Annex 1 Ecological & Environmental Data

Species/ Habitat	Data	Type	Extent	Source	Date	Reference	Notes	Report/ Paper
Mud Related Features	Cohesive Mud Habitat (Cumbrian Mud Baisin)	Polygon	NE Irish Sea	Regional Natural England Research- Lumb Et al	Feb-11	Lumb C, Johnston M, Bussell J. (2011). Evidence on the distribution and quality of Mud-related Features in the North Eastern Irish Sea . *Regional Natural England Advice to ISCZ project*		Evidence on the distribution and quality of Mud-related Features in the North Eastern Irish Sea
	Seapen Communities (Cumbrian Mud Baisin)	Polygon	NE Irish Sea	Regional Natural England Research- Lumb Et al	Feb-11			
	North West Irish Sea Communities -Seapens	Point	Irish Sea	AFBI / Marine Institute Ireland	2010			
	MB102 Distribution of (Deep Water Mud Habitats)	Polygon	UK	ABPmer MB102.2A	2010			
	MB102 Distribution of Habitat(Seapens)	Polygon	UK	ABPmer MB102.2A	2010			
Ocean Quahog (Arctica Islandica)	Distribution of Live Speciment & Shells	Point	Irish Sea	Paul Butler (2009)	2009		Breeding population per coms Paul Butler 2011	Establishing the Arctica islandica archive: Development of the definitive shell-based proxy for the North Atlantic shelf seas. PhD thesis, Bangor University.
	Preferable Habitat	Polygon						
	MB102 Distribution of Species	Point	UK	ABPmer MB102.2A	2010			Report 15 MB102 2A- Mapping of Benthic Species.
	NBN Gateway- Species Distribution	Point	UK	NBN Gateway	Various			
Blue Mussel Beds (Mytilus edulis)	NBN Gateway- Species Distribution	Point	UK	NBN Gateway	Various			
	MB102 Distribution of Species	Point	UK	ABPmer MB102.2A	2010			
Esturaine Rock Habitats	WFD- Rockyshore Microalgae,	Point	UK	Environment Agency	2006-2008			

	Species Location							
	MB102 Distribution of Habitat	Point	UK	ABPmer MB102.2A	2010			
	Cumbria SFC-Habitat Maps	Point	UK	SFC/ Jane Lancaster	Various			
Intertidal Under Boulder Communities	MB102 Distribution of Habitats	Point	UK	ABPmer MB102.2A	2010			
Mearl Beds	MB102 Distribution of Habitat	Point	UK	ABPmer MB102.2A	2010			
Horse Mussel Beds (Modiolus Modiolus)	NBN Gateway-Species Distribution	Point	UK	NBN Gateway	Various			
	SEA6 Survey Records	Polygon	Irish Sea	SEA6 report/ BGS/Ivor Rees	2005	REES, I. (2005) *Assessment of the status of horse mussel* (*Modiolus modiolus) beds in the Irish Sea off NW Anglesey.* DTI-SEA 6 Sub-contract report.		
	MB102 Distribution of Habitat	Point	UK	ABPmer MB102.2A	2010			
Native Oyster (Ostrea Edulis)	NBN Gateway-Species Distribution	Point	UK	NBN Gateway	Various		Species Presumed Extinct in ISCZ	
	MB 102 Distribution of Species	Point	UK	ABPmer MB102.2A	2010			
Peat and Clay Exposures	MB102 Distribution of Habitat	Point	UK	ABPmer MB102.2A	2010			
Honeycomb Worm Reefs (Saballeria Alveolata)	NBN Gateway-Species Distribution	Point	UK	NBN Gateway	Various			
	MB102 Distribution of Habitat	Point	UK	ABPmer MB102.2A	2010			
	Wilf Sabaleria Location	Point	ISCZ	Wilf Morgan/ Steve Manning	2010			
Rossworn Reefs (Saballeria	NBN Gateway-Species Distribution	Point	UK	NBN Gateway	Various			

Spinulosa)	Croker Carbonate Slabs Species Records	Point	Area of Search	JNCC 2010	2010		Records indicate species occurance from image analysis, not confirmed reef habitat	
	MB102 Distribution of Habitat	Point	UK	ABPmer MB102.2A	2010			
Seagrass Beds	WFD-Seagrass Monitoring Sites	Point	UK	DEFRA/EA			No Points in Project Area	
	MB 102 Distribution of Species	Point	UK	ABPmer MB102.2A	2010			
Birds	European Seabirds at Sea: Breeding, Summer and Winter Densitys	Raster	Irish Sea	JNCC-ESAS program	2010	JNCC, 2010. European Seabirds at Sea, Joint Nature Conservation Committee, (Peterborough.)		
	RSPB: Colonies, Feeding Ranges (Possible, Likely Very Likely), For: Northern Gannet, Razorbill, Great Cormorant, Black & Common Guilimot , Northern Fulmar, Atlantic Puffin, Manx Shearwater, Terns (Common Arctic, Little, Sandwhich)	Raster	Irish Sea	ISCZ/ RSPB	2010		Outputs generated by ISCZ based on Colony locations, foraging ranges and prefered habitat supplied by RSPB	
Cretaceans	Critical UK Habitat for: White-Beaked Dolphin, Bottlenose Dolphin, Common Dolphin, Minke Whale, Harbour	Polygon	UK	Clark Et al 2010-	2010		Not all species Present in Project Area.	Towards Marine Protected Areas for Cetaceans in Scotland, England and Wales- Clark Et al 2010 (WDCS)

	Porpoise, Risso's Dolphin.							
	Species Distribution: SCANS Geodata base	Polygon	UK	WDCS Society				
	UK Cretacean Data- Various	Polygon	Uk					
Smelt	Environment Agency Smelt Records	Point	Irish Sea	Environment Agency	2010			Smelt Osmerus eperlanus (L.) in rivers and estuaries in England - 2010
	Highly Mobile Species Smelt ICES Squares	Polygon	UK	MB102 2A	2010			Report No 15: Task 2B Distribution of highly mobile species
Eel	Environment Agency Eel Records	Point	Irish Sea	Environment Agency	2010			Eel Management plans for the United Kingdom-2010
	Highly Mobile Species Eel ICES Squares	Polygon	UK	MB102 2A	2010			Report No 15: Task 2B Distribution of highly mobile species
Other	Cumbria Wildlife Trust/ Mersey Biobank Species Records	Point	ISCZ	Cumbria Wildlife Trust				
	Benthic Biodiversity (Species and Biotope richness)	Polygon	ISCZ	MB102 2H	2011			
	Isle of Man Survey Data	Various	IOM Waters	Manx Government	2000-08			
	Local Record Centre Species	Point	UK	Local Record Centres: Various				
	Fish Spawning and Nursery Ground	Polygon	UK	DEFRA/CEFAS:MB5301	2010			Mapping the spawning and nursery grounds of selected fish for spatial planning
	Marine Conservation Society: Your Seas	Point	UK	MCZ	2008-10			

	Non-Native Species: Distribution	Point	UK	MB102.2D	2010			Report No 17: Task 2D. Mapping of Non-Native Species
	Highly Mobiles Species:ICES Distribution	Polygon	UK	MB102.2D	2010	Ellis JR, Readdy L, South A. (2010). Distribution of highly mobile species. *Accessing and developing the required biophysical datasets and data layers for Marine Protected Areas network planning and wider marine spatial planning purposes.* Report No 15 (Task 2B),		Report No 15: Task 2B Distribution of highly mobile species
	Marine Recorder Species Data	Point	UK	JNCC	Various			

	Sector	Data	Type	Extent	Source	Reference	Date
Oceanography	Pelagic Fronts	1km Grid: Spring Summer, Autumn Winter	Raster	UK	ABPmer MB102.2F	Miller P, Christodoulou S, Saux Picart S. (2010). Oceanic thermal fronts from Earth observation data - a potential surrogate for pelagic diversity. *Accessing and developing the required biophysical datasets and data layers for Marine Protected Areas network planning and wider marine spatial planning purposes.* Report No 20 (Task 2F)	2010
		4km Grid: Spring Summer, Autumn Winter	Raster	UK			
		Persistent Thermal Fronts	Raster	UK			

	Seabed Energy	Wave Height (1 in 5year significant wave height), Period and Direction	Raster	UK	ABPmer MB102.2E	West N, Swift RH, Bell C . (2010). Seabed Energy Layers . *Accessing and developing the required biophysical datasets and data layers for Marine Protected Areas network planning and wider marine spatial planning purposes.* Report No 10 (Task 2E),	2010
		Wave induced bed shear stress (from 1 in 5year wave)	Raster	UK			
		Maximum tidal current at 10% above the sea bed and associated direction	Raster	UK			
		Tidal maximum bed shear stress	Raster	UK			
		Combined bed shear stress (wave and maximum tide)	Raster	UK			
		Instantaneous wave energy	Raster	UK			
		Instantaneous tidal energy	Raster	UK			
		Classified instantaneous wave energy	Raster	UK			
		Classified instantaneous tidal energy	Raster	UK			
	Residual Current Flow	Currents at: 90,75,50,25% below surface	Vector	UK	ABPmer MB102.2G	Lambkin DO, Wakelin S, Holt J, Bell C. (2010). Residual Current flow datalayer:Description of approach. *Accessing and developing the required biophysical datasets and data layers for Marine Protected Areas network planning and wider marine spatial planning purposes.* Report No 9 (Task 2G), .	2010
		Grids of Currents: Annual, Spring, Summer, Autumn, Winter at: 90,65,60,25,10 below surface	Raster	UK			2010
	UK SeaMap Water Column	Water Column Features: Spring Summer Autumn Winter	Raster	UK	UK SeaMap JNCC	Connor, D.W., Gilliland, P.M., Golding, N, Robinson, P., Todd, D., & Verling, E. 2006. UKSeaMap: the mapping of seabed and water	2006

						column features of UK seas. Joint Nature Conservation Committee, Peterborough.)	
	PML Temperature Scale	Sea Temperature Data	Raster	UK	Plymouth Marine Lab Remote Sensing Group	Plymouth Marine Lab (2010). *Water Column Data*. Plymouth University: Remote Sensing Group.	2010
	Renewable Energy Atlas	Wind Speed: Autumn, Spring, Summer, Winter, 80,100m high Tidal Range Spring Tidal Power Wave Power: Spring Summer Autumn Winter	Raster Raster Raster Raster	UK UK UK UK	Crown Estates	ABPmer, The Met Office, Garrard Hassan and Proudman Oceanographic Laboratory (2007). Atlas of UK Marine Renewable Energy Resources: *Technical report. A report to the Department of Trade and Industry.*	2010 2010 2010 2010
	Areas of additional Pelagic Importance	Combination of Importance of Area for Various Marine Life	Raster	UK	The Wildlife Trusts	Wildlife Trusts. (2010). Areas of Additional Pelagic Ecological Importance (APEI) Data Layer. *Data Layer for use by MCZ projects.*	2009
Geology	Geomorphological Process	Glacial Process Features Marine Process Features Mass Movement Features Sea Level Change Features Geological Process Features Coastline Features GCR Sites	Vector Vector Vector Vector Vector Vector Vector	UK UK UK UK UK UK UK	ABPmer MB102.2A	Brooks AJ, Roberts H, Kenyon NH, Houghton AJ. (2010). Mapping of Geological and Geomorphological Features. *Accessing and developing the required biophysical datasets and data layers for Marine Protected Areas network planning and wider marine spatial planning purposes.* Report No 8 (Task 2A)	2010 2010 2010 2010 2010 2010 2010

	Geology	Bedrock Geology	Raster	Irish Sea	British Geological Survey	British Geological Survey. 2003. Digital Geological Map of Great Britain 1:250 000 scale (DigRock250) offshore bedrock data [CD-Rom]. Version 1.10. Keyworth, Nottingham: British Geological Survey. Release date 13-11-2003.	2009
		Sediment Clasification Map	Raster	Irish Sea		British Geological Survey. 2003. Digital Geological Map of Great Britain 1:250 000 scale (DigSBS250) offshore sea-bed sediment data [CD-Rom]. Version 1.10. Keyworth, Nottingham: British Geological Survey. Release date 13-11-2003.	2009

Annex 2 Socio-economic Data

Sector	Data	Type	Extent	Original Source	Date	Reference
Recreation	Angling-Shore-Density	Raster	ISCZ	ISCZ Liaison Officers, Fishermap Project	2009-2010	ISCZ. (2010). Fishermap Project.
	Angling-Boat-Density	Raster	ISCZ			
	Diving-Density	Raster	ISCZ			
	Kite Surfing -Density	Raster	ISCZ			
	Bait Digging Density	Raster	ISCZ			
	Harbours-Marinas-Location	Point	Irish Sea Coast	ABP mer	2011	Lee J, Stelzenmüller V, Rogers S. (2010). *Provision of geo-data on human activities and pressures to support the selection of MCZ site*. DEFRA contract MB106: Milestone 2.
	Coastal Infrastructure-Location (jetty's, Piers)	Point	UK	Crown Estates	2011	
	Wildfowling Locations	Polygon	UK	Crown Estates	2010	
	Bathing Waters condition-Location	Point	North West	Environment Agency	2010	
Transport and Navigation	Shipping 'routine traffic' Total-Density	Raster	Irish Sea	Antec UK	2009	Amtec. (2009). Shipping Density Data for ISCZ. *Ref:A2277-GH-TN-1.*
	Shipping 'routine traffic' Cargo Density	Raster	Irish Sea		2009	
	Shipping 'routine traffic' Ferry Density	Raster	Irish Sea		2009	
	Shipping 'routine traffic' Other Density	Raster	Irish Sea		2009	
	Shipping 'routine traffic' Tanker Density	Raster	Irish Sea		2009	
	Port Dredge Dumping-Area	Polygon	Irish Sea	Crown Estates	2010	Lee J, Stelzenmüller V, Rogers S. (2010). *Provision of geo-data on human activities and pressures to support the selection of MCZ sites*.. DEFRA contract MB106: Milestone 2.
	Ports (ferry, cargo)-Location	Point	UK	ABP mer	2010	
	Ferry routes-Areas	Line	Irish Sea	UKHO Nautical Charts	2009	
	Shipping traffic lanes	Line	Irish Sea	UKHO Nautical Charts	2009	
	Caution Areas	Polygon	Irish Sea	UKHO Nautical Charts	2009	
	Port Dredge -Areas	Polygon	Irish Sea	Crown Estates	2010	
	Disposal of Dredge Sites	Polygon	Irish Sea	ABPmer		ABP. (2011). Barrow Channels. *Overview of Dredging Activity.* 20110436BCO01/0
	Barrow Channel Dredging	Polygon	Irish Sea	ABP Ports	2011	
	Coastal Protection Works	Polygon	UK	Crown Estates	2010	
	Workington Pilotage Area-Polygon	Polygon	Irish Sea	Port of Workington	1988	Department for Transport. (1988). Workington Pilotage Harbour Revision Order.
Aggregates	Licence dredging - Areas	Polygon	UK	Crown Estates	2010	Lee J, Stelzenmüller V, Rogers S. (2010). *Provision of geo-data on human activities and*
	Active dredging - Area	Polygon	UK	Crown Estates	2010	

	Prospecting or Option Areas	Polygon	UK	Crown Estates	2010	*pressures to support the selection of MCZ sites* DEFRA contract MB106: Milestone 2.
	Licence Applications	Polygon	UK	Crown Estates	2010	
	Aggregate Potential/Interest Areas	Raster	UK	Crown Estates	2009	
Heritage	World Heritage Sites- Location	Polygon	North West	English Heritage	2009	English Heritage. (2010). Record of Scheduled Monuments
	Record of Schedule Monument- Location	Line	North West	English Heritage	2009	
	AMIE Monuments Inventory: Line, polygon ,point-Location	Various	North West	English Heritage	2009	
	Wreck-Location	Point	UK	English Heritage	2010	
	Maritime Archaeology Designations	Point	UK	ABP mer	2010	Lee J, Stelzenmüller V, Rogers S. (2010). *Provision of geo-data on inshore fishing activity, renewable energy resources, mariculture, anthropological and archaeological sites to support the selection of MCZ sites.*DEFRA contract MB106: Milestone 3.
	Protected Wreck Exclusion Zone Location	Polygon	UK	ABP mer	2010	
	General Maritime Archaeology	Point	UK	ABP mer	2009	
	Paleolandscapes-Location	Point	UK	ABP mer	2010	
Military	MOD Practice Areas	Polygon	Irish Sea	MOD	2010	Lee J, Stelzenmüller V, Rogers S. (2010). *Provision of geo-data on human activities and pressures to support the selection of MCZ sites.*DEFRA contract MB106: Milestone 2.
	National Limits	Line	UK	UKHO Nautical Charts	2011	
Water Quality	Consented Discharge-Locations	Point	North West	Environment Agency	2011	
	Dangerous Substances sample-Location	Point	UK	Environment Agency	2009	
	Outfall Pipe Locations	Line	UK	Crown Estates	2010	
	Water frame Work Directive sample-Location	Polygon	North West	Environment Agency	2009	
Windfarms	Windfarm Licences Round 1,2,3-Areas	Polygon	UK	Crown Estates	2011	Lee J, Stelzenmüller V, Rogers S. (2010). *Provision of geo-data on inshore fishing activity, renewable energy resources, mariculture, anthropological and archaeological sites to support the selection of MCZ sites.*DEFRA contract MB106: Milestone 3.
	Wind Turbine, Locations	Point	UK	Crown Estates	2010	
	Windfarm Cables-Location	Line	UK	Crown Estates	2011	
	Proposed Windfarm Cables-Location	Line	ISCZ	Crown Estates-Operators	2011	
	Wind speed Resources (ATLAS)	Raster	Irish Sea	UK Marine Renewable Energy Resources Atlas	2009	ABPmer, The Met Office, Garrard Hassan and Proudman Oceanographic Laboratory (2007). Atlas of UK Marine Renewable Energy Resources: *Technical report. A report to*

						the Department of Trade and Industry.
Tidal and Wave	Wave Speed Resources (ATLAS)	Raster	UK	Crown Estates / ABP mer	2010	Lee J, Stelzenmüller V, Rogers S. (2010). *Provision of geo-data on inshore fishing activity, renewable energy resources, mariculture, anthropological and archaeological sites to support the selection of MCZ sites.*DEFRA contract MB106: Milestone 3.
	Current and Potential Tidal Power Locations	Point	Irish Sea	Crown Estates / ABP mer	2010	
	Current Wave Power Lease Locations	Point	UK	Crown Estates / ABP mer	2010	
	Tidal Range	Raster	UK	Crown Estates / ABP mer	2010	
	Tidal Sources	Raster	UK	Crown Estates / ABP mer	2010	
	Key Tidal Range Resources	Polygon	UK	Crown Estates / ABP mer	2010	
	Scottish Renewable -Location	Various	Scottish Waters	Crown Estates / ABP mer	2010	
Cables	Current Subsea Cables-Location	Line	UK	ABP mer	2010	Lee J, Stelzenmüller V, Rogers S. (2010). *Provision of geo-data on human activities and pressures to support the selection of MCZ sites..* DEFRA contract MB106: Milestone 2.
	Proposed Cables- Location	Line	Irish Sea	Developers / Crown Estates	2011	
Oil and Gas	Current Hydrocarbon Fields Area	Polygon	UK	UK DEAL	2010	Lee J, Stelzenmüller V, Rogers S. (2010). *Provision of geo-data on human activities and pressures to support the selection of MCZ sites.*DEFRA contract MB106: Milestone 2.
	Round 25 Offer status -Area	Polygon	UK	UK DEAL	2010	
	Round 26 Offers -Area	Polygon	UK	UK DEAL	2010	
	Current and Historic Well/Platform Location	Point	UK	UK DEAL	2010	
	Current Pipelines	Line	UK	UK DEAL	2010	
	Surface Installations	Point	UK	UK DEAL	2010	
	Subsurface Installations	Point	UK	UK DEAL	2010	
	DTI Licence History	Polygon	UK	UK DEAL	2010	
	DTI Licence Current	Polygon	UK	UK DEAL	2010	
	Safety Exclusion Zones	Polygon	UK	UK DEAL	2010	
	3D Seismic Survey Locations	Polygon	UK	UK DEAL	2010	
	Port Meridian	Polygon	ISCZ	Operator-Hoegh	2010	
	Proposed Pipeline	Line	ISCZ	Operator-Hoegh	2010	
	Gas Storage Caverns	Point	ISCZ	Operator Gateway Gas Storage	2010	
	Gateway Gas Storage	Polygon	ISCZ	Operator Gateway Gas Storage	2010	

	Bains Gas Storage Proposal.	Polygon	ISCZ	Operator: Centrica	2010	
Commercial Fishing	Bottom Gear-Fishing Grounds-Density	Raster	Irish Sea	ISCZ Liaison Officers, Fishermap Project	2010	ISCZ. (2010). Fishermap Project.
	Dredging-Fishing Grounds-Density	Raster	Irish Sea			
	Midwater Gear-Fishing Grounds-Density	Raster	Irish Sea			
	Netting-Fishing Grounds-Density	Raster	Irish Sea			
	Potting-Fishing Grounds-Density	Raster	Irish Sea			
	Hand Picking Fishing- VMS-UK -Density	Raster	Irish Sea			
	Bottom Gear-VMS-UK -Effort	Raster	Irish Sea	ABP mer	2010	Lee J, Stelzenmüller V, Rogers S. (2010). *Provision of geo-data on human activities and pressures to support the selection of MCZ sites.* DEFRA contract MB106: Milestone 2. UK Data for 2008&09 or for 2006-2009. Non UK: Country and Gear Specific for 2006-2009 (Individual Years) Non-UK also available for EU combined gear type cumulative for 2006-2009.
	Dredging-VMS-UK -Effort	Raster	Irish Sea		2010	
	Pots-VMS-UK -Effort	Raster	Irish Sea		2010	
	Midwater Gear-VMS-UK -Effort	Raster	Irish Sea		2010	
	Lines-VMS-UK -Effort	Raster	Irish Sea		2010	
	Netting-VMS-UK and International-Effort	Raster	Irish Sea		2010	
	Seines-VMS-UK -Effort	Raster	Irish Sea		2010	
	Bottom Gear-VMS-International-Effort	Raster	Irish Sea		2006-09	
	Dredging-VMS- International-Effort	Raster	Irish Sea		2006-90	
	Pots-VMS- International-Effort	Raster	Irish Sea		2006-09	
	Midwater Gear-VMS-International-Effort	Raster	Irish Sea		2006-09	
	Lines-VMS- International-Effort	Raster	Irish Sea		2006-09	
	Netting-VMS- International-Effort	Raster	Irish Sea		2006-09	
	Seines-VMS- International-Effort	Raster	Irish Sea		2006-09	
	Fish Value VMS (20km^2) Total	Raster	ISCZ	VMS & MFA Landings (Cowrie 2009)	2004-2007	ABPmer Ltd (2009) Development of spatial information layers for commercial fishing and shellfishing in UK waters to support strategic siting of offshore windfarms. Commissioned by COWRIE Ltd *(project reference FISHVALUE-07-08).*
	Fish Value VMS (20km^2) Dredging	Raster	ISCZ	VMS & MFA Landings (Cowrie 2009)	2004-2007	
	Fish Value VMS (20km^2) Netting	Raster	ISCZ	VMS & MFA Landings (Cowrie 2009)	2004-2007	
	Fish Value VMS (20km^2) Line & Hook	Raster	ISCZ	VMS & MFA Landings (Cowrie 2009)	2004-2007	
	Fish Value VMS (20km^2) Seine Net	Raster	ISCZ	VMS & MFA Landings (Cowrie 2009)	2004-2007	
	Fish Value VMS (20km^2) Trap Fishing	Raster	ISCZ	VMS & MFA Landings	2004-2007	

				(Cowrie 2009)		
	Fish Value VMS (20km^2) Trawling	Raster	ISCZ	VMS & MFA Landings (Cowrie 2009)	2004-2008	
	Fish Value non-VMS (ICES) Total	Raster	ISCZ	VMS & MFA Landings (Cowrie 2009)	2004-2007	
	Fish Value non-VMS (ICES) Netting	Raster	ISCZ	VMS & MFA Landings (Cowrie 2009)	2004-2007	
	Fish Value non-VMS (ICES) Line & Hook	Raster	ISCZ	VMS & MFA Landings (Cowrie 2009)	2004-2007	
	Fish Value non-VMS (ICES) Seine Net	Raster	ISCZ	VMS & MFA Landings (Cowrie 2009)	2004-2007	
	Fish Value non-VMS (ICES) Trap Fishing	Raster	ISCZ	VMS & MFA Landings (Cowrie 2009)	2004-2007	
	Fish Value non-VMS (ICES) Dredging	Raster	ISCZ	VMS & MFA Landings (Cowrie 2009)	2004-2007	
	Fish Value non-VMS (ICES) Trawling	Raster	ISCZ	VMS & MFA Landings (Cowrie 2009)	2004-2008	
	Management-Historical Fishing Rights	Polygon	UK	UKHO	1987	EEC. (1987). EEC, Fishing Rights 6 to 12 Mile Belt . *EEC Fishing Rights.* Item 2.16
	Management- Dee No Go Area	Polygon	Irish Sea	Environment Agency	2010	Environment Agency. (2011). Dee Estuary Seasonal Special Marks To Delineate Prohibited Areas. *Dee Conservancy* No 7
	Management-ICES Fishing Squares	Polygon	Irish Sea		2010	Lee J, Stelzenmüller V, Rogers S. (2010). *Provision of geo-data on human activities and pressures to support the selection of MCZ sites.*. DEFRA contract MB106: Milestone 2.
	Management-SFC/IFA Byelaws	Polygon	Irish Sea		2010	
	Management-CFP Closures	Polygon	UK	ABP mer	2010	
	Management- Morcambe Bay Fisheries	Polygon	UK	NWNW SFC	2010	
	Management-Landing ports by species	Point	UK	ABP mer	2010	Lee J, Stelzenmüller V, Rogers S. (2010). *Provision of geo-data on inshore fishing activity, renewable energy resources, mariculture, anthropological and archaeological sites to support the selection of MCZ sites.*DEFRA contract MB106: Milestone 3.
	Fishery Landing Ports-Locations	Point	UK	ABP mer	2010	
	Aquaculture Areas	Polygon	UK	Crown Estates	2010	
	Shelfish Production-England and Wales	Polygon	UK	ABP mer	2010	
	Shelfish Production-Northern Ireland	Polygon	UK	ABP mer	2011	
	Shelfish Production-Scotland	Polygon	UK	ABP mer	2012	
	SEPA Caged Fish Farms	Polygon	UK	ABP mer	2013	
	Shellfish Waters Directive	Polygon	North West/ Wales	Environment Agency	2009	

Annex 2 Socio-economic Data

Final IA Assumptions - Management Measures (following Regional Review 2 on 2.6.11, meeting with NWIFCA and MMO on 7.6.11 and ISCZ additions 20.6.11, and RSG workshop 7 14.7.11 and development of potentially damaging activities 23.8.11)

pMCZ 1

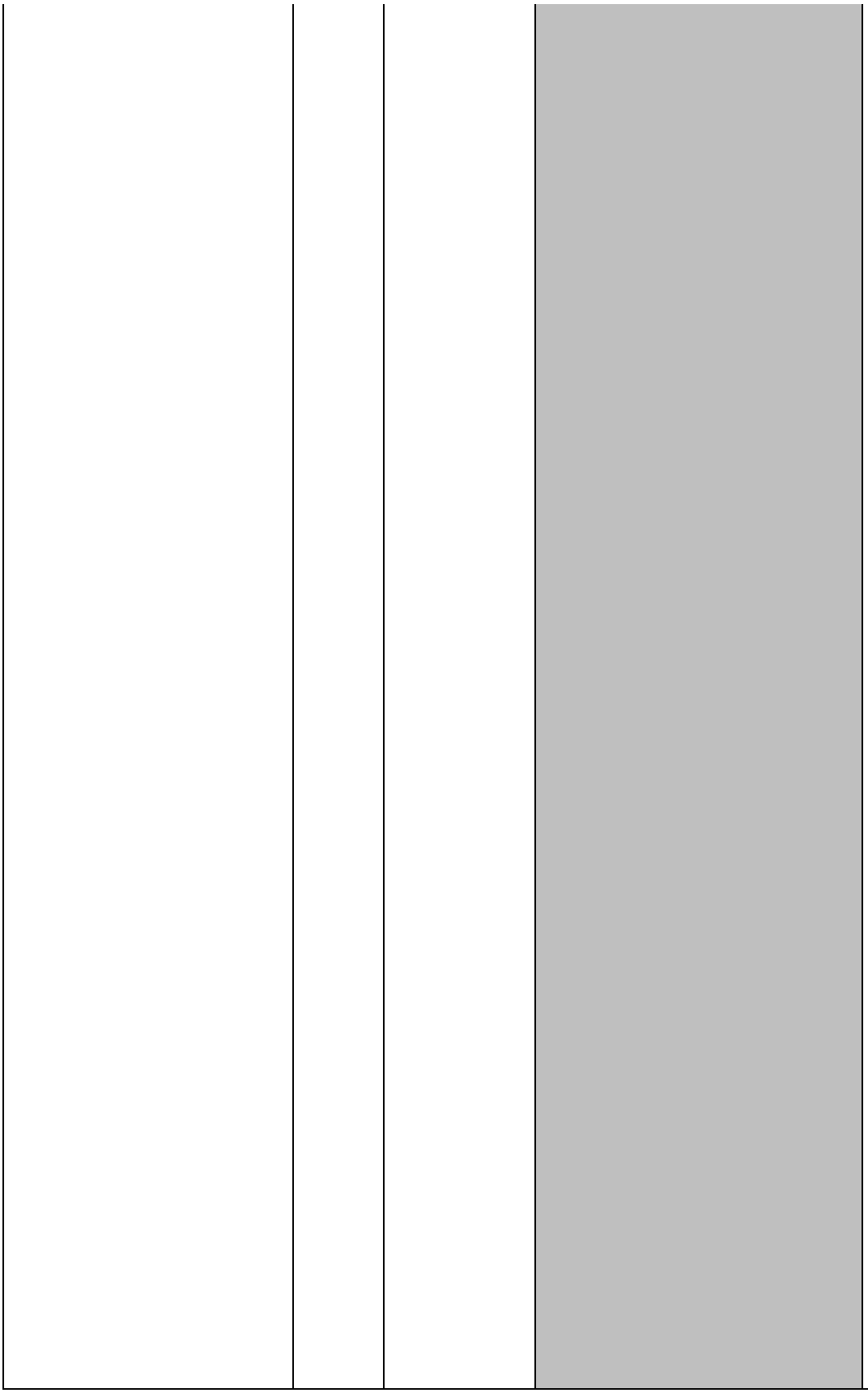
Sector	Potential UK impact headlines	Description of activity in the site to be managed	Extent to be managed	Suggested Measures	Feasibility	Effectiveness	Resource Implications
Benthic fisheries	At least. 25 vessels affected	From Fishermap, 25 UK vessels fish in the area using bottom gear and target sole, plaice, prawn, pollack, shrimp, flatfish, whitefish, brill, solenette, turbot, rockfishes, skate & rays, cod, haddock and monkfish. They use single, twin, grassrope, pair trawlers. The focus meeting identified nephrops as the principal target species in the area, targeted mostly by Northern Irish and English (Cumbrian) vessel, as it is mostly a mud habitat in this area. VMS data shows the use of bottom gear in the area by UK, Irish and Belgian vessels. Between 6-12nm, the Irish have historic rights.	Effectively a Prohibition of activity, as this is only option through CFP. Although SNCB advice is to reduce pressure (exposure is reduced from moderate or high levels to a low level). Stakeholder comments: As it is a reduce pressure, prohibit activity from only part of the site, and/or seasonally, not all. Restrict only some benthic and dredging gear types, explore gear adaptations. Further discussions required.	**1) CFP outside of 6nm (due to historic rights). Benthic and dredging gear types can be prohibited from entering the area (IA ASSUMPTION).** 2) If management only needed within 12nm, could use a UK Prohibition order to ban certain gear types. Non-UK vessels with historic rights in 6-12nm can be managed equally if UK Prohibition Order taken to EU. 3) For UK vessels only, the MMO can impose a licence condition. However, this will not be any use in 6-12nm where non-UK vessels have historic rights. 4) As it is a reduce pressure, restrict activity from only part/s of the site, or seasonally, not all. 5) Restrict only some benthic and dredging gear types, explore gear adaptations. Further discussions required.	All potential vessels could have increased satellite pings, via mobile phones, All vessels in who want to fish in the area would have duty to acquire this technology. Mobile phone app would support a greater frequency of VMS pings. If the case, this would remove the need for patrol vessels.	Enforceable only through VMS monitoring, and perhaps a patrol boat to back up but not necessary. Existing surveillance consists of 2hr satellite pings. This will not be sufficient for zones as a boat can travel along with within 2hrs depending on its speed. Can also set up alarm zones (geofencing) to inform authority that a vessel has crossed the boundary but this is not effective unless have <2 hr pings. Far easier to enforce within 0-12nm.	This system is being trialled in Lyme Bay. There would be a cost to skippers for reporting through enhanced VMS including purchase of mobile phone technology. There would be an increased cost to authorities for monitoring but potentially offset by not needing patrol boat.
Dredging fisheries	Approx. < 5 vessels affected	From Fishermap, less than five vessels dredge in the area for scallops. However, this is considered to be unlikely as there are no sand habitats in the area. May be an error of resolution in collecting data from fishermen. The focus meeting did not identify any dredging activity. VMS data shows a low level of dredging in top left of area. Overall, to be cautious, it is assumed that there is a low level of dredging activity in the area. Would only need to be managed in the area of subtidal mud.	Effectively a Prohibition of activity, as this is only option through CFP. Although SNCB advice is to reduce pressure (exposure is reduced from moderate or high levels to a low level). Stakeholder comments: As it is a reduce pressure, prohibit activity from only part of the site, not all. Restrict only some benthic and dredging gear types, explore gear adaptations. Further discussions required.				

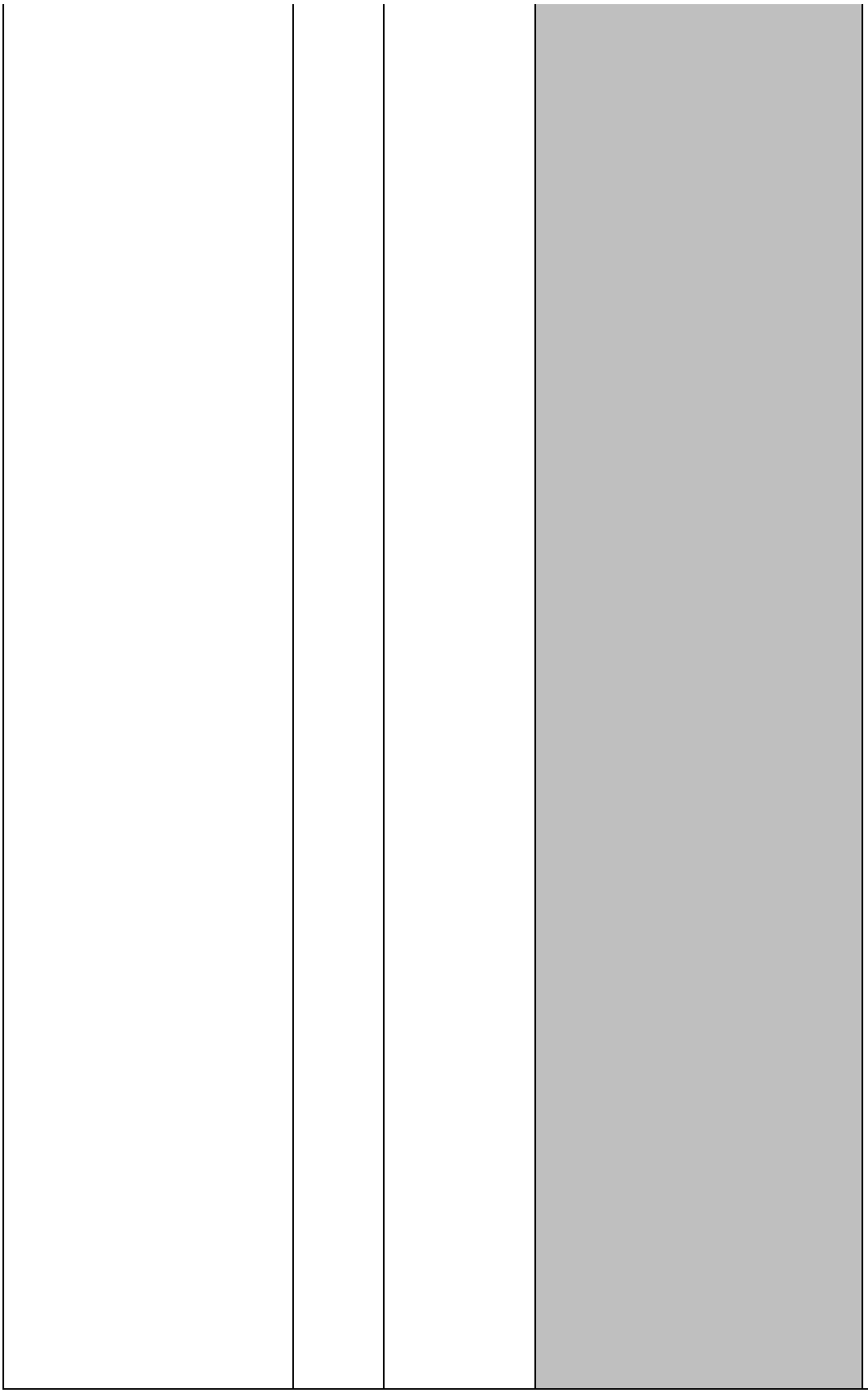
Military Activity	Not known	There is a military firing area over most of the site. Military operations in or around a site, will be modified to limit impacts upon MCZ designated features.	As a competent authority, MOD must determine whether their plans and projects will have a likely significant effect on, or least hinder, the conservation objectives of MCZs. Military activities are exempt from the EIA Directive. However, adheres to the Secretary of State for Defence, Safety, Health, Environmental Protection and Sustainable Development in Defence Policy Statement. Military activities are not exempt from the Birds and Habitats Directives, or from the provisions of the Marine & Coastal Access Act, with the exception of certain elements of licensing. The MOD is developing a Maritime Environmental Sustainability Appraisal Tool (MESAT). This will help ensure that military activities do not have a significant impact on MCZs. Activities will be modified in and around a MCZ to limit impact on designated features.	n/a	n/a	n/a	n/a

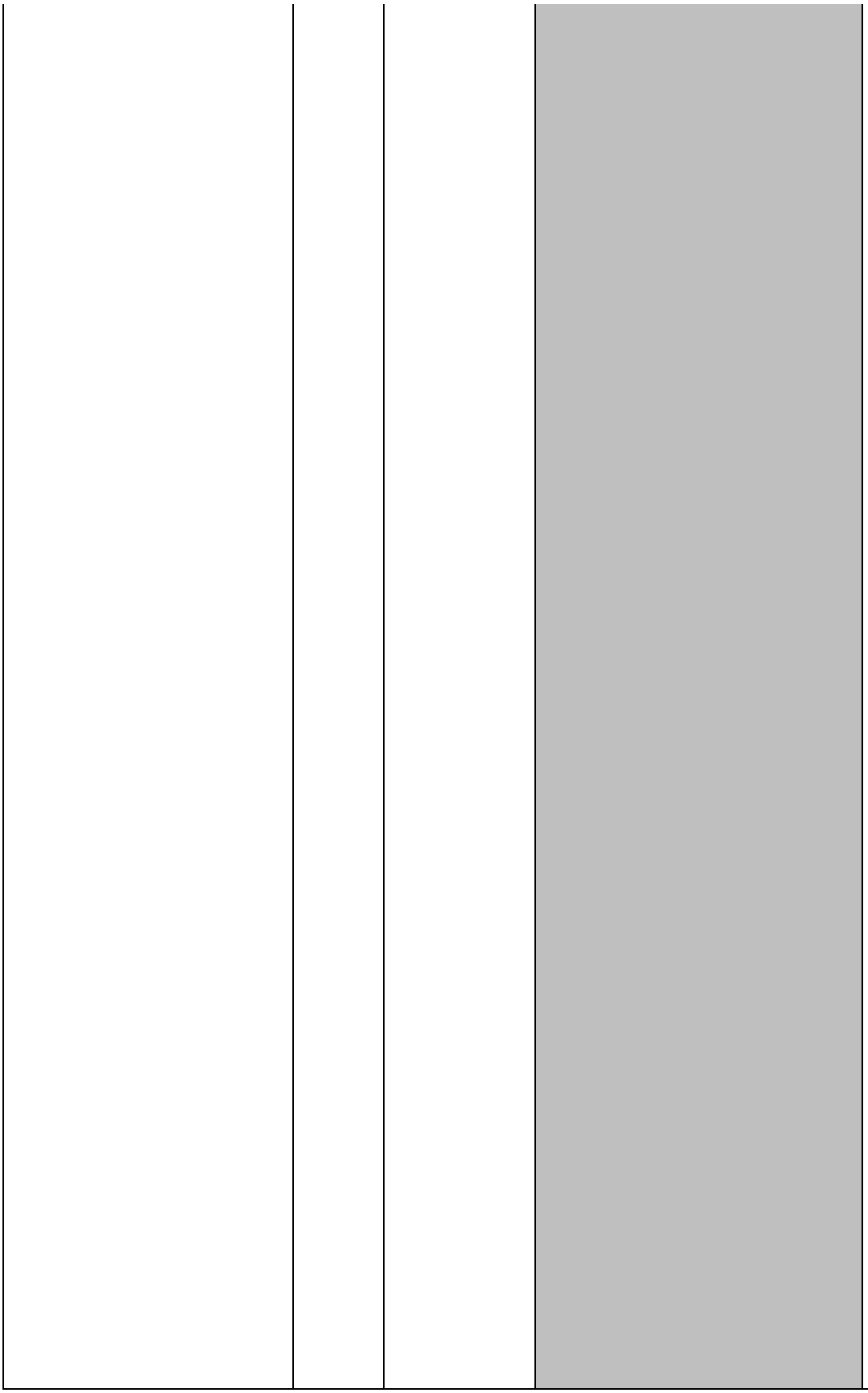
Ref. Area A (in pMCZ 1) - straddles the 12nm line

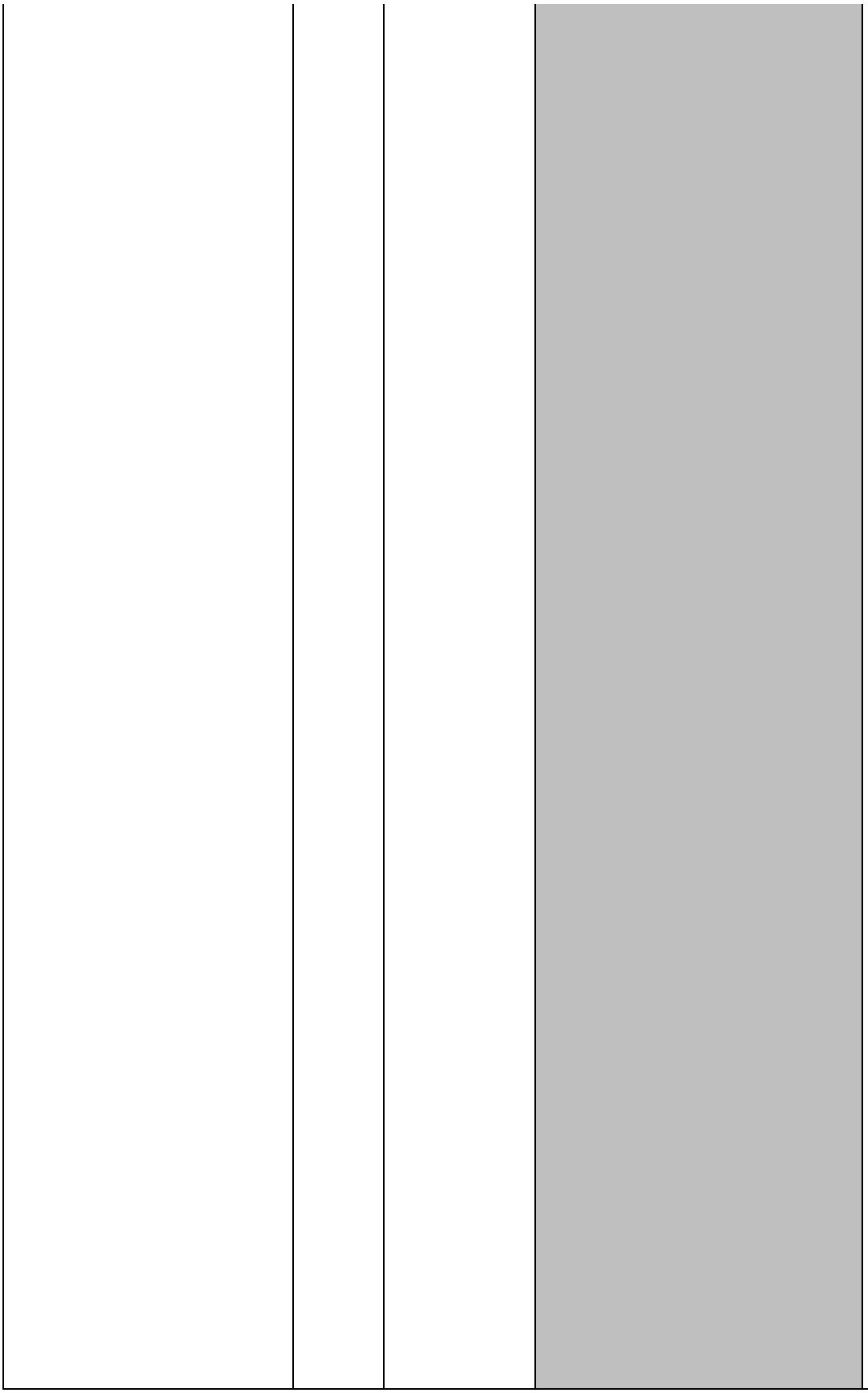
Sector	**Potential UK impact headlines**	**Description of activity in the site to be managed**	**Extent to be managed**	**Suggested Measures**

Benthic fisheries	At least. 25 vessels affected	From Fishermap, 25 UK vessels fish in the area using bottom gear and target sole, plaice, prawn, pollack, shrimp, flatfish, whitefish, brill, solenette, turbot, rockfishes, skate & rays, cod, haddock and monkfish. They use single, twin, grassrope, pair trawlers. The focus meeting identified nephrops as the principal target species in the area, targeted mostly by Northern Irish and English (Cumbrian) vessel, as it is mostly a mud habitat in this area. VMS data shows the use of bottom gear in the area by UK, Irish and Belgian vessels. WIthin 12nm, only the Irish have historic rights.	Prohibition of activity in all of the site. Transit is permitted.	**1) CFP outside of 6nm (due to historic rights). Certain gear types can be prohibited from entering the area (IA ASSUMPTION).** 2) If management only needed within 12nm, could use a UK Prohibition order to ban certain gear types. Non-UK vessels with historic rights in 6-12nm can be managed equally if UK Prohibition Order taken to EU. 3) For UK vessels only, the MMO can impose a licence condition. However, this will not be any use in 6-12nm where non-UK vessels have historic rights.
Dredging fisheries	Approx. < 5 vessels affected	From Fishermap, less than five vessels dredge in the area for scallops. However, this is considered to be unlikely as there are no sand habitats in the area. May be an error of resolution in collecting data from fishermen. The focus meeting did not identify any dredging activity. VMS data shows a low level of dredging in top left of area. Overall, to be cautious, it is assumed that there is a low level of dredging activity in the area. Would only need to be managed in the area of subtidal mud. This activity would need to be managed.	Prohibition of activity in all of the site. Transit is permitted.	
Pelagic fisheries	Approx. < 5 vessels affected	From Fishermap, less than five vessels mid-water trawl in the site.	Prohibition of activity in all of the site.	









