Natural Capital Assessment Tools for the North Devon Marine Pioneer
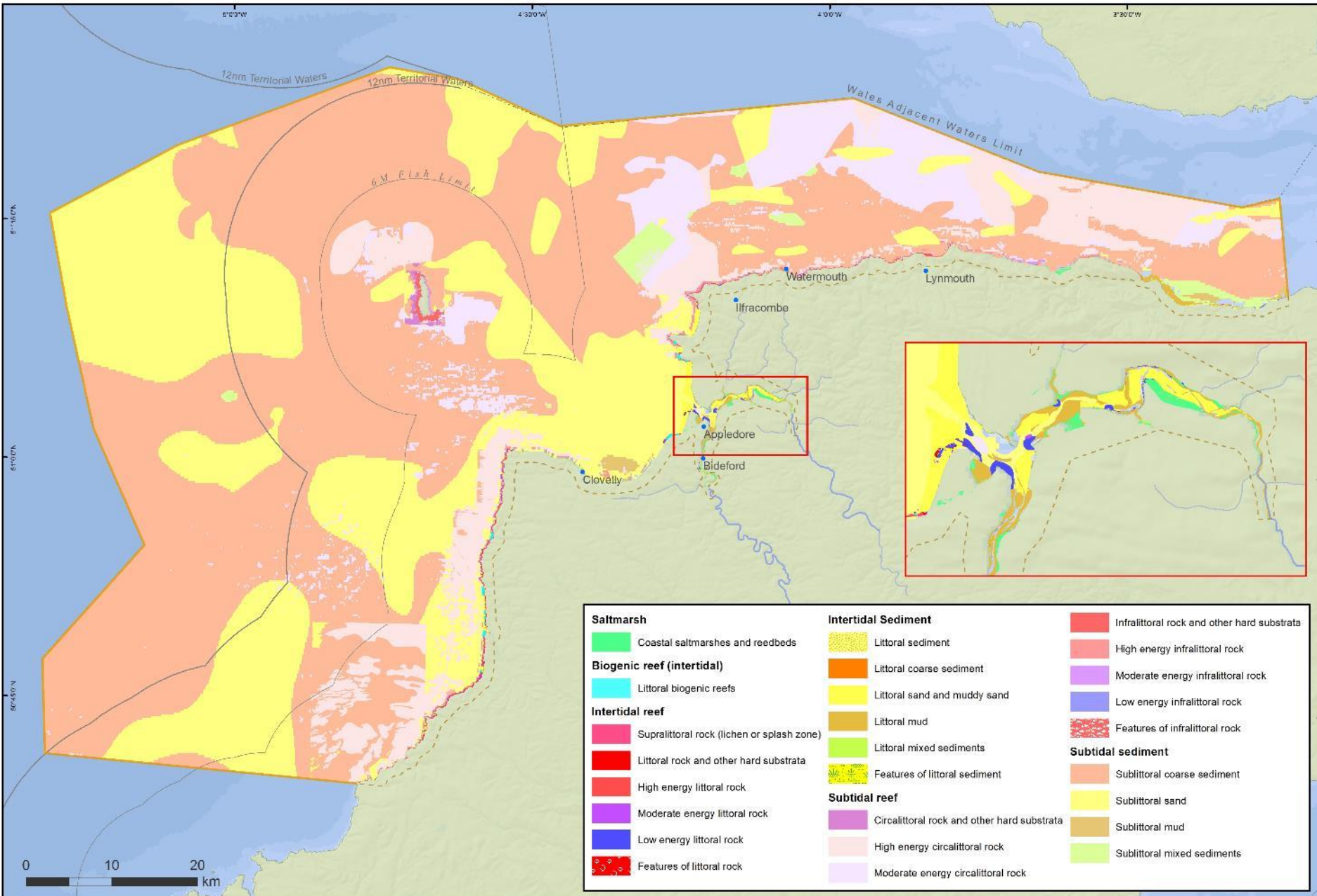
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Pictures by Keith Hiscock

North Devon Marine Pioneer – The assets

Saltmarsh
- Coastal saltmarshes and reedbeds

Biogenic reef (intertidal)
- Littoral biogenic reefs

Intertidal reef
- Supralittoral rock (lichen or splash zone)
- Littoral rock and other hard substrata
- High energy littoral rock
- Moderate energy littoral rock
- Low energy littoral rock
- Features of littoral rock

Intertidal Sediment
- Littoral sediment
- Littoral coarse sediment
- Littoral sand and muddy sand
- Littoral mud
- Littoral mixed sediments
- Features of littoral sediment

