, specifically:

1. Added three new values to `categoryOfMarineProtectedArea` (this is the primary designation – the IUCN category for any MPA). This allows for Not Includes, Not specified, Unknown – it was noted that many MPAs in the source datasets simply do not have IUCN categories associated with them.
2. Added complex attribute to record other designations (like WDPA, HELCOM, JNCC) also has a jurisdiction for recording at what level the designation exists. Designation records the scheme and the categorization within the scheme.
3. Added a dimensions complex attribute to record the calculated dimensions of the MPA. These are often used for reporting. Includes unit of measure (needs harmonization with registry)
4. Added enactment date (mandatory) and update date (optional) to all MPAs. This could equally be termed `validFrom` date but enactment seems to be used more frequently. There is a distinct difference between enactment dates and start/end date.
5. New information representing Management Plans. This has a `planStatus` attribute (currently only draft but `planStatus` needs more values added). New association added between MPA and management plan. Many MPAs have management plans associated via URL.
6. All Feature Types now have multiple identifiers. These can be from different schemes (so they are a complex attribute with a scheme designation, a value, and a jurisdiction as many identifiers are set at different levels). Identifiers also have a `textContent` attribute to hold arbitrary textual data about the identifier.
7. `producerCode` added as a simple attribute to Agency. This is the code used to identify them – it could be part of dataset metadata but needs to be at a feature level as multiple agencies could exist within a single dataset.
8. Added regional to jurisdiction. There is a potential to add local as well.

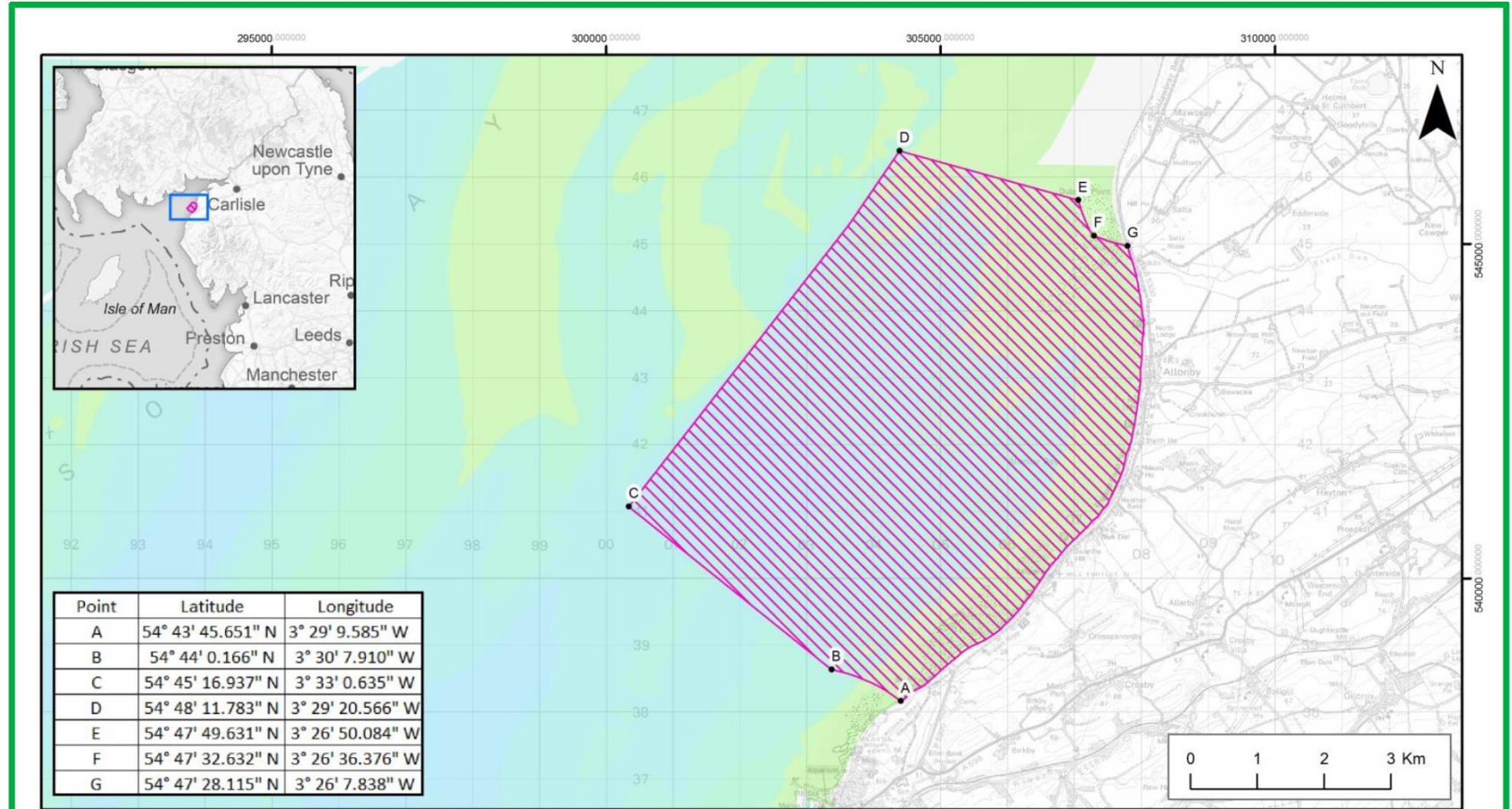
A number of observations on the existing S-122 model have been noted in the ER, mostly reflecting the needs of a broader class of end user for MPA data. Among them are elements such as:

1. A broader set of designations, outside purely IUCN, including national and regional identification schemes and persistent identifiers
2. Provision for metrics, usually area, of primary importance for regional authorities in measuring the effectiveness and status of MPA regimes
3. A broader set of relationships to enacting authorities and legislative sources for MPA data , potentially including references to ISO19152


NIPWG Paper.

<http://ogc.pages.ogc.org/FMSDI-D001-ER/documents/D001/document.pdf>










Map of Allonby Bay candidate HPMA



Candidate HPMA: Allonby Bay

-  Candidate HPMA
- Candidate HPMA coordinates

- - - 6nM limit
- 12nM limit

UKHO depth areas (metres)	
-10	
-2	
0	
2	
5	
10	
15	
20	
30	
50	
100	

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Boundary Coordinates Projection: WGS84