Recreation	Not known	Evidence of sailing routes passing through the area from interviews with recreational users.	Prohibition of anchoring in the site for motoring and non-motoring vessels. Transit is permitted.	Voluntary agreement

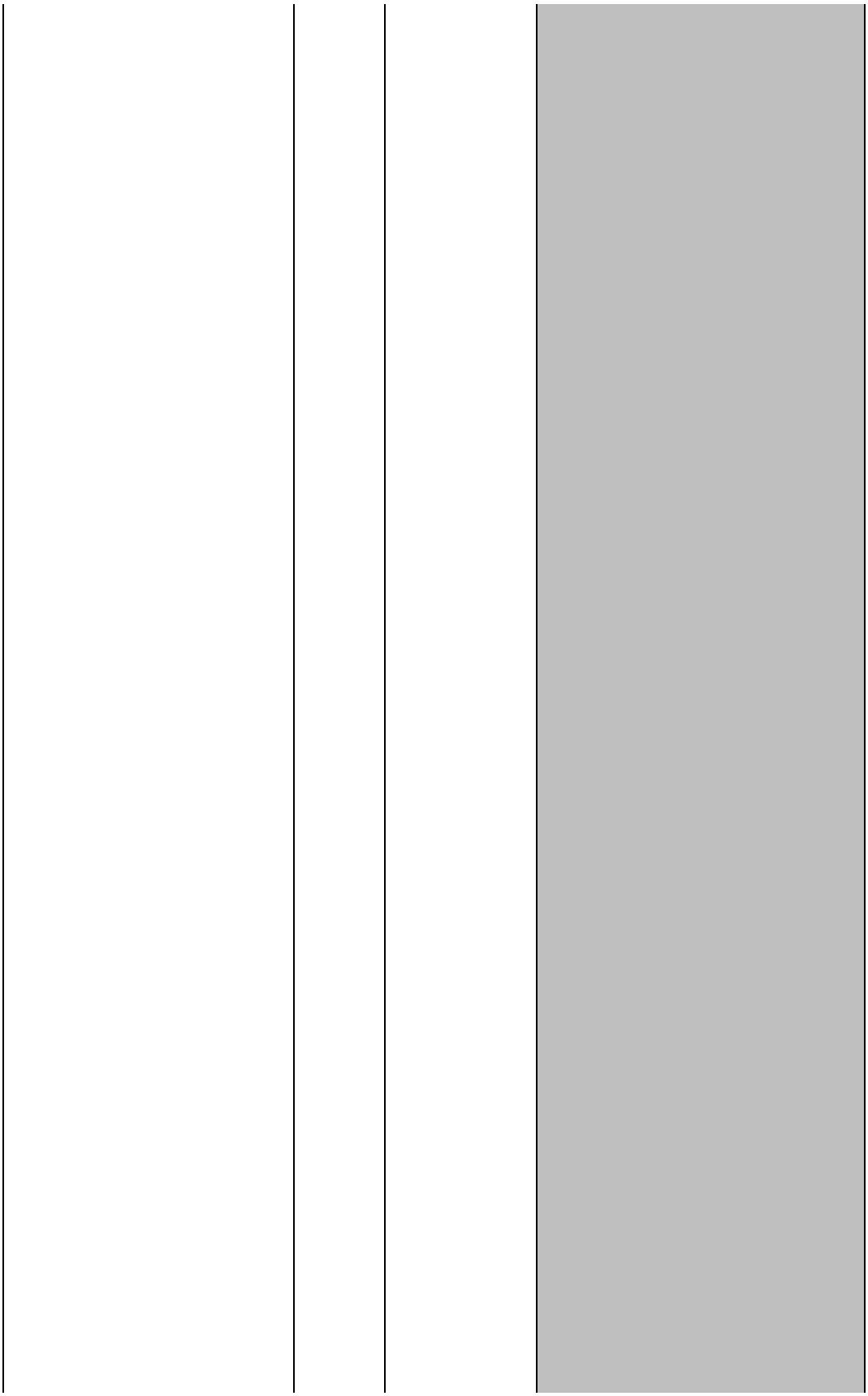
pMCZ 2

Sector	**Potential UK impact headlines**	**Description of activity in the site to be managed**	**Extent to be managed**	**Suggested Measures**

Benthic fisheries	Approx. 20-40 UK vessels affected Otter trawls Beam trawls Twin riggers already banned within 6nm. Approx. 5 non-UK vessels affected.	The focus meeting identifed that otter trawling for nephrops (on mud), beam trawling for mixed whitefish (UK & Irish vessels) and dover sole (Belgian vessels) (both on sand) take place in pMCZ 2 (Iteration 3 boundary which included a southern extension). The focus group identified that up to 40 vessels otter trawl for nephrops in pMCZ 2 March through to September (including Irish vessels). 25 years ago, there was upwards of 150 vessels reportedly. The focus group identified that a few vessels trawl for whitefish in pMCZ 2 using beam trawls. Can be any time of year. Tend to work on sand habitats only. Similarly, there are known to be about 3-5 beam trawlers (all Belgian) who work this area, on sand habitats only. They are active at any time from September to May. This activity would need to be managed. From Fishermap, at least 23 UK bottom trawlers using either pair trawls or otter trawls are active there, targeting prawns, shrimps, whitefish, cod and skates & rays. They are associated with at least 9 different home ports (in order of most no. vessels): Kilkeel, Ardglass, Portavogie, Barrow, Fleetwood, Maryport and Whitehaven]. From VMS, UK bottom trawlers (considerable effort) work the site. Belgian (beam trawlers), French (bottom gear) and Irish (bottom gear) vessels are also known to fish there from VMS data.	Effectively a Prohibition outside of 6nm, as this is only option through CFP. Although SNCB advice is to reduce pressure (exposure is reduced from moderate or high levels to a low level). Within 6nm is a reduction of pressure. Stakeholder comments: As it is a reduce pressure, prohibit activity from only part of the site, not all. Restrict only some benthic and dredging gear types, explore gear adaptations. Further discussions required.	**1) CFP outside of 6nm. Certain gear types can be prohibited from entering the area (IA ASSUMPTION).** 2) If management only needed within 6nm, could use a UK Prohibition order to ban certain gear types. Non-UK vessels with historic rights in 6-12nm can be managed equally if UK Prohibition Order taken to EU. 3) For UK vessels only, the MMO can impose a licence condition. However, this will not be any use in 6-12nm where non-UK vessels have historic rights. **4) IFCA byelaw within 6nm (IA ASSUMPTION).** Suggested by IFCA that management measure looks at gear types (light gear/heavy gear). Or smaller areas with tighter restrictions. Twin riggers are already banned within 6nm. 5) As it is a reduce pressure, restrict activity from only part/s of the site, or seasonally, not all. 6) Restrict only some benthic and dredging gear types, explore gear adaptations. Further discussions required.

Dredging fisheries	Approx. < 5 vessels affected	The focus meeting did not identify any dredging activity in this site. There is no VMS evidence to suggest dredging takes place in the site. However, questionnaires with fishermen have identified less than five dredging vessels that are active in pMCZ 2. Scallops and queenies are targeted all year round.	Effectively a Prohibition outside of 6nm, as this is only option through CFP. Although SNCB advice is to reduce pressure (exposure is reduced from moderate or high levels to a low level). Within 6nm is a reduction of pressure. Stakeholder comments: As it is a reduce pressure, prohibit activity from only part of the site, not all. Restrict only some benthic and dredging gear types, explore gear adaptations. Further discussions required.

Annex 3 Management Tables



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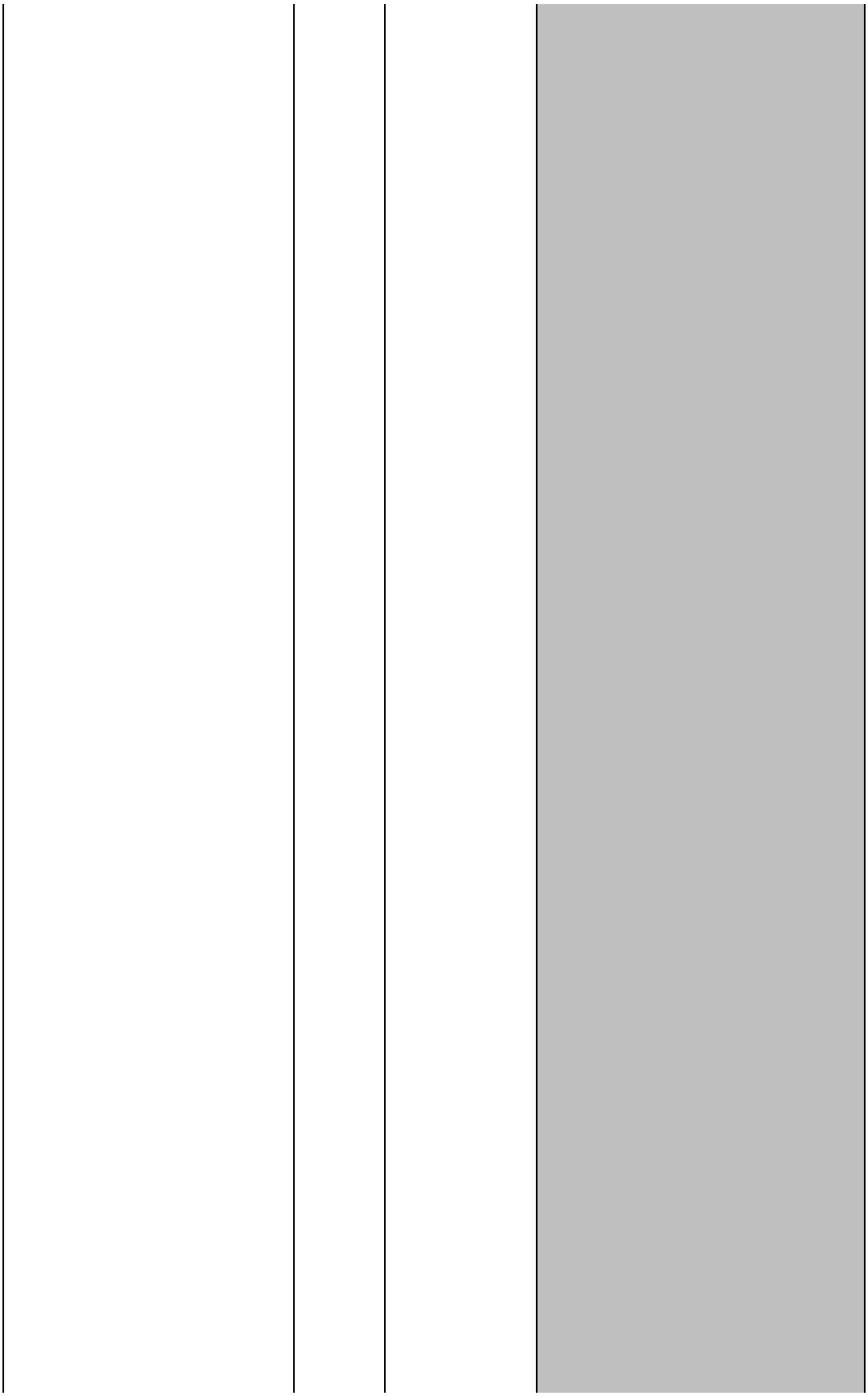

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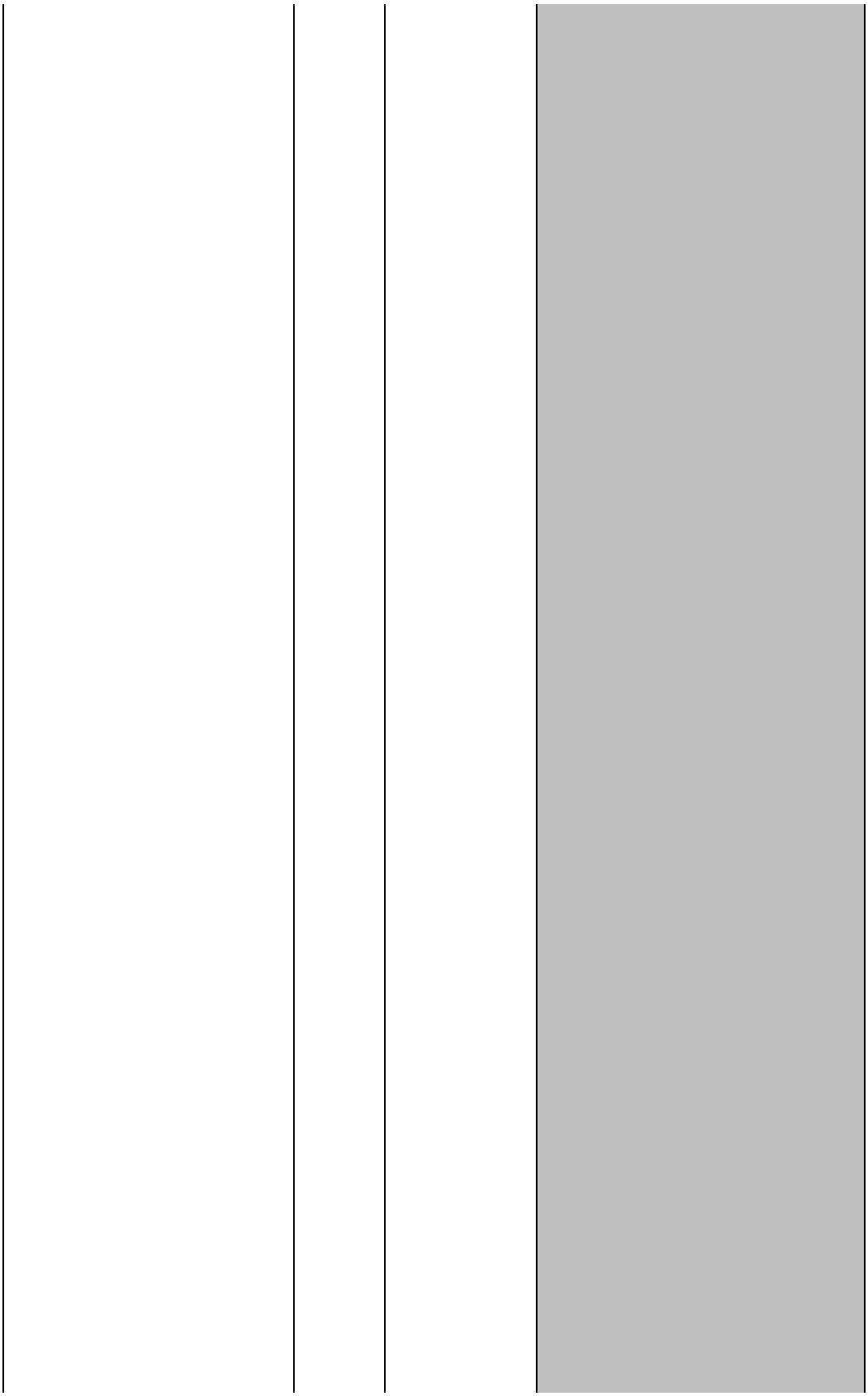

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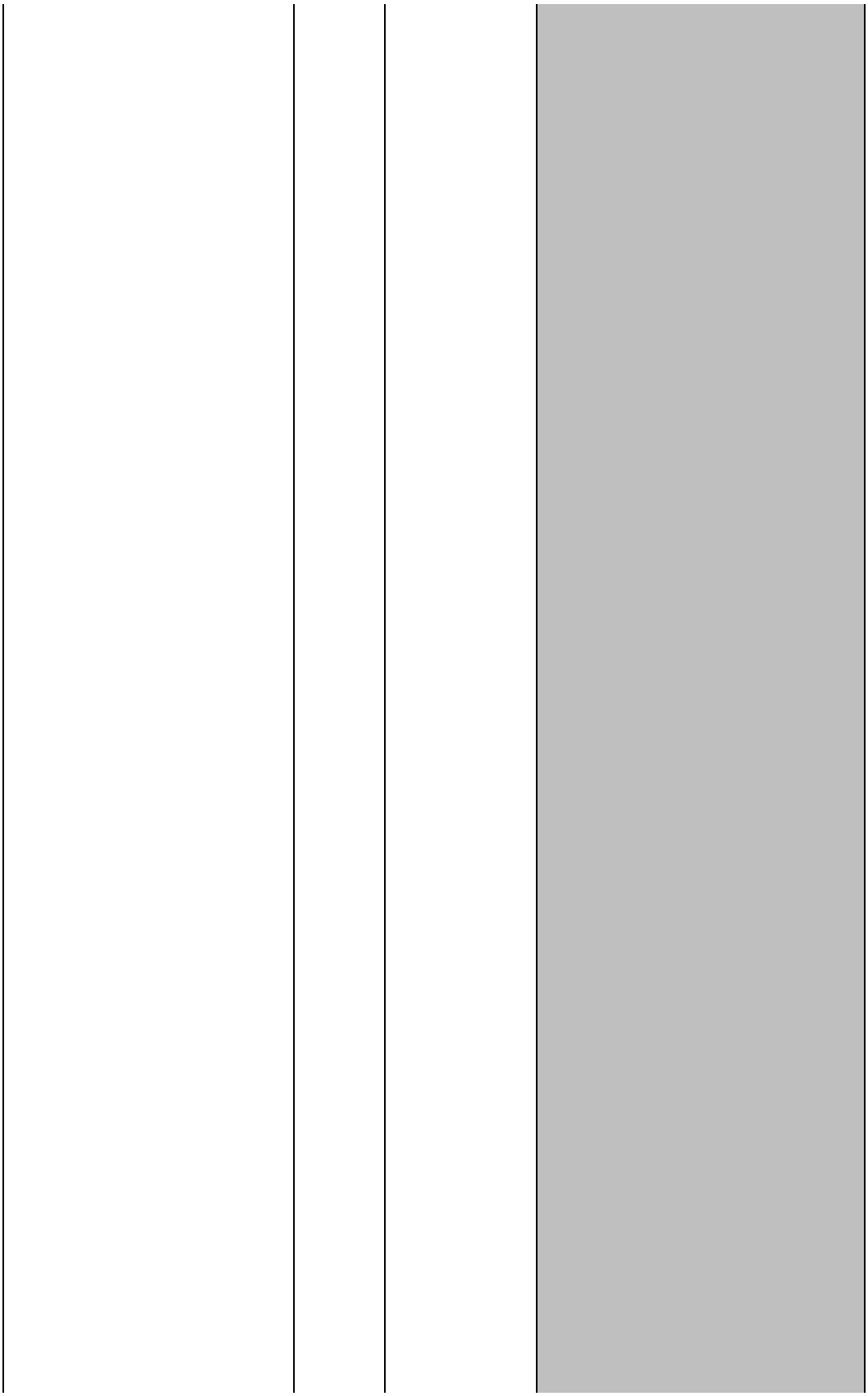

Military Activity	Military vessels in transit may be limited in specific activities, but the effect is probably minimal.	There is a occasional military firing area over most of the site.	As a competent authority, MOD must determine whether their plans and projects will have a likely significant effect on, or least hinder, the conservation objectives of MCZs. Military activities are exempt from the EIA Directive. However, adheres to the Secretary of State for Defence, Safety, Health, Environmental Protection and Sustainable Development in Defence Policy Statement. Military activities are not exempt from the Birds and Habitats Directives, or from the provisions of the Marine & Coastal Access Act, with the exception of certain elements of licensing. The MOD is developing a Maritime Environmental Sustainability Appraisal Tool (MESAT). This will help ensure that military activities do not have a significant impact on MCZs. Activities will be modified in and around a MCZ to limit impact on designated features.	n/a

Telecom & power cables	Additional costs for environmental assessment only. May be additional cost if need to do environmental assessment for cables needing repairs within 12nm. Awaiting guidance from UKCPC and SNCBs	10.2km of the BT-MT1 telecom cable is in the site.	No additional mitigation of impacts are likely to be required for yet to be consented, or future cabling activity in MCZs, compared with the mitigation of impacts that would be required in the absence of MCZs.	There may be a cost to the sector associated with additional time/resource spent to consider an MCZ in the environmental assessment. Work in progress.
Oil & gas activity, pipelines & storage	Additional costs for environmental assessment only.	1.7km of the power cable and gas pipeline running through site from Barrow to the North Morecambe and Millom gas fields.	No additional mitigation of impacts are likely to be required for yet to be consented, or future oil and gas activity in MCZs, compared with the mitigation of impacts that would be required in the absence of MCZs.	There will be a cost to the sector associated with additional time/resource spent to consider an MCZ in the EIA for activities yet to be consented. Work in progress.

Proposed Co-location Zone (subject to further discussions before recommended for designation)

Sector	**Potential UK impact headlines**	**Description of activity in the site to be managed**	**Extent to be managed**	**Suggested Measures**

Benthic fisheries	Approx. 20-40 UK vessels affected Otter trawls Beam trawls Twin riggers already banned within 6nm. Approx. 5 non-UK vessels affected.	The focus meeting identifed that otter trawling for nephrops (on mud), beam trawling for mixed whitefish (UK & Irish vessels) and dover sole (Belgian vessels) (both on sand) take place in pMCZ 2 (Iteration 3 boundary which included a southern extension). The focus group identified that up to 40 vessels otter trawl for nephrops in pMCZ 2 March through to September (including Irish vessels). 25 years ago, there was upwards of 150 vessels reportedly. The focus group identified that a few vessels trawl for whitefish in pMCZ 2 using beam trawls. Can be any time of year. Tend to work on sand habitats only. Similarly, there are known to be about 3-5 beam trawlers (all Belgian) who work this area, on sand habitats only. They are active at any time from September to May. This activity would need to be managed. From Fishermap, at least 20 UK bottom trawlers using either pair trawls or otter trawls are active there, targeting prawns, shrimps, whitefish, cod and skates & rays. They are associated with at least 9 different home ports (in order of most no. vessels): Kilkeel, Ardglass, Portavogie, Barrow, Fleetwood, Maryport and Whitehaven]. From VMS, UK bottom trawlers (considerable effort)	Effectively a Prohibition, as this is only option through CFP. Although SNCB advice is to reduce pressure (exposure is reduced from moderate or high levels to a low level). Stakeholder comments: As it is a reduce pressure, prohibit activity from only part of the site, not all. Restrict only some benthic and dredging gear types, explore gear adaptations. Further discussions required.	**1) CFP outside of 6nm. Certain gear types can be prohibited from entering the area (IA ASSUMPTION).** 2) If management only needed within 6nm, could use a UK Prohibition order to ban certain gear types. Non-UK vessels with historic rights in 6-12nm can be managed equally if UK Prohibition Order taken to EU. 3) For UK vessels only, the MMO can impose a licence condition. However, this will not be any use in 6-12nm where non-UK vessels have historic rights. **4) IFCA byelaw within 6nm (IA ASSUMPTION).** Twin riggers already banned. Suggested by IFCA that management measure looks at gear types (light gear/heavy gear). Or smaller areas with tighter restrictions. 5) As it is a reduce pressure, restrict activity from only part/s of the site, or seasonally, not all. 6) Restrict only some benthic and dredging gear types, explore gear adaptations. Further discussions required.

		work the site. Belgian (beam trawlers), French (bottom gear) and Irish (bottom gear) vessels are also known to fish there from VMS data.	
Dredging fisheries	Approx. < 5 vessels affected	The focus meeting did not identify any dredging activity in this site. There is no VMS evidence to suggest dredging takes place in the site. However, questionnaires with fishermen have identified less than five dredging vessels that are active in pMCZ 2. Scallops and queenies are targeted all year round.	Effectively a Prohibition, as this is only option through CFP. Although SNCB advice is to reduce pressure (exposure is reduced from moderate or high levels to a low level). Stakeholder comments: As it is a reduce pressure, prohibit activity from only part of the site, not all. Restrict only some benthic and dredging gear types, explore gear adaptations. Further discussions required.

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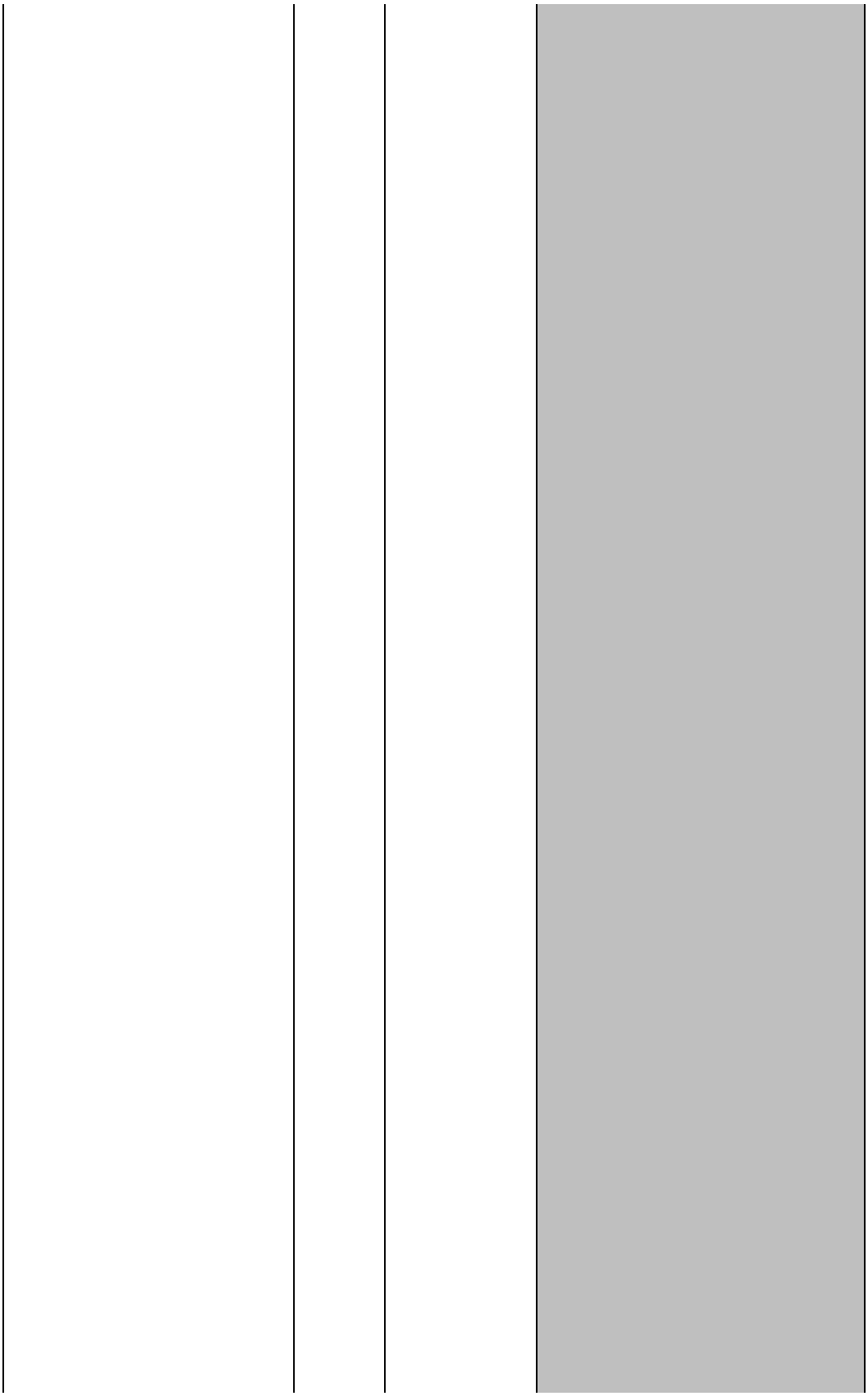

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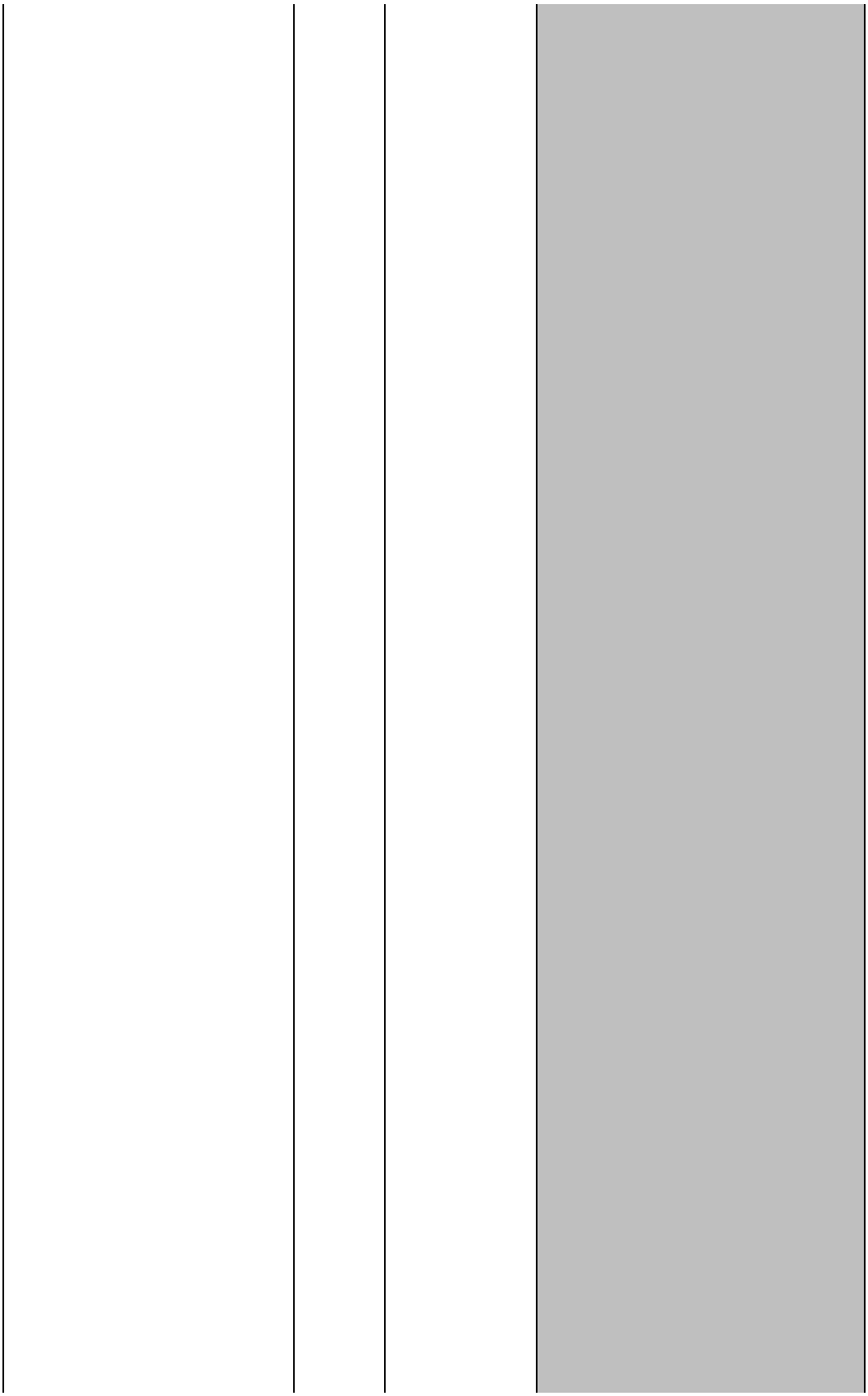

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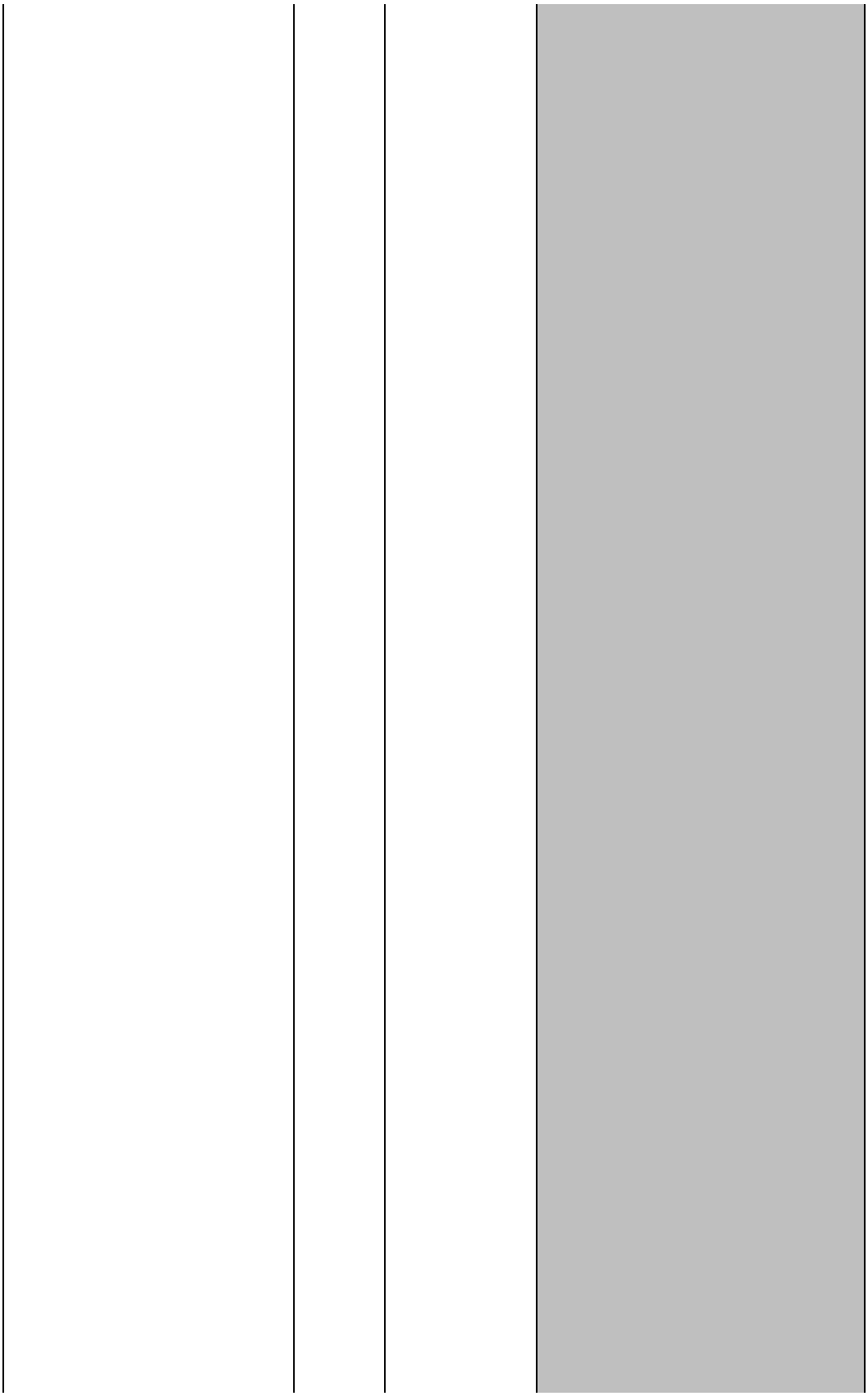

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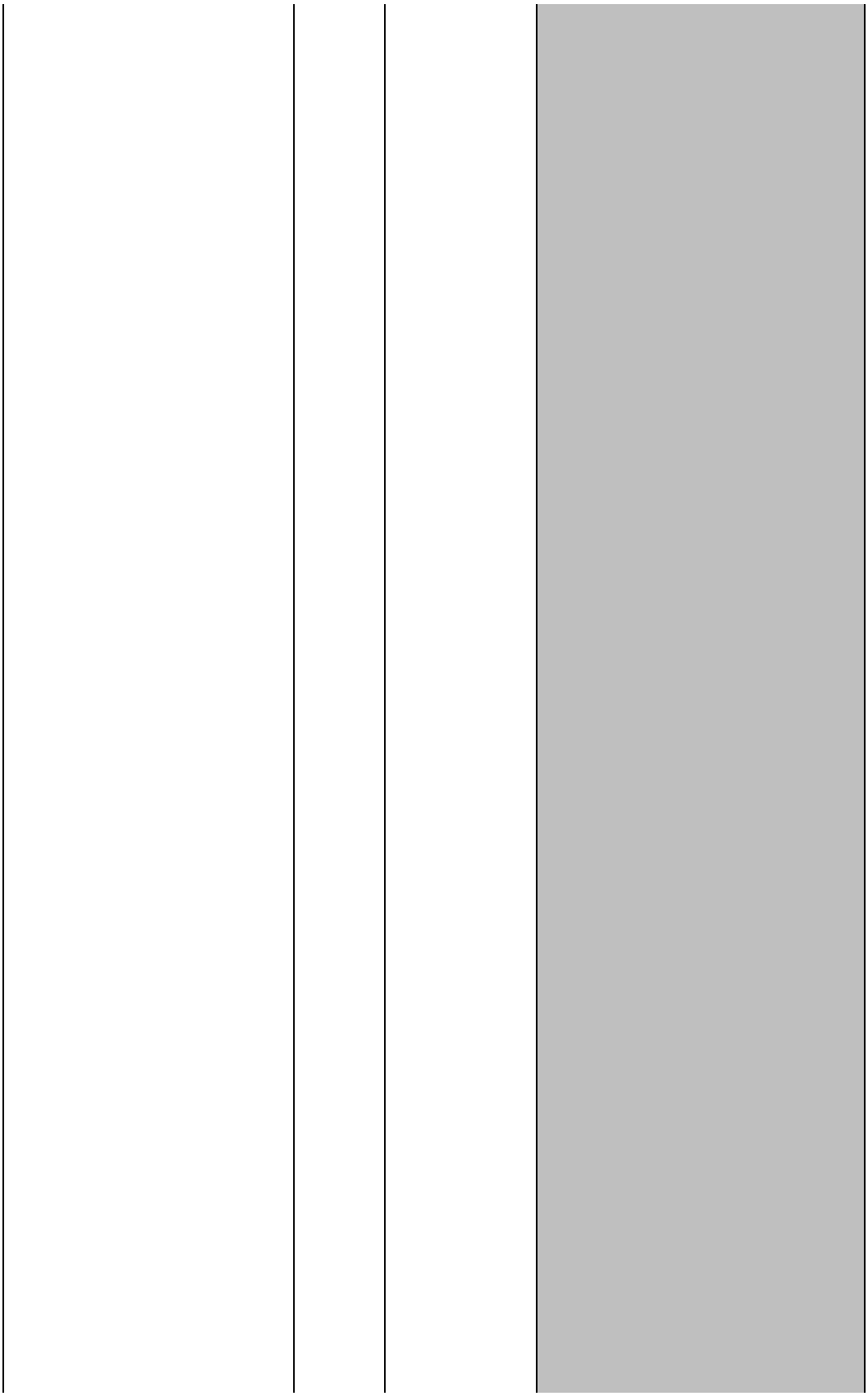

Telecom & power cables	Minimal. Additional costs for environmental assessment only. May be additional cost if need to do environmental assessment for cables needing repairs within 12nm. Awaiting guidance from UKCPC and SNCBs	10.2km of the BT-MT1 telecom cable is in the site.	No additional mitigation of impacts are likely to be required for yet to be consented, or future cabling activity in MCZs, compared with the mitigation of impacts that would be required in the absence of MCZs.	There may be a cost to the sector associated with additional time/resource spent to consider an MCZ in the environmental assessment. No additional mitigation is likely. Work in progress.

Offshore wind farms & cables	To be mutually agreed with wind farm developers.	The potential co-location zone overlaps with: 60km^2 the Walney Extension (pre-planning and not yet consented); 59km^2 of West of Duddon Sands (consented and in development);30km^2 of Walney 1 (now operational); 43km^2 of Walney 2 (under construction); 9km2 the Ormonde wind farm (under construction). The following windfarm power cables fall within the potential co-location zone (no detail available for array cables): 5.3km of the Walney (Phase 1) export cable, 15.4km of the proposed Walney (Phase 2) export cable, 2.5km of the proposed West of Duddon Sands export cable, 9.5km of the proposed Walney Extension export cable, 1km of the Ormonde wind farm export cable.	No additional mitigation of impacts are likely to be required for yet to be consented, or future windfarm activity in MCZs, compared with the mitigation of impacts that would be required in the absence of MCZs. This follows a site specific assessment of the activities in this site by Natural England and JNCC with the site developers.	There will be a cost to the sector associated with additional time/resource spent to consider an MCZ in the EIA for the Walney Extension. No additional mitigation is likely. Work in progress.
Oil & gas activity, pipelines & storage	Minimal. Additional costs for environmental assessment only. May be additional cost if need to do environmental assessment for cables needing repairs within 12nm. Awaiting guidance from Oil & Gas UK, BRINDEX, OGIA, GSOG and CCSA and SNCBs	8.9km of the power cable and gas pipeline running from Barrow to the North Morecambe and Millom gas fields. 1.7km of another gas pipeline clips the south east corner of the site. Further drilling will take place in the site in Autumn 2011 and a new gas pipeline laid in spring 2012 (yet to be consented). The Morecambe Bay gas fields are very close by and there are also consented plans for gas storage near by.	No additional mitigation of impacts are likely to be required for yet to be consented, or future oil and gas activity in MCZs, compared with the mitigation of impacts that would be required in the absence of MCZs. This is because generic mitigation measures are likely to be carried out in a similar way for features that are within or outside of a MCZ. This is because: a) the activties in the site are already consented, b) impacts on FOCI (all already offered protection by BAP, OSPAR or WCA) are already mitigated against outside of MCZs through the EIA process; and c) the footprint of oil & gas installations is unlikely to significantly impact on broad-scale habitats.	There will be a cost to the sector associated with additional time/resource spent to consider an MCZ in the EIA for activities yet to be consented. May be additional costs - to be clarified. To be confirmed.

Sector	Potential UK impact headlines	Description of activity in the site to be managed	Extent to be managed	Suggested Measures
Benthic fisheries	At least. 16 vessels affected Otter trawls Beam trawls At least 10 non-UK vessels affected	From Fishermap, at least 16 UK vessels use bottom gear in pMCZ 3 (N. Irish and Scottish vessels). Gear includes pair and single otter trawls. Target species comprise nephrops, shrimps, haddock, plaice, whitefish and scallops. The vessels are active throughout the year. Information from the focus group identifies that there is beam trawling for dover sole in pMCZ 3 (less than five Belgian trawlers) and this is on sand habitats only. They fish September through to May. From VMS, there are UK bottom gear vessels in the site. VMS also shows there to be Irish beam trawlers and Belgian bottom trawlers and beam trawlers working the site. This activity would need to be managed.	Effectively a prohibition, as this is only option through CFP. Although SNCB advice is to reduce pressure (exposure is reduced from moderate or high levels to a low level). Stakeholder comments: As it is a reduce pressure, prohibit activity from only part of the site, not all. Restrict only some benthic and dredging gear types, explore gear adaptations. Further discussions required.	**1) CFP outside 12nm.** **Certain gear types prohibited from entering the area (IA ASSUMPTION).** 2) For UK vessels only, the MMO can impose a licence condition (on basis of protecting fish stocks outside of 12nm). Generally this won't be any use where non-UK vessels operate. 3) As it is a reduce pressure, restrict activity from only part/s of the site, or seasonally, not all. 4) Restrict only some benthic and dredging gear types, explore gear adaptations. Further discussions required.

Static gear fisheries	Approx. < 5 vessels affected	VMS data for UK >15m vessels identifies that some potting is known to take place in pMCZ 3. There is no evidence of non-UK vessels potting in the area. Interviews with UK fishermen have identified less than five vessels using pots to catch whelks in the area. They are active the whole year in the site. The focus group did not identify any potting in this area.	Effectively a prohibition, as this is only option through CFP, but only in a zoned part of the site (see map). Although SNCB advice is to reduce pressure (exposure is reduced from moderate or high levels to a low level). Stakeholder comments: As it is a reduce pressure, prohibit activity from only part of the site, not all. Restrict only some benthic and dredging gear types, explore gear adaptations. Further discussions required.