Subtidal reef
- Circalittoral rock and other hard substrata
- High energy circalittoral rock
- Moderate energy circalittoral rock

Infralittoral rock and other hard substrata
- High energy infralittoral rock
- Moderate energy infralittoral rock
- Low energy infralittoral rock
- Features of infralittoral rock

Subtidal sediment
- Sublittoral coarse sediment
- Sublittoral sand
- Sublittoral mud
- Sublittoral mixed sediments

Coordinate System: ETRS 1989 ETRS TM30Projection: Transverse MercatorDatum: ETRS 1989Projection: Transverse Mercator
Datum: ETRS 1989False Easting: 500,000False Northing: 0Central Meridian: -3Scale Factor: 1Latitude Of Origin: 0Units: Meter
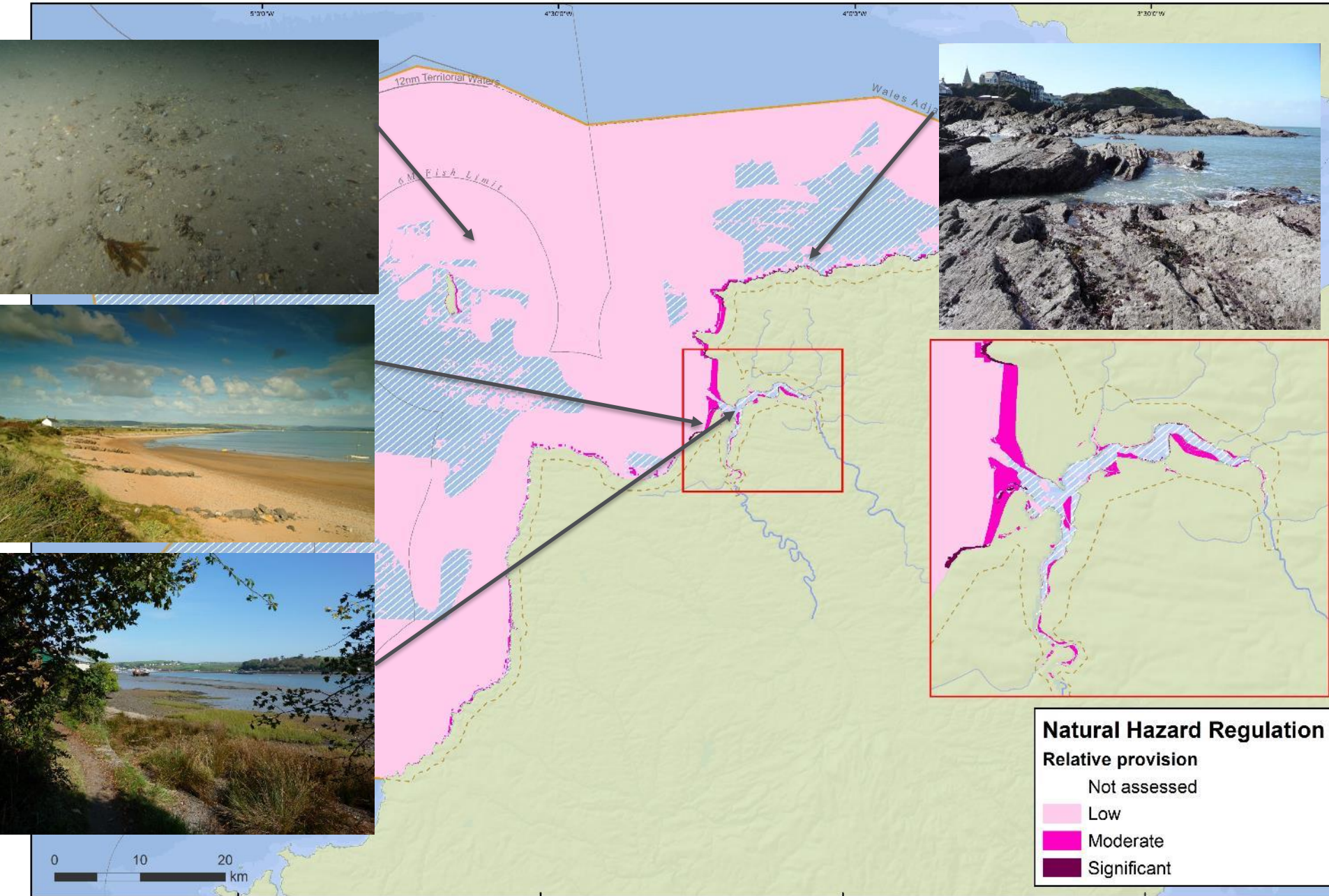
Linking ecology to ecosystem services