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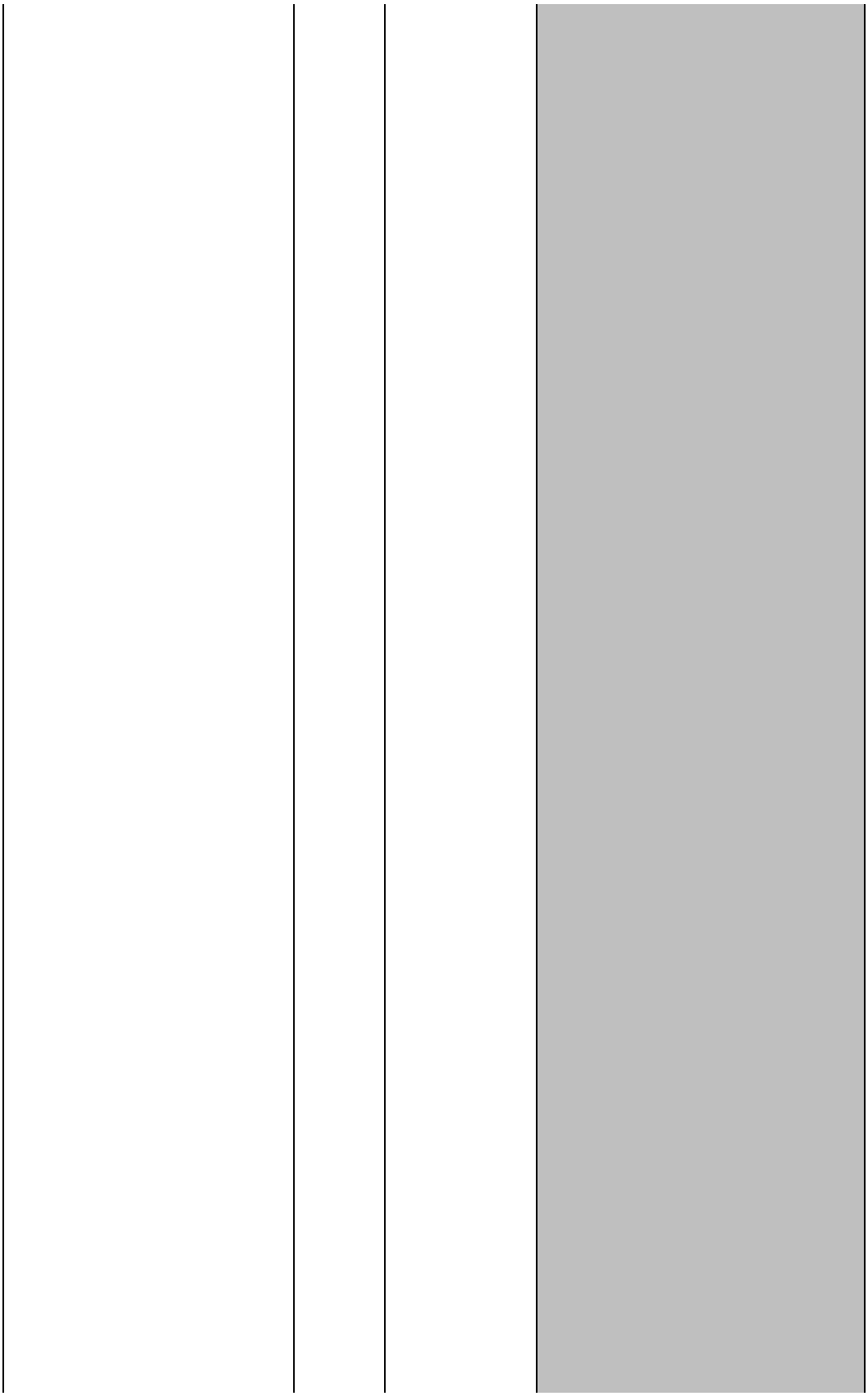

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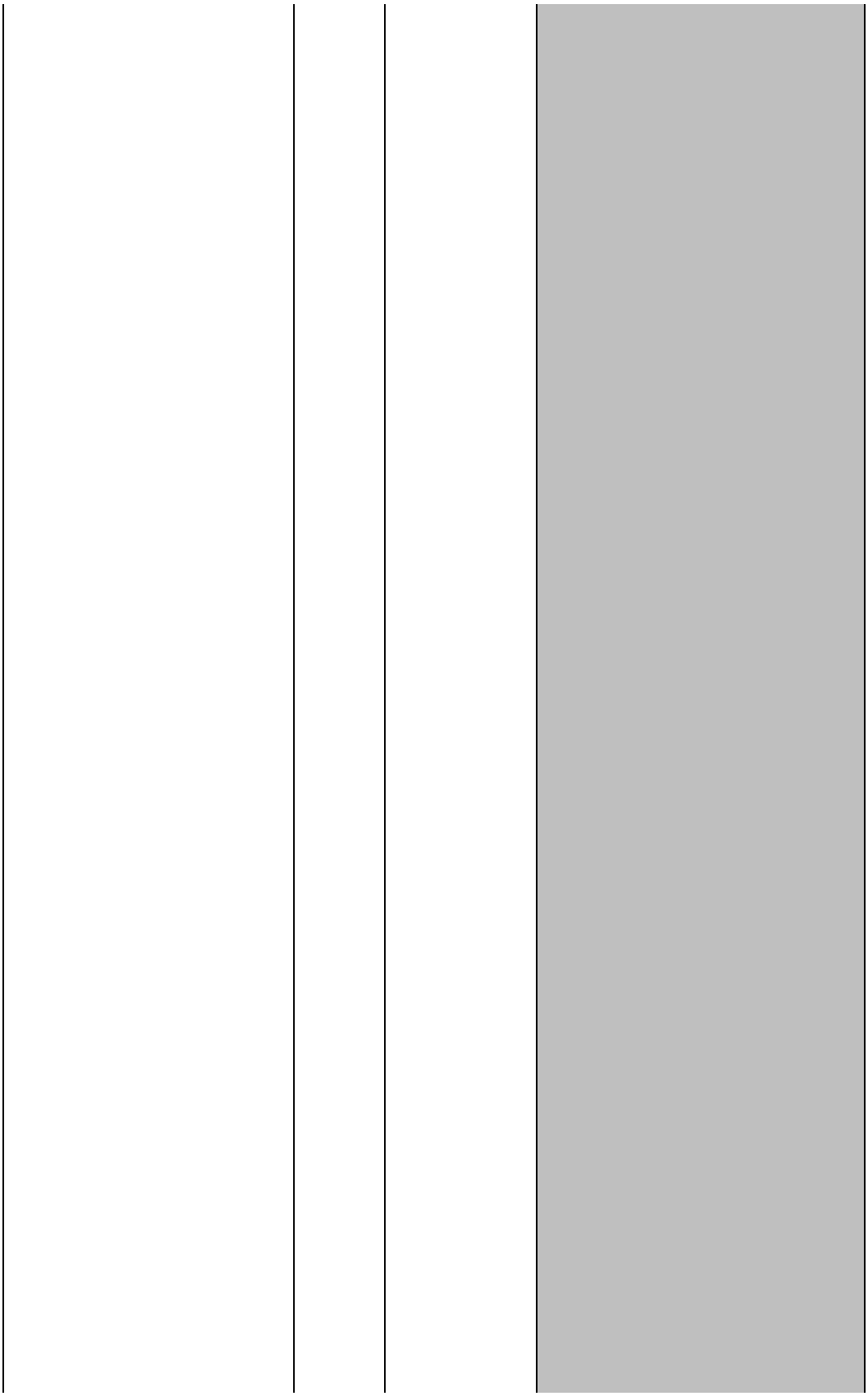

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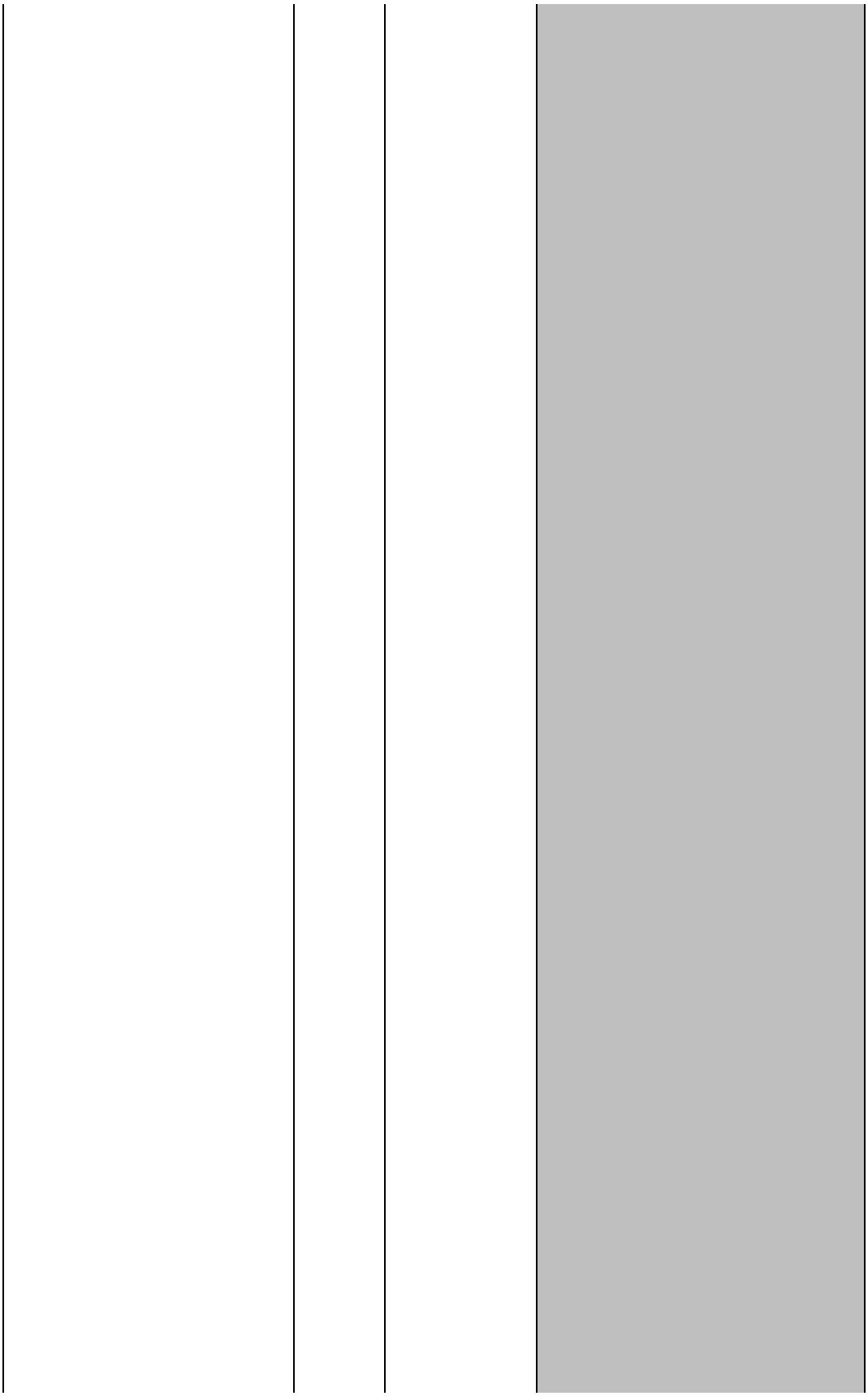

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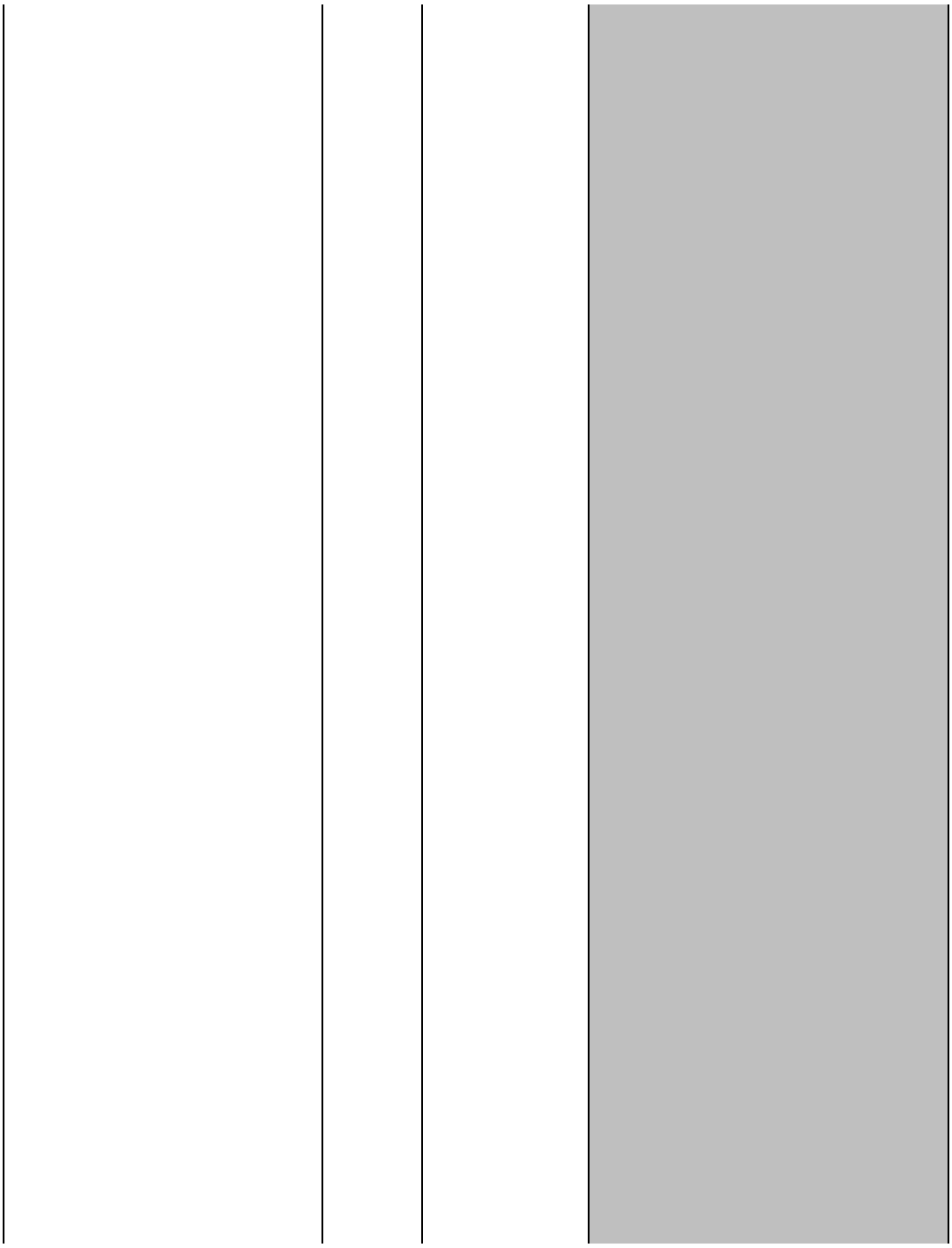


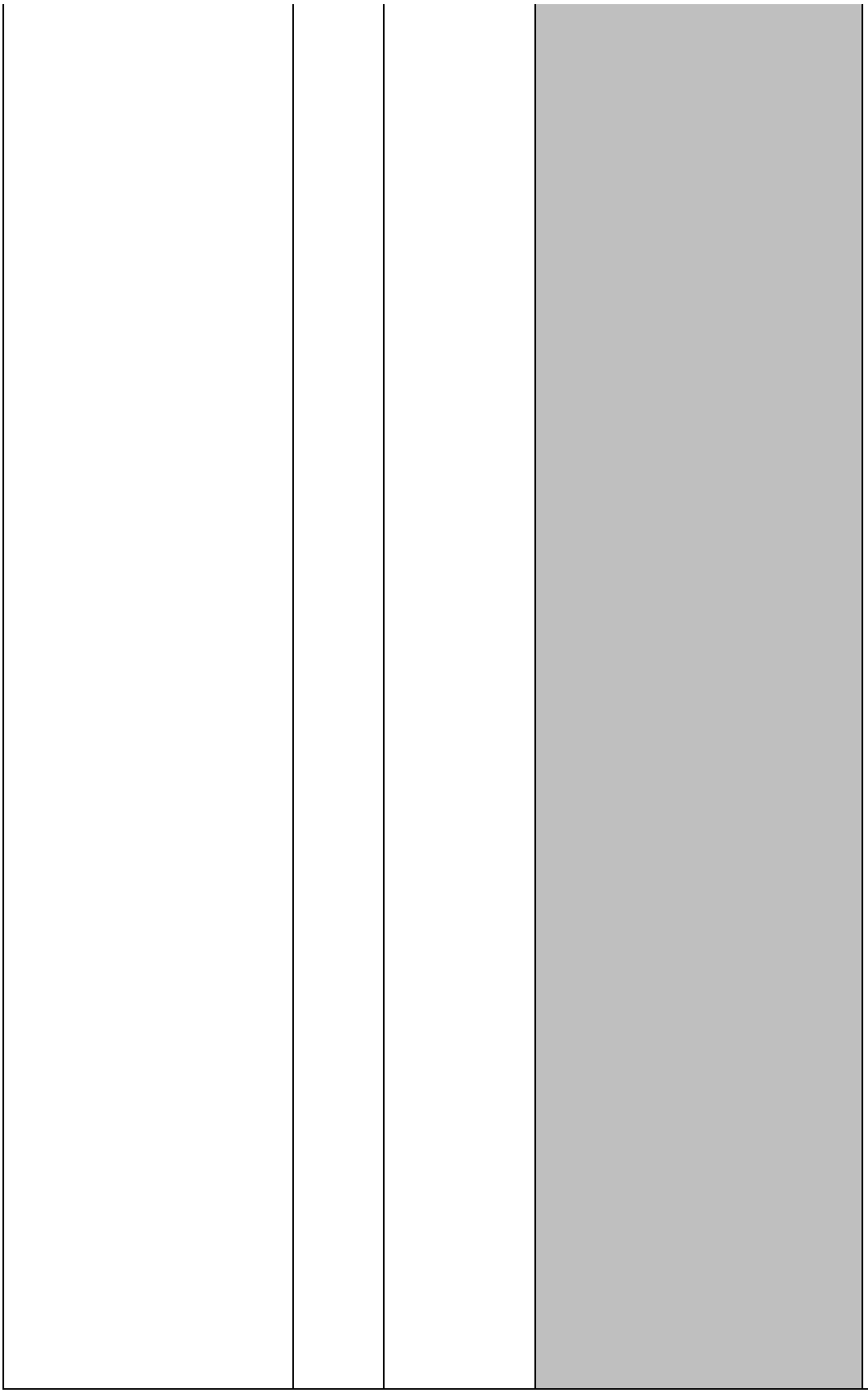
Military Activity	Military vessels in transit may be limited in specific activities, but the effect is probably minimal.	The pMCZ captures the top section of the Aberporth D201B firing range. The MOD's business partner holds the license for this area, which is used for proof and development firings of inert weapons.	As a competent authority, MOD must determine whether their plans and projects will have a likely significant effect on, or least hinder, the conservation objectives of MCZs. Military activities are exempt from the EIA Directive. However, adheres to the Secretary of State for Defence, Safety, Health, Environmental Protection and Sustainable Development in Defence Policy Statement. Military activities are not exempt from the Birds and Habitats Directives, or from the provisions of the Marine & Coastal Access Act, with the exception of certain elements of licensing. The MOD is developing a Maritime Environmental Sustainability Appraisal Tool (MESAT). This will help ensure that military activities do not have a significant impact on MCZs. Activities will be modified in and around a MCZ to limit impact on designated features.	n/a
Telecom & power cables	Minimal. Additional costs for environmental assessment only. May be additional cost if need to do environmental assessment for cables needing repairs within 12nm. Awaiting guidance from UKCPC and SNCBs	25km of the Sirius South (Virgin Media) telecom cable travels through the site, 29km of the CeltixConnect telecom cable, which is currently under construction between Dublin and Anglesey, travels through the site. A new telecom cable (Geo & ESB Telecoms) is also proposed to follow this same route. This overlaps with Croker Carbonates and spinulosa reefs. Lastly, 22km of the the Eirgrid East-West Interconnector is currently under construction between Prestatyn and Dublin.	No additional mitigation of impacts are likely to be required for yet to be consented, or future cabling activity in MCZs, compared with the mitigation of impacts that would be required in the absence of MCZs.	There may be a cost to the sector associated with additional time/resource spent to consider an MCZ in the environmental assessment. No additional mitigation is likely. Work in progress.

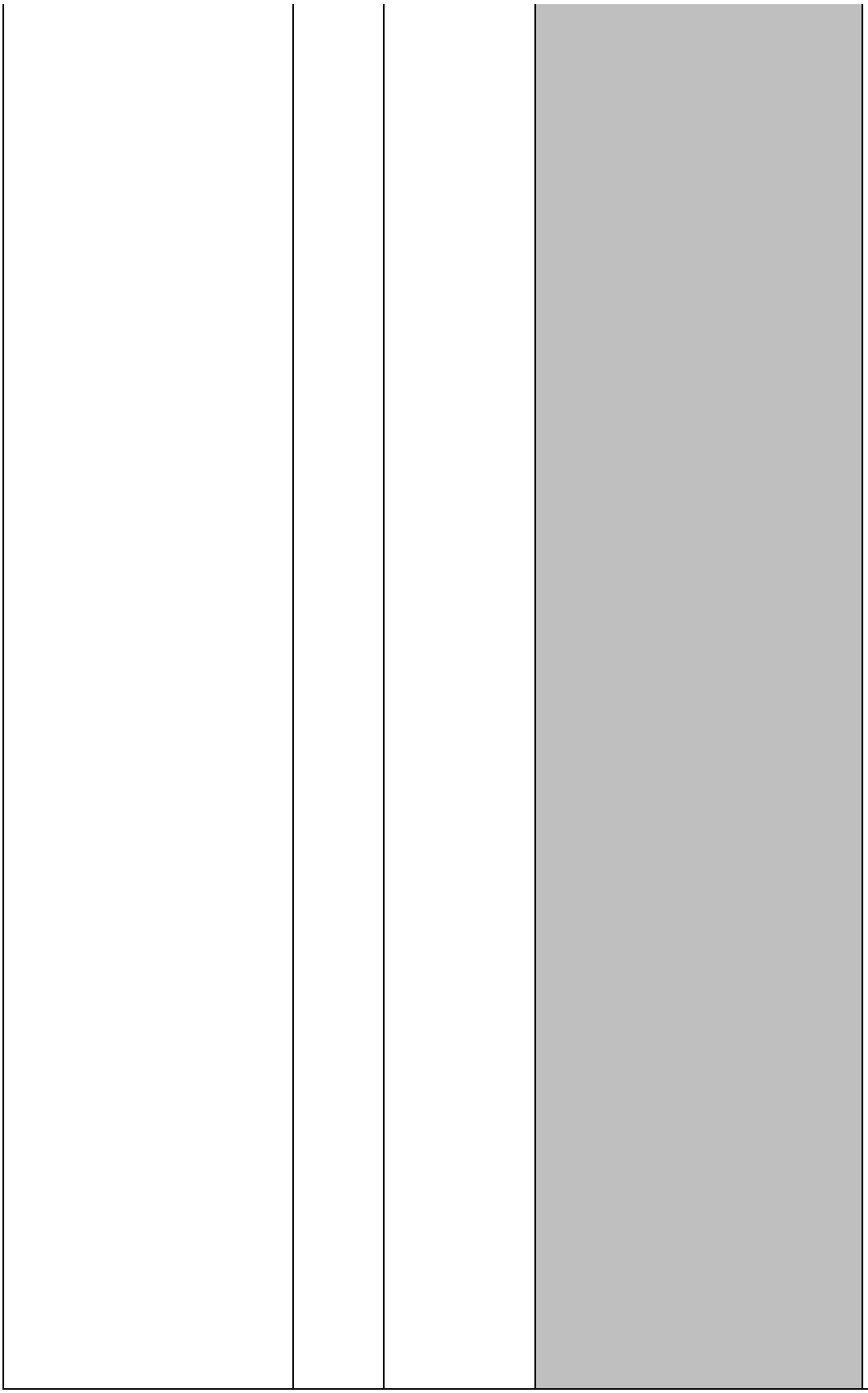
Offshore wind farms & cables	To be mutually agreed with wind farm developers.	The site overlaps 24 km2 Centrica's Round 3 area of search (area of search is 2160 km2).	No additional mitigation of impacts are likely to be required for yet to be consented, or future windfarm activity in MCZs, compared with the mitigation of impacts that would be required in the absence of MCZs.	There will be a cost to the sector associated with additional time/resource spent to consider an MCZ in the EIA. No additional mitigation is likely. Work in progress.

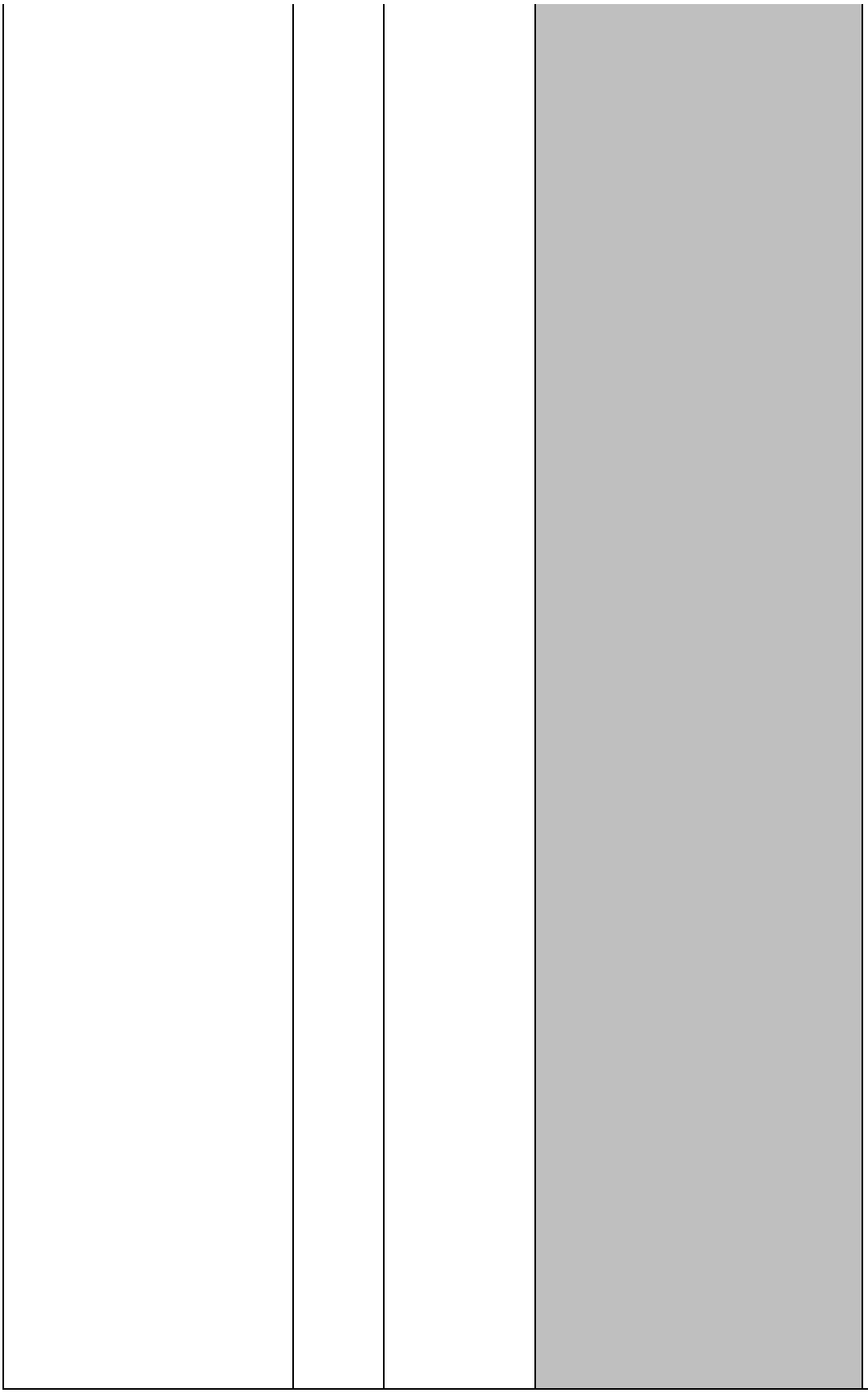
Ref. Area S (in pMCZ 3)

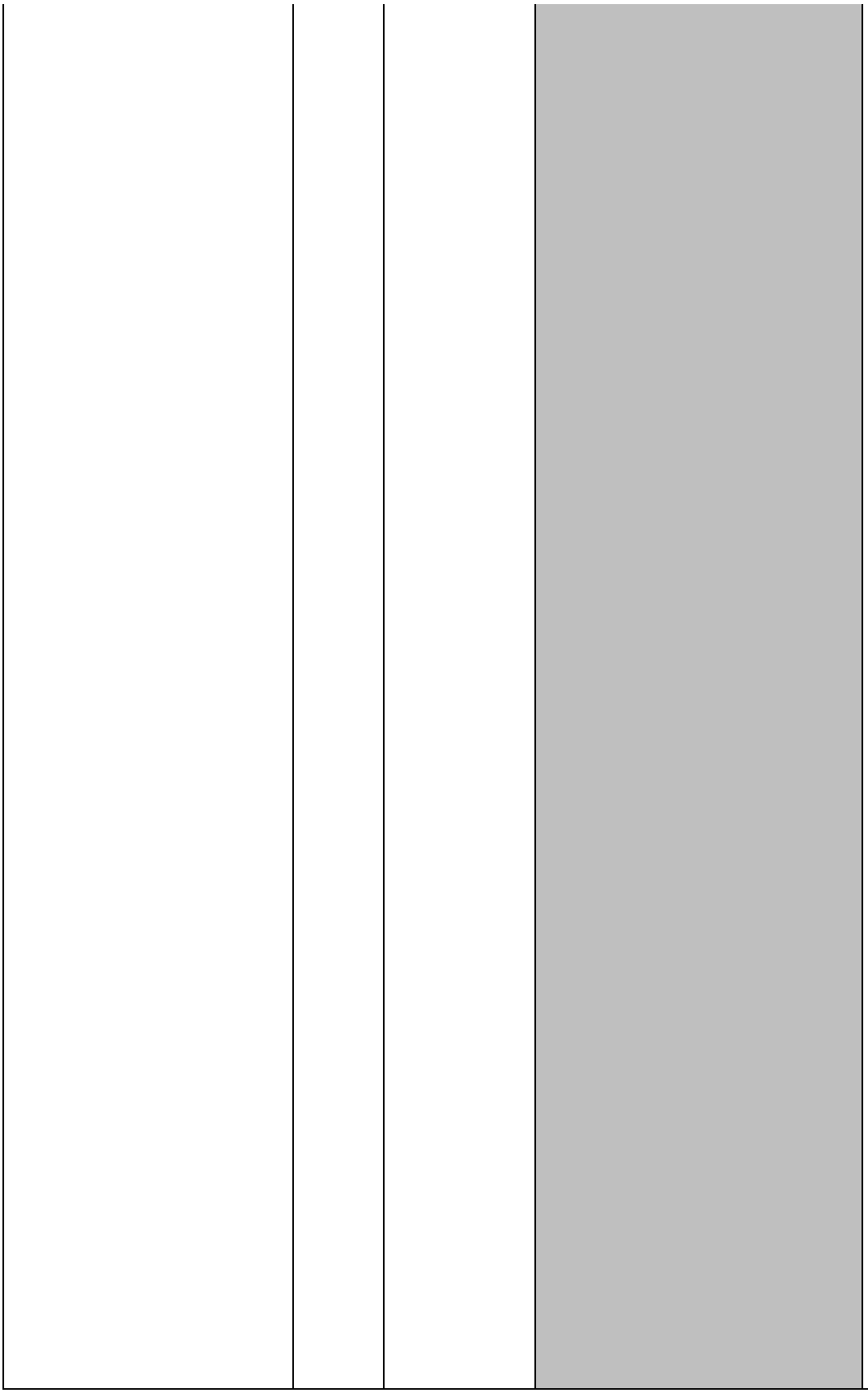
Sector	**Potential UK impact headlines**	**Description of activity in the site to be managed**	**Extent to be managed**	**Suggested Measures**
Benthic fisheries	At least < 5 vessels affected Also Belgians	From Fishermap, < 5 vessels are known to use bottom gear in the site (twin otter and twin rig trawls). These are Scottish and Northern Irish vessels. VMS also shows there to be Belgian beam trawlers working just inside the site.	Prohibition of activity in all of the site.	**1) CFP outside 12nm.** **Certain gear types prohibited from entering the area (IA ASSUMPTION).** 2) For UK vessels only, the MMO can impose a licence condition (on basis of protecting fish stocks outside of 12nm). Generally this won't be any use where non-UK vessels operate.
Dredging fisheries	Approx. < 5 vessels affected	From Fishermap, < 5 vessels are known to dredge in the site. These are Scottish and Northern Irish vessels. From VMS, UK vessels are known to dredge just outside the site.	Prohibition of activity in all of the site.	

Pelagic fisheries	Approx. < 5 vessels affected	From Fishermap, < 5 midwater trawlers are known to be active in the site. These are Welsh and Northern Irish vessels. From VMS, UK vessels are known to midwater trawl just outside the site.	Prohibition of activity in all of the site.
Static gear	Approx. < 5 vessels affected	From Fishermap, < 5 potters are known to be active in the site. These are Welsh vessels. From VMS, UK vessels known to use static gear in the site.	Prohibition of activity in all of the site.
Netting	Approx. < 5 vessels affected	From Fishermap, < 5 netters are known to be active in the site. These are Welsh vessels.	Prohibition of activity in all of the site.
Hooks and lines	Approx. < 5 vessels affected	From Fishermap, < 5 vessels using hooks & lines in the site. These are Welsh vessels.	Prohibition of activity in all of the site.





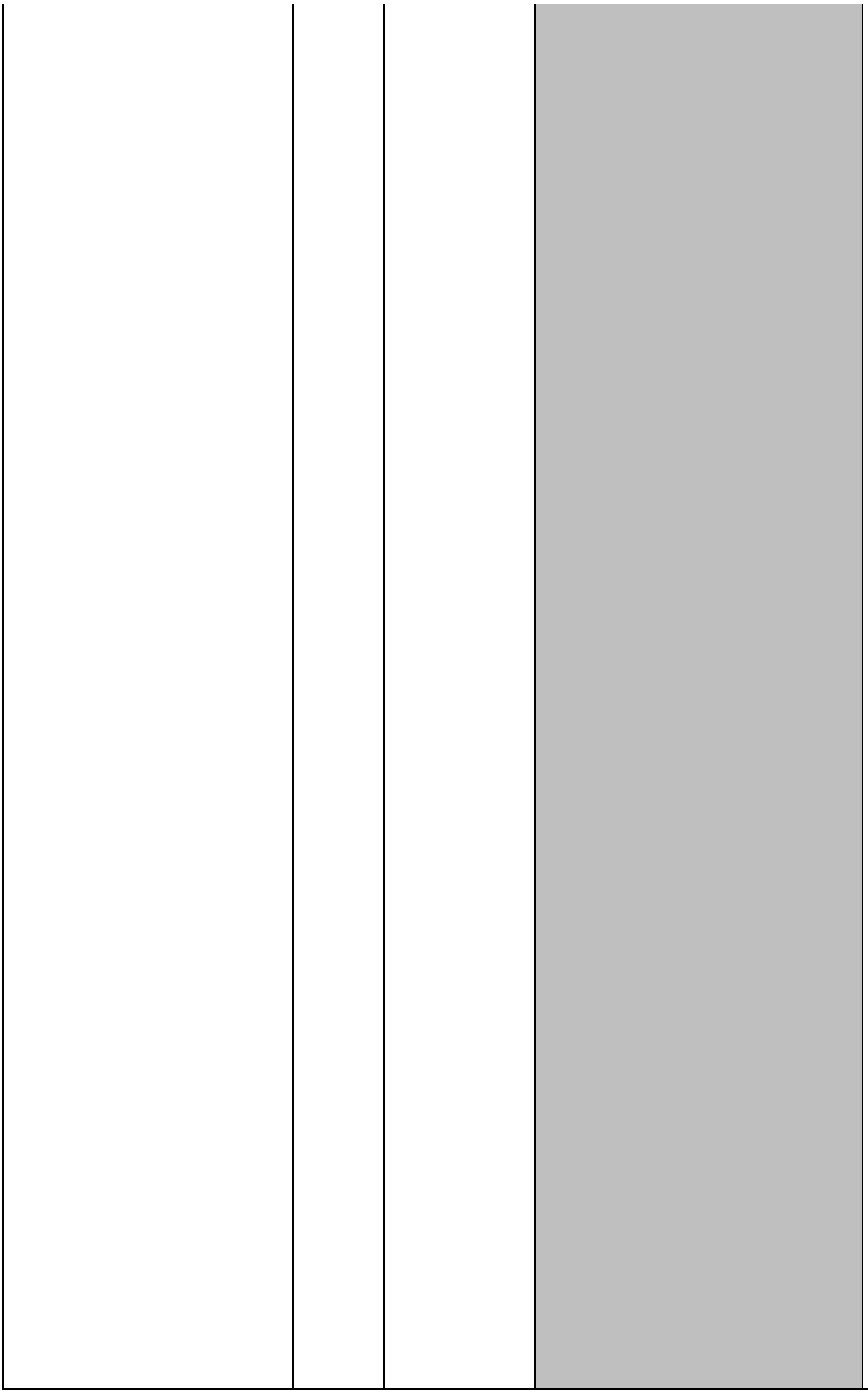


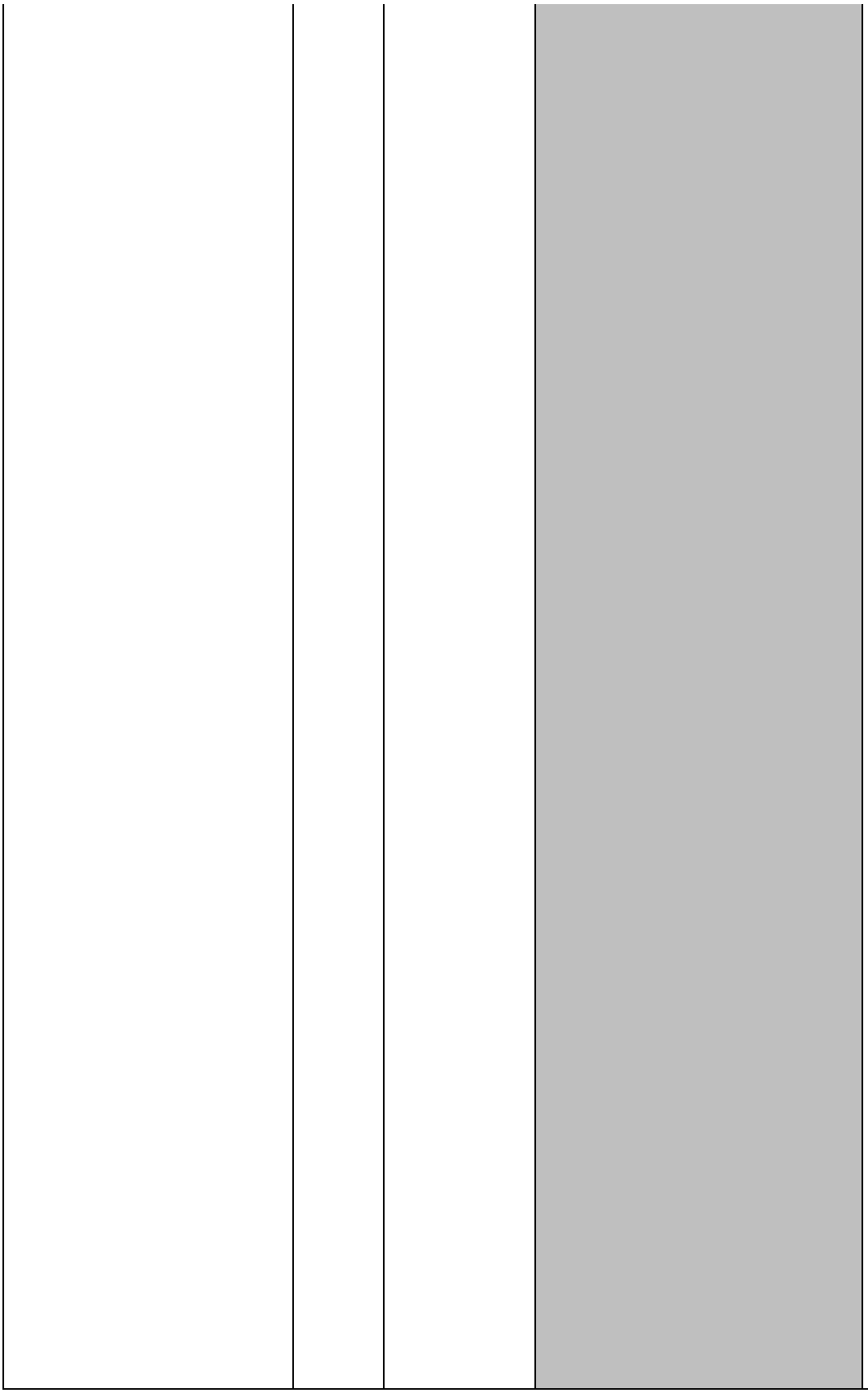


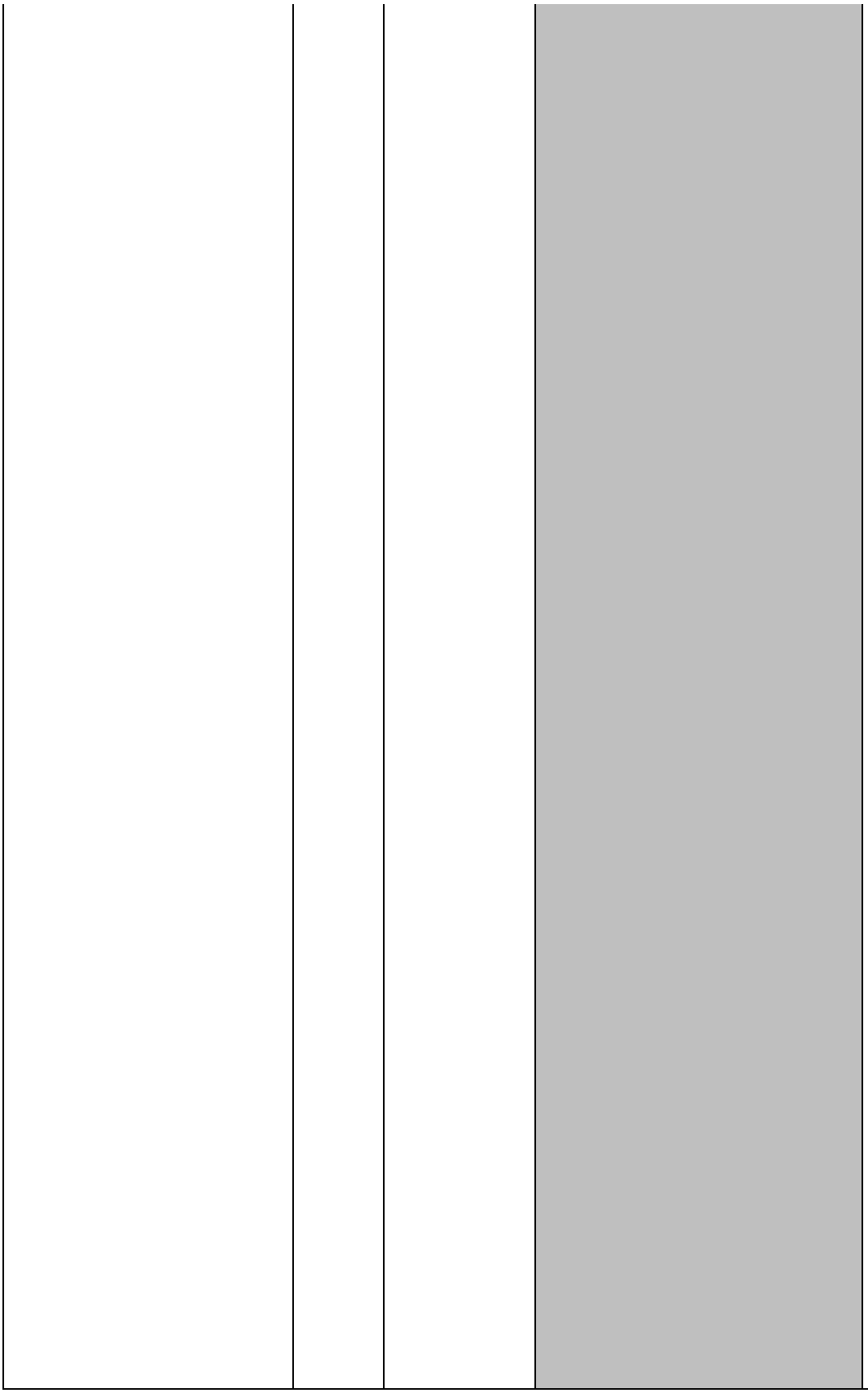
** There is a navigation zone to separate traffic in this area.*

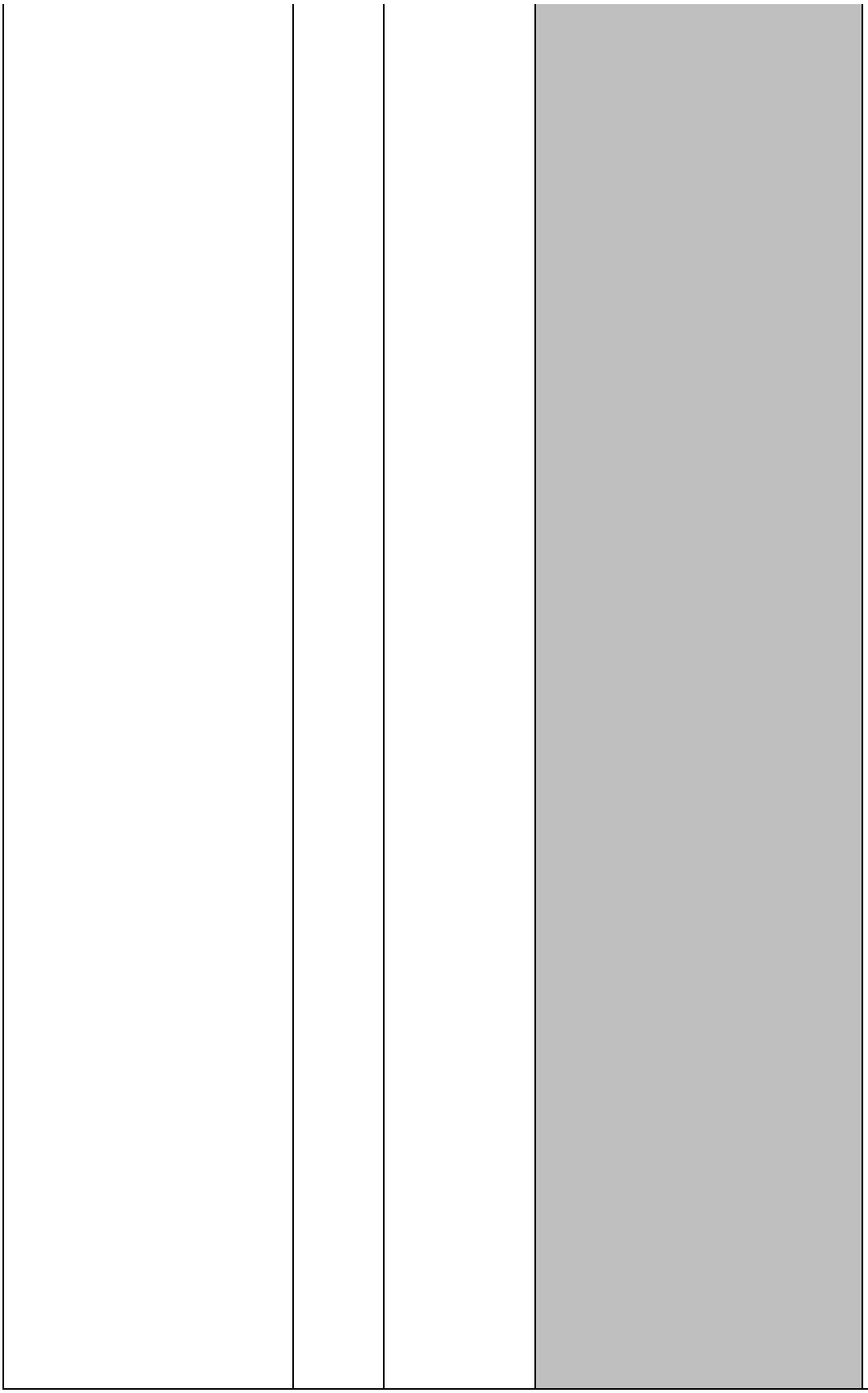
Ref. Area B (in pMCZ 3)

Sector	Potential UK impact headlines	Description of activity in the site to be managed	Extent to be managed	Suggested Measures
Benthic fisheries	At least < 5 vessels affected Also Belgians	From Fishermap, < 5 vessels are known to use bottom gear in the site (twin otter and twin rig trawls). These are Scottish and Northern Irish vessels. VMS also shows there to be Belgian beam trawlers working just inside the site.	Prohibition of activity in all of the site.	**1) CFP outside 12nm.** **Certain gear types prohibited from entering the area (IA ASSUMPTION).** 2) For UK vessels only, the MMO can impose a licence condition (on basis of protecting fish stocks outside of 12nm). Generally this won't be any use where non-UK vessels operate.
Pelagic fisheries	Approx. < 5 vessels affected	From Fishermap, < 5 midwater trawlers are known to be active in the site. These are Welsh and Northern Irish vessels. From VMS, UK vessels are known to midwater trawl just outside the site.	Prohibition of activity in all of the site.	
Static gear	Approx. < 5 vessels affected	From Fishermap, < 5 potters are known to be active in the site. These are Welsh vessels. From VMS, UK vessels known to use static gear in the site.	Prohibition of activity in all of the site.	
Hooks and lines	Approx. < 5 vessels affected	From Fishermap, < 5 vessels using hooks & lines in the site. These are Welsh vessels.	Prohibition of activity in all of the site.	







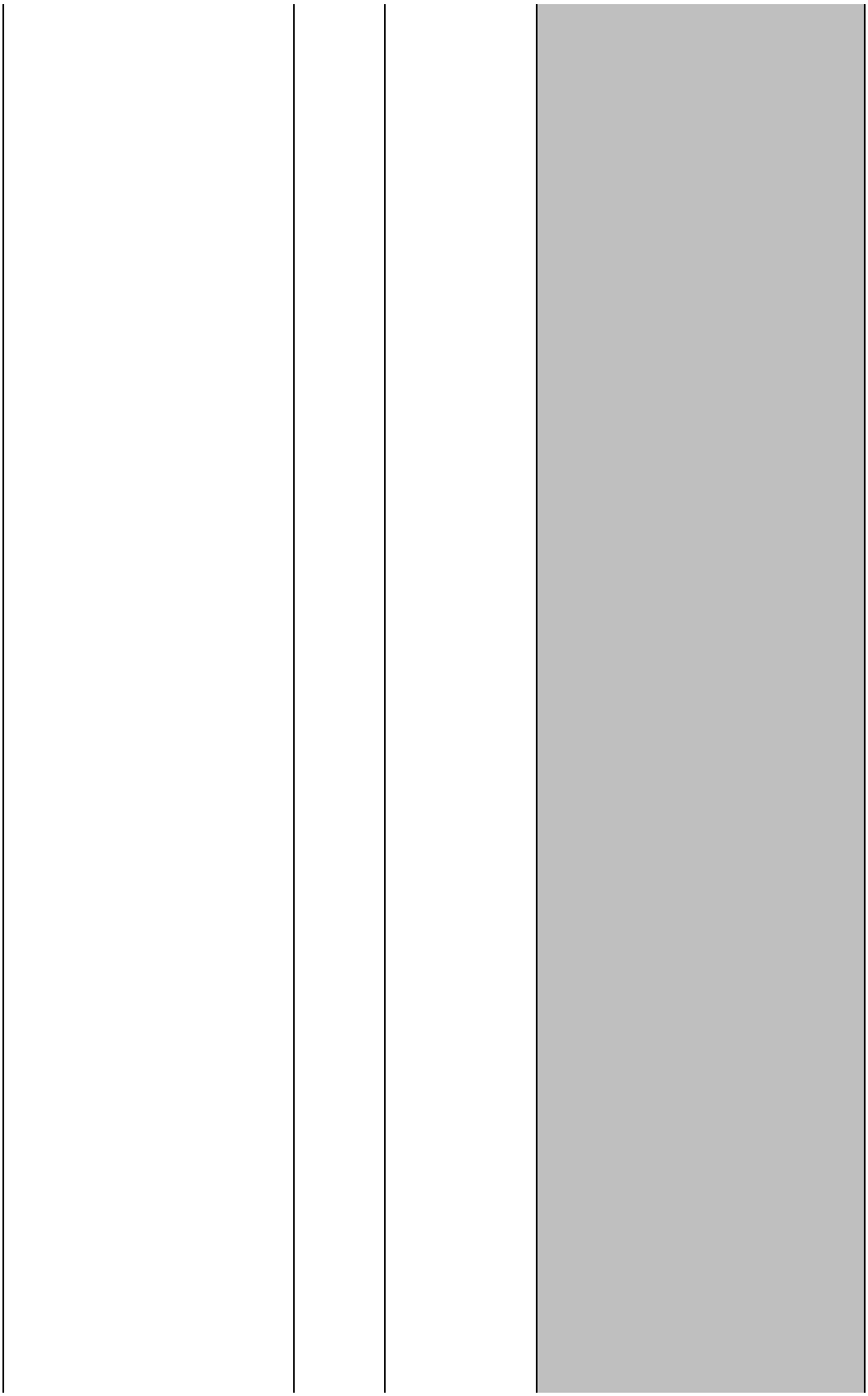


pMCZ 4

Sector	Potential UK impact headlines	Description of activity in the site to be managed	Extent to be managed	Suggested Measures

Benthic fisheries	At least 5 UK vessels. Also Belgians	There are usually no more than 5 Belgian vessels in the site at one time. They use a light beam trawl and target sole, plaice, rays, monkfish, turbot and brill on sand habitats only. From VMS data, there are UK vessels using bottom gear although Fishermap has not identified any use of bottom gear in this site. There also appears to be Irish beam trawlers active in the site, but again these do not appear to be the main grounds. Awaiting information on number of vessels from Irish POs.	Effectively a prohibition, as this is only option through CFP. Although SNCB advice is to reduce pressure (exposure is reduced from moderate or high levels to a low level). Stakeholder comments: As it is a reduce pressure, prohibit activity from only part of the site, not all. Restrict only some benthic and dredging gear types, explore gear adaptations. Further discussions required.	**1) CFP outside 12nm.** **Certain gear types prohibited from entering the area (IA ASSUMPTION).** 2) For UK vessels only, the MMO can impose a licence condition (on basis of protecting fish stocks outside of 12nm). Generally this won't be any use where non-UK vessels operate. 3) As it is a reduce pressure, limit activity from only part/s of the site, not all 4) Restrict only some benthic and dredging gear types, explore gear adaptations. Further discussions required.

Annex 3 Management Tables



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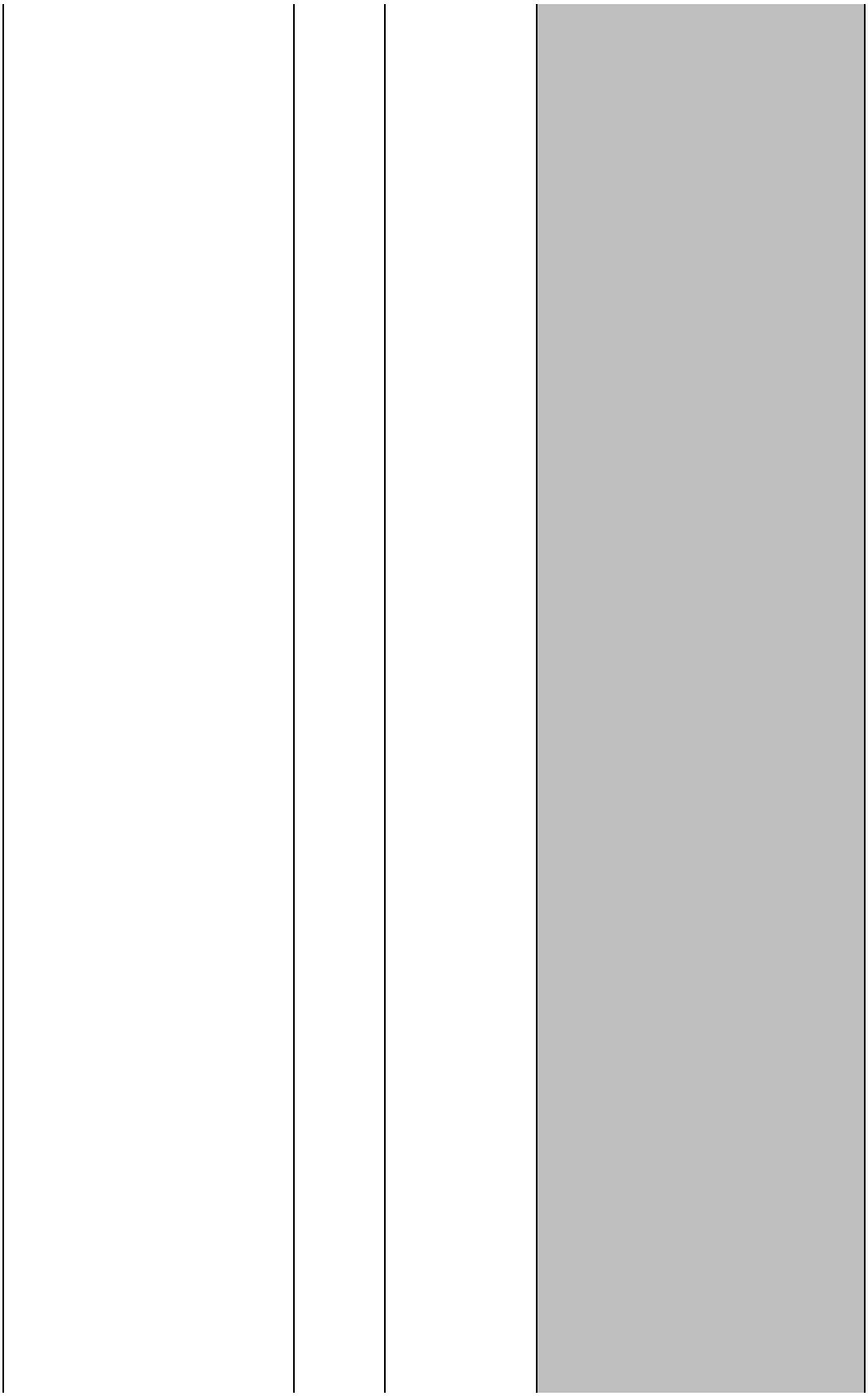

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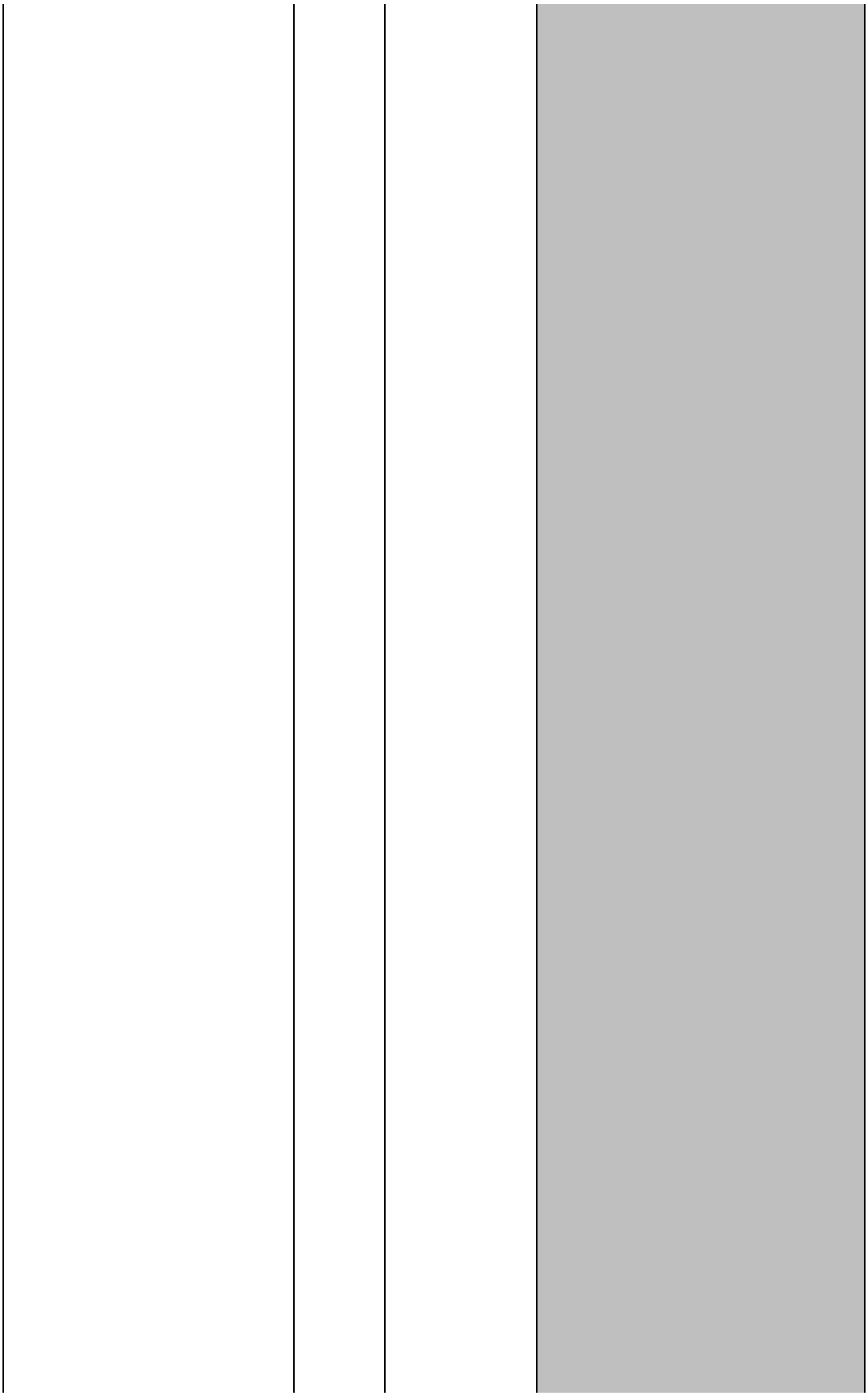

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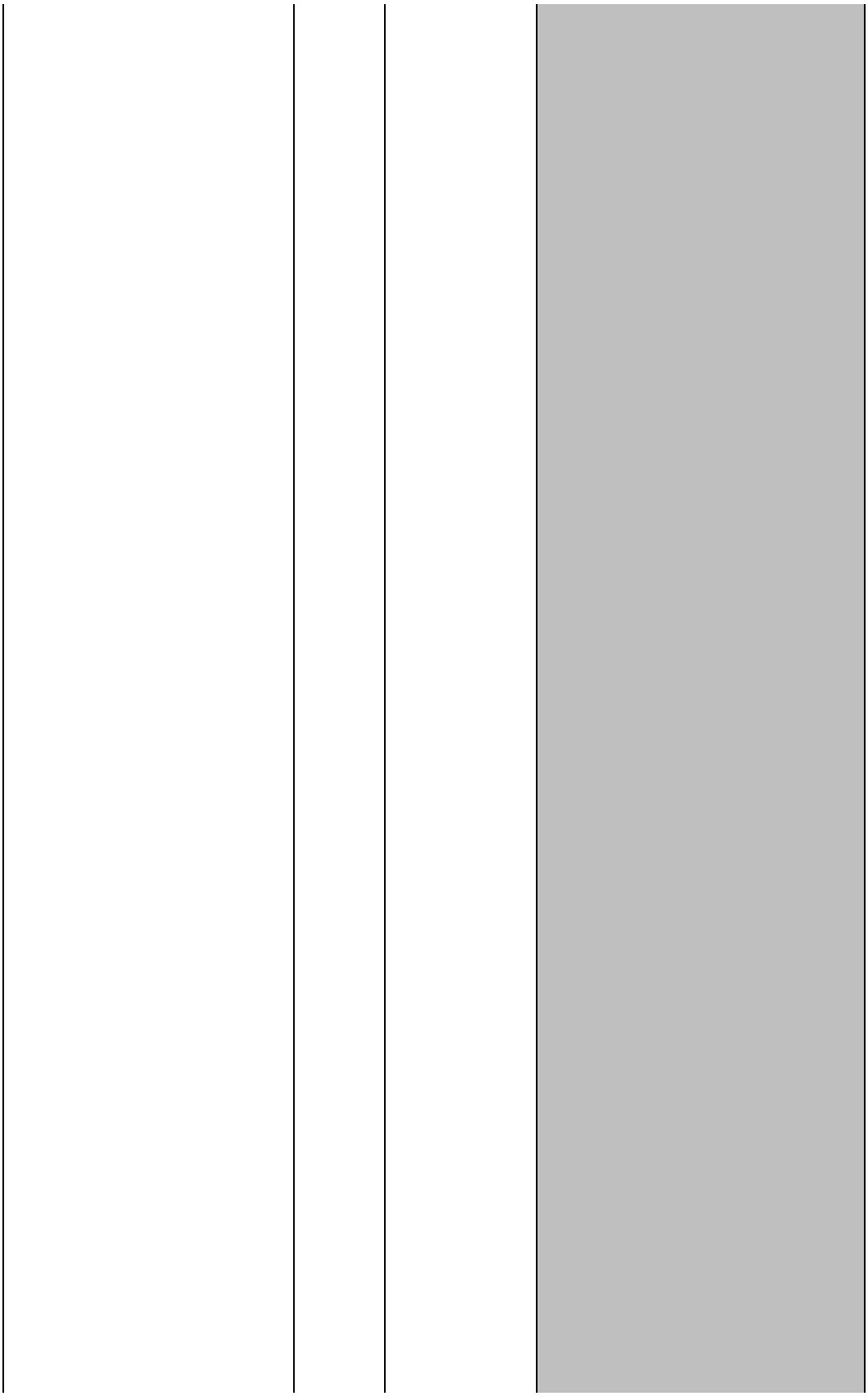


Military Activity	Military vessels in transit may be limited in specific activities, but the effect is probably minimal.	Military training (firing) is known to take place in the site. Activities are licensed. Operations in this area are critical to UK defence. Weapons firing is predominately inert missiles testing	As a competent authority, MOD must determine whether their plans and projects will have a likely significant effect on, or least hinder, the conservation objectives of MCZs. Military activities are exempt from the EIA Directive. However, adheres to the Secretary of State for Defence, Safety, Health, Environmental Protection and Sustainable Development in Defence Policy Statement. Military activities are not exempt from the Birds and Habitats Directives, or from the provisions of the Marine & Coastal Access Act, with the exception of certain elements of licensing. The MOD is developing a Maritime Environmental Sustainability Appraisal Tool (MESAT). This will help ensure that military activities do not have a significant impact on MCZs. Activities will be modified in and around a MCZ to limit impact on designated features.	n/a

Ref. Area C (in pMCZ 4)

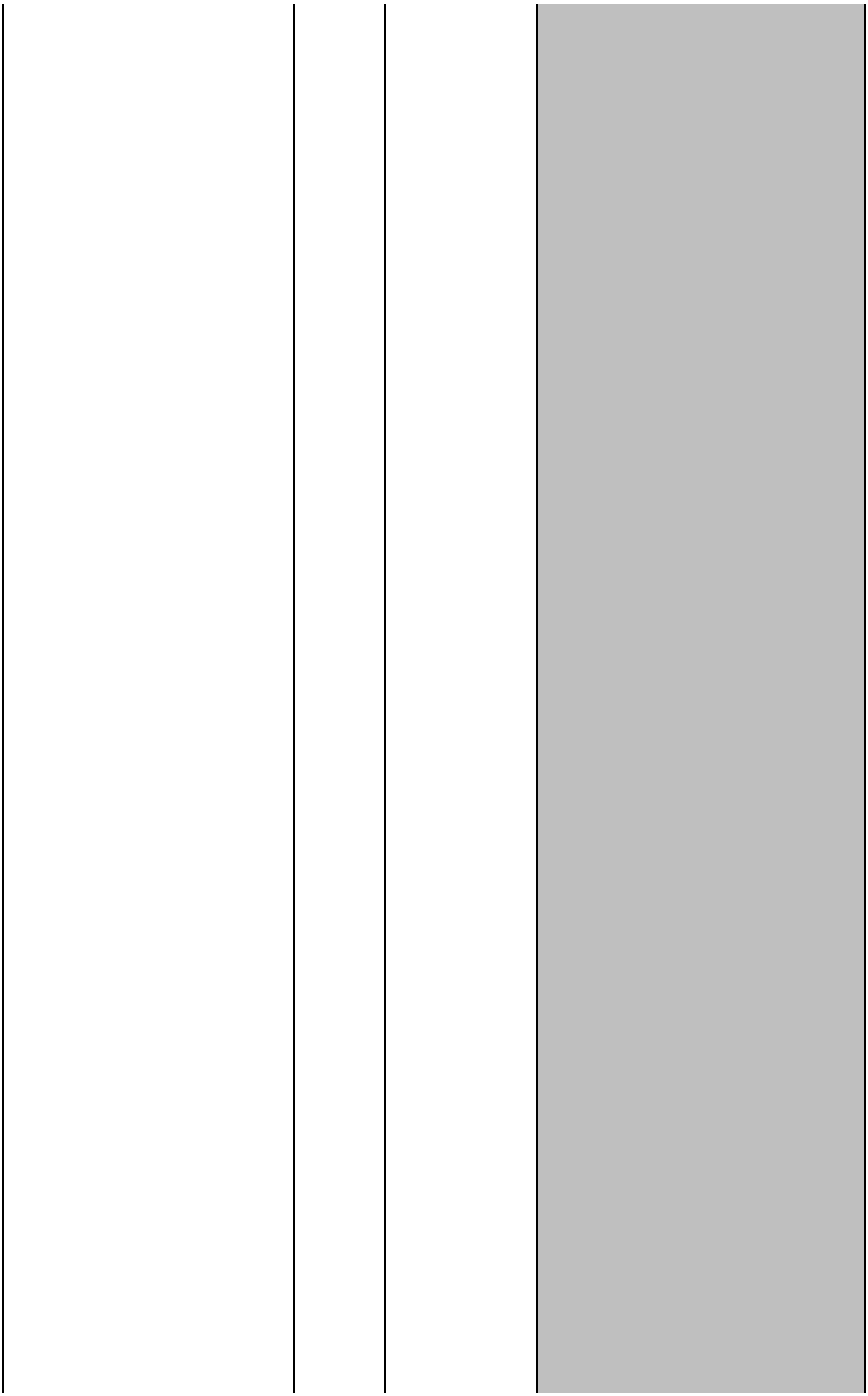
Sector	Potential UK impact headlines	Description of activity in the site to be managed	Extent to be managed	Suggested Measures
Benthic fisheries	At least 5 vessels potentially affected Also Belgians	There may be approx. 5 Belgian vessels who work the site although this is not a principal ground. They use a light beam trawl and target sole, plaice, rays, monkfish, turbot and brill on sand habitats only. Fishermap did not identify any vessels in this site. These activities would need to be prohibited in the reference area.	Prohibition of activity in all of the site.	**1) CFP outside 12nm. Certain gear types prohibited from entering the area (IA ASSUMPTION).** 2) For UK vessels only, the MMO can impose a licence condition (on basis of protecting fish stocks outside of 12nm). Generally this won't be any use where non-UK vessels operate.
Dredging fisheries	At least 10 vessels potentially affected Also Irish	From VMS data, there are Irish dredgers active in the site, these do not appear to be the main grounds. Awaiting information on number of vessels from Irish POs. There may be approx. ten Welsh dredgers who visit the site, but this is not a principal ground for them. 95 % of their fishing effort is within 12nm of Welsh coast. There are lots of spatial restrictions in Welsh waters and more coming in which could displace the inshore fleet into offshore areas such as pMCZ 4 (focus meeting). From Fishermap, <5 vessels use dredges in this site. These activities would need to be prohibited in the reference area.	Prohibition of activity in all of the site.	

Pelagic trawling	Not known but likely to be minimal number of vessels affected	From VMS, UK midwater trawlers are active in the site. Fishermap did not identify any vessels in this site. These activities would need to be prohibited in the reference area.	Prohibition of activity in all of the site.
Hooks & lines	Not known but likely to be minimal number of vessels affected	From VMS, UK vessels using hooks & lines are active in the site. From Fishermap, < 5 vessels using hooks & lines. These activities would need to be prohibited in the reference area.	Prohibition of activity in all of the site.
Netting	Approx. < 5 vessels potentially affected	From Fishermap, <5 vessels using trammel gill nets targeting pollack. These activities would need to be prohibited in the reference area.	Prohibition of activity in all of the site.

Military training	Military vessels in transit may be limited in specific activities, but the effect is probably minimal.	The proposed RA lies within the outer part of the range danger area designated as a 'buffer zone' around the firing area. Although inert weapons may on occasion fall into this area, this would be unintentional. The MoD supports the designation of this RA only on condition that its current activities are permitted to continue. Range records indicate that no test firing has deposited in this area for the past 20 years.	Ban of programmed activity in the reference area. The MoD's business partner (working closely with CCW) is currently developing a Passive Acoustic Monitoring (PAM) system, due to be deployed later this year, to provide a higher degree of certainty that no dolphins are present prior to a live firing trial; such firings only take place in the main part of the range.	n/a

Sector	Potential UK impact headlines	Description of activity in the site to be managed	Extent to be managed	Suggested Measures
Benthic fisheries	At least 5 UK vessels potentially affected Also Belgains, Spanish, Irish and French	VMS data shows evidence of Belgian beam trawling and bottom gear in pMCZ 5. However, these are not their main grounds. There are usually no more than 5 Belgian vessels in the site at one time. The vessels use light beam trawls (sumwings) and target sole, plaice, rays, monkfish, turbot and brill on sand habitats only. From VMS data, there also appears to be Irish beam trawlers, and Spanish and French bottom trawlers active in the site, but again these do not appear to be the main grounds. Fishermap does not identify any bottom gear in this site.	Effectively a prohibition, as this is only option through CFP. Although SNCB advice is to reduce pressure (exposure is reduced from moderate or high levels to a low level). Does not apply to areas of moderate energy circalittoral rock. Stakeholder comments: As it is a reduce pressure, prohibit activity from only part of the site, not all. Restrict only some benthic and dredging gear types, explore gear adaptations. Further discussions required.	**1) CFP outside 12nm.** **Certain gear types prohibited from entering the area (IA ASSUMPTION).** 2) For UK vessels only, the MMO can impose a licence condition (on basis of protecting fish stocks outside of 12nm). Generally this won't be any use where non-UK vessels operate. 3) As it is a reduce pressure, limit activity from only part/s of the site, not all 4) Restrict only some benthic and dredging gear types, explore gear adaptations. Further discussions required.

Annex 3 Management Tables



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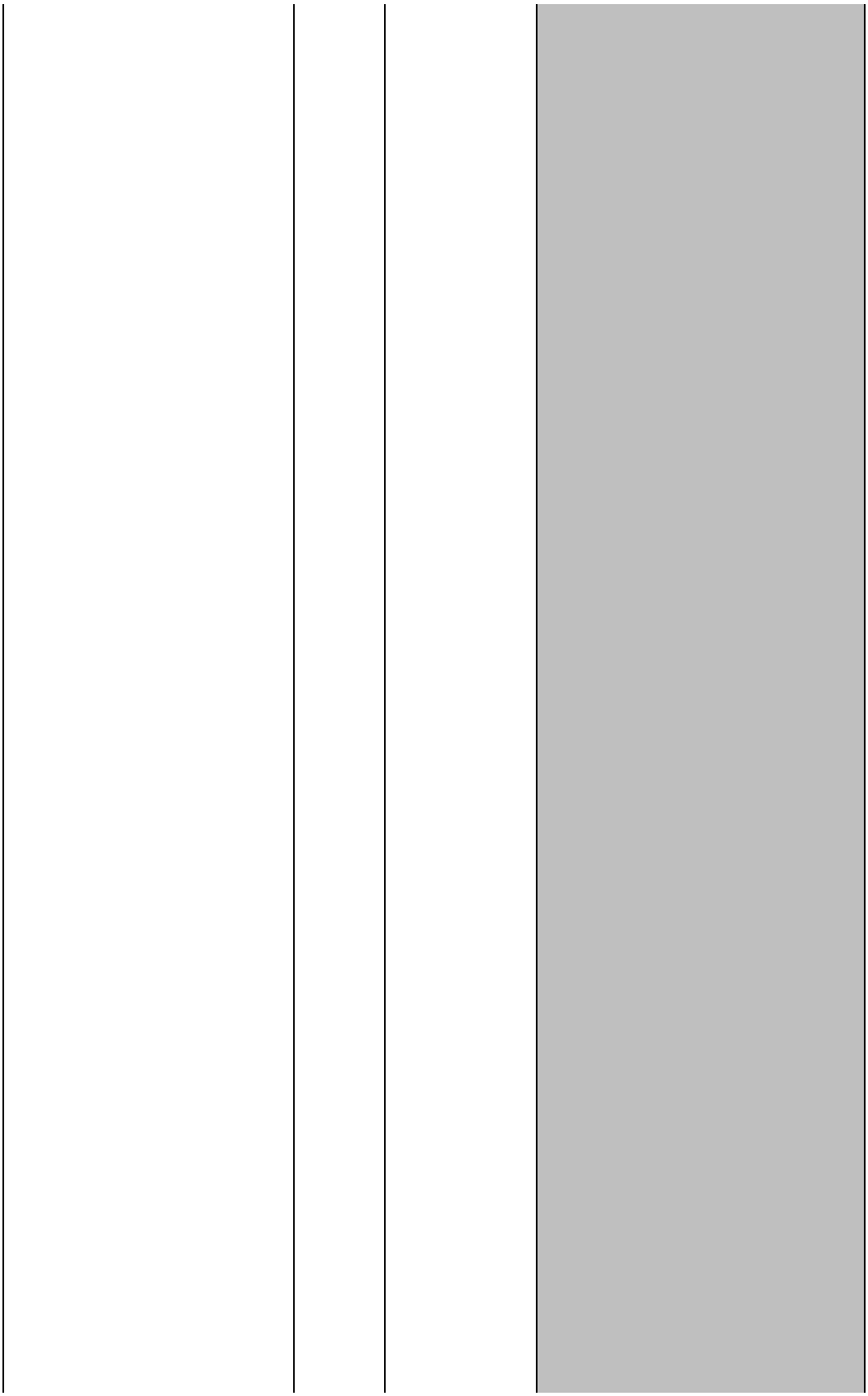

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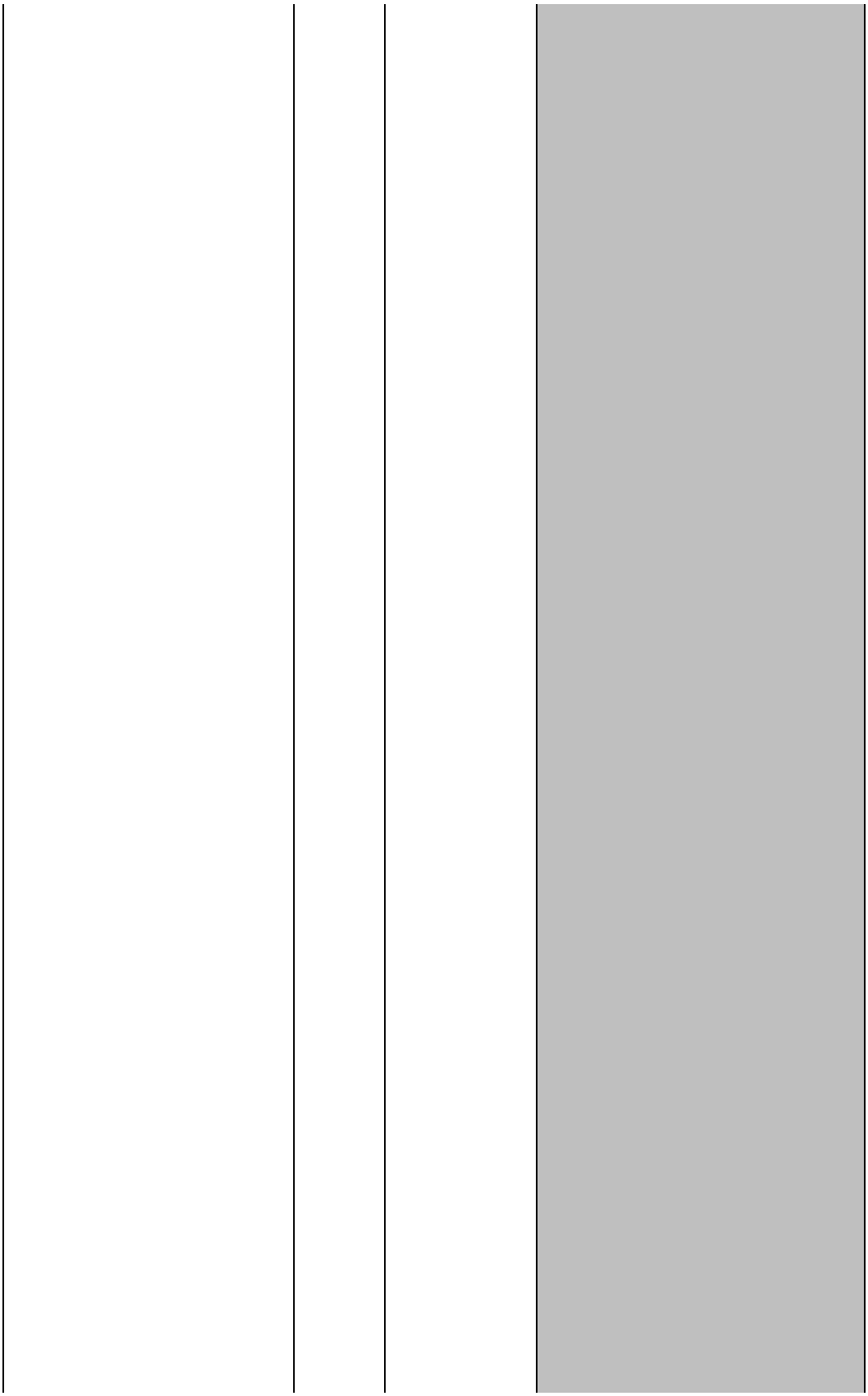

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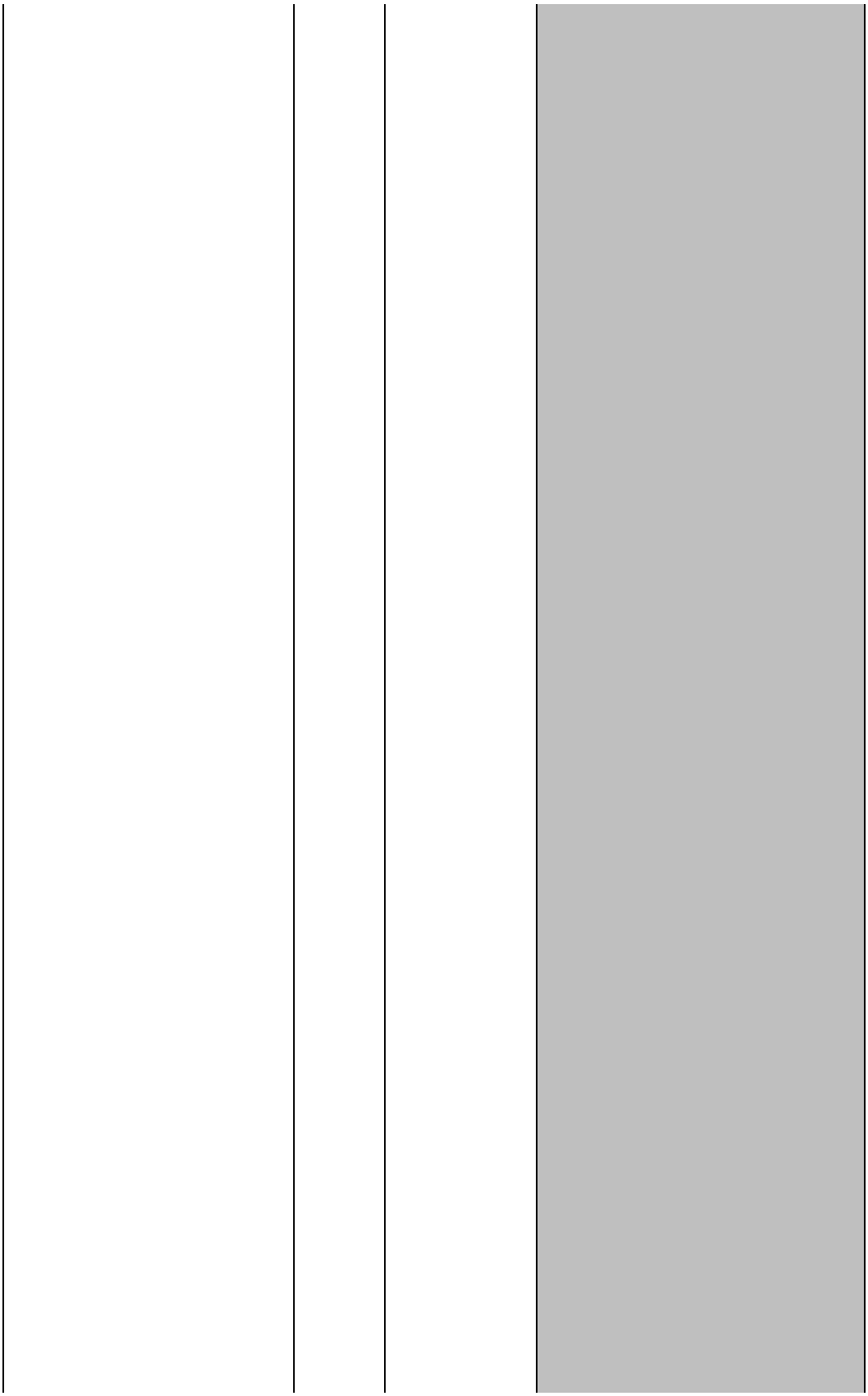
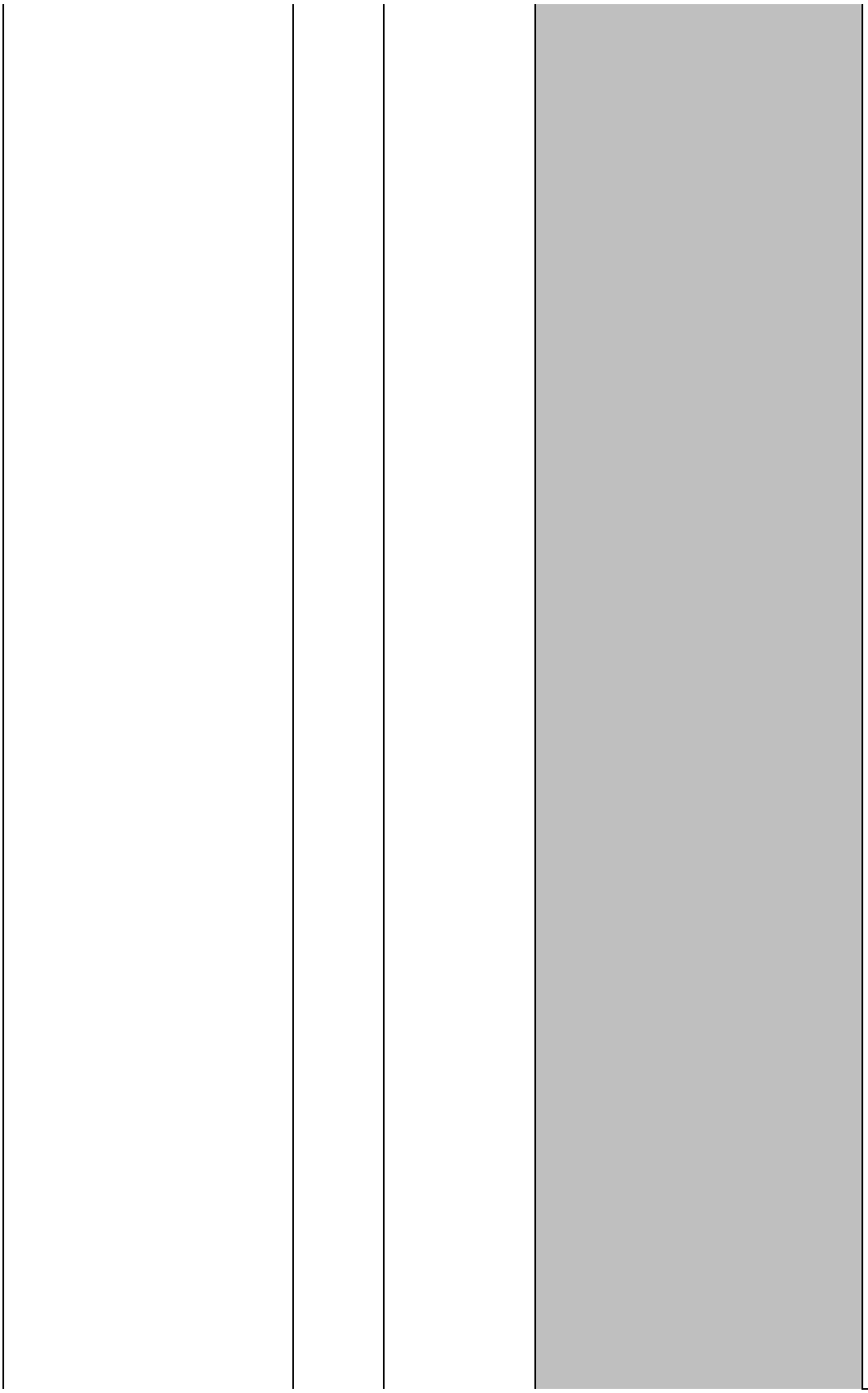
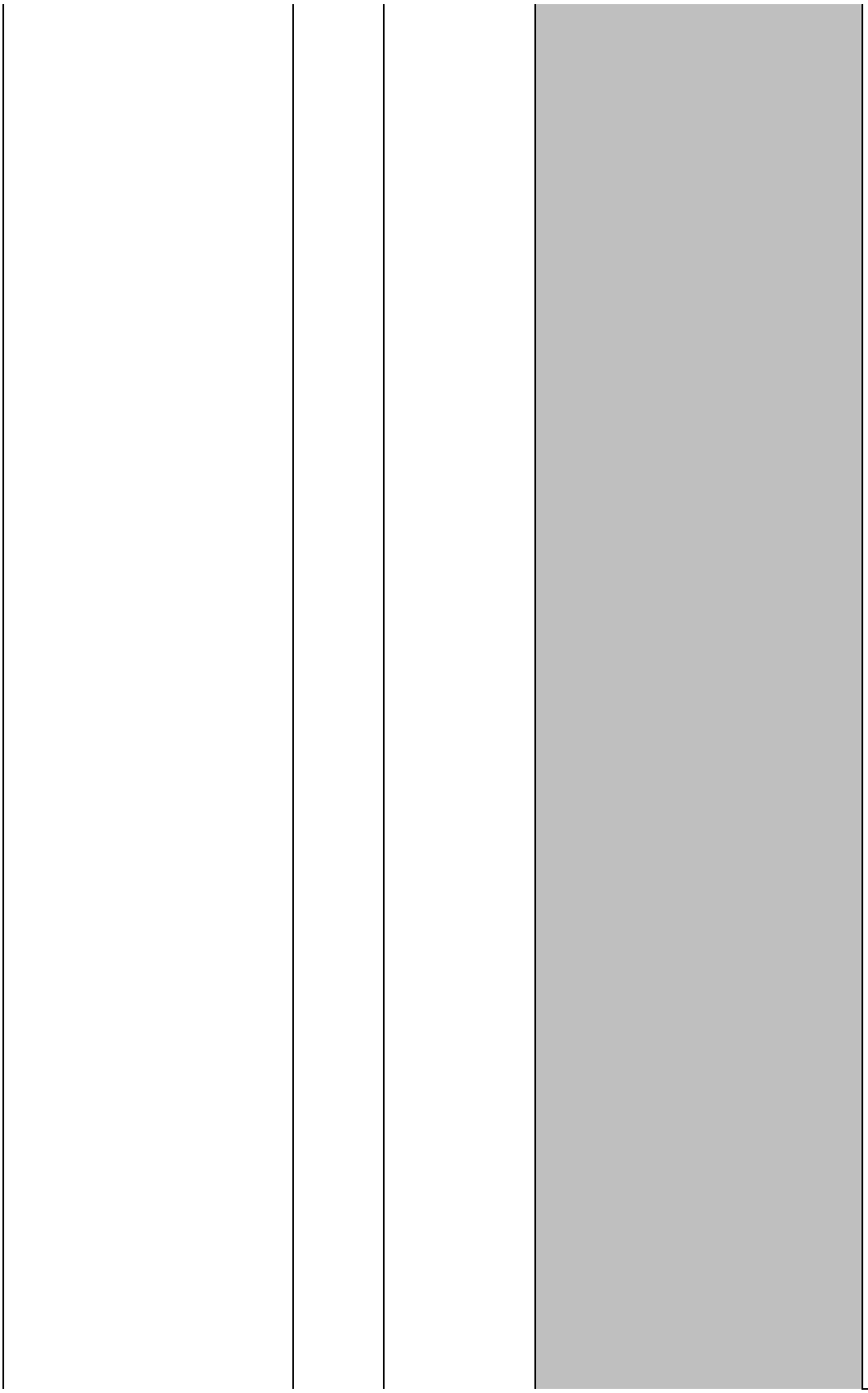
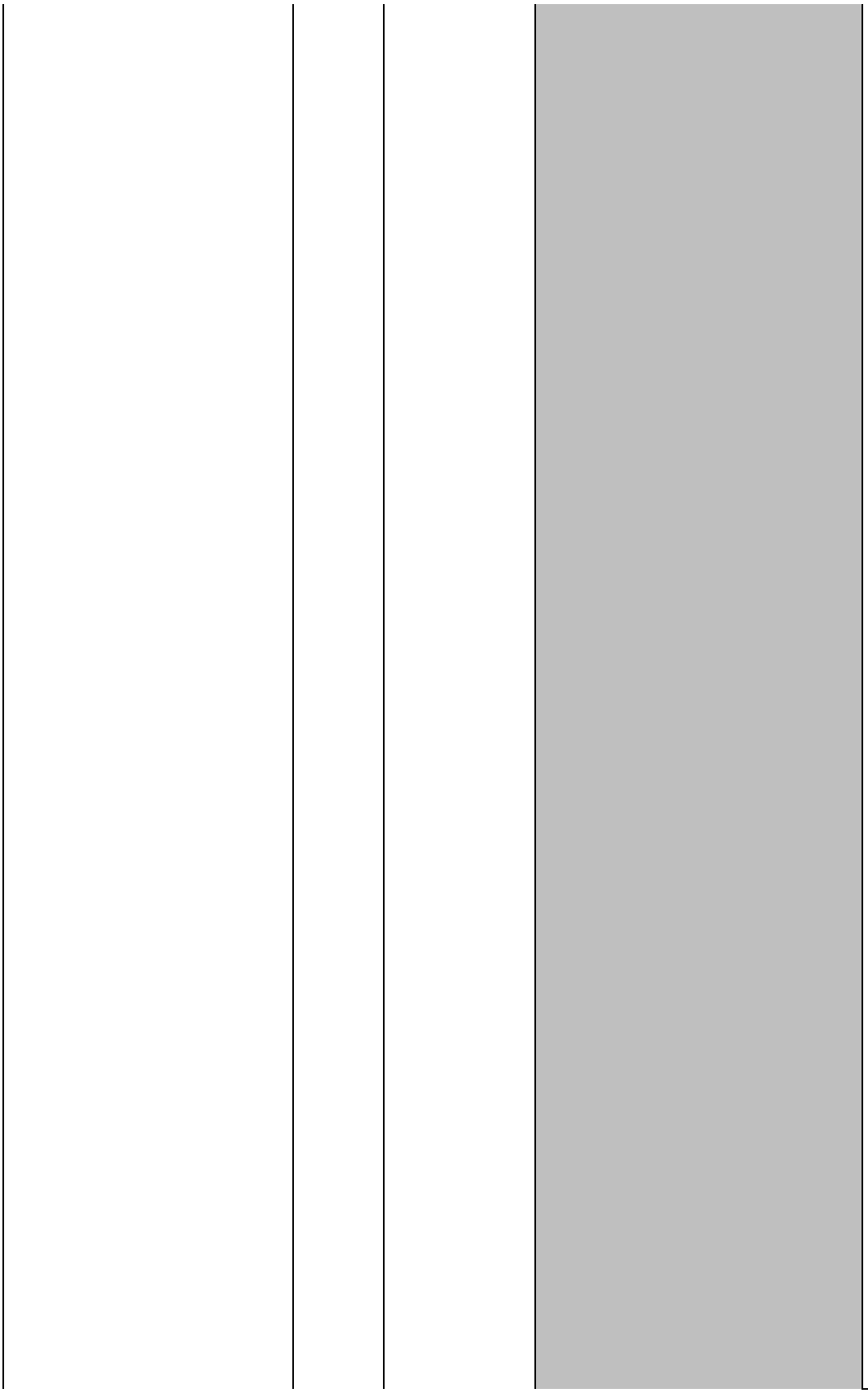


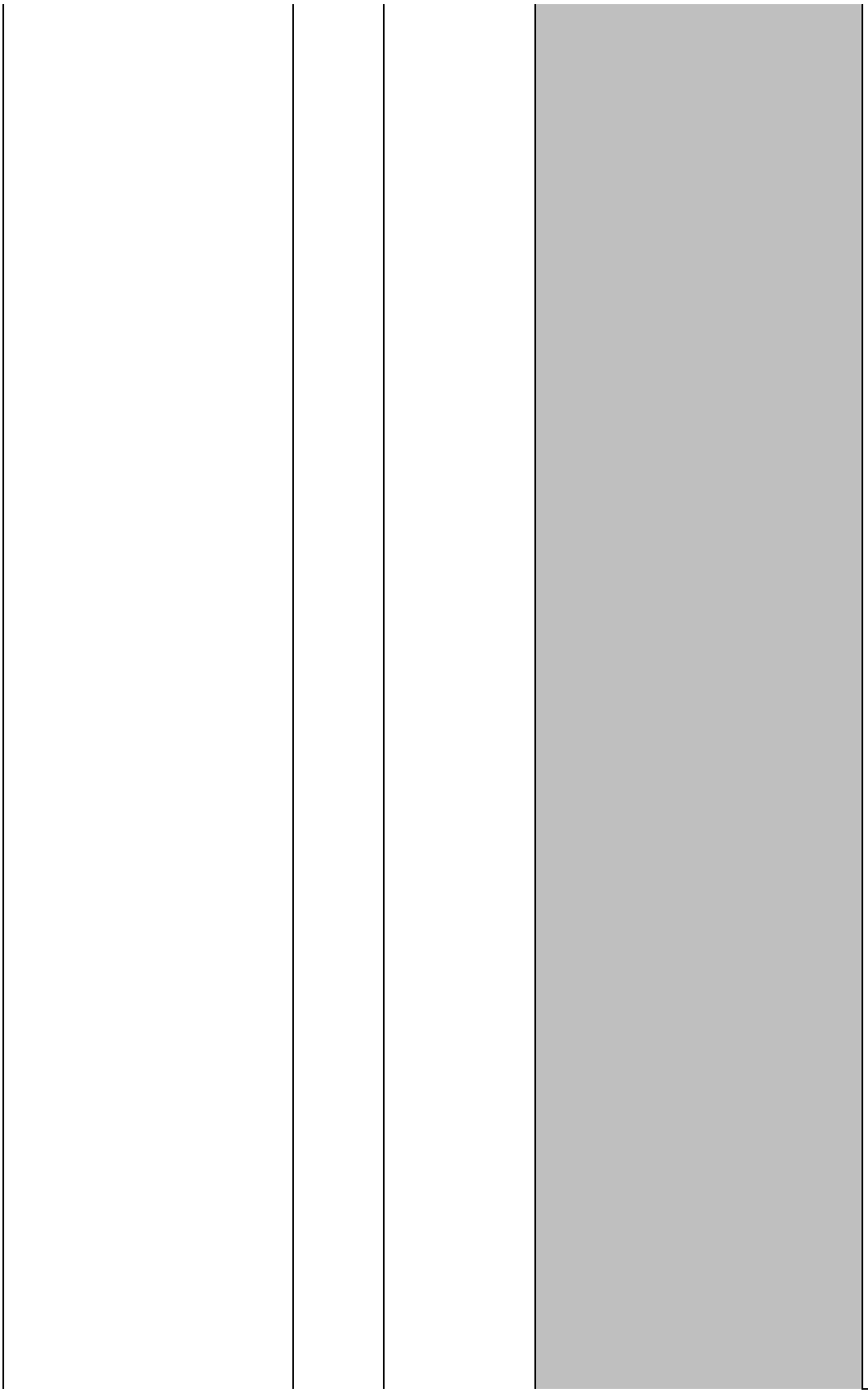
Telecom & power cables	Minimal. Additional costs for environmental assessment only. May be additional cost if need to do environmental assessment for cables needing repairs within 12nm. Awaiting guidance from UKCPC and SNCBs	10km of the UK-Ireland 2 (Global Crossing) operational telecom cable passes through the site.	No additional mitigation of impacts are likely to be required for yet to be consented, or future cabling activity in MCZs, compared with the mitigation of impacts that would be required in the absence of MCZs. This is because: a) impacts on FOCI (all already offered protection by BAP, OSPAR or WCA) are already mitigated against outside of MCZs through the EIA process; and b) The footprint of cables is unlikely to significantly impact on broad-scale habitats.	There may be a cost to the sector associated with additional time/resource spent to consider an MCZ in the environmental assessment. No additional mitigation is likely as a) the development is already consented, and b) repairs outside of 12nm is permitted without consent under international law. To be clarified.

Sector	Potential UK impact headlines	Description of activity in the site to be managed	Extent to be managed	Suggested Measures
Benthic fisheries	Approx. 100 vessels affected	Up to 100 vessels use bottom gear (twin and single rig otter trawlers) in pMCZ 6 identified at focus meeting (32 identified through Fishermap). It is mostly N. Ireland vessels fishing in this area. It is part of the most intensely fished part of the Irish Sea project area by numbers of vessels.	Effectively a prohibition, as this is only option through CFP. Although SNCB advice is to reduce pressure (exposure is reduced from moderate or high levels to a low level). Around Low Energy Circalittoral Rock it is no access. Stakeholder comments: As it is a reduce pressure, prohibit activity from only part of the site, not all. Restrict only some benthic and dredging gear types, explore gear adaptations. Further discussions required.	**1) CFP outside 12nm.** **Certain gear types prohibited from entering the area (IA ASSUMPTION).** 2) For UK vessels only, the MMO can impose a licence condition (on basis of protecting fish stocks outside of 12nm). Generally this won't be any use where non-UK vessels operate. 3) As it is a reduce pressure, limit activity from only part/s of the site, not all 4) Restrict only some benthic and dredging gear types, explore gear adaptations. Further discussions required.
Dredging fisheries	Approx. < 5 vessels affected Poss. IOM	Fishermap has indicated less than five vessels dredging in pMCZ 6 for scallops (kings and queens) and oysters from November through to June. However, this could be a mapping resolution issue.		