Natural Capital Asset: Habitats in North Devon Marine Pioneer		Goods / Benefits				
		from Provisioning services	from Regulating services			from Cultural services
		Food	Healthy climate	Sea defence	Clean water and sediments	Tourism/nature watching
Saltmarsh	Saltmarsh	3	3	3	3	3
Intertidal reef	Littoral (intertidal) rock and other hard substrata	3	2	1		1
Subtidal reef	Infralittoral (shallow) rock and other hard substrata	3	2	1		1
Subtidal reef	Circalittoral (deep) rock and other hard substrata	1		1		1
Intertidal sediments	Sand and muddy sand	1	2	3		1
Intertidal sediments	Mud	3	3	3	3	1
Biogenic reef	Intertidal biogenic reefs	2	1	2	2	1
Subtidal sediment	Coarse sediment	2		3	3	
Subtidal sediment	Sand	2		3	3	
Subtidal sediment	Mud	2		3	3	
Subtidal sediment	Mixed sediments	2		3	3	

Literature review
- Level of provision of each ecosystem service from each habitat (literature and expert opinion)
- Shading (darker) is the level of provision of the ecosystem service.
- 1 = Expert opinion, 2=Grey literature, 3 Peer reviewed literature
- Blank: Not assessed – or no data available.

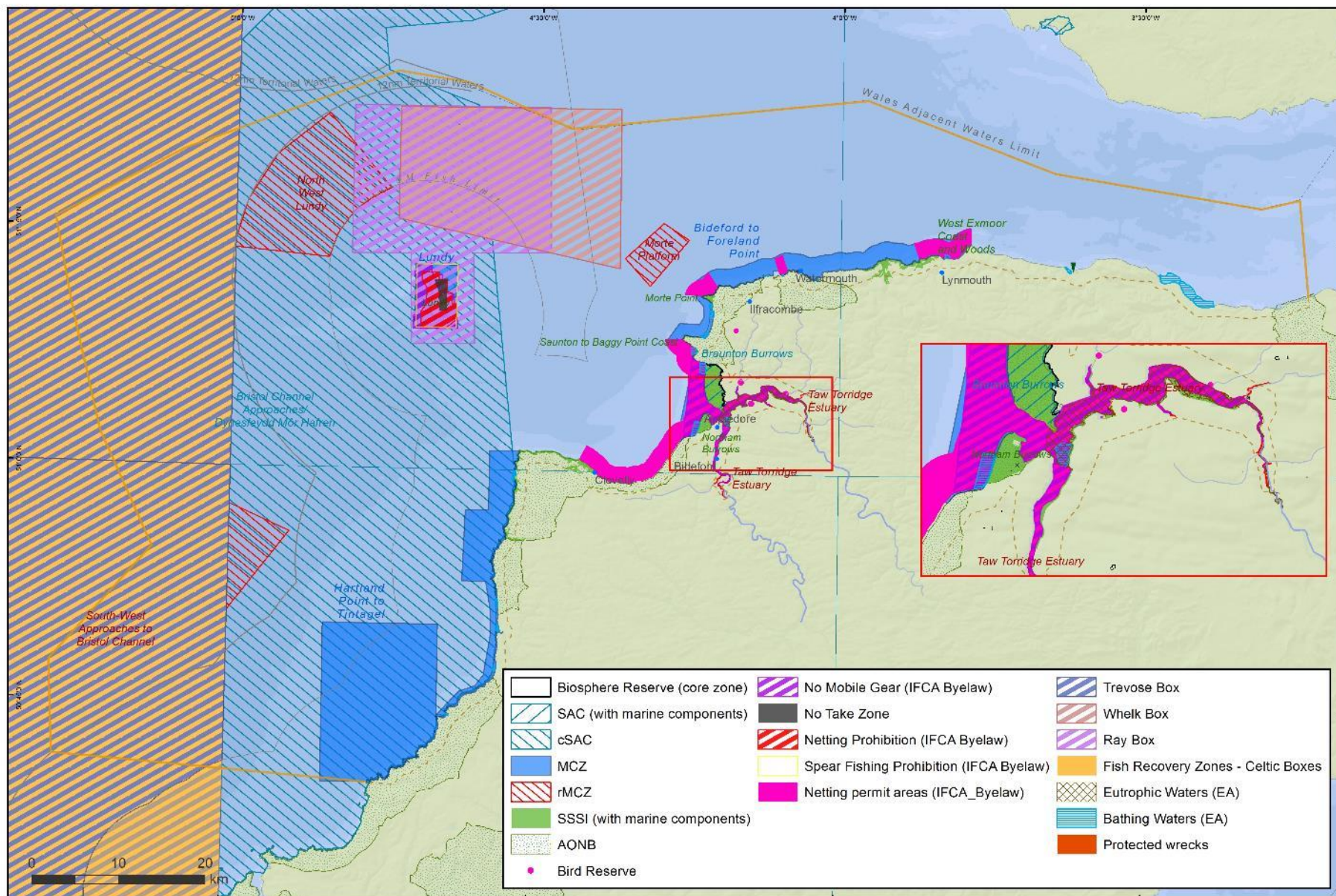# Natural Hazard Regulation: Sea Defence, Flooding and Erosion