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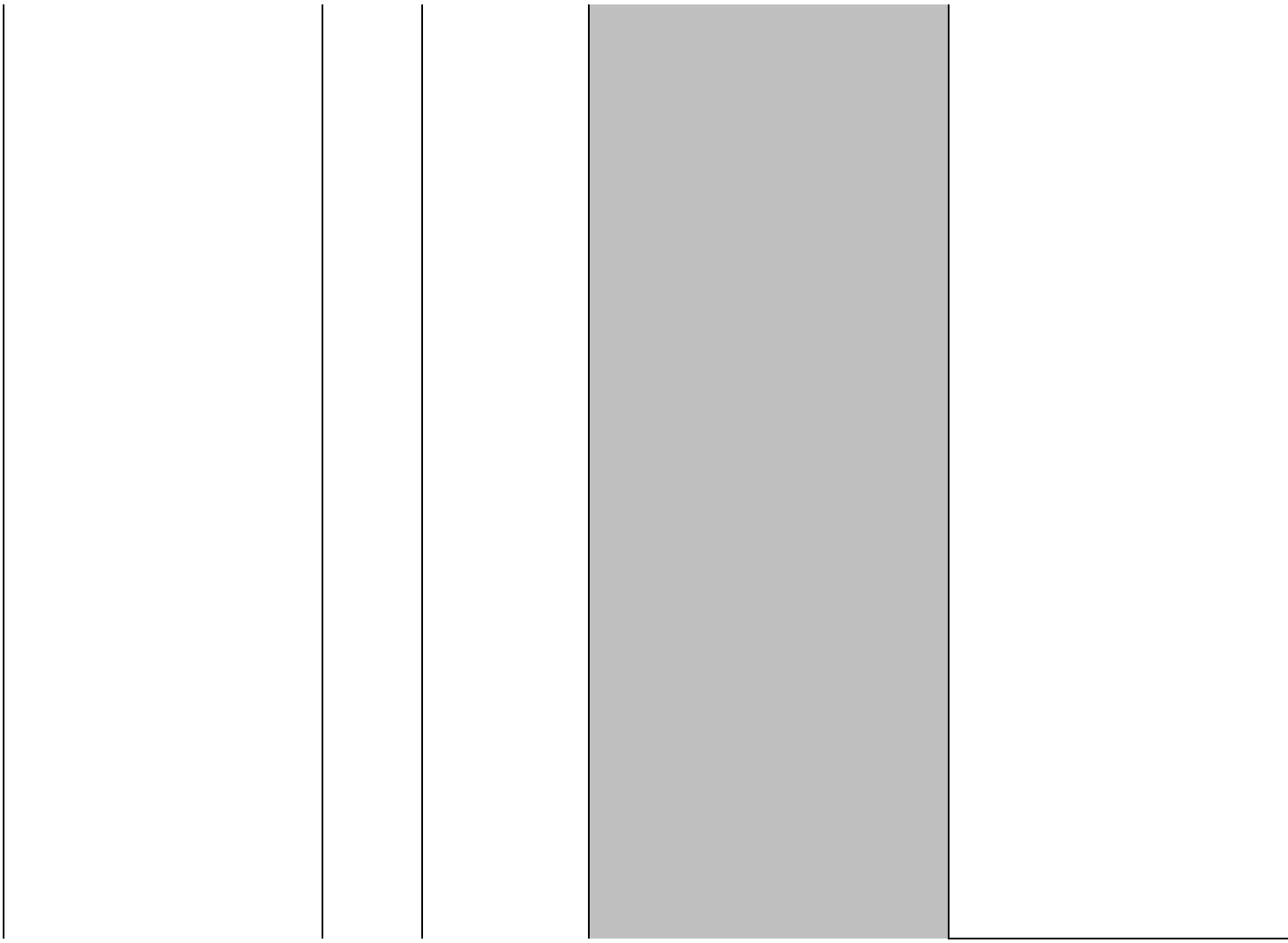

Military	Military vessels in transit may be limited in specific activities, but the effect is probably minimal.	The area is a MOD submarine exercise area.	As a competent authority, MOD must determine whether their plans and projects will have a likely significant effect on, or least hinder, the conservation objectives of MCZs. Military activities are exempt from the EIA Directive. However, adheres to the Secretary of State for Defence, Safety, Health, Environmental Protection and Sustainable Development in Defence Policy Statement. Military activities are not exempt from the Birds and Habitats Directives, or from the provisions of the Marine & Coastal Access Act, with the exception of certain elements of licensing. The MOD is developing a Maritime Environmental Sustainability Appraisal Tool (MESAT). This will help ensure that military activities do not have a significant impact on MCZs. Activities will be modified in and around a MCZ to limit impact on designated features.	n/a
Telecom & power cables	Minimal. Additional costs for environmental assessment only. May be additional cost if need to do environmental assessment for cables needing repairs within 12nm.	10 km of the Lanis 2 (Cable & Wireless) telecommunication cable passes pMCZ 6. The cable runs between the Isle of Man and Northern Ireland.	No additional mitigation of impacts is likely to be required for yet to be consented, or future cabling activity in MCZs, compared with the mitigation of impacts that would be required in the absence of MCZs. This is because: a) impacts on FOCI (all already offered protection by BAP, OSPAR or WCA) are already mitigated against outside of MCZs through the EIA process; and b) The footprint of cables is unlikely to significantly impact on broad-scale habitats.	There may be a cost to the sector associated with additional time/resource spent to consider an MCZ in the environmental assessment. No additional mitigation is likely as a) the development is already consented, and b) repairs outside of 12nm is permitted without consent under international law. To be clarified

Ref. Area F (in pMCZ 6)

Sector	**Potential UK impact headlines**	**Description of activity in the site to be managed**	**Extent to be managed**	**Suggested Measures**

Benthic fisheries	Approx. 100 vessels affected	Up to 100 vessels use bottom gear (twin and single rig otter trawlers) in pMCZ 6 identified at focus meeting (29 identified through Fishermap). It is mostly N. Ireland vessels fishing in this area. It is part of the most intensely fished part of the Irish Sea project area by numbers of vessels.	Prohibition of activity in all of the site.	**1) CFP outside 12nm.** **Certain gear types prohibited from entering the area (IA ASSUMPTION).** 2) For UK vessels only, the MMO can impose a licence condition (on basis of protecting fish stocks outside of 12nm). Generally this won't be any use where non-UK vessels operate.
Dredging fisheries	Approx. < 5 vessels affected Poss. IOM	Fishermap has indicated less than five vessels dredging for scallops in the site from November through to June. However, this could be a mapping resolution issue.	Prohibition of activity in all of the site.	
Pelagic trawling	At least 6 vessels	Fishermap has indicated at least six vessels midwater trawling for herring, whitefish and prawn in the site all year but mostly autumn months.	Prohibition of activity in all of the site.	

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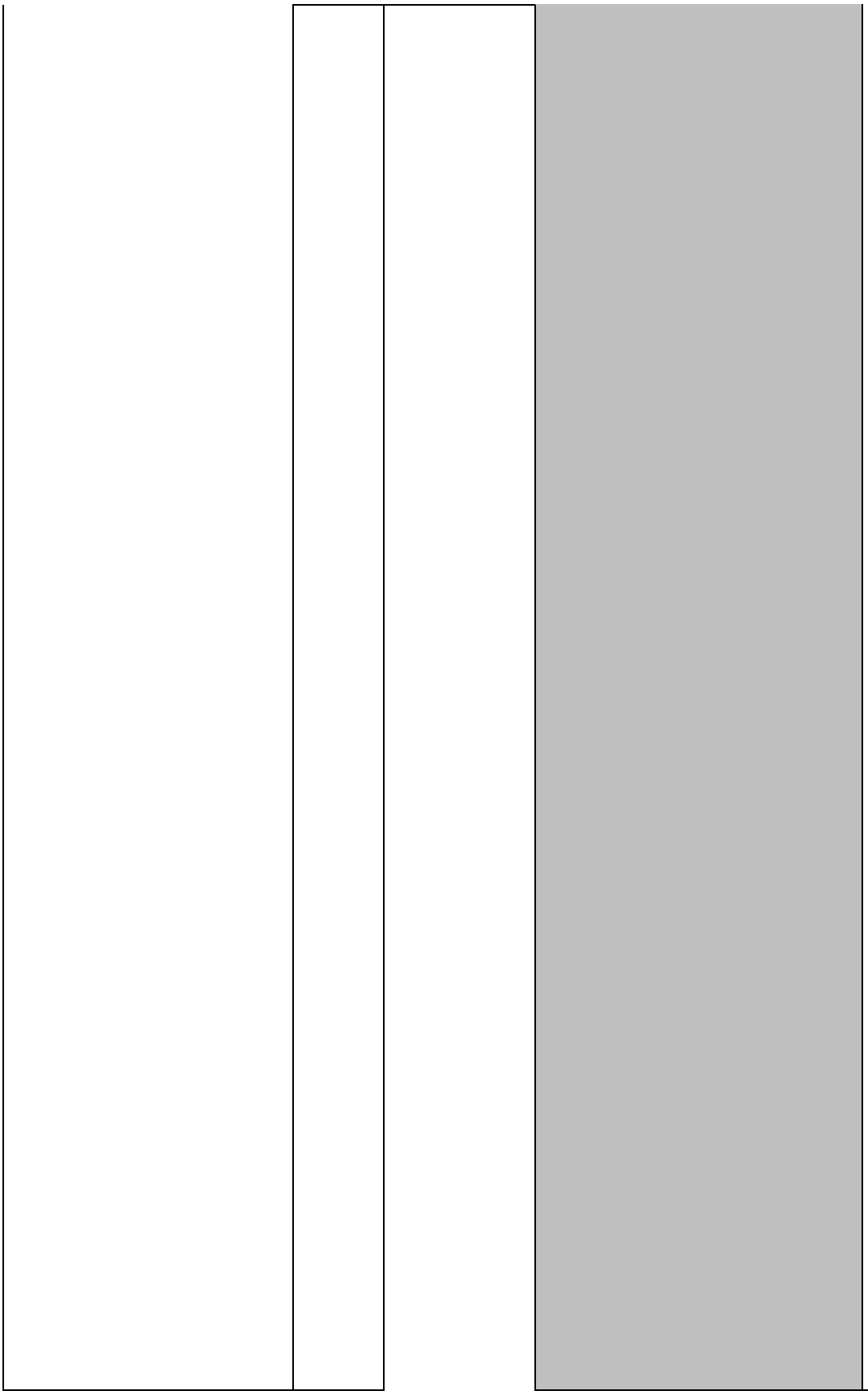

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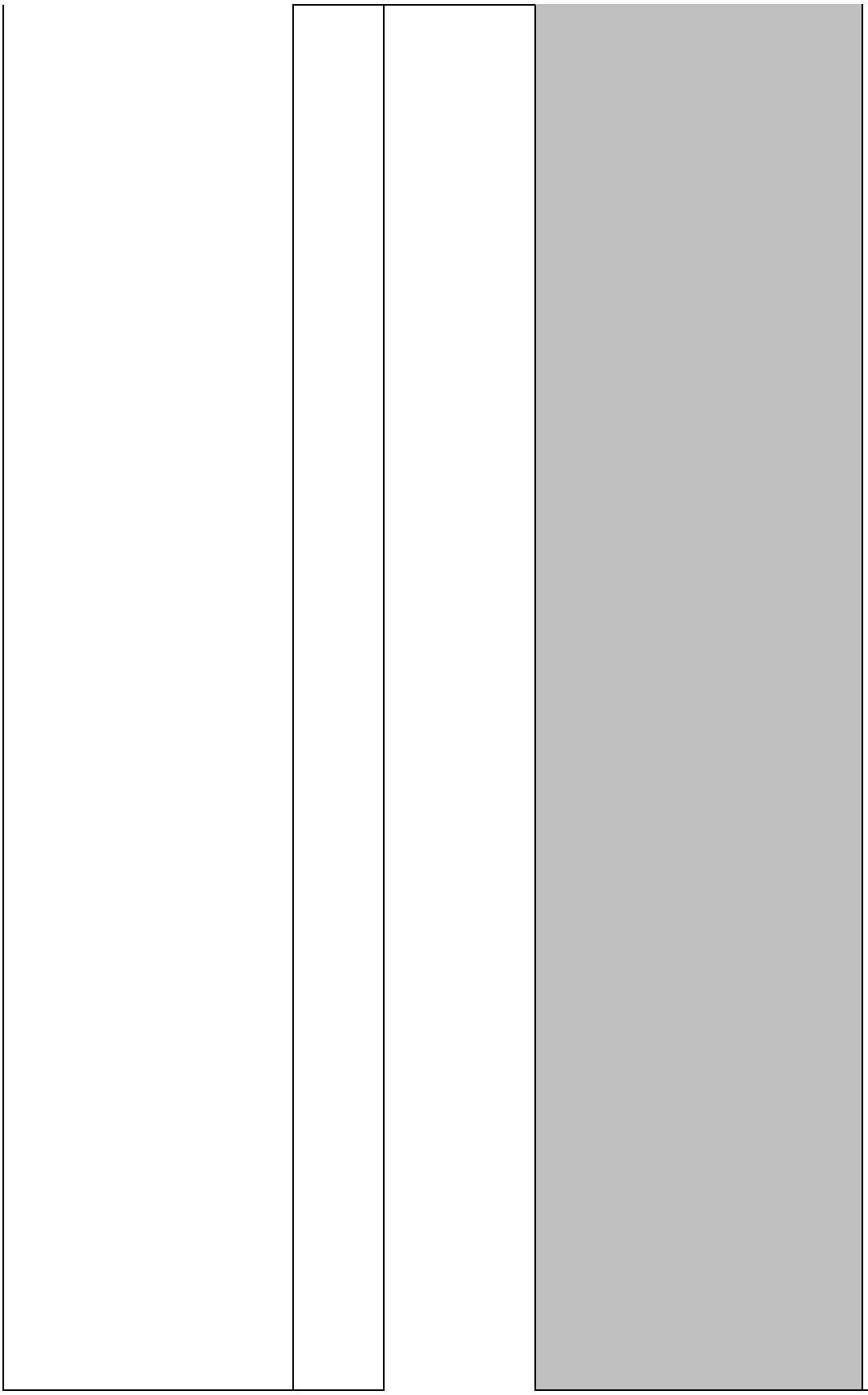

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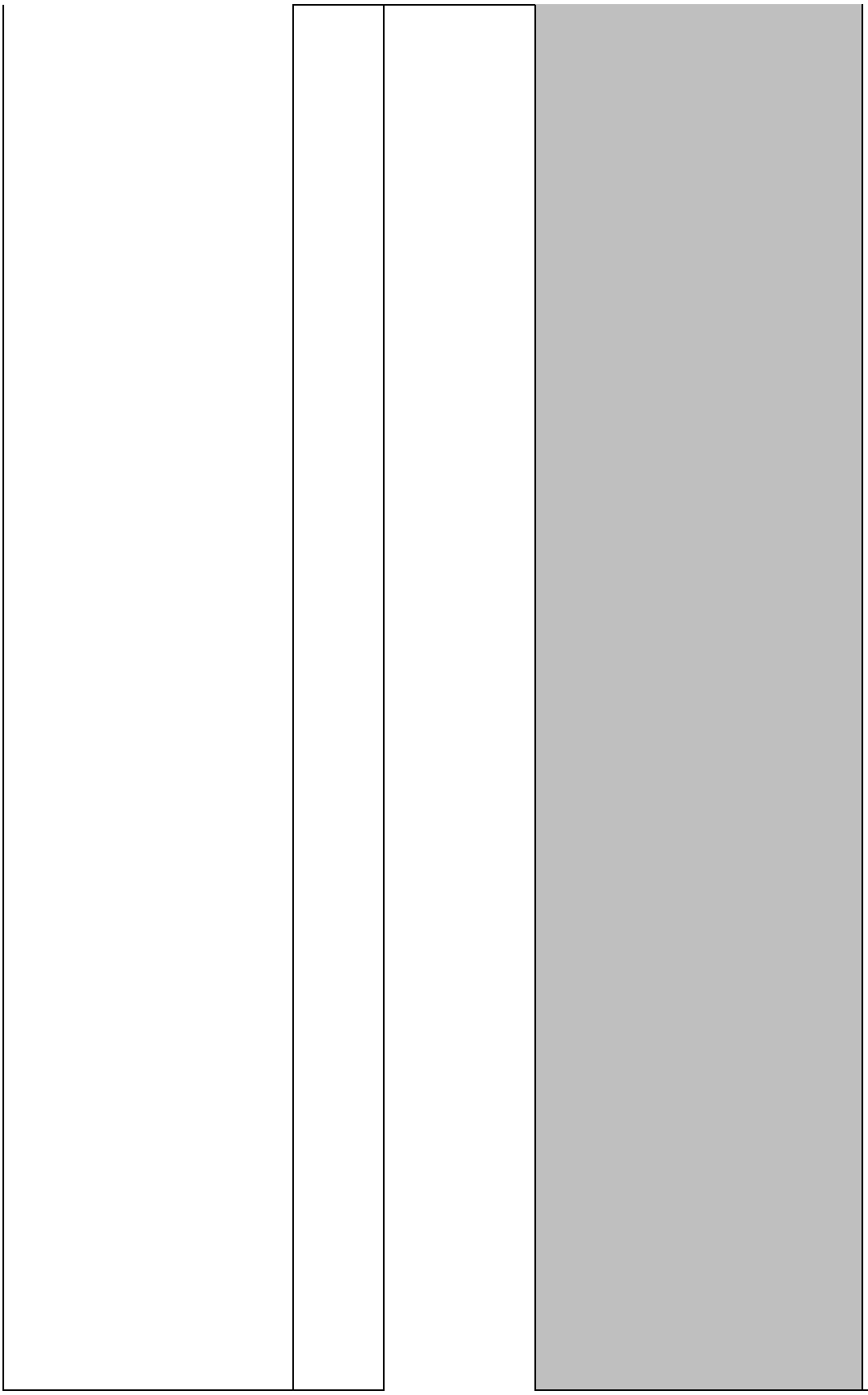

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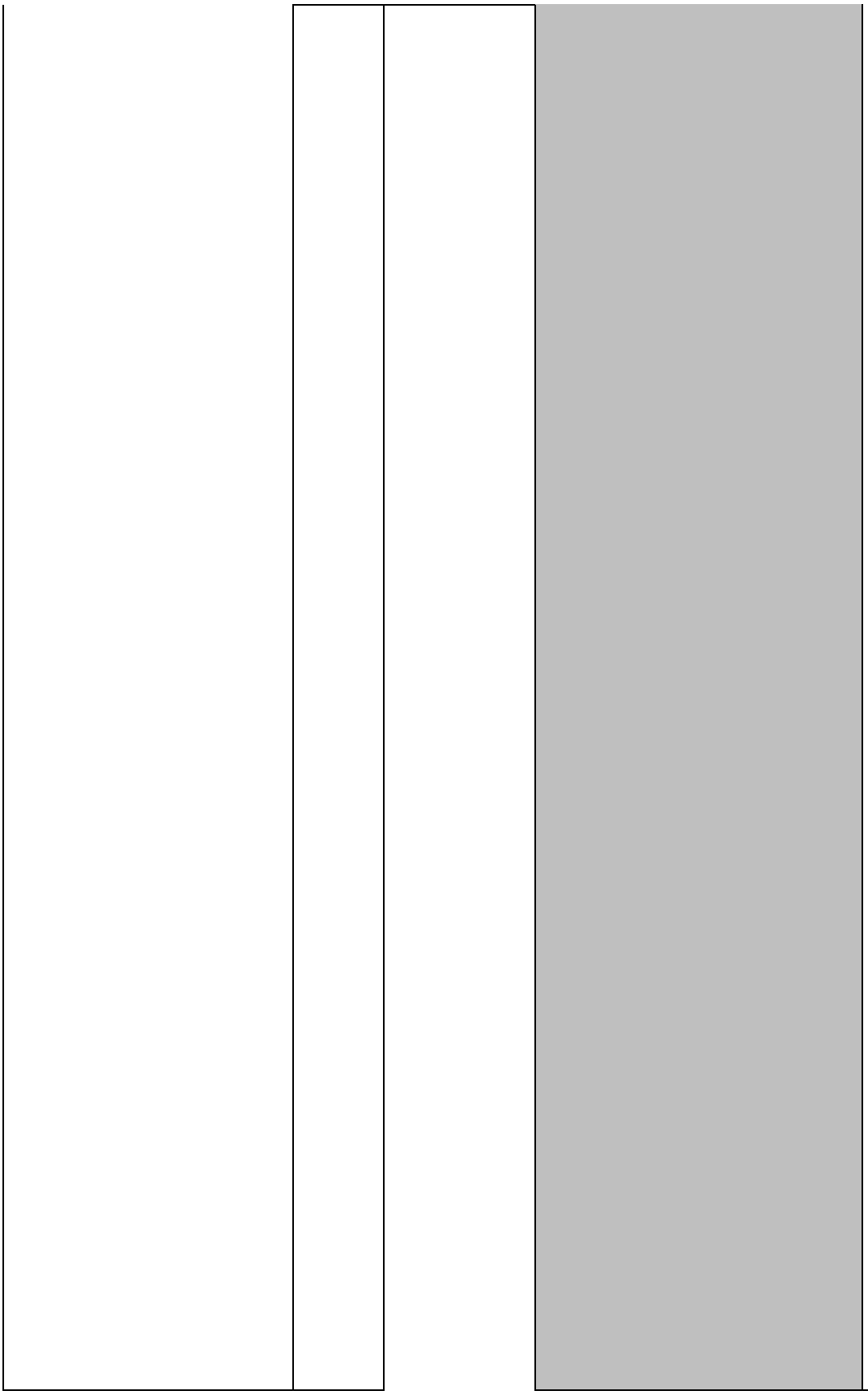


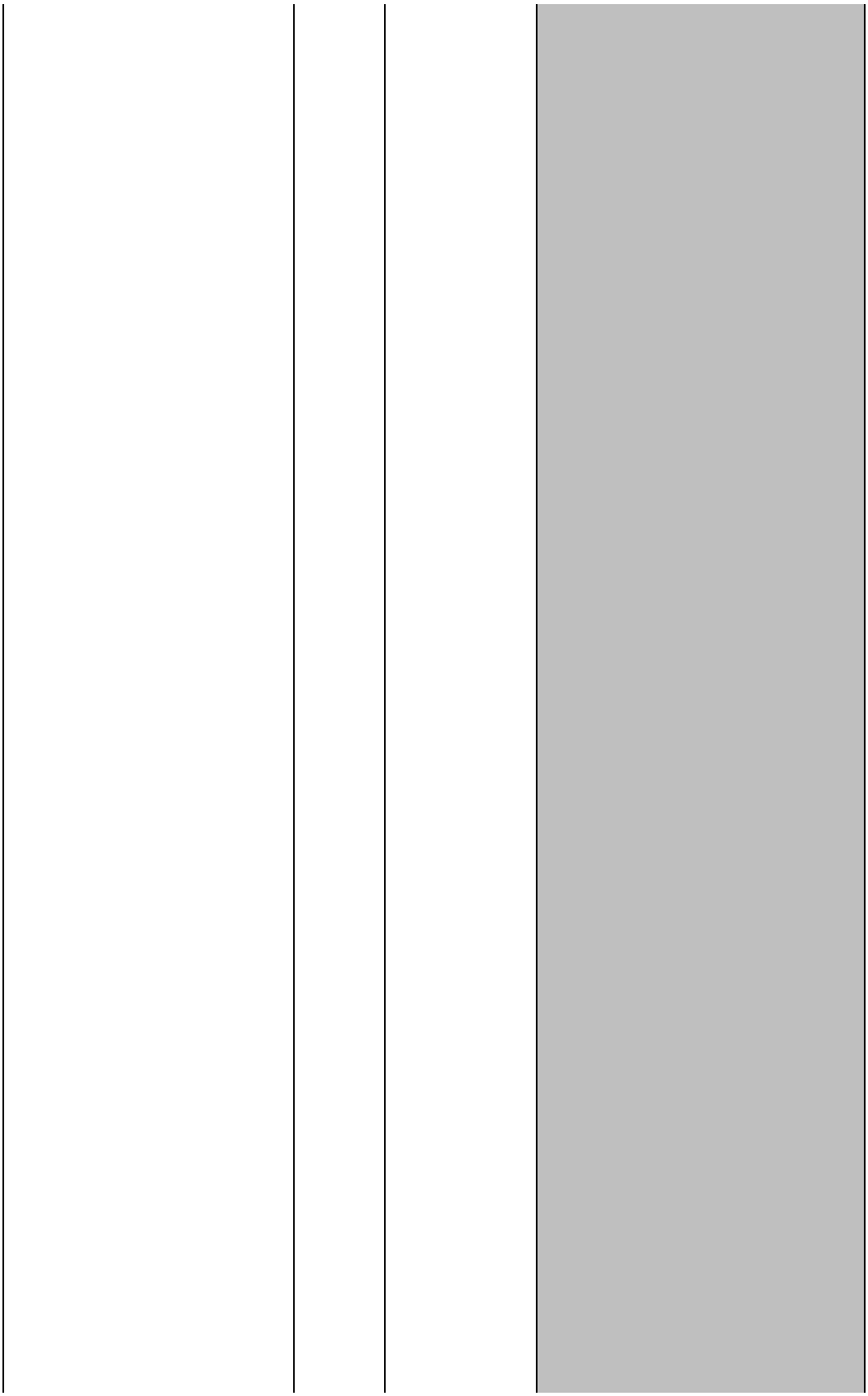
Military training	Military vessels in transit may be limited in specific activities, but the effect is probably minimal.	The area is a MOD submarine exercise area.	Prohibition of programmed activity in the reference area. The MoD's business partner (working closely with CCW) is currently developing a Passive Acoustic Monitoring (PAM) system, due to be deployed later this year, to provide a higher degree of certainty that no dolphins are present prior to a live firing trial; such firings only take place in the main part of the range.	n/a
Recreation	Not known	Some evidence of sailing through the site, but no known anchoring or mooring sites (likely to be too deep).	Prohibition of anchoring in the site for motoring and non-motoring vessels. Transit is permitted.	n/a

pMCZ 7

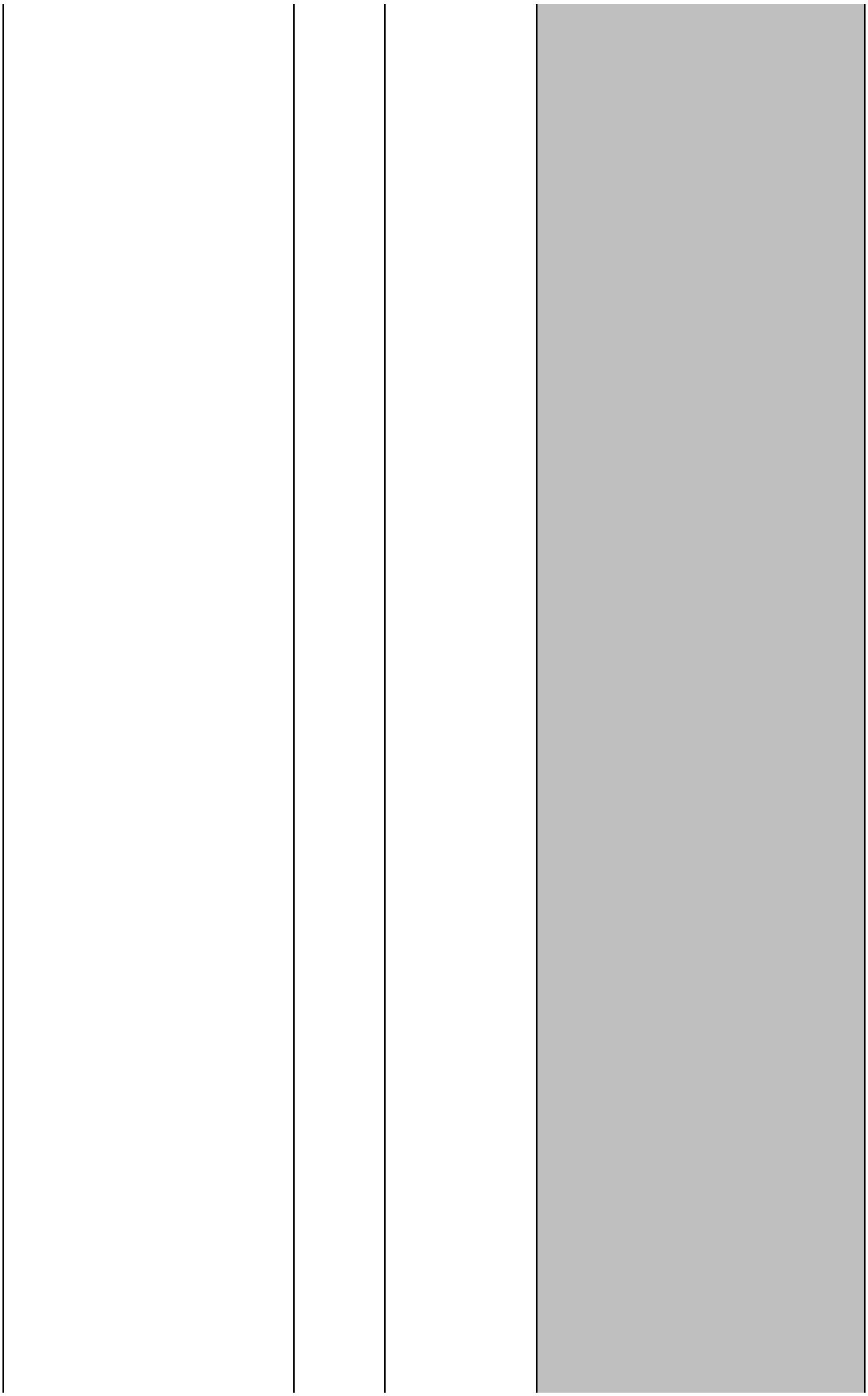
Sector	**Potential UK impact headlines**	**Description of activity in the site to be managed**	**Extent to be managed**	**Suggested Measures**

Benthic fisheries	Approx. 100 vessels affected	Up to 100 vessels use bottom gear (twin and single rig otter trawlers) in pMCZ 6 identified at focus meeting (31 identified through Fishermap). It is mostly N. Ireland vessels fishing in this area. It is part of the most intensely fished part of the Irish Sea project area by numbers of vessels.	Effectively a prohibition, as this is only option through CFP. Although SNCB advice is to reduce pressure (exposure is reduced from moderate or high levels to a low level). Around Low Energy Circalittoral Rock it is no access. Stakeholder comments: As it is a reduce pressure, prohibit activity from only part of the site, not all. Restrict only some benthic and dredging gear types, explore gear adaptations. Further discussions required.	**1) CFP outside 12nm.** **Certain gear types prohibited from entering the area (IA ASSUMPTION).** 2) For UK vessels only, the MMO can impose a licence condition (on basis of protecting fish stocks outside of 12nm). Generally this won't be any use where non-UK vessels operate. 3) As it is a reduce pressure, limit activity from only part/s of the site, not all 4) Restrict only some benthic and dredging gear types, explore gear adaptations. Further discussions required.

Annex 3 Management Tables



Annex 3 Management Tables



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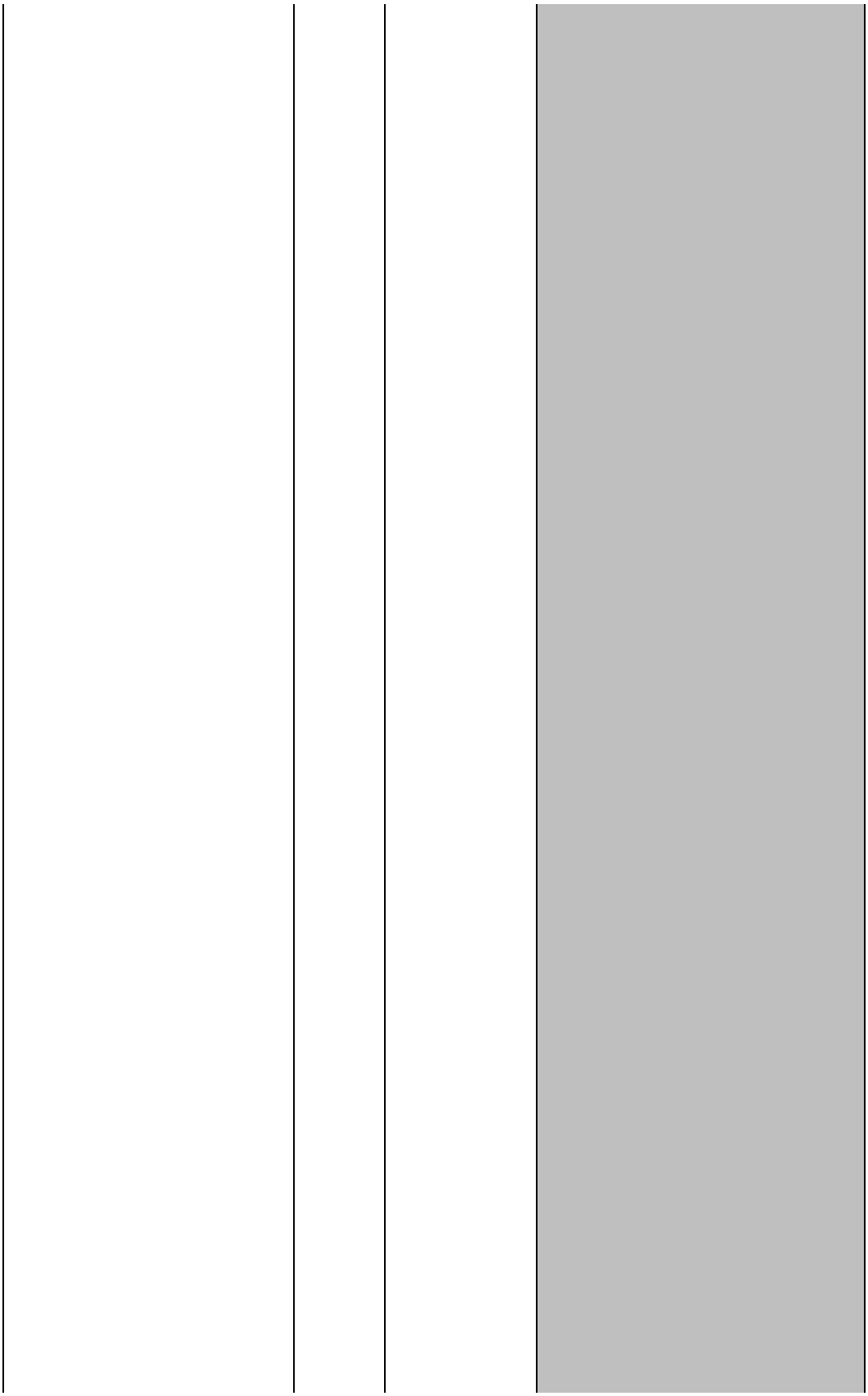

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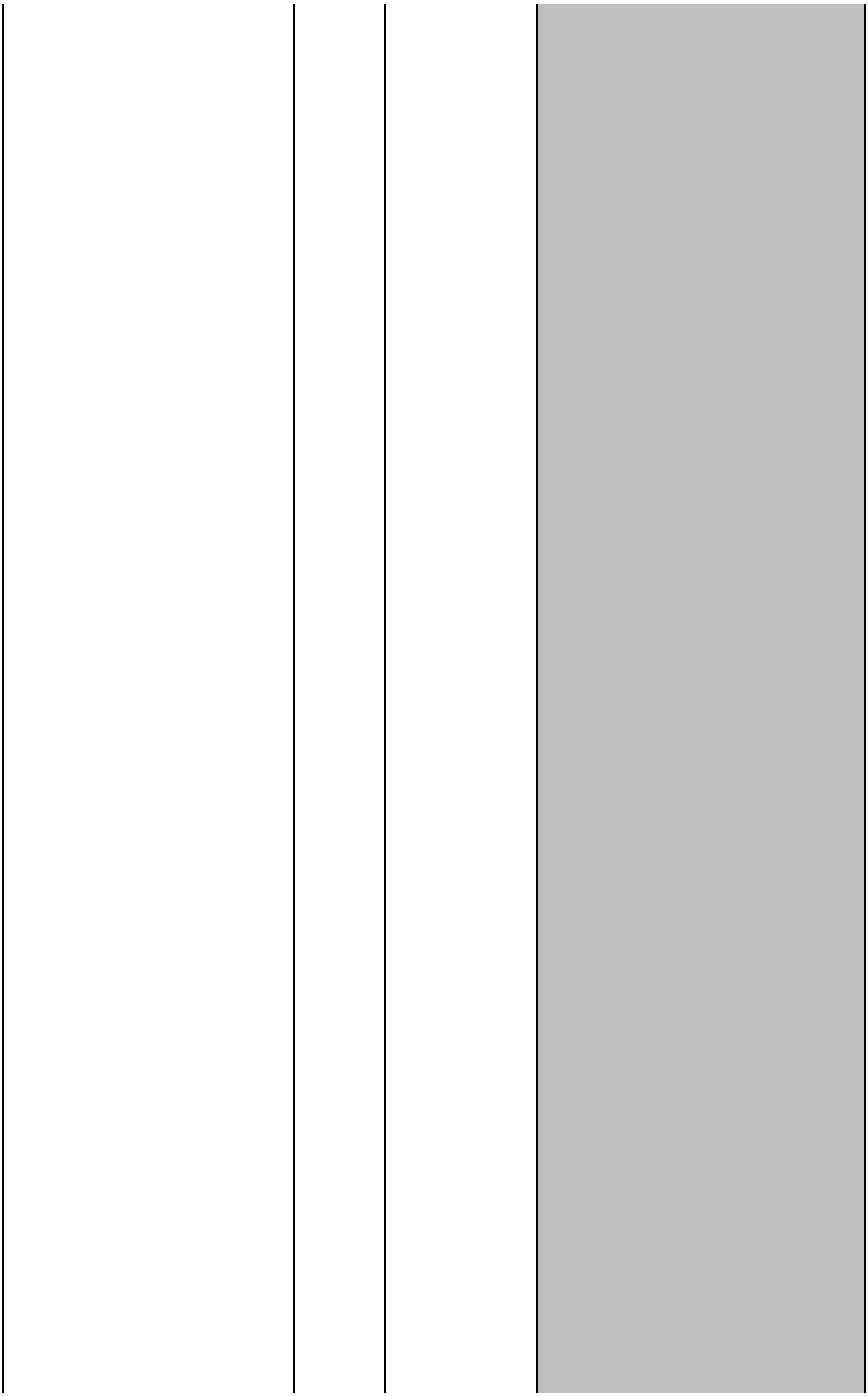


Military	Military vessels in transit may be limited in specific activities, but the effect is probably minimal.	The area is a MOD submarine exercise area.	As a competent authority, MOD must determine whether their plans and projects will have a likely significant effect on, or least hinder, the conservation objectives of MCZs. Military activities are exempt from the EIA Directive. However, adheres to the Secretary of State for Defence, Safety, Health, Environmental Protection and Sustainable Development in Defence Policy Statement. Military activities are not exempt from the Birds and Habitats Directives, or from the provisions of the Marine & Coastal Access Act, with the exception of certain elements of licensing. The MOD is developing a Maritime Environmental Sustainability Appraisal Tool (MESAT). This will help ensure that military activities do not have a significant impact on MCZs. Activities will be modified in and around a MCZ to limit impact on designated features.	n/a

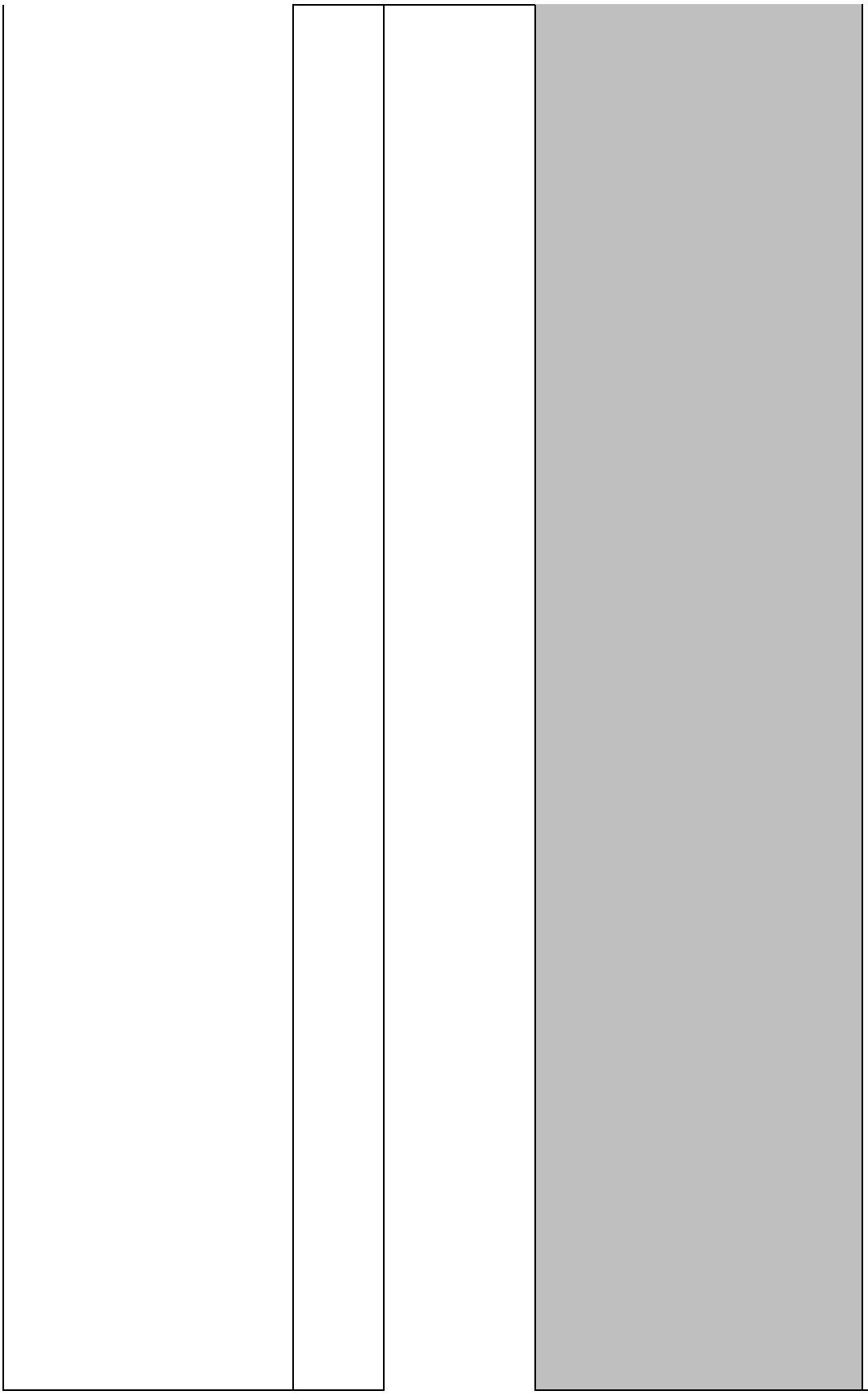
Telecom & power cables	Minimal. Additional costs for environmental assessment only. May be additional cost if need to do environmental assessment for cables needing repairs within 12nm. Awaiting guidance from UKCPC and SNCBs	2.4km of the Western HVDC proposed route runs through this site. This will comprise 2 power cables (500 kW) bundled together. It is not yet consented and consents will be applied for in 2012.	No additional mitigation of impacts will be required for yet to be consented, or future cabling activity in MCZs, compared with the mitigation of impacts that would be required in the absence of MCZs. This is because: a) impacts on FOCI (all already offered protection by BAP, OSPAR or WCA) are already mitigated against outside of MCZs through the EIA process; and b) The footprint of cables is unlikely to significantly impact on broad-scale habitats.	There may be a cost to the sector associated with additional time/resource spent to consider an MCZ in the environmental assessment. No additional mitigation is likely as a) the development is already consented, and b) repairs outside of 12nm is permitted without consent under international law. To be clarified

Ref. Area G (in pMCZ 7)

Sector	**Potential UK impact headlines**	**Description of activity in the site to be managed**	**Extent to be managed**	**Suggested Measures**
Benthic fisheries	Approx. 100 vessels affected	Up to 100 vessels use bottom gear (twin and single rig otter trawlers) in pMCZ 7 identified at focus meeting (31 identified through Fishermap). It is mostly N. Ireland vessels fishing in this area. It is part of the most intensely fished part of the Irish Sea project area by numbers of vessels.	Prohibition of activity in all of the site.	**1) CFP outside 12nm.** **Certain gear types prohibited from entering the area (IA ASSUMPTION).** 2) For UK vessels only, the MMO can impose a licence condition (on basis of protecting fish stocks outside of 12nm). Generally this won't be any use where non-UK vessels operate.

Pelagic trawling	At least 7 vessels	Fishermap has indicated at least seven vessels midwater trawling for herring, whitefish and prawn in the site all year but mostly autumn months.	Prohibition of activity in all of the site.

Annex 3 Management Tables



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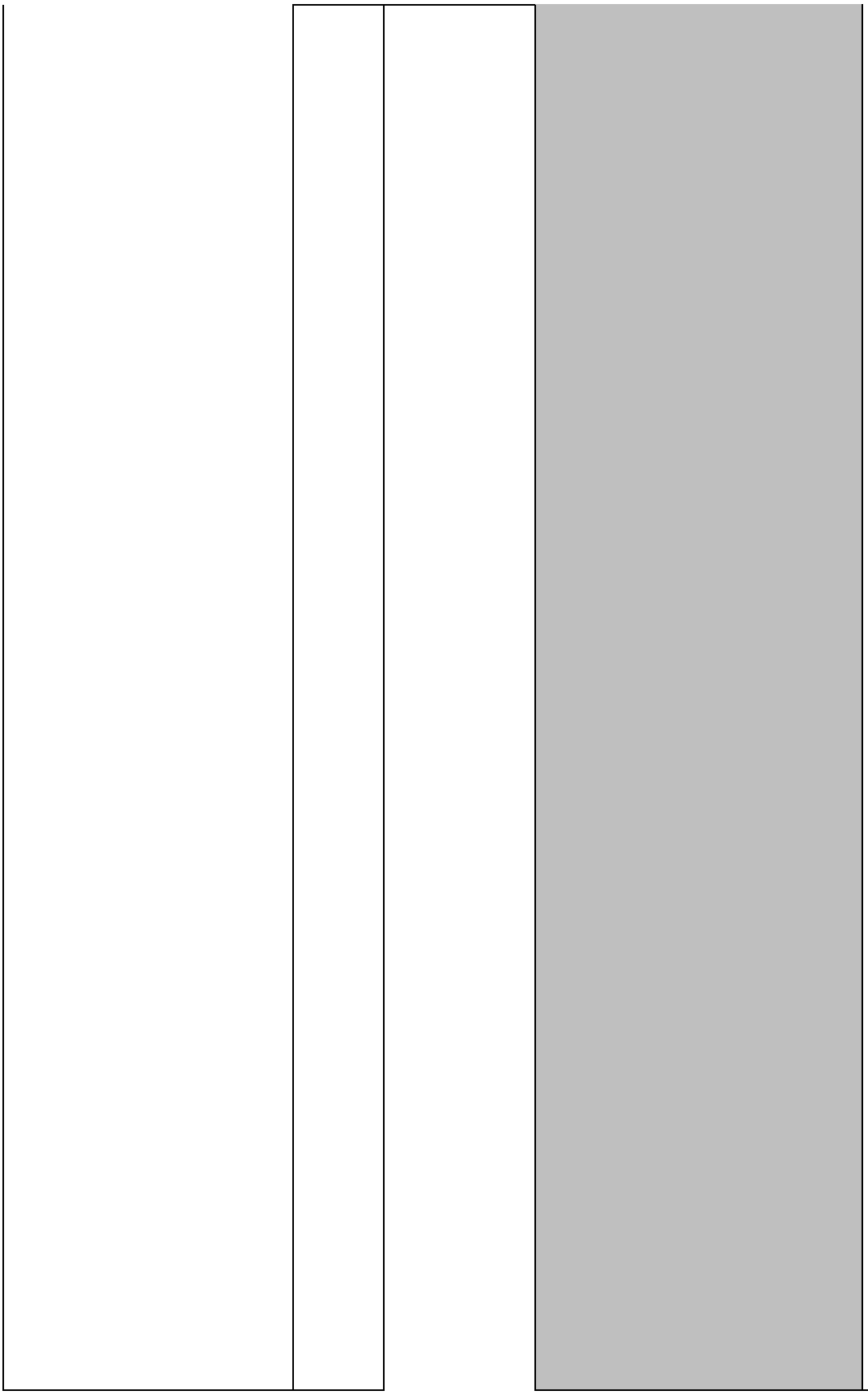

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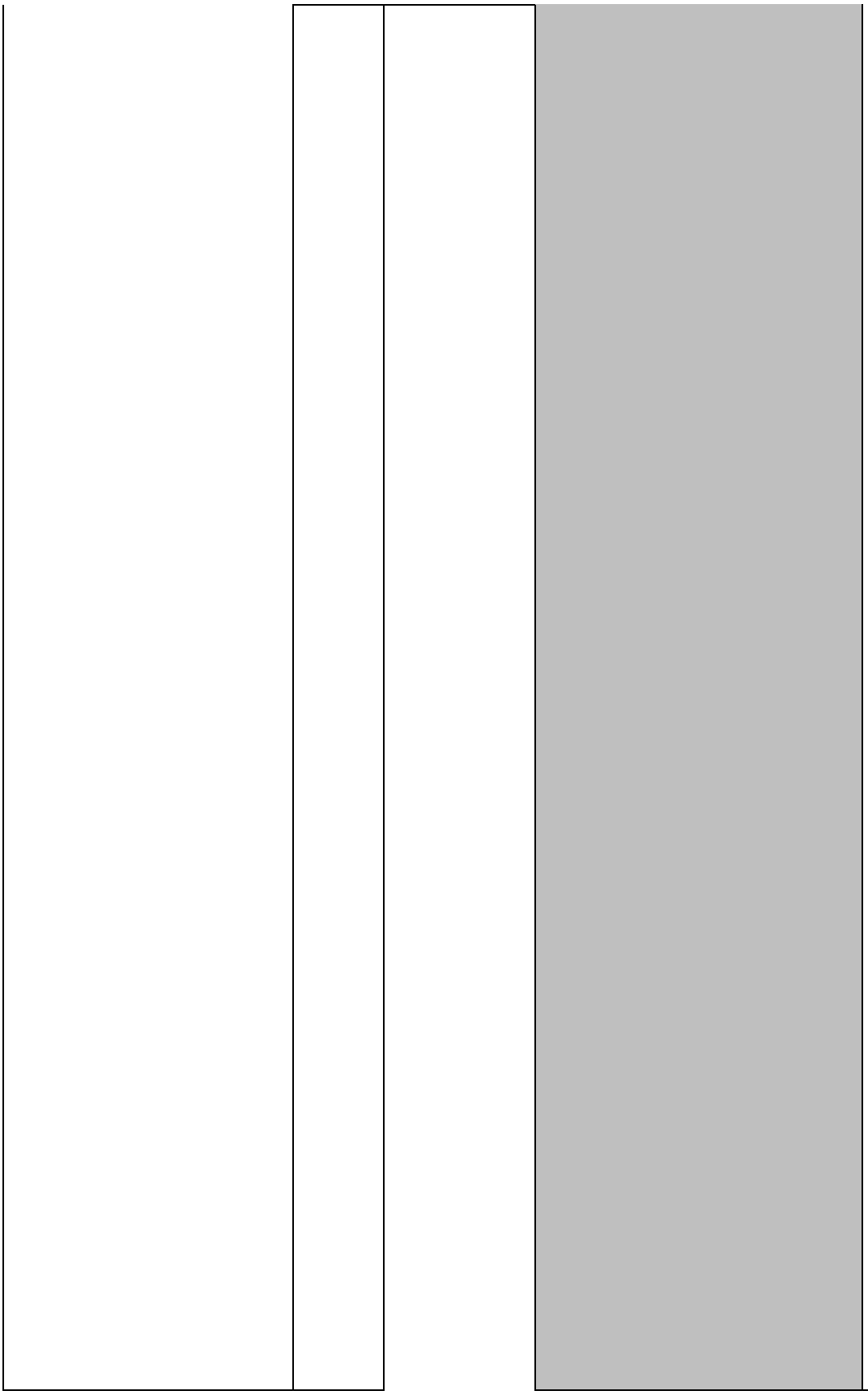

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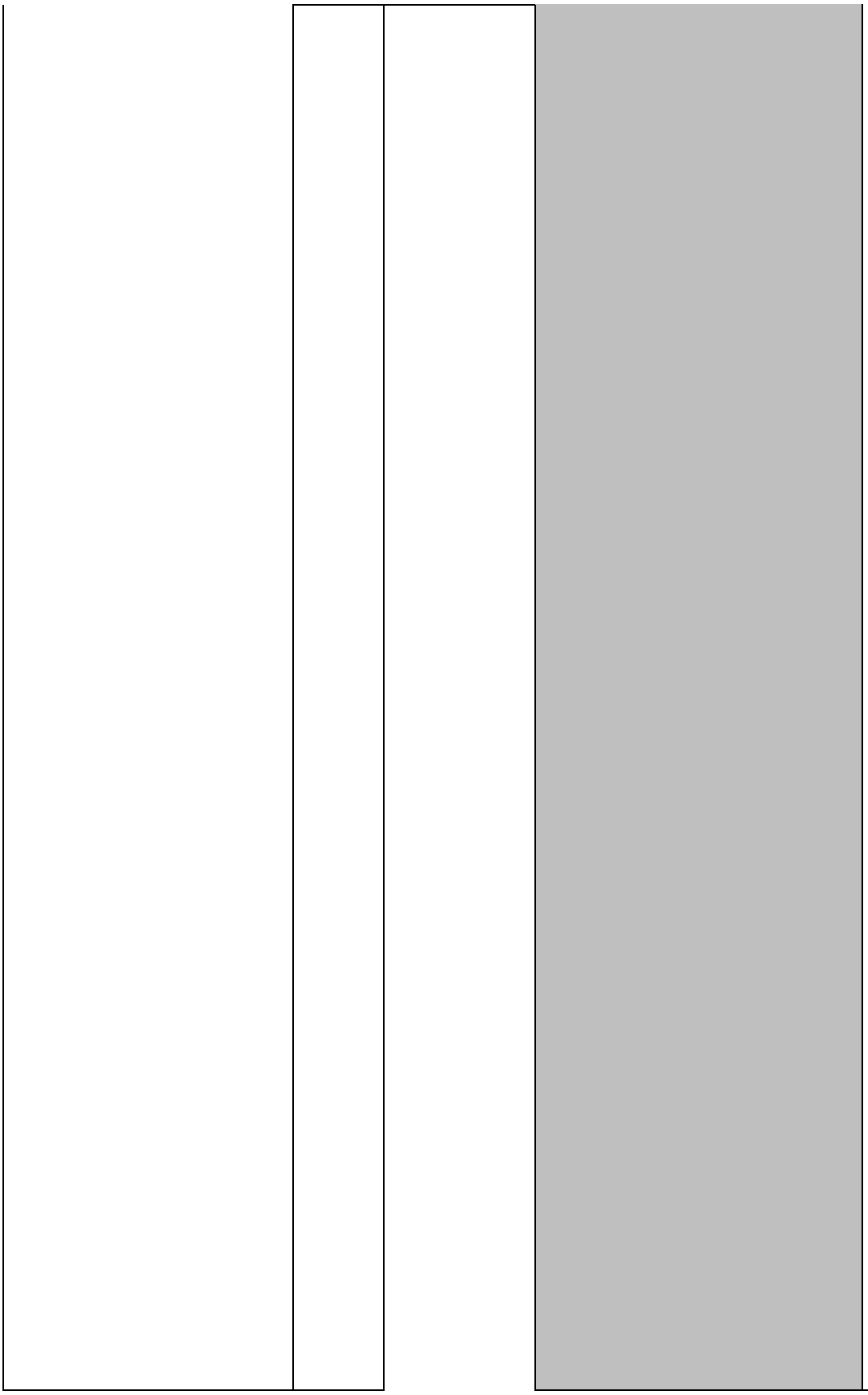


Military training	Military vessels in transit may be limited in specific activities, but the effect is probably minimal.	The area is a MOD submarine exercise area.	Prohibition of programmed activity in the reference area. The MoD's business partner (working closely with CCW) is currently developing a Passive Acoustic Monitoring (PAM) system, due to be deployed later this year, to provide a higher degree of certainty that no dolphins are present prior to a live firing trial; such firings only take place in the main part of the range.	n/a
Recreation	Not known	Some evidence of sailing through the site, but no known anchoring or mooring sites (likely to be too deep).	Prohibition of anchoring in the site for motoring and non-motoring vessels. Transit is permitted. There is a navigation zone to separate traffic in this area.	Voluntary agreement only.

pMCZ 8

No additional management is proposed in addition to existing management and regulatory frameworks.

Sector	**Potential UK impact headlines**	**Description of activity in the site to be managed**	**Extent to be managed**	**Suggested Measures**

Telecom & power cables	Minimal. Additional costs for environmental assessment only. May be additional cost if need to do environmental assessment for cables needing repairs within 12nm. Awaiting guidance from UKCPC and SNCBs	There are five existing telecom cables and one existing power interconnector running between England and the Isle of Man. There is one disused cable within pMCZ 8 also.	No additional mitigation of impacts are likely to be required for yet to be consented, or future cabling activity in MCZs, compared with the mitigation of impacts that would be required in the absence of MCZs. This is because: a) impacts on FOCI (all already offered protection by BAP, OSPAR or WCA) are already mitigated against outside of MCZs through the EIA process; and b) The footprint of cables is unlikely to significantly impact on broad-scale habitats.	There may be a cost to the sector associated with additional time/resource spent to consider an MCZ in the environmental assessment. No additional mitigation is likely as a) the development is already consented, and b) repairs outside of 12nm is permitted without consent under international law. To be clarified.
Oil & gas activity	Minimal. Additional costs for environmental assessment only. May be additional costs - to be finalised.	There is currently no oil and gas activity in the site, but the site joins onto the Liverpool Bay oil fields.	No additional mitigation of impacts are likely to be required for yet to be consented, or future oil and gas activity in MCZs, compared with the mitigation of impacts that would be required in the absence of MCZs. This is because generic mitigation measures are likely to be carried out in a similar way for features that are within or outside of a MCZ. This is because: a) impacts on FOCI (all already offered protection by BAP, OSPAR or WCA) are already mitigated against outside of MCZs through the EIA process; and b) the footprint of oil & gas installations is unlikely to significantly impact on broad-scale habitats.	There will be a cost to the sector associated with additional time/resource spent to consider an MCZ in the EIA for activities yet to be consented. May be additional costs - to be clarified. To be clarified.

** For information, there is a closed disposal site in pMCZ 8, formerly used for dumping dredge material dredged from Preston harbour.*

pMCZ 10

No additional management is proposed in addition to existing management and regulatory frameworks

Sector	**Potential UK impact headlines**	**Description of activity in the site to be managed**	**Extent to be managed**	**Suggested Measures**

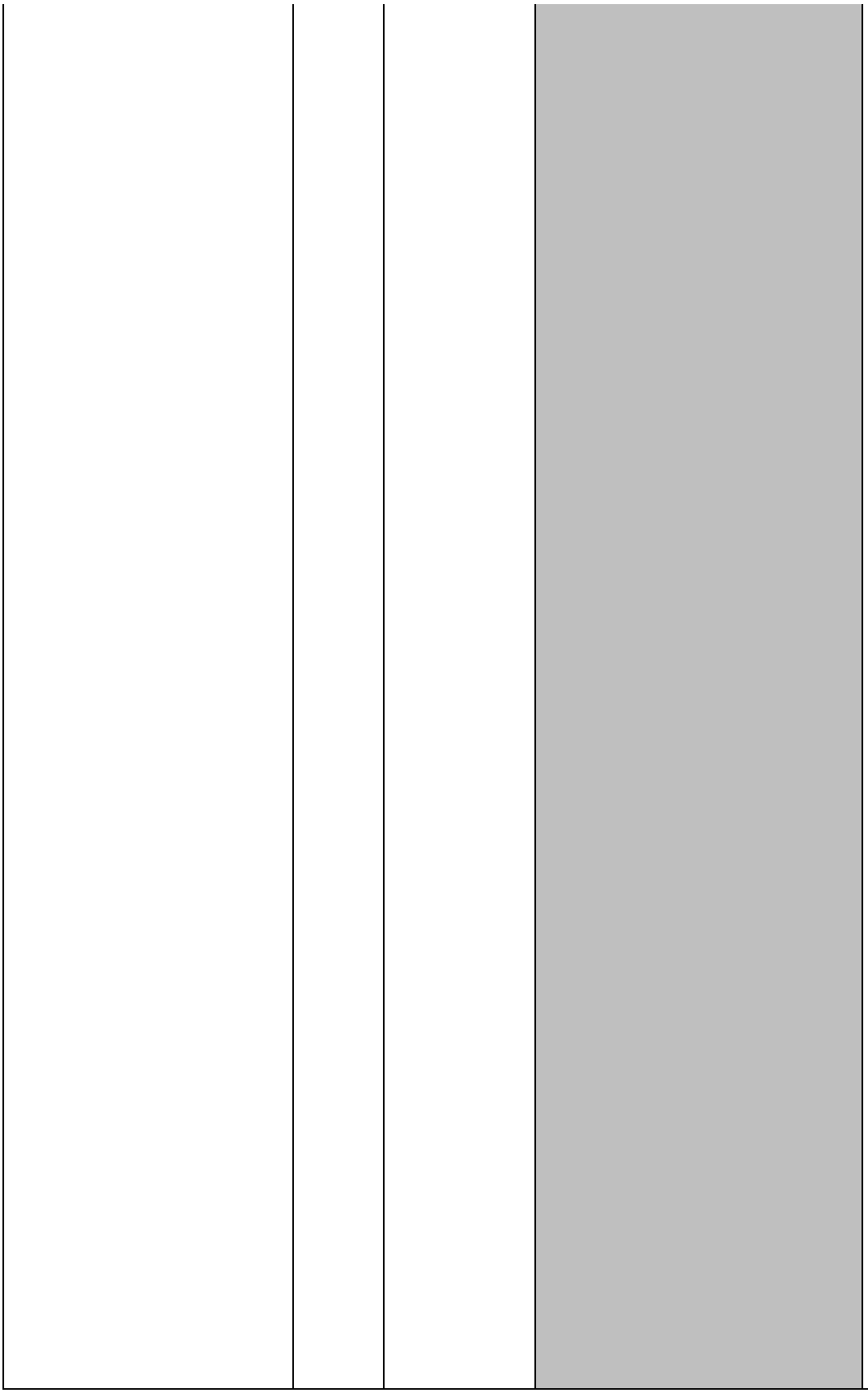
Coastal defence	Not known	There are some existing at Dudmill Point which may require maintenance or reinforcement. There may be 'gabions' in the site in intertidal areas. SMP Scenario A: No active involvement, current process will continue at current rates potentially increasing. SMP Scenario B: Monitoring of the coastal system will take place and involvement may be required if evidence indicated increased erosion	Any ecological impact of operation and maintenance of existing structures, or proposals for new, will need to be considered as part of the planning consent process, most likely via an EIA. Furthermore, the ecological impacts of any proposals will be considered as part of the Water Framework Directive process.	There may be a cost to the Environment Agency or local authority associated with additional time/resource spent to consider an MCZ in an EIA Managed realignment policy between Maryport golf course and Allonby. Will need to consider if temporary construction effects may have an impact on ability to implement managed re-alignment.
Consented discharges	Not known	There are 3 known consented point discharges within pMCZ 10, all for Allonby sewage works. There are a further 6 known consented point discharges within 500m of the site. 3 of these are licensed to United Utilities and 3 are licensed privately.	None as it is already the EA remit to assess water quality issues with regard to water bodies out to 1nm. The most significant consented discharge is via a long outfall to the south of the proposed reference site. It is due to be upgraded by 2015. The work will install extra storage with no change in discharge location. The designated Shellfish Water at Silloth was recently extended but it does not look like it extends as far South as the proposed reference site. Therefore there are no additional implications	Any ecological impact will be considered and managed via the Water Framework Directive.

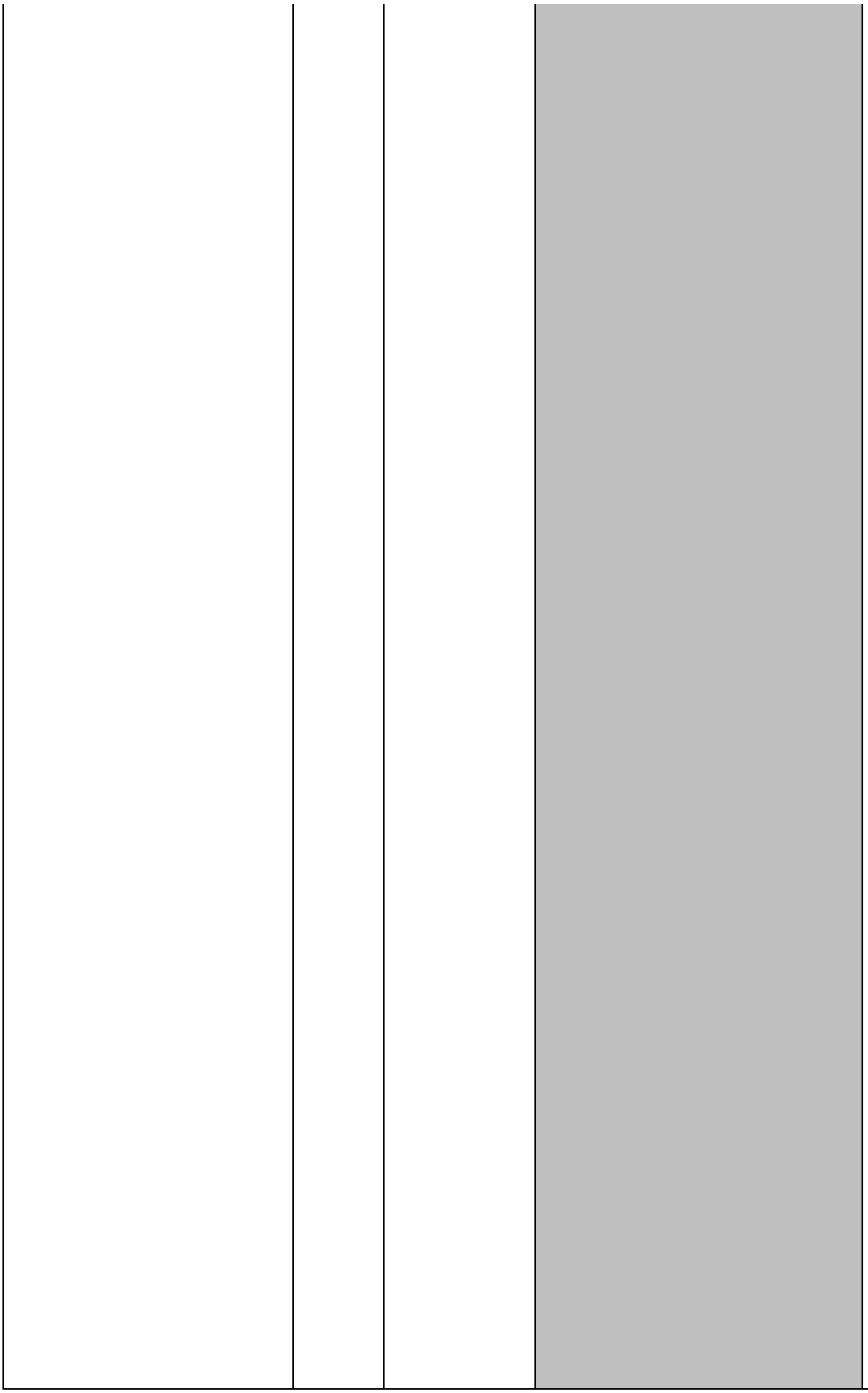
Ref. Area H (in pMCZ 10)

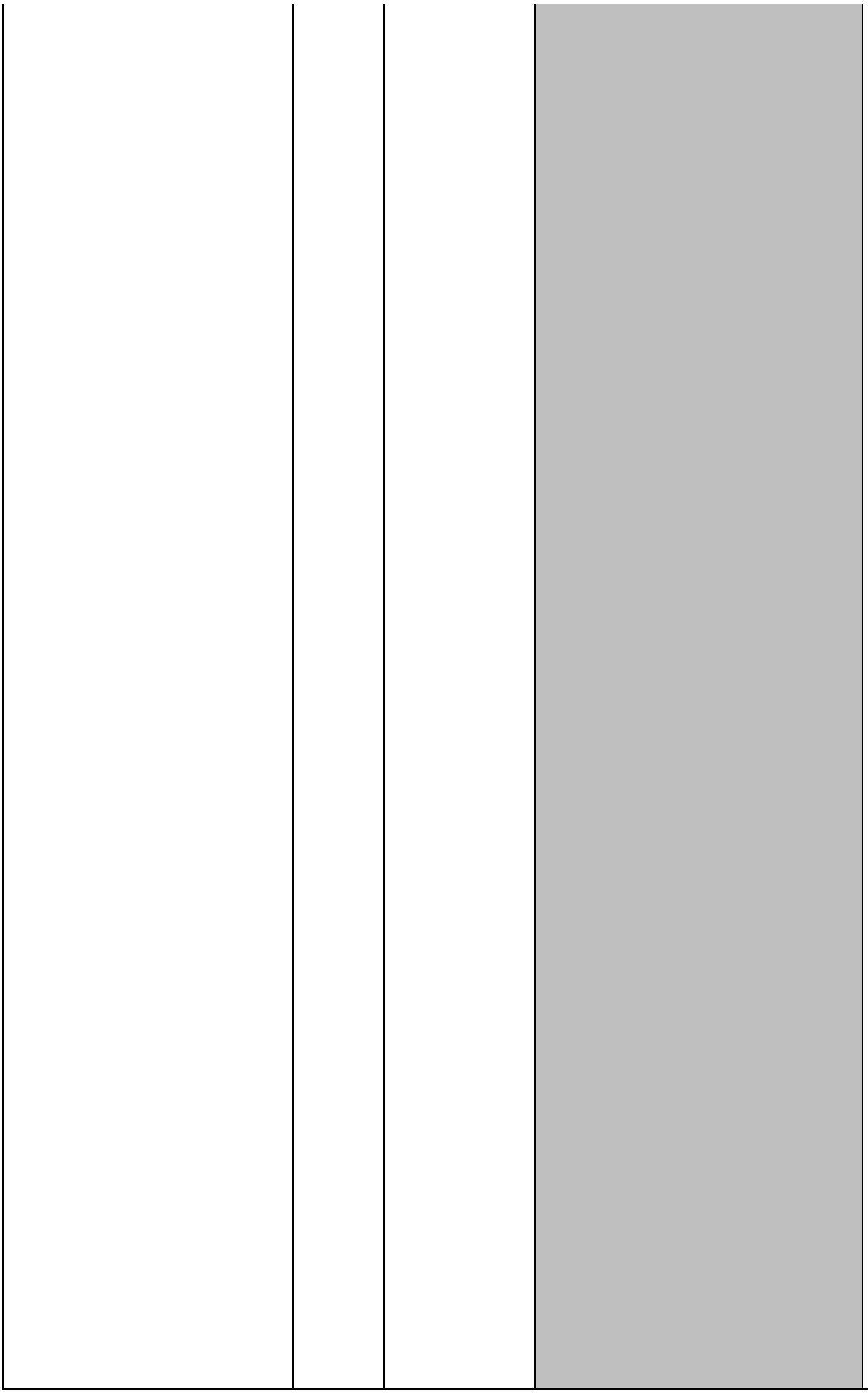
Sector	**Potential UK impact headlines**	**Description of activity in the site to be managed**	**Extent to be managed**	**Suggested Measures**

Benthic fisheries	Approx. < 5 vessels affected. Very unlikely to be any.	From Fishermap, less than five vessels use bottom gear in the site.	Prohibition of activity in all of the site.	**1) Voluntary agreement with individuals concerned for fisheries and recreation (IA ASSUMPTION).** 2) Publicise section 140 of the MCAA that states it is an offence to damage etc protected features of MCZs. Categories are listed. Can be fined up to £50,000. 3) A UK Prohibition order to ban certain gear types from entering an area within 12nm. 4) For UK vessels only, the MMO can impose a licence condition (on the basis of protecting fish stocks and marine ecosystems within 12nm). **5) IFCA byelaw (not for recreation) (IA ASSUMPTION).** 6) MMO emergency byelaw
Dredging fisheries	Approx. < 5 vessels affected	From Fishermap, less than five vessels dredge in the site.	Prohibition of activity in all of the site.	
Netting	Approx. < 5 vessels affected	From Fishermap, less than five vessels gill netting for skate and plaice. Focus group identified netting for bass. No VMS data.	Prohibition of activity in all of the site.	
Static gear	Approx. < 5 vessels affected	From Fishermap, less than five vessels potting for lobsters (inkwells) in the site. This would need to be prohibited.	Prohibition of activity in all of the site.	
Hand picking	Approx. < 5 fishermen affected	From Fishermap, five people hand picking for cockles and mussels. Focus group identified that periwinkle picking takes place in the site.	Prohibition of activity in all of the site.	

Recreational angling	Not known.	Shore angling takes place outside of the reference area but there are likely to be angling boats active in the reference area.	Prohibition of activity in all of the site.	**1) Voluntary agreement, implemented by NWIFCA (IA ASSUMPTION).** **2) NWIFCA byelaw (IA ASSUMPTION).**
Coastal defence	Minimal impact likely	Focus meeting identified none. There are some existing at Dudmill Point which may require maintenance or reinforcement. There may be 'gabions' in the site in intertidal areas.	Prohibition of activity in all of the site.	To be clarified with EA and local authority.
Recreation	Potentially moderate numbers of recreational users affected	Allonby beach popular for beach visitors/walkers and kitesurfing (from interviews). These activities are assumed not to take palce in the reference area as it is subtidal and these are intertidal activities. Sailing and wind surfing are known to take place in the reference area.	Mitigation of various 'potentially damaging activities' required but there is not sufficient evidence to assess the mitigation needed and the impacts of this at this stage. Prohibition of anchoring in the site for motoring and non-motoring vessels. Transit is permitted.	**1) Voluntary agreement, implemented by MMO (IA ASSUMPTION).** **2) MMO byelaw (IA ASSUMPTION).**



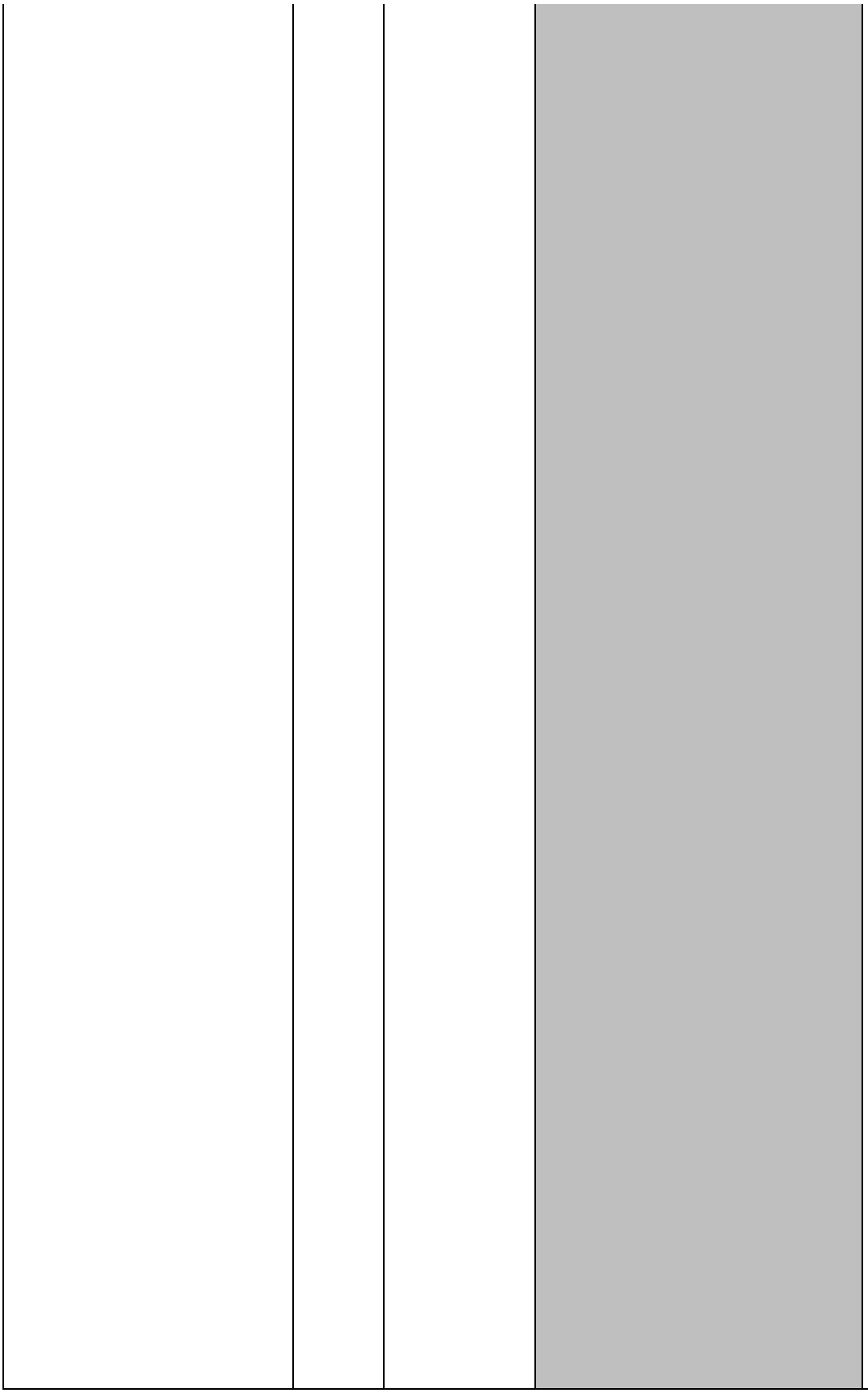


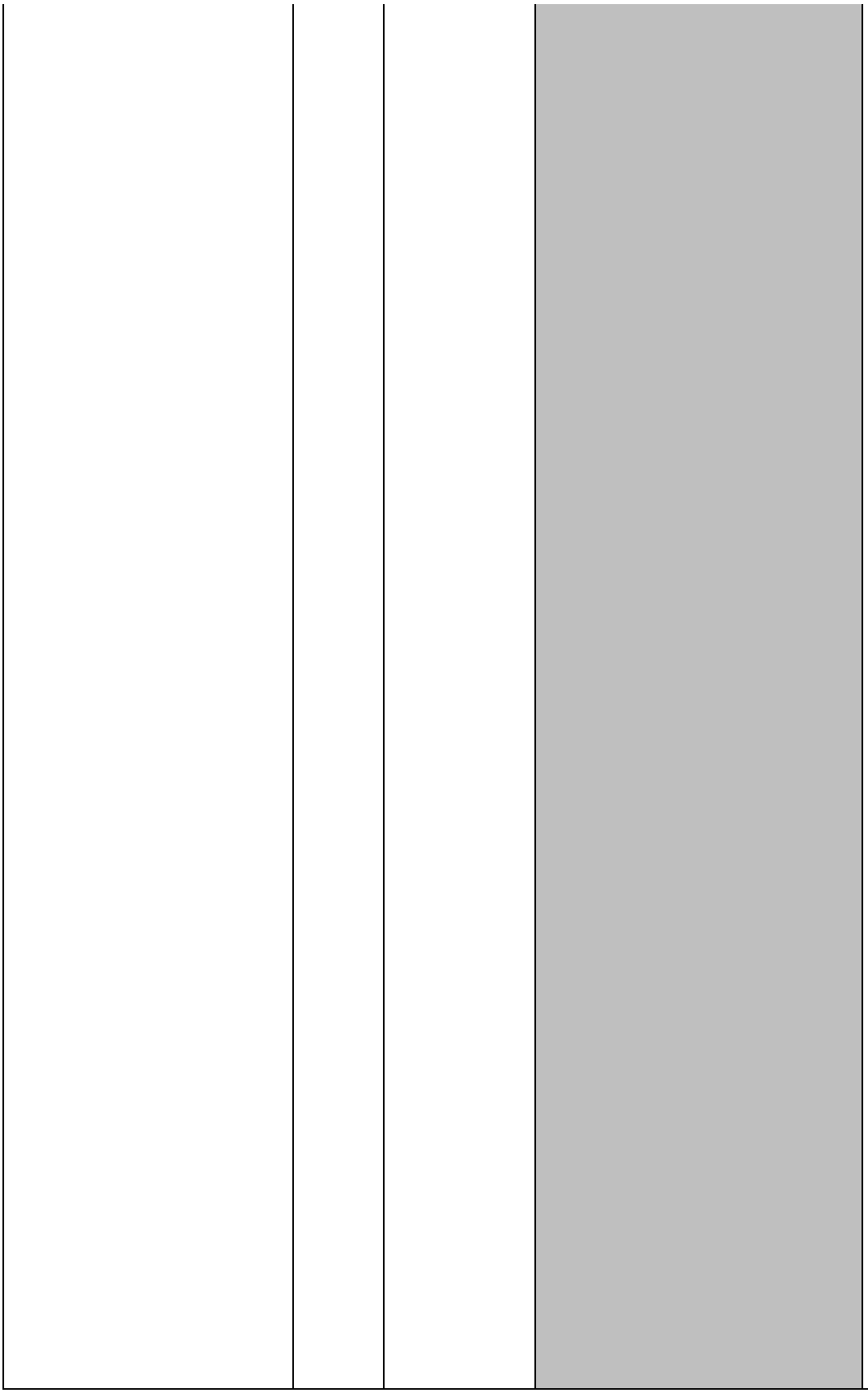


pMCZ 11

Sector	Potential UK impact headlines	Description of activity in the site to be managed	Extent to be managed	Suggested Measures
Static gear fisheries	Approx. < 5 vessels affected	Static gar would need to be managed around High Energy Circalittoral Rock in the north end of site around St. Bees Head only. Less than five potters identified through Fishermap working in this area targeting crabs and lobsters. Active all year but mostly the summer months.	Reduce pressure (exposure is reduced from moderate or high levels to a low level). Around High Energy Infralittoral Rock only.	**1) Voluntary agreement with individuals implemented by NWIFCA (IA ASSUMPTION).** 2) Publicise section 140 of the MCAA that states it is an offence to damage etc protected features of MCZs. Categories are listed. Can be fined up to £50,000. 3) A UK Prohibition order to ban certain gear types from entering an area within 12nm. 4) For UK vessels only, the MMO can impose a licence condition (on the basis of protecting fish stocks and marine ecosystems within 12nm).

Hand picking	Approx. < 5 fishermen affected	Mussel picking around biogenic reefs, honeycomb worm reefs, peat & clay exposures and mussel beds would need to be managed only. From interviews with fishermen, less than five fishermen hand pick for peri-winkles, cockles and mussels. Periwinkle commercial gathering already managed by IFCA bylaw. IFCA know of no commercial mussel and cockle picking, only hobby/own consumption going on. Not contentious. Hobby/own consumption/bait collecting in under boulder communities.	Reduce pressure (exposure is reduced from moderate or high levels to a low level). Around biogenic reefs and honeycomb worm reefs only.	**5) IFCA byelaw (not for recreation) (IA ASSUMPTION).** 6) MMO emergency byelaw
Gill Netting	Approx. < 5 fishermen affected	RSPB and IFCA have agreed to manage the impact of gill netting on Black Guillemots at St. Bees Head. There are few gill netters in the area. Activity to be monitored and if deemed necessary, management then introduced.	Possibly ban on activity within 1km of St. Bees Head, following ongoing monitoring and discussions between RSPB, IFCA and Cumbrian fishermen. Not costed in the IA as subject to further monitoring.	





Vessel speed	Not known.	Vessel speed restriction around St. Bees Head out to 1nm from the coastline. No speed limit defined.	To be managed around St. Bees Head for Black Guillemots. See accompanying Black Guillemot vulnerability assessment.	Not costed in IA as will only be introduced following monitoring of the impact of vessel speed upon the black guillemot population and sufficient evidence of impact to warrant an MMO byelaw.

Coastal defence	Not known.	This zone covers several separate SMP area which are summarized below. SMP Scenario A: Generally no active involvement due to the stability of the coastline, defences will be maintained at: Sellafield Nuclear facility, the Sellafield railway and local roads. Defences will be improved adjacent to the St Bee's Golf course(reference area). SMP Scenario B: All pMCZ 11.No active involvement: as this is a historically stable coastline there will be no additional involvement, erosion of exposed cliffs will increase sediment supply to the coastal system at increasing rates. Defences protection the Sellafield Nuclear facility will be maintained are current levels.	Any ecological impact of operation and maintenance of existing structures, or proposals for new, will need to be considered as part of the planning consent process, most likely via an EIA. Furthermore, the ecological impacts of any proposals will be considered as part of the Water Framework Directive process.	There may be a cost to the Environment Agency or local authority associated with additional time/resource spent to consider an MCZ in an EIA. Shoreline management plan proposals to high tide limit have been based on assessment against implications for existing designations, therefore will be additional costs in assessments, this will depend on compatibility with existing designations.
Consented discharges	Not known.	There are two consented discharges within rMCZ 11 (both at Sellafield power station). There are a further 31 consented discharges within 500m of the site. 13 of these are to United Utilities. Other are to Sellafield, a chemical factory and private households.	Any ecological impact will be considered and managed via the Water Framework Directive.	None as it is already the EA remit to assess water quality issues with regard to water bodies out to 1nm. The two main discharges are long sea sewage discharges from braystones and Seascale which would discharge beyond the seaward boundary of this site. There are other storm overflows that discharge into it. There is no planned work due to any of these. A new Shellfish Water was recently designated at the mouth of the Esk at Ravenglass. As a result of this anupgrade to Ravenglass WwTW will be required, probably in the next AMP period (2015-2020) to provide disinfection and better storm control

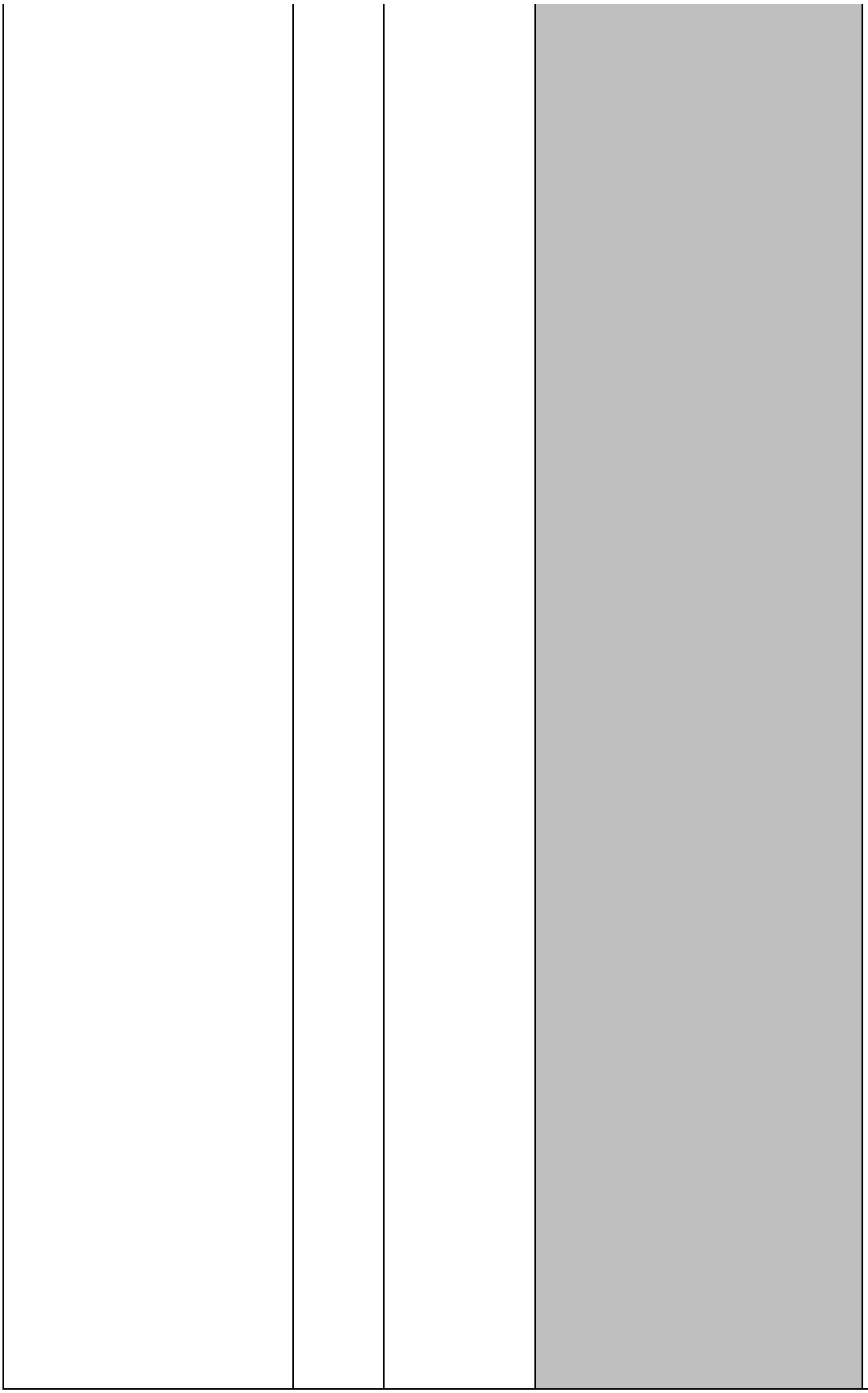
Power plants	Not known.	A new nuclear reactor is proposed to be built north of Sellafield, as well as further nuclear waste reprocessing facilities at Sellafield. The latter requires the bringing ashore of waste nuclear processing fuel from abroad. Both may require water abstraction. There are currently 11 consented discharges/extractions associated with Sellafield (incl. in above).	No additional mitigation of impacts will be required for yet to be consented, or future coastal infrastructure in the site, compared with the mitigation of impacts that would be required in the absence of MCZs. This is because the impacts on FOCI (all already offered protection by BAP, OSPAR or WCA) are already mitigated against outside of MCZs through the EIA process. Any ecological impact of additional consented discharges or extractions will be considered and managed via the Water Framework Directive.	There may be a cost to the sector associated with additional time/resource spent to consider an MCZ in the EIA. The EA already has a remit to assess water quality issues with regard to water bodies out to 1nm.

*** There is a closed diposal site in pMCZ 11 and Ref. Area J (from Saltom Bay)*

Ref. Area J (in pMCZ 11)

Sector	Potential UK impact headlines	Description of activity in the site to be managed	Extent to be managed	Suggested Measures
Recreational angling	Potentially moderate numbers of anglers affected	Shore angling and boat angling are known to take place in the site. This may be an error of mapping resolution.	Prohibition of activity in all of the site.	**1) Voluntary agreement with individuals concerned for fisheries implemented by NWIFCA (IA ASSUMPTION).** 2) Publicise section 140 of the MCAA that states it is an offence to damage etc protected features of MCZs. Categories are listed. Can be fined up to £50,000. 3) A UK Prohibition order to ban certain gear types from entering an area within 12nm. 4) For UK vessels only, the MMO can impose a licence condition (on the basis of protecting fish stocks and marine ecosystems within 12nm). **5) IFCA byelaw (not for recreation) (IA ASSUMPTION).** 6) MMO emergency byelaw
Benthic fisheries	Approx. < 5 vessels affected	From Fishermap, less than five vessels using bottom gear in the site.	Prohibition of activity in all of the site.	
Static gear	Approx. < 5 vessels affected	From Fishermap, less than five vessels using pots in the site.	Prohibition of activity in all of the site.	
Netting	Approx. < 5 vessels affected	From Fishermap, less than five vessels using nets in the site.	Prohibition of activity in all of the site.	

Hand picking	Approx. < 5 fishermen affected	From Fishermap, less than five fishermen hand picking in the site.	Prohibition of activity in all of the site.
Hooks & lines	Approx. < 5 vessels affected	From Fishermap, less than five fishermen using lines in the site.	Prohibition of activity in all of the site.



Coastal defence	Not known	Scenario A: Generally no active involvement due to the stability of the coastline, defences will be maintained at: Sellafield Nuclear facility, the Sellafield railway and local roads. Defences will be improved adjacent to the St Bee's Golf course. Scenario B: All pMCZ 11. No active involvement: as this is a historically stable coastline there will be no additional involvement, erosion of exposed cliffs will increase sediment supply to the coastal system at increasing rates. Defences protection the Sellafield Nuclear facility will be maintained are current levels.	Any ecological impact of operation and maintenance of existing structures, or proposals for new, will need to be considered as part of the planning consent process, most likely via an EIA. Furthermore, the ecological impacts of any proposals will be considered as part of the Water Framework Directive process.	There may be a cost to the Environment Agency or local authority associated with additional time/resource spent to consider an MCZ in an EIA. Shoreline management plan proposals to high tide limit have been based on assessment against implications for existing designations, therefore will be additional costs in assessments, this will depend on compatibility with existing designations.

Recreation	Potentially moderate numbers of recreational users affected	Sailing and diving is known to take place there (from stakmap). This may be an error of mapping resolution.	Mitigation of various 'potentially damaging activities' required but there is not sufficient evidence to assess the mitigation needed and the impacts of this at this stage. Prohibition of anchoring in the site for motoring and non-motoring vessels costed in the IA.	**1) Voluntary agreement, implemented by MMO (IA ASSUMPTION).** **2) MMO byelaw (IA ASSUMPTION).**
Consented discharges		There are none within the site, but there are 2 consented discharges within 500m of the site.	May need to be prohibited - TBC	To be clarified with EA.

** It is assumed that transit of shipping and recreational vessels is permitted. There is no evidence of anchoring sites or mooring in the area.*

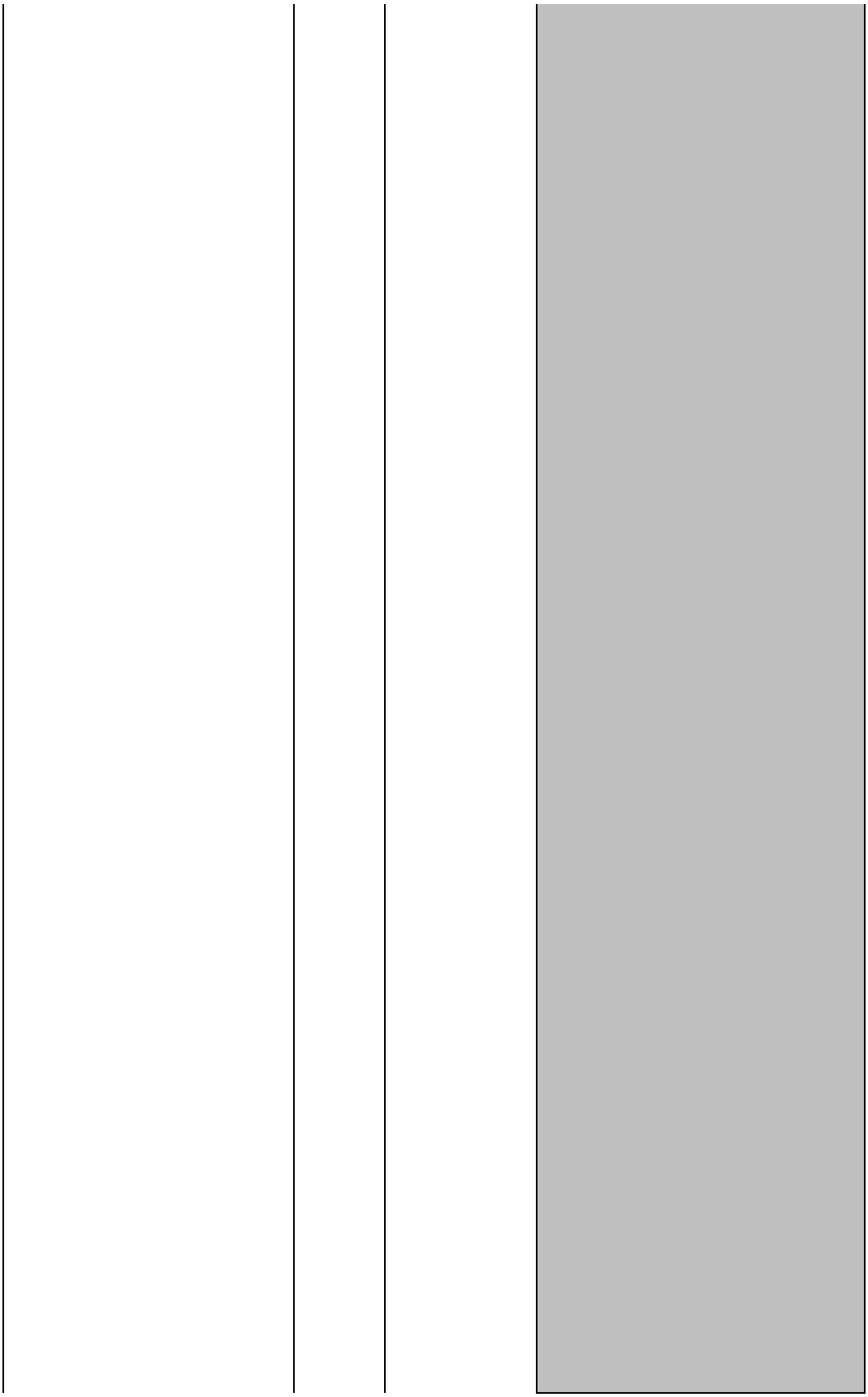
*** There is a closed diposal site in Ref. Area J (from Saltom Bay)*

Ref. Area I (in pMCZ 11)

Sector	**Potential UK impact headlines**	**Description of activity in the site to be managed**	**Extent to be managed**	**Suggested Measures**
Recreational angling	Potentially moderate numbers of anglers affected	Shore angling and boat angling are known to take place in the site.	Prohibition of activity in all of the site.	**1) Voluntary agreement with individuals concerned for fisheries implemented by NWIFCA (IA Assumption).** 2) Publicise section 140 of the MCAA that states it is an offence to damage etc protected features of MCZs. Categories are listed. Can be fined up to £50,000. **3) IFCA byelaw or order. Latter would require listing the extractive/depositional activities etc. that are banned, include the site coordinates. This would avoid cost and planning of byelaw (IA Assumption).** 4) MMO emergency byelaw
Benthic fisheries	Approx. < 5 vessels affected	From Fishermap, less than five vessels using bottom gear in the site.	Prohibition of activity in all of the site.	
Static gear	Approx. < 5 vessels affected	From Fishermap, less than five vessels using pots in the site.	Prohibition of activity in all of the site.	
Netting	Approx. < 5 vessels affected	From Fishermap, less than five vessels using nets in the site.	Prohibition of activity in all of the site.	