Natural Hazard Regulation
Relative provision

- Not assessed
- Low
- Moderate
- Significant

Risk: An Opportunity to 'Pioneer'

Knoll Pins – Keith Hiscock
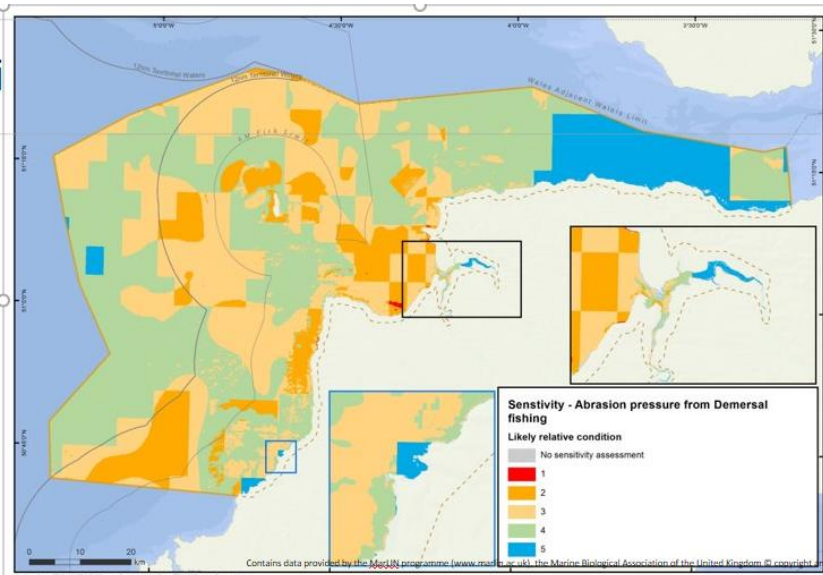
Management Measures

Pressures and Change

Developing a Risk Register (1)

1. Community Based Knowledge of Risk

2. 'Likely Relative Condition'

Developing a Risk Register (2) – Performance Against Policy Targets

Asset	Saltmarsh			Littoral rock			Littoral coarse sediments			Littoral sand and muddy sand			Littoral mud			Littoral mixed sediments			Littoral biogenic reefs			Infralittoral rock			Ci...
Risk category policy	Qun	Qal	Sp.	Qun	Qal	Sp.	Qun	Qal	Sp.	Qun	Qal	Sp.	Qun	Qal	Sp.	Qun	Qal	Sp.	Qun	Qal	Sp.	Qun	Qal	Sp.	Qu
Risk cat. Community	Risk: Local community			Risk: Local community			Risk: Local community			Risk: Local community			Risk: Local community			Risk: Local community			Risk: Local community			Risk: Local community			R... co
Food (Wild Food - fish and shellfish).	B (4)	B (4)	C (8)	B (4)	B (4)	B (4)	B (4)	B (4)	B (4)	B (4)	B (4)	B (4)	C (4)	C (4)	C (8)	B (4)	B (4)	C (8)	B (4)	B (4)	C (8)	B (4)	B (4)	B (4)	C (4
Food - local																									
Healthy climate (carbon sequestration).	B (4)	B (4)	C (8)										C (4)	C (4)	C (8)				B (4)	B (4)	C (8)	B (4)	B (4)	B (4)	
Climate -local																									
Sea defence. (natural hazard regulation / flood prevention).	B (4)	B (4)	C (8)	B (4)	B (4)	B (4)	B (4)	B (4)	B (4)	B (4)	B (4)	B (4)				B (4)	B (4)	B (4)	B (4)	B (4)	C (8)	B (4)	B (4)	B (4)	
Sea defence - local																									
Tourism / nature watching.	B (4)	B (4)	C (8)				B (4)	B (4)	B (4)	B (4)	B (4)	B (4)										B (4)	B (4)	B (4)	C (4

1) Quantity (extent),
2) Quality (condition) and
3) Spatial configuration

sweep

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https://sweep.ac.uk/

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