Hand picking	Approx. < 5 fishermen affected	From Fishermap, less than five fishermen hand picking in the site.	Prohibition of activity in all of the site.

Annex 3 Management Tables



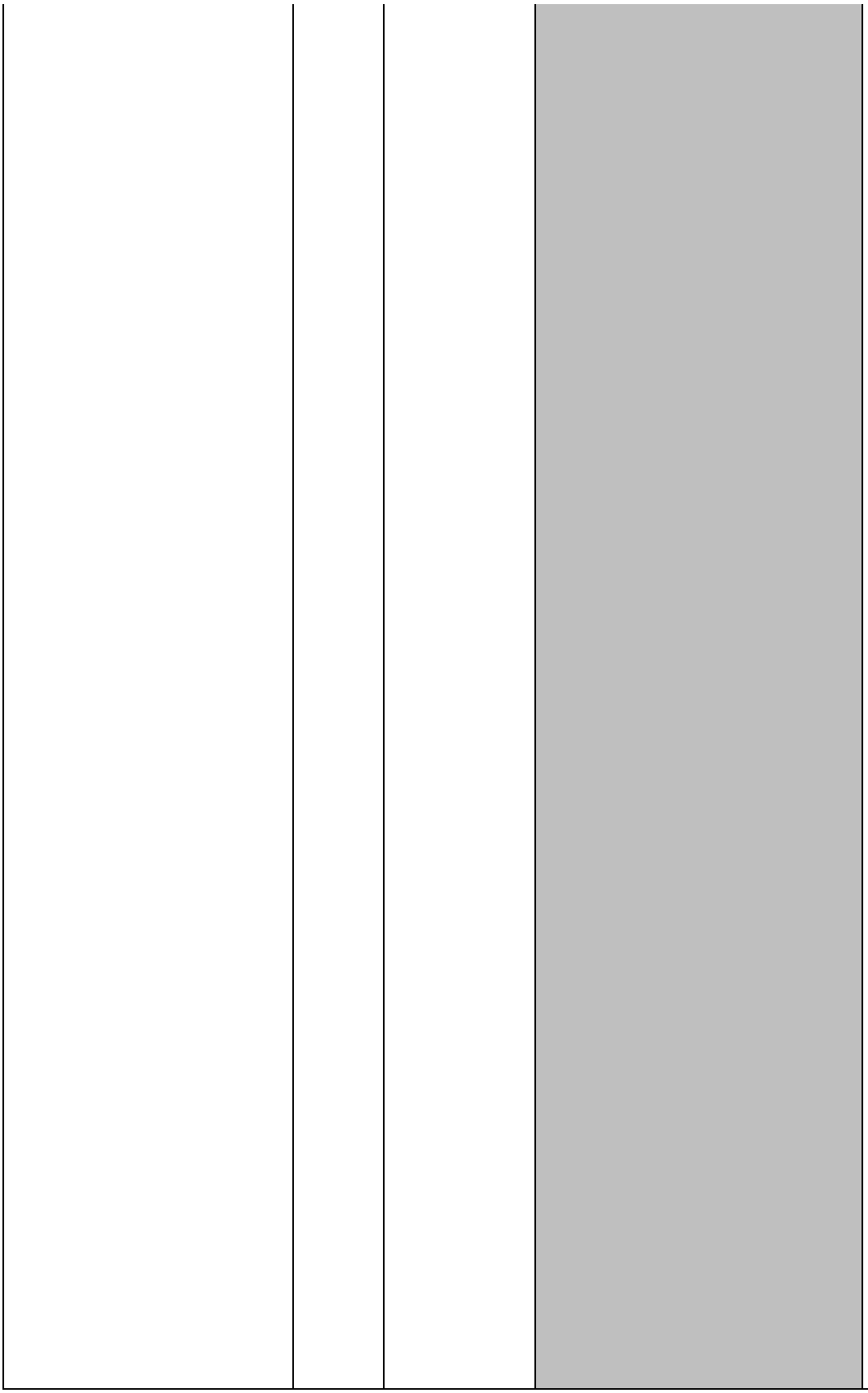
Telecom & power cables	1 dis-used cable	No further information available.	Prohibition of activity in all of the site.	
Coastal Defence	Not known	SMP Scenario A: Generally no active involvement due to the stability of the coastline, defences will be maintained at: Sellafield Nuclear facility, the Sellafield railway and local roads. Defences will be improved adjacent to the St Bee's Golf course. SMP Scenario B: All pMCZ 11. No active involvement: as this is a historically stable coastline there will be no additional involvement, erosion of exposed cliffs will increase sediment supply to the coastal system at increasing rates. Defences protection the Sellafield Nuclear facility will be maintained are current levels.	Any ecological impact of operation and maintenance of existing structures, or proposals for new, will need to be considered as part of the planning consent process, most likely via an EIA. Furthermore, the ecological impacts of any proposals will be considered as part of the Water Framework Directive process.	There may be a cost to the Environment Agency or local authority associated with additional time/resource spent to consider an MCZ in an EIA. Shoreline management plan proposals to high tide limit have been based on assessment against implications for existing designations, therefore will be additional costs in assessments, this will depend on compatibility with existing designations.

Recreation	Potentially moderate numbers of recreational users affected	Windsurfing, sailing and diving are known to take place there (from interviews with recreational users).	Mitigation of various 'potentially damaging activities' required but there is not sufficient evidence to assess the mitigation needed and the impacts of this at this stage. Prohibition of anchoring in the site for motoring and non-motoring vessels to be costed in IA.	**1) Voluntary agreement, implemented by MMO (IA ASSUMPTION).** **2) MMO byelaw (IA ASSUMPTION).**

Ref 'K'

Sector	**Potential UK impact headlines**	**Description of activity in the site to be managed**	**Extent to be managed**	**Suggested Measures**
Benthic fisheries	Approx. < 5 vessels affected	Less than five vessels using bottom gear from interviews with fishermen. No activity evidenced in VMS data. IFCA state very little activity takes place here, as access is very limited.	Prohibition of activity in all of the site.	**1) Voluntary agreement implemented by NWIFCA. (IA Assumption)** There are very few fishermen potting in subtidal area (500-800m offshore) but worth exploring a voluntary agreement with individuals rather than a byelaw. It is unlkely that they are even active in the intertidal area where the features are. IFCA use quad bikes to monitor area. 2) Publicise section 140 of the MCAA that states it is an offence to damage etc protected features of MCZs. Categories are listed. Can be fined up to £50,000. **3) IFCA byelaw or order. (IA Assumption)** Latter would require listing the extractive/depositional activities etc. that are banned, include the site coordinates. This would avoid cost and planning of byelaw. 4) MMO emergency byelaw
Static gear fisheries	Approx. < 5 vessels affected	Less than five vessels using static gear from interviews with fishermen. No activity evidenced in VMS data. Heavily fished for pots and creels close inshore but not within site - features within intertidal area only.	Prohibition of activity in all of the site.	
Netting	Approx. < 5 vessels affected	Less than five vessels using nets from interviews with fishermen. No activity evidenced in VMS data. One uses a tractor to pull the nets. IFCA say is a resolution issues and not accurate. IFCA state very little activity takes place here, as access is	Prohibition of activity in all of the site.	

		very limited.	
Hand picking	Approx. < 5 fishermen affected	Less than five fishermen hand picking from interviews with fishermen. No activity evidenced in VMS data. IFCA state very little activity takes place here, as access is very limited.	Prohibition of activity in all of the site.
Recreational angling	Potentially moderate numbers of recreational users affected	Some shore angling and boat angling are known to take place in the site from interviews with recreational stakeholders. There may be issues with the resolution of mapping with stakeholders at this local level. IFCA state very little activity takes place here, as access is very limited.	Prohibition of activity in all of the site.



Coastal defence	Not known	Due to the Saltom Pit Scheduled Monument defences will be required.	Any ecological impact of operation and maintenance of existing structures, or proposals for new, will need to be considered as part of the planning consent process, most likely via an EIA. Furthermore, the ecological impacts of any proposals will be considered as part of the Water Framework Directive process.	There may be a cost to the Environment Agency or local authority associated with additional time/resource spent to consider an MCZ in an EIA. Shoreline management plan proposals to high tide limit have been based on assessment against implications for existing designations, therefore will be additional costs in assessments, this will depend on compatibility with existing designations.
Consented discharges	Not known	There are 2 consented discharges within the site (none within a 500m buffer). There is a consented discharge from a small UU STW at Bootle that is likely to discharge into this site. It is not due for any changes or improvements.	May need to be managed	To be clarified with EA
Recreation	Potentially moderate numbers of recreational users affected	Wind surfing, rowing, yachting and diving are known to take place in the site from interviews with recreational stakeholders. There may be issues with the resolution of mapping with stakeholders at this local level. SNCB advise that features are not exposed (site is relatively inaccesible and features are low sensitivity) to these activities in the site therefore ae not considered to be 'potentially damaging'.	Mitigation of various 'potentially damaging activities' required but there is not sufficient evidence to assess the mitigation needed and the impacts of this at this stage. Prohibition of anchoring in the site for motoring and non-motoring vessels. Transit is permitted. Only introduction of Dog Control Order to be costed at present.	**1) Voluntary agreement, implemented by MMO (IA ASSUMPTION).** **2) MMO byelaw (IA ASSUMPTION).**

pMCZ 13

Sector	Potential UK impact headlines	Description of activity in the site to be managed	Extent to be managed	Suggested Measures
Benthic fisheries	At least 5 vessels affected	Southport shrimpers beam trawling in the site. It may be an issue of mapping resolution, but for now it is assumed that activity takes place there.	No access around intertidal areas of peat and clay exposures. Peat and clay beds likely to be more extensive than currently mapped. Would require survey prior to any designation.	**1) Voluntary agreement implemented by NWIFCA (IA ASSUMPTION).** Could work as likely that shrimpers and netters wouldn't want to work these areas anyway. 2) Publicise section 140 of the MCAA that states it is an offence to damage etc protected features of MCZs. Categories are listed. Can be fined up to £50,000. **3) IFCA byelaw or order. (IA ASSUMPTION)** Latter would require listing the extractive/depositional activities etc. that are banned, include the site coordinates. This would avoid cost and planning of by-law. 4) MMO Interim/emergency byelaw 5) For UK vessels only, the MMO can impose a licence condition (on the basis of protecting fish stocks and marine ecosystems within 12nm). Generally this won't be any use in the 6-12 miles belt where non-UK vessels have historic rights. 6) A UK Prohibition order to ban certain gear types from entering an area within 12nm.

Coastal defence	Not known	SMP Scenario A: No Active Involvement. Natural process would continue with erosion of Formby Point leading to accretion further north up the coast. This could be exacerbated by increase sea level and increased frequency of storm events. SMP Scenario B: Monitoring of the dune system, if evidence indication a substantial increase in erosion rates dune stability measures will be implemented. Sefton Council is proposing to undertake works on the eroding shoreline at Hightown through sand dune management and defence replacement. The works will use sand from Crosby. A new hard defence in front of Blundell Sands Sailing Club will also be constructed to replace the existing defences. A decision from the planning committee is expected in July 2011. If approved, the works will start in September 2011. An EIA has been done for the work which has accounted for protecting the features.	TBC	Awaiting clarity from EA and SNCBs
Consented discharges	Not known	There are no consented discharge points within the site, however there are 14 within 500m of the site, of which 9 are licensed to United Utilities.	None as it is already the EA remit to assess water quality issues with regard to water bodies out to 1nm. The only significant activity that may need to be referred to would be any re- development of the Pontins holiday camp at Ainsdale - overhaul of the drainage system is proposed	Any ecological impact will be considered and managed via the Water Framework Directive.

Recreation	Not known	Very heavy beach use including horse riding which could damage sensitive features. Up to 300,000 visitors a year – should be the same as pMCZ14 ref – recreational use re peat / clay exposures. Need to consider access bit of Marine and Coastal Access Act. Various beach activities DO need management, eg peat and clay beds with footprints – no bait digging, vehicles or horse riding.	Possible need to restrict pedestrian access around peat and clay exposures.	**1) Voluntary agreement, implemented by MMO (IA ASSUMPTION).** **2) MMO byelaw (IA ASSUMPTION).**

*** Part of the Liverpool shipping channel dredge area falls within the site, but as the MCZ proposes to designate intertidal peat & clay exposures only, no additional mitigation is required for*

pMCZ 14

Sector	**Potential UK impact headlines**	**Description of activity in the site to be managed**	**Extent to be managed**	**Suggested Measures**

Hand picking	Minimal activity reported so unlikely to be affected significantly	The focus meeting reported that these blue mussel beds in the site are not good for commercial picking. IFCA believe there to be little or no commercial picking. EA introduced a permiting scheme for this. This has been handed over to the IFCA who are currently reviewing it. Interviews with fishermen have identified at least 8 fishermen gathering mussels in the site.	Reduce pressure. (Exposure is reduced from moderate or high levels to a low level). Around Blue mussel beds only.	**1) Voluntary agreement implemented by NWIFCA (IA ASSUMPTION).** Could work as likely that shrimpers and netters wouldn't want to work these areas anyway. 2) Publicise section 140 of the MCAA that states it is an offence to damage etc protected features of MCZs. Categories are listed. Can be fined up to £50,000. **3) IFCA byelaw or order. (IA ASSUMPTION)** Latter would require listing the extractive/depositional activities etc. that are banned, include the site coordinates. This would avoid cost and planning of by-law. 4) MMO Interim/emergency byelaw 5) For UK vessels only, the MMO can impose a licence condition (on the basis of protecting fish stocks and marine ecosystems within 12nm). Generally this won't be any use in the 6-12 miles belt where non-UK vessels have historic rights. 6) A UK Prohibition order to ban certain gear types from entering an area within 12nm.
Recreation	Possibly significant numbers of people affected	Walking, horse riding and general access would need to be managed where the FOCI features occur. Other recreational activities take place there, such as wind surfing, sailing and shore angling but the SNCB advices that these are unlikely to take place in the vicinity of the mussel beds and peat and clay exposures.	To be explored with Wirral BC. Check if there are public pathways or bridle pathways or historic access rights. Is it possible to fence off sensitive areas to recreational users? Could access permits be introduced? There used to be a system of access permits. Rights of way may be linked to historical access rights for island occupancies.	**1) Voluntary agreement, implemented by MMO or local authority (IA ASSUMPTION).** **2) Local authority or MMO byelaw (IA ASSUMPTION).** To be explored with Wirral BC. Check if there are public pathways or bridle pathways or historic access rights. Is it possible to fence off sensitive areas to recreational users? Could access permits be introduced?

Telecom and power cables	Minimal. Additional costs for environmental assessment only. May be additional cost if need to do environmental assessment for cables needing repairs within 12nm. Awaiting guidance from UKCPC and SNCBs	A telecom cable runs through the site to Hilbre Island.	No additional mitigation of impacts are likely to be required for yet to be consented, or future cabling activity in MCZs, compared with the mitigation of impacts that would be required in the absence of MCZs. This is because: a) impacts on FOCI (all already offered protection by BAP, OSPAR or WCA) are already mitigated against outside of MCZs through the EIA process; and b) The footprint of cables is unlikely to significantly impact on broad-scale habitats.	There may be a cost to the sector associated with additional time/resource spent to consider an MCZ in the environmental assessment. No additional mitigation is likely as a) the development is already consented, and b) repairs outside of 12nm is permitted without consent under international law. To be clarified.
Consented discharges	Not known	There are 2 consented discharges within 500m of the site. Both of these are to United Utilities. The consented discharges close to the site are small CSOs which are not thought to be high risk.	Any ecological impact will be considered and managed via the Water Framework Directive. It is already the EA remit to assess water quality issues with regard to water bodies out to 1nm.	Awaiting clarity from EA and SNCBs
Coastal Defence	Not known	SMP Scenario A: Hold the line, the block work wall and existing assets protection measures will be maintained however no additional defences will be constructed. Sea level rise and current erosion rates are expected to continue or increase from current levels. SMP Scenario B: No active involvement, erosion and sea level rise will continue but no involvement will take place.	TBC	Awaiting clarity from EA and SNCBs

Ref 'Y'

Sector	**Potential UK impact headlines**	**Description of activity in the site to be managed**	**Extent to be managed**	**Suggested Measures**

Netting	Approx. < 5 vessels affected	From Fishermap, less than five vessels using gill nets in the site. No activity evidenced in VMS data.	Prohibition of activity in all of the site.	**1) Voluntary agreement, implemented by NWIFCA (IA ASSUMPTION).** **2) NWIFCA byelaw (IA ASSUMPTION).**
Angling	Potentially moderate numbers of anglers affected.	From consultation with the wider community, angling from shore and boat is known to take place in the site, targeting pollack, tope, codling, plaice, bass and mackerel.	Prohibition of activity in all of the site.	
Recreation (excluding angling)	Potentially moderate numbers of recreational users affected.	From consultation with the wider community, sailing (motor boats, dinghys and yachts) and kite surfing is known to take place in the site. This may be a mapping resolution issue though.	Mitigation of various 'potentially damaging activities' required but there is not sufficient evidence to assess the mitigation needed and the impacts of this at this stage. Prohibition of anchoring in the site for motoring and non-motoring vessels. Transit is permitted. Only introduction of Dog Control Order to be costed at present.	**1) Voluntary agreement, implemented by MMO (IA ASSUMPTION).** **2) MMO byelaw (IA ASSUMPTION).**

** There are known to be sheep grazing in the area (on salt marsh)*
** The consented discharges are CSOs and small private STWS/septic tanks with nothing planned to change these (EA comment 26.7.11, not on dataset)*

** The North Walney Fishery Order is proposed near by and overlaps part of the reference area.*

Ref 'W'

Sector	**Potential UK impact headlines**	**Description of activity in the site to be managed**	**Extent to be managed**	**Suggested Measures**

Coastal defence	Not known	SMP Scenario A: Hold the Line: In practice this is no active involvement with the exception of the Barrow port and shipyards where existing defences such as the sea wall will be maintained and extended as necessary. No additional measure will be required in the vicinity of the reference areas due to the sheltered nature of the sites.	TBC	To be clarified with EA and SNCBs
Angling and fisheries	Potentially moderate numbers of anglers affected.	From interviews with anglers, angling is known to take place in the site. However, this is likely to be a mapping resolution issue and this activity may not take place in the site.	Prohibition of activity in all of the site.	**1) Voluntary agreement, implemented by NWIFCA (IA ASSUMPTION).** **2) NWIFCA byelaw (IA ASSUMPTION).**
Recreation (excluding angling)	Potentially moderate numbers of recreational users affected.	Wildlife watching is known to take place in the site, from interviews with recreational users.	Mitigation of various 'potentially damaging activities' required but there is not sufficient evidence to assess the mitigation needed and the impacts of this at this stage. Prohibition of anchoring in the site for motoring and non-motoring vessels. Transit is permitted. Only introduction of Dog Control Order to be costed at present.	**1) Voluntary agreement, implemented by MMO (IA ASSUMPTION).** **2) MMO byelaw (IA ASSUMPTION).**
Consented discharges	Not known	There are no consented discharge points within the site, but there are six located within 500m of the site, all licensed to United Utilities. However, Centrica report two surface water runoffs within the site.	TBC	To be clarified with EA and SNCBs

* From interviews with fishermen, bottom gear, nets and hand gathering for shellfish are indicated to take place in this site. However, it is known that this is an issue of mapping resolution a

** It is assumed that transit of shipping and recreational vessels is permitted. There is no evidence of anchoring sites or mooring in the area.*

Ref 'T'

Sector	**Potential UK impact headlines**	**Description of activity in the site to be managed**	**Extent to be managed**	**Suggested Measures**

Benthic fisheries	Approx. < 5 vessels affected	Less than five vessels using bottom gear from interviews with fishermen. No activity evidenced in VMS data. IFCA state very little activity takes place here. May be a mapping resolution issue.	Prohibition of activity in all of the site.	**1) Voluntary agreement, implemented by NWIFCA (IA ASSUMPTION).** **2) NWIFCA byelaw (IA ASSUMPTION).**
Static gear fisheries	Approx. < 5 vessels affected	Less than five vessels using static gear from interviews with fishermen. No activity evidenced in VMS data. IFCA state very little activity takes place here. May be a mapping resolution issue.	Prohibition of activity in all of the site.	
Hooks and lines	Approx. < 5 vessels affected	Less than five vessels using nets from interviews with fishermen. No activity evidenced in VMS data. One uses a tractor to pull the nets. IFCA say is a resolution issues and not accurate. IFCA state very little activity takes place here. May be a mapping resolution issue.	Prohibition of activity in all of the site.	
Hand picking	Approx. < 5 fishermen affected	Less than five fishermen hand picking from interviews with fishermen. No activity evidenced in VMS data. IFCA state very little activity takes place here. May be a mapping resolution issue.	Prohibition of activity in all of the site.	
Coastal defence	Not known	Scenario A:Hold the line by maintaining and extending existing defences as required by the rate of erosion and sea level rise. Scenario B:Same as scenario A, more consideration to be given to benefit of realignment of defences to allow natural process.	TBC	To be clarified with EA and SNCBs

Angling	Potentially moderate numbers of anglers affected.	Shore angling, and possibly boat angling is known to take place in the sites.	Prohibition of activity in all of the site.	**1) Voluntary agreement, implemented by NWIFCA (IA ASSUMPTION).** **2) NWIFCA byelaw (IA ASSUMPTION).**
Recreation (excluding angling)	Potentially moderate numbers of recreational users affected.	Diving and yachting take place in the site (from intereviews with recreational users), however this may be a mappng resolution issue.	Mitigation of various 'potentially damaging activities' required but there is not sufficient evidence to assess the mitigation needed and the impacts of this at this stage. Prohibition of anchoring in the site for motoring and non-motoring vessels. Transit is permitted. Only introduction of Dog Control Order to be costed at present.	**1) Voluntary agreement, implemented by MMO (IA ASSUMPTION).** **2) MMO byelaw (IA ASSUMPTION).**

** It is assumed that transit of shipping and recreational vessels is permitted. There is no evidence of anchoring sites or mooring in the area.*

Ref 'Z'

No activities are known to take place in this site.

Solway Estuary, Ribble Estuary, Lune-Wyre Estuary

No additional management is required, neither mitigation of impacts through existing regulatory frameworks.

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RKP
Stakeholder Engagement, Facilitation & Mediation

ISCZ: End of Process Evaluation

REPORT

Report: 8th August 2011

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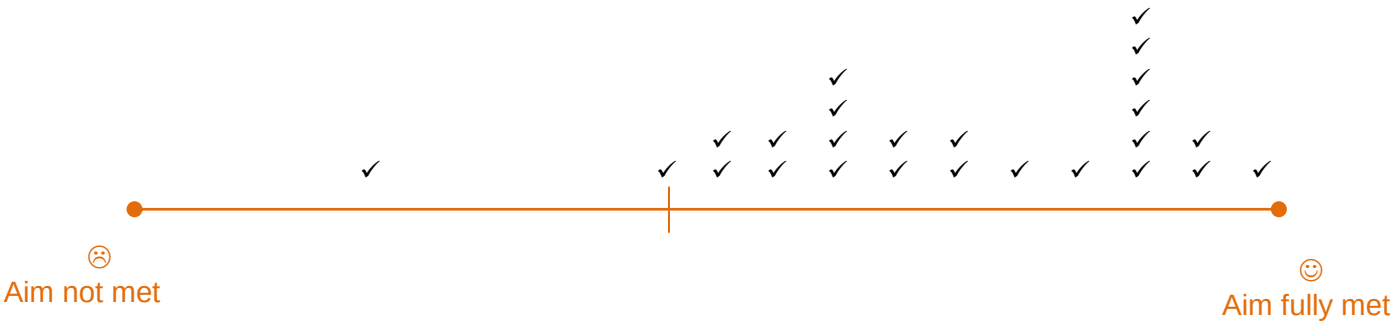
Stakeholder Engagement, Facilitation & Mediation

This part of this report is a compilation of the responses form ISCZ RSG members gave in their evaluation forms at their last meeting in July 2011.

A. Please give your views on how far each element of this process was met.

1. A representative group of regional stakeholders (the RSG) drew up proposals for a regional MCZ network, following a set of ecological design guidelines signed off by Government.

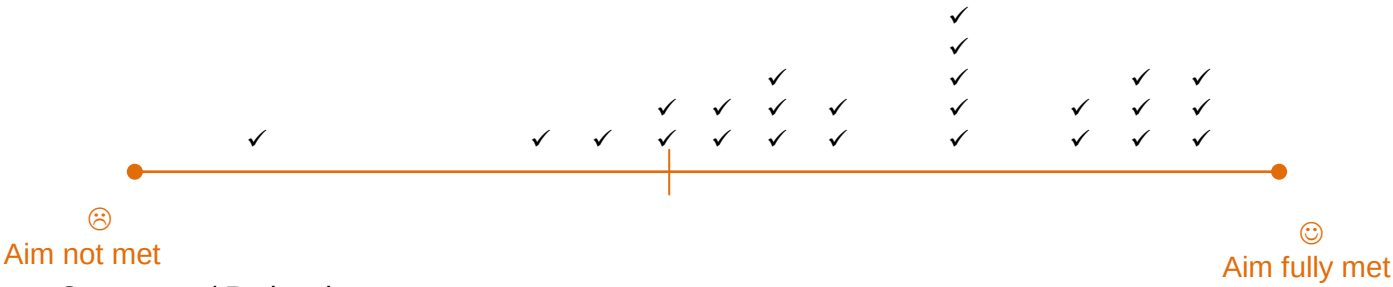


Comments / Rationale

- More scientific and ecological input at every meeting from people with a high level of knowledge of Irish Seas region would have been beneficial
- The resulting recommendations seem comprehensive and generally reasonable
- Representation not always appropriate with some sectors and individual louder than others, largely however, through a very difficult process the goals have been achieved.
- ENG states quality of broadscale habitat should be looked at, this did not occur
- I think the group was by the end representative and for the later part followed guidance. The initial phase felt less stable.
- Good range of interests, representatives genuinely seemed to engage with their own sector (i.e. views of group, not personal). Focus groups a key source of detailed and up to date data and local knowledge + awareness of actual / potential impacts of management of activities.
- Whereas final network not “gold plated” solution, it was an optimum working solution, taking into account industry and specialist interest activity.
- Aim met to the extent allowable given limited and late guidance documentation and inadequate information on the impact of MCZs on activities.
- The representation of the group has been a challenge with key infrastructure projects / companies not represented from the start of the process as they were denied a seat in the RSG. This meant the overall consensus of the RSG was to encourage MCZs with wind farms.
- Wind energy caveats allowed to rule and have disproportionate voice (social equity). Ecological data not allowed to be taken into account and other data poor but improving. Needed to revisit sites but not allowed to so network probably sub optimal as a result – although it might be ok
- Surprisingly for such diverse interests all pulled together, compromised when necessary, but always tried not to affect the interests of other stakeholders if at all possible.
- Element was largely met. Was some problem with consistency of attendance but this was probably as good as it could have been.
- Group has had good representation and worked very well together. Ecological network guidance adhered to and very largely delivered. Network proposals are strong and have highest level of support possible and a good level of support.
- Very good structure – worked well
- Some stakeholders inevitably feel excluded by the process due to its fast pace and the ability of stakeholders directly involved to facilitate feeding in views
- We did not completely achieve our aim and in some ways I feel that geodiversity and biodiversity was not central to the process. I understand why but feel it was an opportunity lost.
- Largely this objective was met; the network sites proposed have been designed using the guidance. The guidelines perhaps came a little late after the process was started though.

- In relation to the ENG, yes, very nearly achieved. Co-location will, if agreed, allow virtual complete compliance.
- There is a proposed network. Where it does not meet ENG guidelines, there are good reasons for it.
- Aim almost met except for sub tidal mud. The requirements were quite succinct and they were carried out.
- There was good representation but some groups had stronger voices in the room.
- Several stakeholders were not sufficiently represented in the early stages of the project. Other stakeholders i.e. the MMO, DECC & DEFRA should have had more of, or just a presence.

2. There was a structured, coherent and transparent process that allowed the RSG to:
    - build up a knowledge base and an understanding of the issues
    - explore potential solutions to these issues.
    - have a central role in planning,
    - have a process of negotiation and resolution of conflict between differing needs and interests

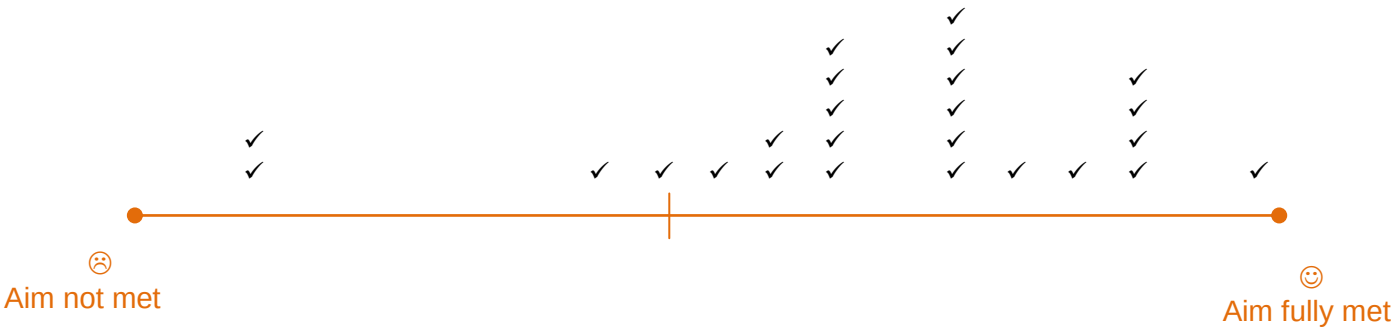


Comments / Rationale

- Guidance documents produced too late in the process which jeopardised the process and could have advanced project outcomes
- For stakeholders not in the RSG I don't think it was transparent enough, in terms of making them aware they are not all internet users
- Not at all. Management to the sites and reference areas were not brought up until the end of the process that negated all coherence
- The early process, driven by the first facilitation company did not allow space for issues and knowledge. Decisions were process driven rather than evidence based. That was rectified subsequently but many of the original decisions had to stand because time was now getting short
- The full RSG meetings and the focus meetings especially, allowed data, issues, solutions, networking to be fully explored. ISCZ team proved very approachable and supportive with taking issues forward when requested by individual RSG members.
- Largely met, however it felt like we were playing catch up sometimes with data and information coming quite late to the process.
- It was a difficult process and conflict was inevitable but largely this was managed in a very pragmatic way
- Yes except that sometimes information was lat in coming to us
- Process has been structured and transparent for most part – short timescales and late guidance have hindered. RSG has clearly been and felt central to planning. good negotiation and resolution process at RSG, FG and I-IS
- I think this worked reasonably well. If did take time as expected to build up trust and understanding.
- I found the process extremely difficult to understand early on but this did improve considerably as time progressed.
- Guidance kept changing or not sufficiently clear at outset.
- The project team and facilitator have done a good job with the process and guidance documents provided. The process has been very inconsistent to other regional projects which has made participation on a national level difficult.

- The ? of the third point remains to be seen.
- Science (particularly in early workshops) still evolving
- Extremely well organised, coherent and transparent. Overall structure a little wobbly at first- RSG all wanted clearer guidance re potential management implications before potentially relinquishing "rights" to an activity in a proposed MCZ/ reference area. Took too long to round to coastal/inshore sites which had move and therefore more controversial stakeholders and interests.
- Participation in the process created a high degree of transparency although it was not always then clear for example where data came from and its quality etc.
- Additional ecological data layers were introduced after production of the 2nd iteration – this data was not permitted to be used to build up knowledge and explore other pMCZs. There were also a number of times where view points were not allowed to be heard by other stakeholder's forceful and sometimes aggressive behaviour.
- The sheer scale of knowledge to be captured and evaluated has been difficult but largely successfully done, and effectively used to inform the process. Some examples of railroading decisions however and lack of transparency through decisions being interpreted differently to original intent.
- The process would have been much improved by some earlier explanation of what management measure might be appropriate to MCZs and reference areas.
- Format of meeting good to facilitate informal building of cross sectoral knowledge base.

3. There was good decision making to identify the location for MCZs and the decisions were taken by stakeholders

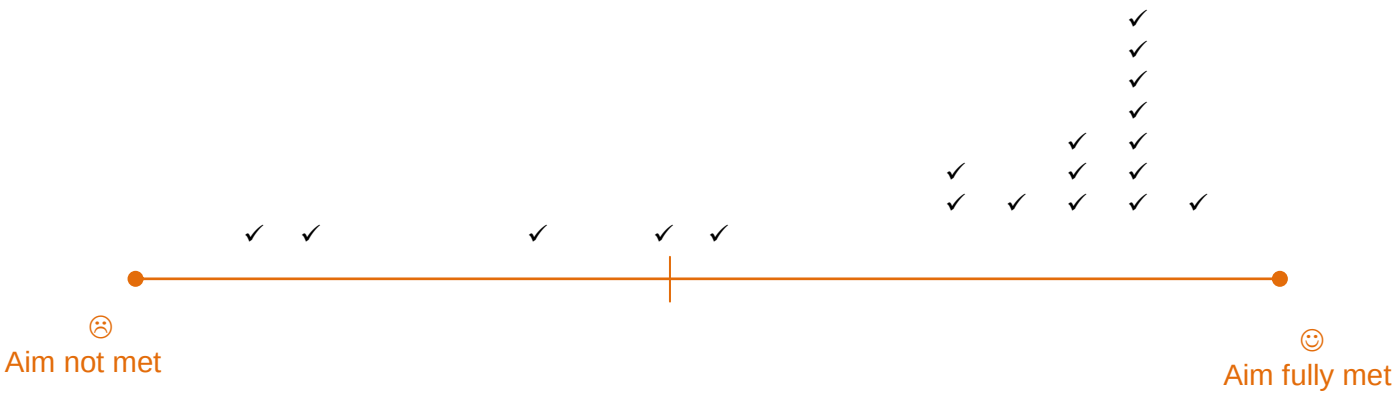


Comments / Rationale

- Concern re: some influence from SAP and project team on placement of proposed areas. Also agreements from RSG's appeared to back track / alter on couple of occasions.
- Early decision making hindered by lack of data but all decisions made by stakeholders, with good use of available data. Decision making process – later stages very sound.
- Yes, worked well.
- Not at all. Initially people were told to point to a map (not chart) without coordinates many of who did not know what they were doing.
- Some areas came from the project team and although finalised by the RSG did not come from them initially such as the estuaries.
- Unable to comment as not involved in the early stages of the project.
- Positive comments are that stakeholders were able to negotiate to reach some agreement. However, the best evidence was not used in many decisions.
- Sometimes one group of stakeholders or gender was dominant.
- Some decisions were made early on that the stakeholders were not in involved in (location of some zones for discussion), reasons for this are understood but the stakeholders should have been involved. The early "voting" system should never have been used to reach consensus or decisions.
- Early sessions at times appeared random, but later workshops became much more focused.
- More so than in other regional projects
- All stakeholder made contributions, were listened to and attempted to accommodate.

- Decision making improved when the facilitator changed and when stakeholders formed better relationships.
- Probably the weakest area of the process as many stakeholder reps did not have detailed knowledge of specific locations. Therefore locations chosen often on “best guess” basis.
- From the stakeholders location it was good. Project team suggestions generally very poor due to lack of local knowledge and this was directly due to the initial idea of having a neutral team with no local knowledge. Made them look foolish although dedicated professionals – unfortunate and not their fault - due to the process set up by government.
- I joined after the process had been running for a while so many of the MCZ were roughed in. However there was iteration and almost all of them were adjusted. It wasn’t always clear in retrospect why.
- Mostly good process however not all directly impacted stakeholders have a voice at RSG so others representing them reluctant to commit to final decisions. Also decisions made without all guidance available.
- No ecological data was available at the start of this process – decisions were driven initially solely by socio economics
- I feel that the early site identification by consensus overlook perhaps constrained choice to sites with limited ability to modify. However choose we must and on best available information.
- Yes, the majority decisions were taken “full and robust” discussions apart from one or tow “late entrants” – BUT process had to be iterative and therefore this was inevitable.
- This was a complex process, generally dependent on which stakeholders / reps were available.

4. The process and final recommendations are understood by a wide range of stakeholders, especially those who will, or are likely to be impacted by the advent of an MCZ network. This includes stakeholders who have national, regional and local interests.

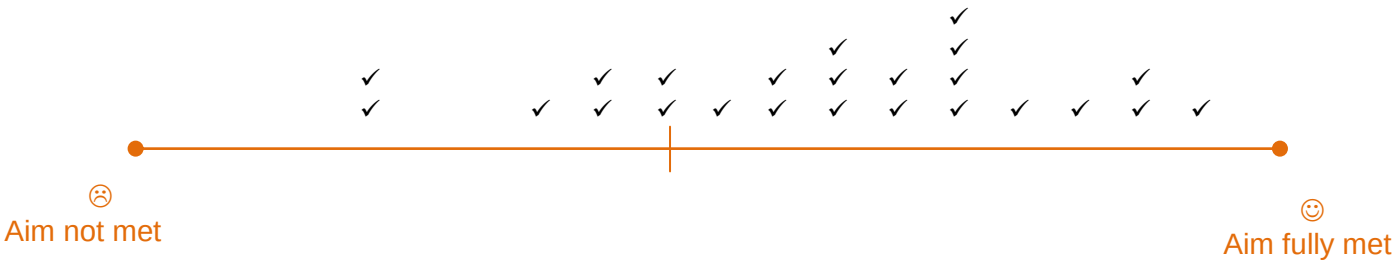


Comments / Rationale

- I think the rational is well understood by RSG but it is important that the key points of the outputs and the process to get them well communicated to all stakeholders
- I don’t think this will be fully met until it goes to consultation.
- Not enough information on implications of such designations on stakeholders
- Given diversity, this was a pragmatic compromise.
- It is a complex process and not yet finalised thought there is some level of understanding of the likely results.
- I believe that stakeholders not personally engaged in the process will find it difficult to understand and will be unwilling to accept recommendations they don’t like.
- Yes, but implications and management remains uncertain.
- By those within the RSG, yes. For a wider set of stakeholders, still significant work required to explain and win support for pMCZs.

- The recommendations are understood, there still needs to be better clarity on the implications, management measures etc. we were asked to make decisions about sites without knowing this which hinders the process enormously and is a fundamental flaw of this process. This should have been the first information provided.
- Inevitably there will be significant parts of the fishing industry who are not aware of the sites or how they will be impacted. This is particularly the case as potential management measures have just been released today.
- Yes I agree with this statement as all stakeholders learnt a lot.
- Process and final recommendations well understood by RSG and some other groups of stakeholders – active representation by RSG. Coastal MCZ likely to involve wider range of stakeholders not yet engaged.
- I think the way in which information is distributed is good and there should be no problem in identifying final position. A request has been made for coordinates, length, and size of zones so that it is easier to understand by those affected.
- Dissemination to the wider public not too good and often information provided too late for adequate circulation within networks.
- Yes – we all understand what we have agreed.
- The technical content seems well explained but the final recommendations need exceptional clarity if they are to be well received.
- The collation process and delivery of reports is clear and detailed allowing the final decisions to be understood by the wider community. However, ongoing support to interpret by those impacted will be needed
- How well RSG members disseminate information to the wider stakeholder in unknown.
- I think the group consisted of representative of stakeholder groups most impacted and influenced by the MCZs
- Yes – supported by facilitator's very clear summaries to group checking what was agreed. Confusion over one small area in pMCZ4 highlights how clearly everything else had been summarised.
-

5. The best available data was used



Comments / Rationale

- More information could have been sourced making date more accurate with more time.
- Data for the marine environment is poor so sighting MCZs based on it will always be a challenge.
- Data was reasonably good in terms of VMS and representatives at meetings. Broadscale habitats were not always accurate.
- It was in the end but very unfortunate that it wasn't available from the outset.
- Additional ecological data available but not allowed to be used by Dialogue Matters! That said, happy that modelled data used when necessary as this is best available.
- A lot of information used was verbal or dated. Survey information and modelling information is time limited but the best use of data available was made.
- The best data available at the time was presumably used but the uncertainties in it were sometimes underestimated.

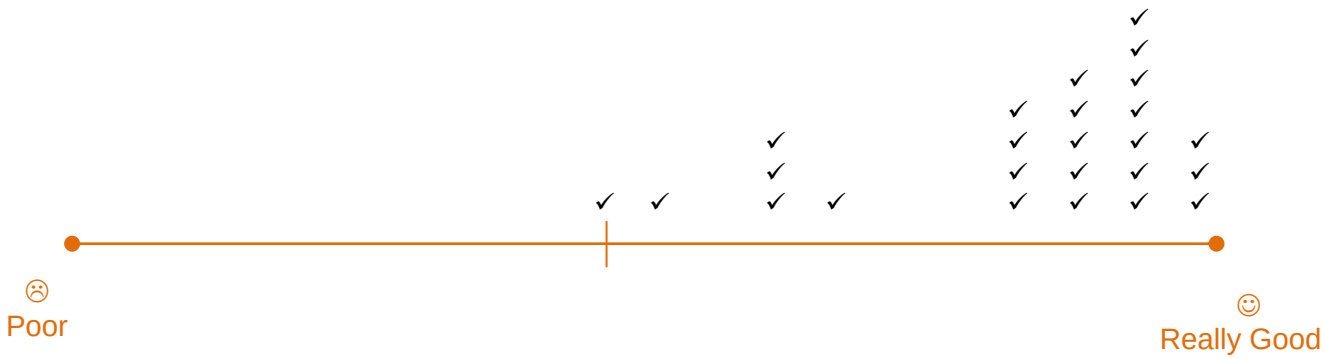
- The main issue is that decisions were often based on a lack of data and that most new data obtained from SNCB commissioned reports etc. always seemed to arrive too late to incorporate.
- Still think some data was either incorrect or inadequate.
- Probably was but often the material provided in advance of a workshop severely lacking in detail / scale to enable us to make best use of it in decision making.
- Yes.
- Lots of data cam in late or had to be rejected / reviewed but a very definite and substantial increase in quality and quantity later on. Congratulations to team beavering away to seek out and make use of these.
- Data was evolving. Groups were subject matter experts who frequently had knowledge that surpassed the presented data.
- Limited time restricted potential to accommodate and integrate better datasets.
- The DEFRA / SNCB guidance re mobile species made it very difficult to include these fully. But with the ISCZ RSG there was clearly some willingness to consider this interest – e.g. black guillemot at St Bees.
- Understanding that this is a difficult thing to gather data but a lot of data came quite late in the process. Also a lot of data are just not available for the proposed sites.
- Feel that much post grad research was missing but it is not easily accessible especially in the area of geodiversity.
- There appears to be more detailed seabed data available in the Northern Irish administration that has not been incorporated into this project. I would wish to know the robustness of different AAEI data sets some of which have come from environmental NGOs.
- It could always be argued that more information would have assisted the process but there was always going to be an argument that there was insufficient time and resource associated with the project. Sometimes, due to the time span between meetings and technical detail did not make it easy.
- The initial meetings were handicapped by the delay in data contract reporting. Subsequently, best available data has been used to good effect.
- Yes, I think so – there is never a right time as data is continuously being made available.

B. Any other comments that you want to make about how the Irish Seas Conservation Zones process delivered on the aims set for it at the outset?

- I think it has made a big impact in terms of better cross sectoral understanding and given participants an insight into other users of the Irish Sea.
- The most valuable element has been stakeholder engagement and the ongoing relationships that will need to be maintained. Awareness and understanding of other sectors needs is far more important than the actual designations.
- Dialogue Matters were appalling – do not use again!
- Initial attempts to provide coherent network according to guidance would have been facilitated if environmental / ecological / geodiversity data for adjacent water had also been made available – particularly relevant to connectivity.
- Aims were achieved within a structured forum that allowed all stakeholders an equal voice.
- Pleased to say that we virtually achieved all the target set.
- ISCZ has delivered very strongly against ENG by strong working and personal relationships from RSG working has been a particularly valued outcome.
- It was always going to be difficult to meet the ENG targets given the socio economic impact on certain sectors. But it is felt that the final recommendations were as near as possible and therefore I believe it delivered the aims.
- Feel we achieved an incredible amount considering both the difficult geographical and social make up of the ISCZ. However geodiversity is always the poor relative of biodiversity conservation.
- Taking the Irish Sea as a whole without the various territorial waters boundaries would have improved the representivity of MCZs in the region.

- Guidance from a national level needed to be more forthcoming and has made the process more difficult.
- Overall, despite my reservations (expressed in answers to other questions) this is a massive step forward in providing a framework for marine conservation.
- It delivered what it set out to do via EUNIS and stakeholders were consulted. The whole process was always fraught due to the lack of knowledge of what would eventually evolve.
- Concern re: balance of certain individuals / groups and the ? Effect that their views and interpretations had on this. Generally a good and positive outcome produced.

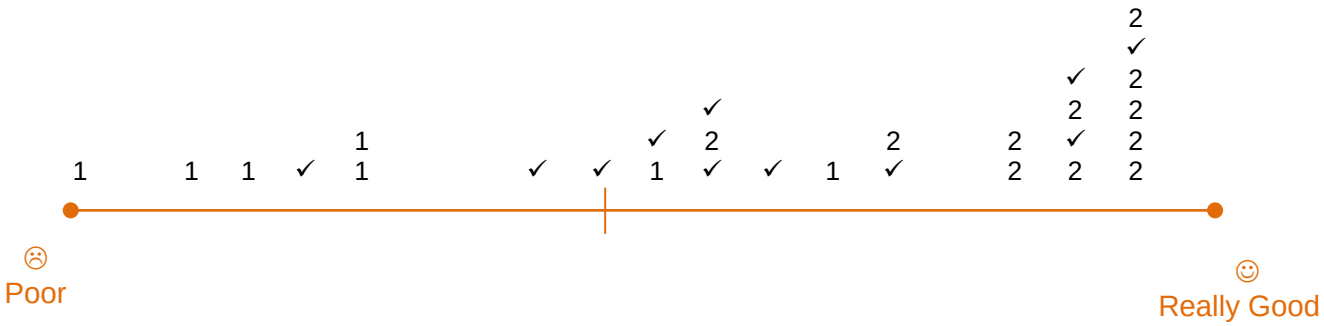
C. How do you rate the support given to you as stakeholders by the Project Team?



Comments / Rationale

- Not good for the first half of the project however this did improve as the project progressed and involvements / implications became better understood.
- Sometimes there was confusion which was not fully resolved, but the team was good overall
- Fair. There was a lack of understanding from the team on certain areas e.g. whether wind farm sites would MPAs. They were as helpful as they could be on a day to day basis.
- Friendly, helpful.
- Can't fault the project team, they delivered under pressure and always tried to respond to queries.
- Good support throughout.
- Requests for information have been fulfilled in my limited involvement in the RSG.
- The process involved was not easy for the project team withy a number of staff leaving and new faces replacing them. This coupled with demands by the RSG for detailed information on coordinates etc. but they coped admirably.
- Excellent – they have worked indefatigably to support stakeholders.
- Always quick to respond and most helpful when queries raised.
- Generally good although would have preferred better resources e.g. size of maps at the workshops; Irish Seas on A4? Not good.
- Good team and facilitator.
- Project team provided information and expertise in a timely and professional manner
- Very good. Lots of data and reports – difficult to cope / keep up at times, especially as often short notice.
- I have to thank the project team for assisting us through the process.
- Thanks to all project team.
- On the whole excellent, only a few occasions they have struggled due to sheer volume of work being managed.
- They seemed to be well on top of the technical issues and frank where knowledge was scant.
- The support information has been great. We really appreciated the opportunity to participate.

D. How do you rate the value to the process of the facilitation and process design? (you may want to differentiate / include in your response something about the two different consultants used)



[in the above scale 1 denotes responses to Dialogue Matters, 2 denotes responses to RKP, ✓ was a general response].

Comments / Rationale

- Well set up in terms of increasing understanding across sectors. Varying success in terms of achieving some specific parts of the work but overall a much better approach than usually encountered.
- Facilitation of the process improved considerably under Rob (R K Partnership).
- The fist consultant was poor at identifying issues that needed resolution – this could have been done much more efficiently with the use of formal small groups. As it was the process seemed to proceed almost irrespective of the issues raised. Second consultant much better.
- The initial facilitator was very poor and stalled whole project. The second facilitator made up ground and was very positive influence.
- Some of the earlier meetings were rushed, possibly on account of the time available versus agenda scope.
- Heard bad results from initial facilitation and process design but from my limited placement on the RSG this was extremely well governed.
- Early facilitation was very process led, lot of post it note exercises. Discussion got lost. Later facilitation seemed much more direct and focussed, good plenary sessions etc.
- Comments to second consultant only: I think the fact that we delivered a proposed network that most stakeholders can accept speaks for itself and the process to get to this point was well managed and thought out. Thank you.
- 2nd set facilitators led the RSG with much more focus and direction.
- Both consultants brought some important strengths to elements of the project. RKP have done a tremendous job – working with the project team and best available data and RSG, to make the project a great success. Well done!
- Dialogue matters – unconstructive, did not listen to stakeholders, patronising, did not use ecological data when available! Useless. Also resulted in RSG losing Chris Frid our academic advisor – not good.
- I feel the second facilitator was better marginally than the first. However both had a difficult task to do especially binging the group together initially.
- I think the later consultant (Rob Angell and team) were more professional and focused than Dialogue Matters. This latter approach kept the work flowing and on track. Well done!
- 1st good timekeeping etc but inflexible and failed to take RSG concerns into account. 2nd excellent re timekeeping , giving individuals a voice, and best of all for ensuring democratic discussion, binging in the quiet over at the back and therefore essential to provide assurance and confidence that a, the discussion had been full and b, the conclusions were widely supported – very clear about yes, no & inconclusive. Felt quite proud about the statement re co-location – genuine consensus clearly expressed (albeit with too many subordinate clauses! Plain English prefers short, sweet sentences).
- Change of facilitators did not help the process. Terms of reference for facilitators unclear.

- Old consultant: ballot voting was very poor, stuck to process too tightly, no flexibility, upset stakeholders. New consultant: allowed time for RSG to have important discussions, more fair decisions made. However, by this time there was no opportunity to revisit pMCZ2.
- Set up badly, too constrained and too process driven. Replacement facilitator although more flexible not too good at noting pertinent information. Also tended to paraphrase, also tended to lead – on at least one occasion up a blind alley.

This part of this report presents the comments made ISCZ RSG members in their evaluation forms at their last meeting in July 2011 grouped by relevant subject.

About the make up of the RSG

- Representation not always appropriate with some sectors and individual louder than others, largely however, through a very difficult process the goals have been achieved.
- I think the group was by the end representative and for the later part followed guidance. The initial phase felt less stable.
- Good range of interests, representatives genuinely seemed to engage with their own sector (i.e. views of group, not personal). Focus groups a key source of detailed and up to date data and local knowledge + awareness of actual / potential impacts of management of activities.
- The representation of the group has been a challenge with key infrastructure projects / companies not represented from the start of the process as they were denied a seat in the RSG. This meant the overall consensus of the RSG was to encourage MCZs with wind farms.
- Group has had good representation and worked very well together
- Was some problem with consistency of attendance but this was probably as good as it could have been.
- Some stakeholders inevitably feel excluded by the process due to its fast pace and the ability of stakeholders directly involved to facilitate feeding in views
- There was good representation but some groups had stronger voices in the room.
- Several stakeholders were not sufficiently represented in the early stages of the project. Other stakeholders i.e. the MMO, DECC & DEFRA should have had more of, or just a presence.
- not all directly impacted stakeholders have a voice at RSG so others representing them reluctant to commit to final decisions.
- Coastal MCZ likely to involve wider range of stakeholders not yet engaged.
- I think the group consisted of representative of stakeholder groups most impacted and influenced by the MCZs

About how the RSG worked as a group

- Surprisingly for such diverse interests all pulled together, compromised when necessary, but always tried not to affect the interests of other stakeholders if at all possible.
- Very good structure – worked well
- Wind energy caveats allowed to rule and have disproportionate voice (social equity).
- For stakeholders not in the RSG I don't think it was transparent enough, in terms of making them aware they are not all internet users
- Management of the sites and reference areas were not brought up until the end of the process that negated all coherence
- I think this worked reasonably well. If did take time as expected to build up trust and understanding.
- RSG has clearly been and felt central to planning.
- Participation in the process created a high degree of transparency
- generally dependent on which stakeholders / reps were available.
- There were a number of times where view points were not allowed to be heard by other stakeholder's forceful and sometimes aggressive behaviour.

- Some examples of railroading decisions however and lack of transparency through decisions being interpreted differently to original intent.
- Yes, worked well.
- Sometimes one group of stakeholders or gender was dominant.
- All stakeholder made contributions, were listened to and attempted to accommodate.
- Aims were achieved within a structured forum that allowed all stakeholders an equal voice.

About the job the RSG did in relation to the ENG

- The resulting recommendations seem comprehensive and generally reasonable
- ENG states quality of broadscale habitat should be looked at, this did not occur
- Whereas final network not “gold plated” solution, it was an optimum working solution, taking into account industry and specialist interest activity.
- Aim met to the extent allowable given limited and late guidance documentation and inadequate information on the impact of MCZs on activities.
- Element was largely met.
- We did not completely achieve our aim and in some ways I feel that geodiversity and biodiversity was not central to the process. I understand why but feel it was an opportunity lost.
- Ecological network guidance adhered to and very largely delivered. Network proposals are strong and have highest level of support possible and a good level of support.
- There is a proposed network. Where it does not meet ENG guidelines, there are good reasons for it.
- Aim almost met except for sub tidal mud. The requirements were quite succinct and they were carried out.
- Largely this objective was met; the network sites proposed have been designed using the guidance. The guidelines perhaps came a little late after the process was started though.
- In relation to the ENG, yes, very nearly achieved. Co-location will, if agreed, allow virtual complete compliance.
- Needed to revisit sites but not allowed to so network probably sub optimal as a result – although it might be ok
- Largely met
- I don’t think this will be fully met until it goes to consultation.
- Pleased to say that we virtually achieved all the target set.
- It was always going to be difficult to meet the ENG targets given the socio economic impact on certain sectors. But it is felt that the final recommendations were as near as possible and therefore I believe it delivered the aims.

About guidance and guidance documents

- Guidance documents produced too late in the process which jeopardised the process and could have advanced project outcomes
- It felt like we were playing catch up sometimes with data and information coming quite late to the process.
- Guidance kept changing or not sufficiently clear at outset.
- short timescales and late guidance have hindered
- sometimes information was lat in coming to us
- RSG all wanted clearer guidance re potential management implications before potentially relinquishing “rights” to an activity in a proposed MCZ/ reference area

- The project team and facilitator have done a good job with the process and guidance documents provided
- decisions made without all guidance available.
- The DEFRA / SNCB guidance re mobile species made it very difficult to include these fully. But with the ISCZ RSG there was clearly some willingness to consider this interest – e.g. black guillemot at St Bees.
- Guidance from a national level needed to be more forthcoming and has made the process more difficult.

About the choices of sites

- Some areas came from the project team and although finalised by the RSG did not come from them initially such as the estuaries.
- Initially people were told to point to a map (not chart) without coordinates many of who did not know what they were doing.
- I think the rational is well understood by RSG but it is important that the key points of the outputs and the process to get them well communicated to all stakeholders
- stakeholders were able to negotiate to reach some agreement
- Some decisions were made early on that the stakeholders were not in involved in (location of some zones for discussion), reasons for this are understood but the stakeholders should have been involved.
- Probably the weakest area of the process as many stakeholder reps did not have detailed knowledge of specific locations. Therefore locations chosen often on “best guess” basis.
- From the stakeholders location it was good. Project team suggestions generally very poor due to lack of local knowledge and this was directly due to the initial idea of having a neutral team with no local knowledge. Made them look foolish although dedicated professionals – unfortunate and not their fault - due to the process set up by government.
- I joined after the process had been running for a while so many of the MCZ were roughed in. However there was iteration and almost all of them were adjusted. It wasn’t always clear in retrospect why.
- I feel that the early site identification by consensus overlook perhaps constrained choice to sites with limited ability to modify. However choose we must and on best available information.
- Given diversity, this was a pragmatic compromise.
- It is a complex process and not yet finalised thought there is some level of understanding of the likely results.
- implications and management remains uncertain.
- there still needs to be better clarity on the implications, management measures etc. we were asked to make decisions about sites without knowing this which hinders the process enormously and is a fundamental flaw of this process. This should have been the first information provided.

About ownership of the work

- By those within the RSG, yes. For a wider set of stakeholders, still significant work required to explain and win support for pMCZs.
- I believe that stakeholders not personally engaged in the process will find it difficult to understand and will be unwilling to accept recommendations they don’t like.
- The recommendations are understood

- Inevitably there will be significant parts of the fishing industry who are not aware of the sites or how they will be impacted. This is particularly the case as potential management measures have just been released today.
- Yes all stakeholders learnt a lot.
- Process and final recommendations well understood by RSG and some other groups of stakeholders – active representation by RSG.
- I think the way in which information is distributed is good and there should be no problem in identifying final position.
- A request has been made for coordinates, length, and size of zones so that it is easier to understand by those affected.
- Dissemination to the wider public not too good and often information provided too late for adequate circulation within networks.
- Yes – we all understand what we have agreed.
- The technical content seems well explained but the final recommendations need exceptional clarity if they are to be well received.
- The collation process and delivery of reports is clear and detailed allowing the final decisions to be understood by the wider community. However, ongoing support to interpret by those impacted will be needed
- How well RSG members disseminate information to the wider stakeholder in unknown.

About the use of data & information

- More scientific and ecological input at every meeting from people with a high level of knowledge of Irish Seas region would have been beneficial
- Ecological data not allowed to be taken into account and other data poor but improving.
- The full RSG meetings and the focus meetings especially, allowed data, issues, solutions, networking to be fully explored
- Science (particularly in early workshops) still evolving
- although it was not always then clear for example where data came from and its quality etc.
- Additional ecological data layers were introduced after production of the 2nd iteration – this data was not permitted to be used to build up knowledge and explore other pMCZs.
- The sheer scale of knowledge to be captured and evaluated has been difficult but largely successfully done, and effectively used to inform the process.
- the best evidence was not used in many decisions.
- No ecological data was available at the start of this process – decisions were driven initially solely by socio economics
- Not enough information on implications of such designations on stakeholders
- More information could have been sourced making data more accurate with more time.
- Data for the marine environment is poor so sighting MCZs based on it will always be a challenge.
- Data was reasonably good in terms of VMS and representatives at meetings. Broadscale habitats were not always accurate.
- It was in the end but very unfortunate that it wasn't available from the outset.
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- The initial meetings were handicapped by the delay in data contract reporting. Subsequently, best available data has been used to good effect.
- there is never a right time as data is continuously being made available.

About the process

- The process has been very inconsistent to other regional projects which has made participation on a national level difficult.
- Process has been structured and transparent for most part
- It was a difficult process and conflict was inevitable but largely this was managed in a very pragmatic way
- Overall structure a little wobbly at first
- Took too long to round to coastal/inshore sites which had move and therefore more controversial stakeholders and interests.
- I found the process extremely difficult to understand early on but this did improve considerably as time progressed.
- Extremely well organised, coherent and transparent.
- Format of meeting good to facilitate informal building of cross sectoral knowledge base.
- The process would have been much improved by some earlier explanation of what management measure might be appropriate to MCZs and reference areas.
- Mostly good process
- This was a complex process,
- Well set up in terms of increasing understanding across sectors. Varying success in terms of achieving some specific parts of the work but overall a much better approach than usually encountered.

About decision making

- The early process, driven by the first facilitation company did not allow space for issues and knowledge. Decisions were process driven rather than evidence based. That was rectified subsequently but many of the original decisions had to stand because time was now getting short
- good negotiation and resolution process at RSG, FG
- Concern re: some influence from SAP and project team on placement of proposed areas. Also agreements from RSG's appeared to back track / alter on couple of occasions.
- Early decision making hindered by lack of data
- Decision making process – later stages very sound.
- The early "voting" system should never have been used to reach consensus or decisions.
- all decisions made by stakeholders, with good use of available data.
- Early sessions at times appeared random, but later workshops became much more focused.
- Decision making improved when the facilitator changed
- Decision making improved when stakeholders formed better relationships.
- the majority decisions were taken "full and robust" discussions apart from one or two "late entrants" – BUT process had to be iterative and therefore this was inevitable.
- Second facilitator's very clear summaries to group checking what was agreed
- Confusion over one small area in pMCZ4 highlights how clearly everything else had been summarised.
- Some of the earlier meetings were rushed, possibly on account of the time available versus agenda scope.

About the facilitation

- Facilitation of the process improved considerably under Rob (R K Partnership).
- The fist consultant was poor at identifying issues that needed resolution – this could have been done much more efficiently with the use of formal small groups. As it was the process seemed to proceed almost irrespective of the issues raised. Second consultant much better.
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- Old consultant: ballot voting was very poor, stuck to process too tightly, no flexibility, upset stakeholders. New consultant: allowed time for RSG to have important discussions, more fair decisions made.
- Dialogue Matters were appalling – do not use again!

About the ISCZ project team

- ISCZ team proved very approachable and supportive with taking issues forward when requested by individual RSG members.
- Not good for the first half of the project however this did improve as the project progressed and involvements / implications became better understood.
- Sometimes there was confusion which was not fully resolved, but the team was good overall
- Fair. There was a lack of understanding from the team on certain areas e.g. whether wind farm sites would MPAs. They were as helpful as they could be on a day to day basis.
- Friendly, helpful.
- Can't fault the project team, they delivered under pressure and always tried to respond to queries.
- Good support throughout.
- Requests for information have been fulfilled in my limited involvement in the RSG.
- The process involved was not easy for the project team withy a number of staff leaving and new faces replacing them. This coupled with demands by the RSG for detailed information on coordinates etc. but they coped admirably.
- Excellent – they have worked indefatigably to support stakeholders.
- Always quick to respond and most helpful when queries raised.
- Generally good although would have preferred better resources e.g. size of maps at the workshops; Irish Seas on A4? Not good.
- Good team and facilitator.
- Project team provided information and expertise in a timely and professional manner
- Very good. Lots of data and reports – difficult to cope / keep up at times, especially as often short notice.
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- Thanks to all project team.
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- They seemed to be well on top of the technical issues and frank where knowledge was scant.
- The support information has been great. We really appreciated the opportunity to participate.

Other comments

- I think it has made a big impact in terms of better cross sectoral understanding and given participants an insight into other users of the Irish Sea.
- The most valuable element has been stakeholder engagement and the ongoing relationships that will need to be maintained. Awareness and understanding of other sectors needs is far more important than the actual designations.
- Initial attempts to provide coherent network according to guidance would have been facilitated if environmental / ecological / geodiversity data for adjacent water had also been made available – particularly relevant to connectivity.
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- Taking the Irish Sea as a whole without the various territorial waters boundaries would have improved the representivity of MCZs in the region.
- Overall, this is a massive step forward in providing a framework for marine conservation.
- It delivered what it set out to do via EUNIS and stakeholders were consulted. The whole process was always fraught due to the lack of knowledge of what would eventually evolve.
- Concern re: balance of certain individuals / groups and the effect that their views and interpretations had.
- Generally a good and positive outcome produced.

Regional Report for Irish Sea

General Report

Regional Scale

General Report: UK_SACs		
Name	**Area [ha]**	**Perimeter [km]**
Croaker Carbonate Slabs (Annex I extent)	810.73	92.28
Dee Estuary	6942.06	146.71
Drigg Coast	709.10	54.48
Lune Deep reconsultation	917.47	21.03
Morecambe Bay	55178.56	546.46
Pisces Reef Complex (Annex I extent)	197.58	24.96
Shell Flat	9656.43	42.20
Solway Firth	14589.34	210.46

General Report: UK_SACs, contd.	
Name	**Regional MCZ Project**
Croaker Carbonate Slabs (Annex I extent)	Irish Sea
Dee Estuary	Irish Sea
Drigg Coast	Irish Sea
Lune Deep reconsultation	Irish Sea
Morecambe Bay	Irish Sea
Pisces Reef Complex (Annex I extent)	Irish Sea
Shell Flat	Irish Sea
Solway Firth	Irish Sea

Table 1

General Report: UK_SPAs			
sitename	**Area [ha]**	**Perimeter [km]**	**Regional MCZ Project**
The Dee Estuary	5866.42	94.30	Irish Sea
Upper Solway Flats and Marshes	14588.54	210.23	Irish Sea

Table 2

General Report: SSSI			
SSSI_NAME	**Area [ha]**	**Perimeter [km]**	**Regional MCZ Project**
Dee Estuary	3907.51	88.05	Irish Sea
Drigg Coast	709.46	54.75	Irish Sea
Duddon Estuary	5199.62	141.67	Irish Sea
Lune Estuary	6229.65	159.20	Irish Sea
Mersey Estuary	5700.80	58.53	Irish Sea
Mersey Narrows	89.74	11.99	Irish Sea
Morecambe Bay	22551.04	292.52	Irish Sea

General Report: SSSI			
SSSI_NAME	**Area [ha]**	**Perimeter [km]**	**Regional MCZ Project**
New Ferry	71.66	8.22	Irish Sea
North Wirral Foreshore	1954.04	60.57	Irish Sea
Ribble Estuary	6871.23	167.85	Irish Sea
Sefton Coast	2858.80	66.15	Irish Sea
South Walney & Piel Channel Flats	1981.19	92.20	Irish Sea
Upper Solway Flats & Marshes	8623.90	299.07	Irish Sea
Wyre Estuary	1227.52	100.09	Irish Sea

Table 3

Ecology Report

Representativity Regional Scale

To be representative an MPA network needs to protect the range of marine biodiversity found in our seas. To do this examples of each of the following features should be protected within MPAs in each regional MCZ project area, where they occur:
• 23 broad-scale habitats;
• 22 habitats of conservation importance;
• 29 low or limited mobility species of conservation importance; and
• 3 highly mobile species.

Broad-scale habitats present in sites	
Habitat Description	**EUNIS Level 3 Code**
Coastal saltmarshes and saline reedbeds	A2.5
Intertidal biogenic reefs	A2.7
Intertidal coarse sediment	A2.1
Intertidal mixed sediments	A2.4
Intertidal mud	A2.3
Intertidal sand and muddy sand	A2.2
Intertidal sediments dominated by aquatic angiosperms	A2.6
Low energy circalittoral rock	A4.3
Low energy infralittoral rock	A3.3
Low energy intertidal rock	A1.3
Moderate energy circalittoral rock	A4.2
Moderate energy infralittoral rock	A3.2
Moderate energy intertidal rock	A1.2
Subtidal biogenic reefs	A5.6
Subtidal coarse sediment	A5.1
Subtidal mud	A5.3
Subtidal sand	A5.2

Table 4

Broad-scale habitats matrix					
Site Name	**Site Type**	**A1.2**	**A1.3**	**A2.1**	**A2.2**
Croaker Carbonate Slabs (Annex I extent)	SAC	Absent	Absent	Absent	Absent
Dee Estuary	SAC	Present	Absent	Absent	Present
Drigg Coast	SAC	Absent	Absent	Absent	Present
Lune Deep reconsultation	SAC	Absent	Absent	Absent	Absent
Morecambe Bay	SAC	Present	Present	Present	Present
Pisces Reef Complex (Annex I extent)	SAC	Absent	Absent	Absent	Absent
Shell Flat	SAC	Absent	Absent	Absent	Absent
Solway Firth	SAC	Absent	Present	Absent	Present
The Dee Estuary	SPA	Absent	Absent	Absent	Present
Upper Solway Flats and Marshes	SPA	Absent	Absent	Absent	Present
Dee Estuary	SSSI	Absent	Absent	Absent	Present

Broad-scale habitats matrix					
Site Name	**Site Type**	**A1.2**	**A1.3**	**A2.1**	**A2.2**
Drigg Coast	SSSI	Absent	Absent	Absent	Present
Duddon Estuary	SSSI	Absent	Absent	Absent	Present
Lune Estuary	SSSI	Absent	Absent	Absent	Present
Mersey Estuary	SSSI	Absent	Absent	Absent	Absent
Mersey Narrows	SSSI	Absent	Absent	Absent	Present
Morecambe Bay	SSSI	Absent	Absent	Absent	Present
New Ferry	SSSI	Absent	Absent	Absent	Absent
North Wirral Foreshore	SSSI	Absent	Absent	Absent	Present
Ribble Estuary	SSSI	Absent	Absent	Absent	Absent
Sefton Coast	SSSI	Absent	Absent	Absent	Absent
South Walney & Piel Channel Flats	SSSI	Absent	Absent	Absent	Present
Upper Solway Flats & Marshes	SSSI	Absent	Absent	Absent	Present
Wyre Estuary	SSSI	Absent	Absent	Absent	Present

Broad-scale habitats matrix, contd.					
Site Name	**A2.3**	**A2.4**	**A2.5**	**A2.6**	**A2.7**
Croaker Carbonate Slabs (Annex I extent)	Absent	Absent	Absent	Absent	Absent
Dee Estuary	Present	Absent	Present	Absent	Present
Drigg Coast	Absent	Present	Absent	Absent	Present
Lune Deep reconsultation	Absent	Absent	Absent	Absent	Absent
Morecambe Bay	Present	Present	Present	Present	Absent
Pisces Reef Complex (Annex I extent)	Absent	Absent	Absent	Absent	Absent
Shell Flat	Absent	Absent	Absent	Absent	Absent
Solway Firth	Present	Present	Present	Absent	Present
The Dee Estuary	Present	Absent	Present	Absent	Absent
Upper Solway Flats and Marshes	Present	Present	Present	Absent	Present
Dee Estuary	Present	Absent	Present	Absent	Absent
Drigg Coast	Absent	Absent	Absent	Absent	Absent
Duddon Estuary	Present	Absent	Present	Absent	Absent
Lune Estuary	Present	Absent	Absent	Absent	Absent
Mersey Estuary	Present	Absent	Absent	Absent	Absent
Mersey Narrows	Present	Absent	Absent	Absent	Absent
Morecambe Bay	Present	Absent	Present	Absent	Absent
New Ferry	Present	Absent	Absent	Absent	Absent
North Wirral Foreshore	Absent	Absent	Absent	Absent	Absent
Ribble Estuary	Present	Absent	Present	Absent	Absent
Sefton Coast	Absent	Absent	Present	Absent	Absent
South Walney & Piel Channel Flats	Present	Absent	Absent	Present	Absent
Upper Solway Flats & Marshes	Present	Absent	Present	Absent	Absent
Wyre Estuary	Absent	Absent	Absent	Absent	Absent

Broad-scale habitats matrix, contd.					
Site Name	**A3.2**	**A3.3**	**A4.2**	**A4.3**	**A5.1**
Croaker Carbonate Slabs (Annex I extent)	Absent	Absent	Present	Absent	Present
Dee Estuary	Absent	Absent	Absent	Absent	Absent
Drigg Coast	Absent	Absent	Absent	Absent	Absent
Lune Deep reconsultation	Absent	Absent	Present	Absent	Absent
Morecambe Bay	Present	Absent	Absent	Absent	Absent
Pisces Reef Complex (Annex I extent)	Absent	Absent	Absent	Present	Absent
Shell Flat	Absent	Absent	Absent	Absent	Absent
Solway Firth	Absent	Absent	Absent	Absent	Absent
The Dee Estuary	Absent	Absent	Absent	Absent	Absent
Upper Solway Flats and Marshes	Absent	Absent	Absent	Absent	Absent
Dee Estuary	Absent	Absent	Absent	Absent	Absent
Drigg Coast	Absent	Absent	Absent	Absent	Absent
Duddon Estuary	Absent	Absent	Absent	Absent	Absent
Lune Estuary	Absent	Absent	Absent	Absent	Absent
Mersey Estuary	Absent	Absent	Absent	Absent	Absent
Mersey Narrows	Absent	Present	Absent	Absent	Absent
Morecambe Bay	Absent	Absent	Absent	Absent	Absent
New Ferry	Absent	Absent	Absent	Absent	Absent
North Wirral Foreshore	Absent	Absent	Absent	Absent	Absent
Ribble Estuary	Absent	Absent	Absent	Absent	Absent
Sefton Coast	Absent	Absent	Absent	Absent	Absent
South Walney & Piel Channel Flats	Absent	Absent	Absent	Absent	Absent
Upper Solway Flats & Marshes	Absent	Absent	Absent	Absent	Absent
Wyre Estuary	Absent	Absent	Absent	Absent	Absent

Broad-scale habitats matrix, contd.			
Site Name	**A5.2**	**A5.3**	**A5.6**
Croaker Carbonate Slabs (Annex I extent)	Present	Absent	Absent
Dee Estuary	Present	Absent	Absent
Drigg Coast	Absent	Absent	Absent
Lune Deep reconsultation	Absent	Absent	Absent
Morecambe Bay	Present	Absent	Present
Pisces Reef Complex (Annex I extent)	Absent	Present	Absent
Shell Flat	Present	Absent	Absent
Solway Firth	Present	Absent	Absent
The Dee Estuary	Absent	Absent	Absent
Upper Solway Flats and Marshes	Present	Absent	Absent
Dee Estuary	Absent	Absent	Absent
Drigg Coast	Absent	Absent	Absent
Duddon Estuary	Absent	Absent	Absent
Lune Estuary	Absent	Absent	Absent
Mersey Estuary	Absent	Absent	Absent
Mersey Narrows	Absent	Absent	Absent

Broad-scale habitats matrix, contd.			
Site Name	**A5.2**	**A5.3**	**A5.6**
Morecambe Bay	Absent	Absent	Absent
New Ferry	Absent	Absent	Absent
North Wirral Foreshore	Absent	Absent	Absent
Ribble Estuary	Absent	Absent	Absent
Sefton Coast	Absent	Absent	Absent
South Walney & Piel Channel Flats	Absent	Absent	Absent
Upper Solway Flats & Marshes	Absent	Absent	Absent
Wyre Estuary	Absent	Absent	Absent

Table 5

Habitats of conservation importance present in sites
Habitat Name
Blue Mussel beds (including intertidal beds on mixed and sandy sediments)
Coastal saltmarsh
Estuarine rocky habitats
Honeycomb worm (Sabellaria alveolata) reefs
Intertidal mudflats
Intertidal underboulder communities
Peat and clay exposures
Saline lagoons
Seagrass beds
Subtidal sands and gravels
Tide-swept channels

Table 6

Habitats of conservation importance matrix						
Site Name	Site Type	Blue Mussel beds (including intertidal beds on mixed and sandy sediments)	Coastal saltmarsh	Estuarine rocky habitats	Honeycomb worm (Sabellaria alveolata) reefs	Intertidal mudflats
Dee Estuary	SAC	Absent	Absent	Present	Present	Absent
Lune Deep reconsultation	SAC	Absent	Absent	Absent	Absent	Absent
Morecambe Bay	SAC	Present	Absent	Present	Present	Absent
Shell Flat	SAC	Absent	Absent	Absent	Absent	Absent
Solway Firth	SAC	Absent	Absent	Present	Present	Absent
The Dee Estuary	SPA	Absent	Absent	Absent	Absent	Absent
Upper Solway Flats and Marshes	SPA	Absent	Absent	Present	Absent	Absent
Dee Estuary	SSSI	Absent	Present	Absent	Absent	Present
Duddon Estuary	SSSI	Absent	Present	Absent	Absent	Present
Lune Estuary	SSSI	Absent	Present	Absent	Absent	Present
Mersey Estuary	SSSI	Absent	Present	Absent	Absent	Present
Morecambe Bay	SSSI	Absent	Present	Absent	Absent	Present
New Ferry	SSSI	Absent	Absent	Absent	Absent	Present
North Wirral Foreshore	SSSI	Absent	Present	Absent	Absent	Present
Ribble Estuary	SSSI	Absent	Present	Absent	Absent	Present
South Walney & Piel Channel Flats	SSSI	Absent	Present	Absent	Absent	Present

Habitats of conservation importance matrix, contd.						
Site Name	Intertidal underboulder communities	Peat and clay exposures	Saline lagoons	Seagrass beds	Subtidal sands and gravels	Tide-swept channels
Dee Estuary	Absent	Absent	Absent	Absent	Present	Absent
Lune Deep reconsultation	Absent	Absent	Absent	Absent	Absent	Present
Morecambe Bay	Absent	Present	Absent	Present	Absent	Present
Shell Flat	Absent	Absent	Absent	Absent	Present	Absent
Solway Firth	Absent	Absent	Absent	Absent	Present	Absent
The Dee Estuary	Absent	Absent	Absent	Absent	Present	Absent
Upper Solway Flats and Marshes	Absent	Absent	Absent	Absent	Present	Absent
Dee Estuary	Absent	Absent	Absent	Absent	Absent	Absent
Duddon Estuary	Absent	Absent	Present	Absent	Absent	Absent
Lune Estuary	Absent	Absent	Absent	Absent	Absent	Absent
Mersey Estuary	Absent	Absent	Absent	Absent	Absent	Absent
Morecambe Bay	Absent	Absent	Absent	Absent	Absent	Absent
New Ferry	Absent	Absent	Absent	Absent	Absent	Absent
North Wirral Foreshore	Absent	Absent	Absent	Absent	Absent	Absent
Ribble Estuary	Absent	Absent	Absent	Absent	Absent	Absent
South Walney & Piel Channel Flats	Present	Absent	Present	Absent	Absent	Absent

Table 7

The proposed sites did not intersect with any species of conservation importance.

Replication Regional Scale

All features should be replicated within the MPA network and replicates should be spatially separate. The MPAs within each regional MCZ project area should protect at least two separate examples of each broad-scale habitat where their distribution allows; and at least three to five separate examples of each feature of conservation importance where their distribution allows.

Replication of broad-scale habitats		
Habitat Name	**Habitat Code**	**Replication**
Moderate energy intertidal rock	A1.2	2
Low energy intertidal rock	A1.3	2
Intertidal coarse sediment	A2.1	1
Intertidal sand and muddy sand	A2.2	10
Intertidal mud	A2.3	9
Intertidal mixed sediments	A2.4	4
Coastal saltmarshes and saline reedbeds	A2.5	6
Intertidal sediments dominated by aquatic angiosperms	A2.6	1
Intertidal biogenic reefs	A2.7	4
Moderate energy infralittoral rock	A3.2	1
Low energy infralittoral rock	A3.3	1
Moderate energy circalittoral rock	A4.2	2
Low energy circalittoral rock	A4.3	1
Subtidal coarse sediment	A5.1	1
Subtidal sand	A5.2	6
Subtidal mud	A5.3	1
Subtidal biogenic reefs	A5.6	1

Replication of broad-scale habitats, contd.		
Habitat Name	**SAC Replication**	**SPA Replication**
Moderate energy intertidal rock	2	0
Low energy intertidal rock	2	0
Intertidal coarse sediment	1	0
Intertidal sand and muddy sand	4	2
Intertidal mud	3	2
Intertidal mixed sediments	3	1
Coastal saltmarshes and saline reedbeds	3	2
Intertidal sediments dominated by aquatic angiosperms	1	0
Intertidal biogenic reefs	3	1
Moderate energy infralittoral rock	1	0
Low energy infralittoral rock	0	0
Moderate energy circalittoral rock	2	0
Low energy circalittoral rock	1	0
Subtidal coarse sediment	1	0
Subtidal sand	5	1
Subtidal mud	1	0
Subtidal biogenic reefs	1	0

Replication of broad-scale habitats, contd.	
Habitat Name	**SSSI Replication**
Moderate energy intertidal rock	0
Low energy intertidal rock	0
Intertidal coarse sediment	0
Intertidal sand and muddy sand	10
Intertidal mud	10
Intertidal mixed sediments	0
Coastal saltmarshes and saline reedbeds	6
Intertidal sediments dominated by aquatic angiosperms	1
Intertidal biogenic reefs	0
Moderate energy infralittoral rock	0
Low energy infralittoral rock	1
Moderate energy circalittoral rock	0
Low energy circalittoral rock	0
Subtidal coarse sediment	0
Subtidal sand	0
Subtidal mud	0
Subtidal biogenic reefs	0

Table 8

Replication of habitats of conservation importance	
Habitat Name	**Replication**
Blue Mussel beds (including intertidal beds on mixed and sandy sediments)	1
Coastal saltmarsh	8
Estuarine rocky habitats	3
Honeycomb worm (Sabellaria alveolata) reefs	3
Intertidal mudflats	9
Intertidal underboulder communities	1
Peat and clay exposures	1
Saline lagoons	2
Seagrass beds	1
Subtidal sands and gravels	5
Tide-swept channels	2

Replication of habitats of conservation importance, contd.	
Habitat Name	**SAC Replication**
Blue Mussel beds (including intertidal beds on mixed and sandy sediments)	1
Coastal saltmarsh	0
Estuarine rocky habitats	3
Honeycomb worm (Sabellaria alveolata) reefs	3
Intertidal mudflats	0
Intertidal underboulder communities	0

Replication of habitats of conservation importance, contd.	
Habitat Name	**SAC Replication**
Peat and clay exposures	1
Saline lagoons	0
Seagrass beds	1
Subtidal sands and gravels	3
Tide-swept channels	2

Replication of habitats of conservation importance, contd.	
Habitat Name	**SPA Replication**
Blue Mussel beds (including intertidal beds on mixed and sandy sediments)	0
Coastal saltmarsh	0
Estuarine rocky habitats	1
Honeycomb worm (Sabellaria alveolata) reefs	0
Intertidal mudflats	0
Intertidal underboulder communities	0
Peat and clay exposures	0
Saline lagoons	0
Seagrass beds	0
Subtidal sands and gravels	2
Tide-swept channels	0

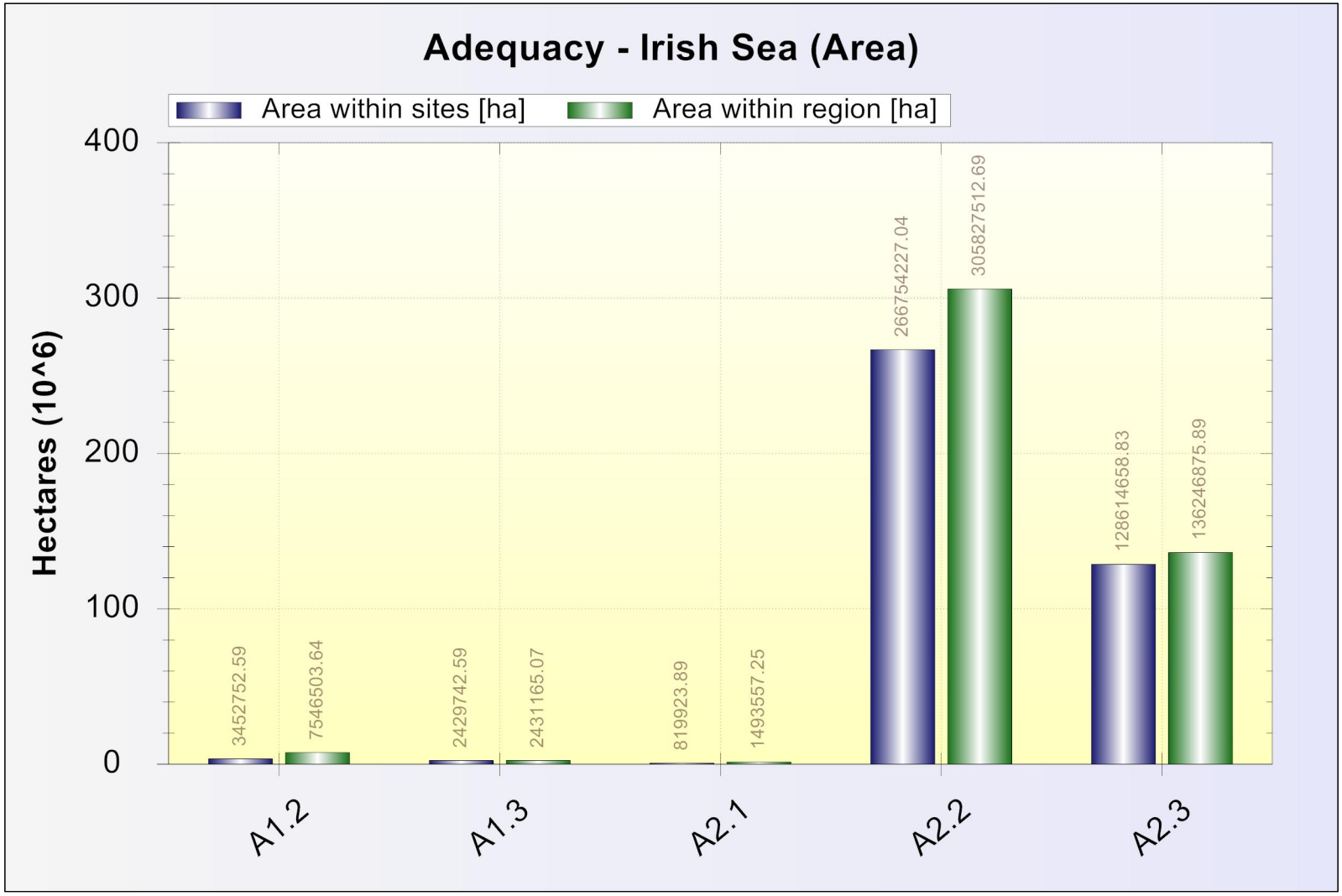
Replication of habitats of conservation importance, contd.	
Habitat Name	**SSSI Replication**
Blue Mussel beds (including intertidal beds on mixed and sandy sediments)	0
Coastal saltmarsh	8
Estuarine rocky habitats	0
Honeycomb worm (Sabellaria alveolata) reefs	0
Intertidal mudflats	9
Intertidal underboulder communities	1
Peat and clay exposures	0
Saline lagoons	2
Seagrass beds	0
Subtidal sands and gravels	0
Tide-swept channels	0

Table 9

The proposed sites did not intersect with any species of conservation importance.

Adequacy Regional Scale

To be considered adequate an MPA network needs to be of sufficient size and include a large enough proportion of features. For each broad-scale habitat the MPAs within each regional MCZ project area should collectively protect a proportion of habitat known to occur in that area as specified in the Ecological Network Guidance.


Adequacy - Irish Sea (Area)
Area within sites [ha]
Area within region [ha]
Hectares (10^6)
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300
200
100
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7546503.64
2429742.59
2431165.07
819923.89
1493557.25
266754227.04
305827512.69
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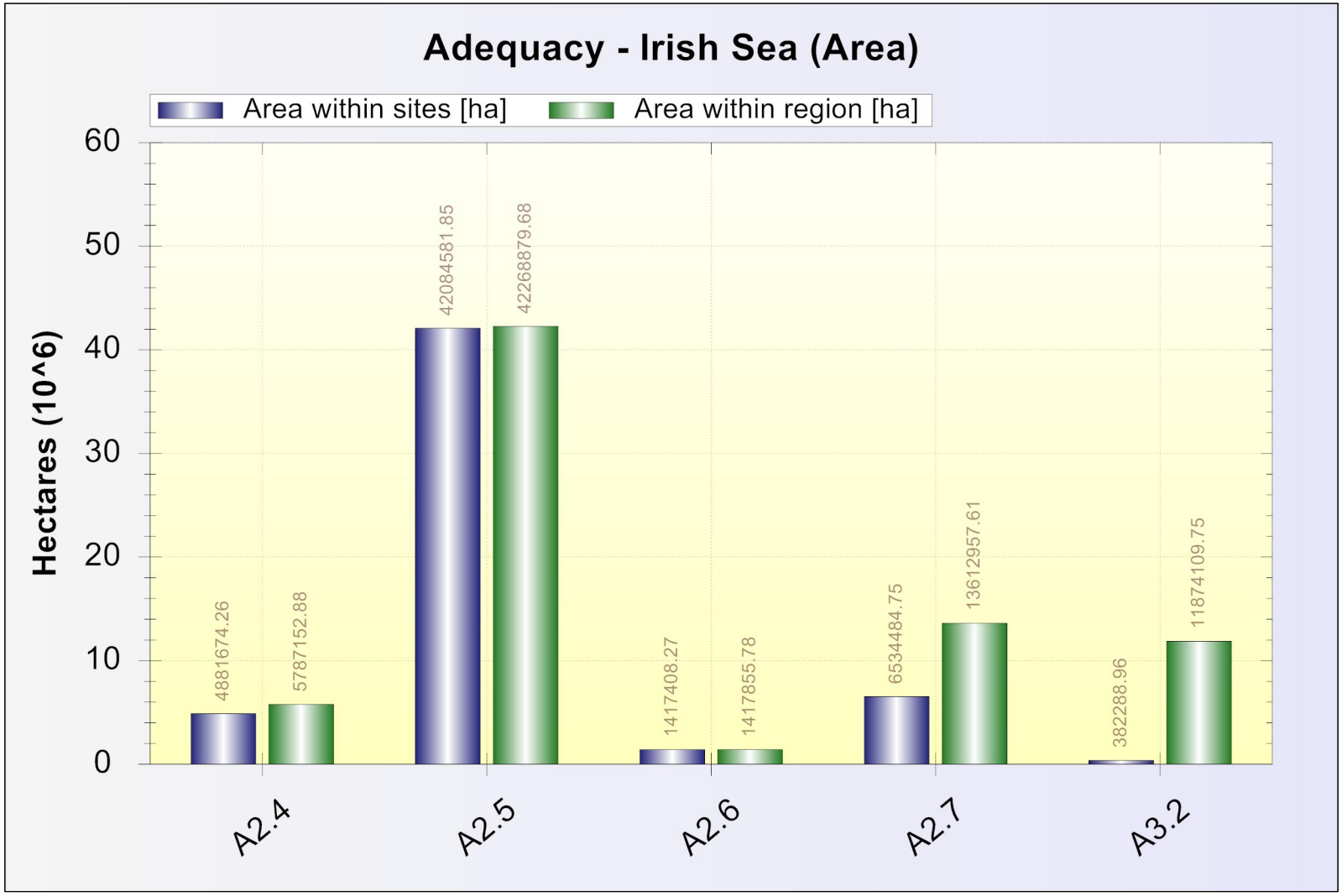
A1.2
A1.3
A2.1
A2.2
A2.3

Fig. 1/1


Adequacy - Irish Sea (Area)
Area within sites [ha]
Area within region [ha]
Hectares (10^6)
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50
40
30
20
10
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42084581.85
42268879.68
1417408.27
1417855.78
6534484.75
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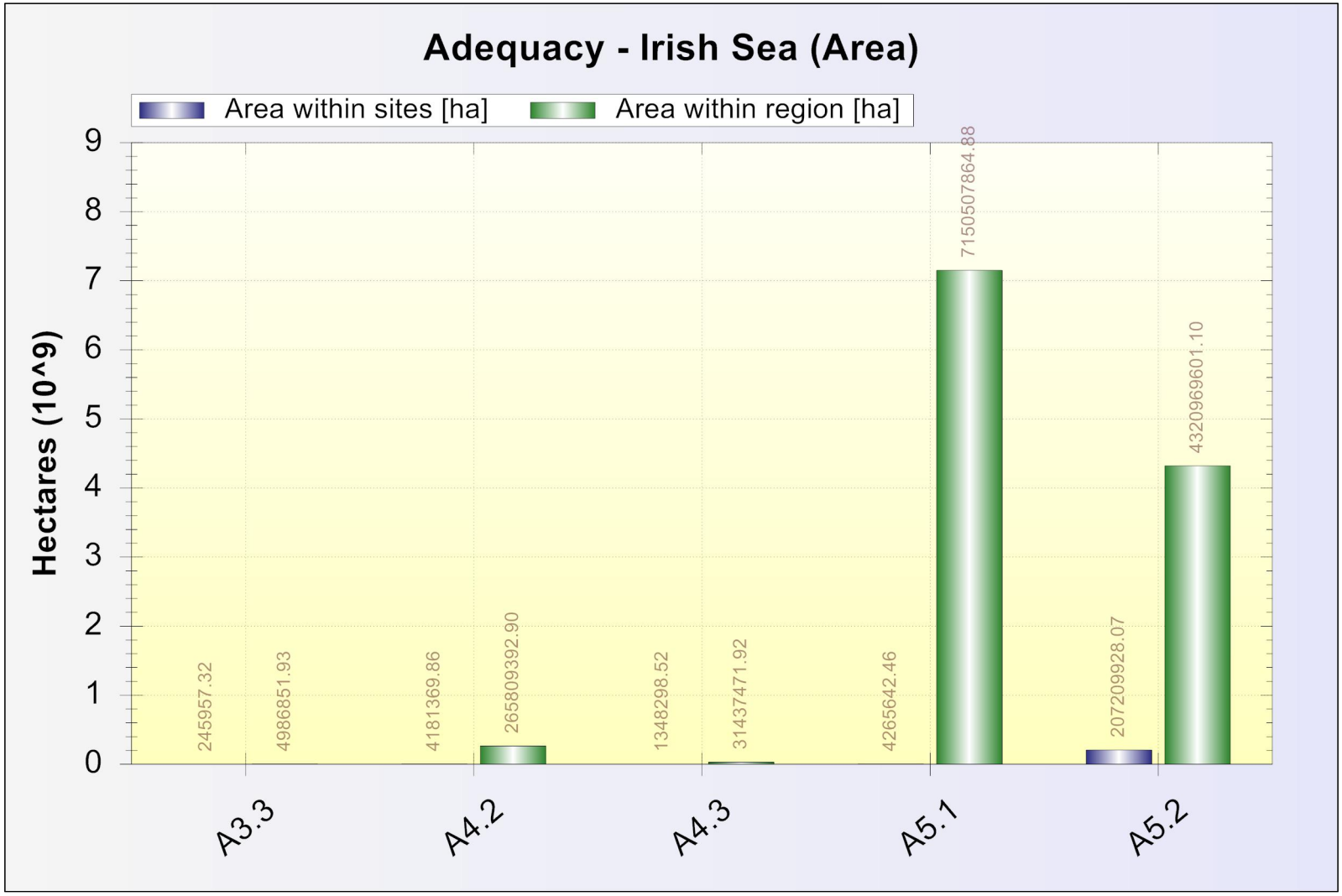
A2.5
A2.6
A2.7
A3.2

Fig. 1/2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Area within sites [ha]
Area within region [ha]
Hectares (10^9)
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2
3
4
5
6
7
8
9
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4986851.93
4181369.86
265809392.90
1348298.52
31437471.92
4265642.46
7150507864.88
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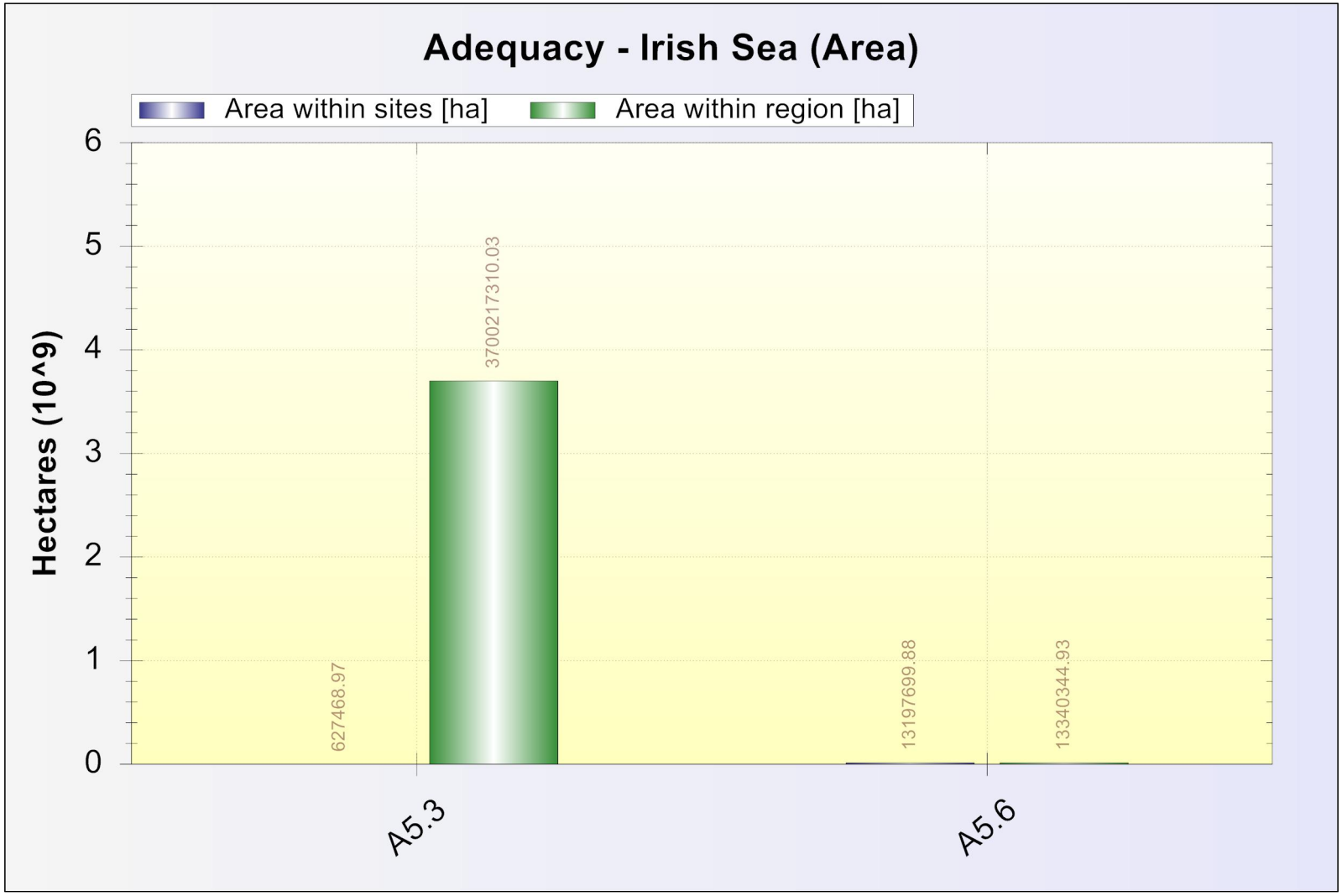
4320969601.10
A3.3
A4.2
A4.3
A5.1
A5.2

Fig. 1/3


Adequacy - Irish Sea (Area)
Area within sites [ha]
Area within region [ha]
Hectares (10^9)
0
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2
3
4
5
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13197699.88
13340344.93
A5.3
A5.6

Fig. 1/4

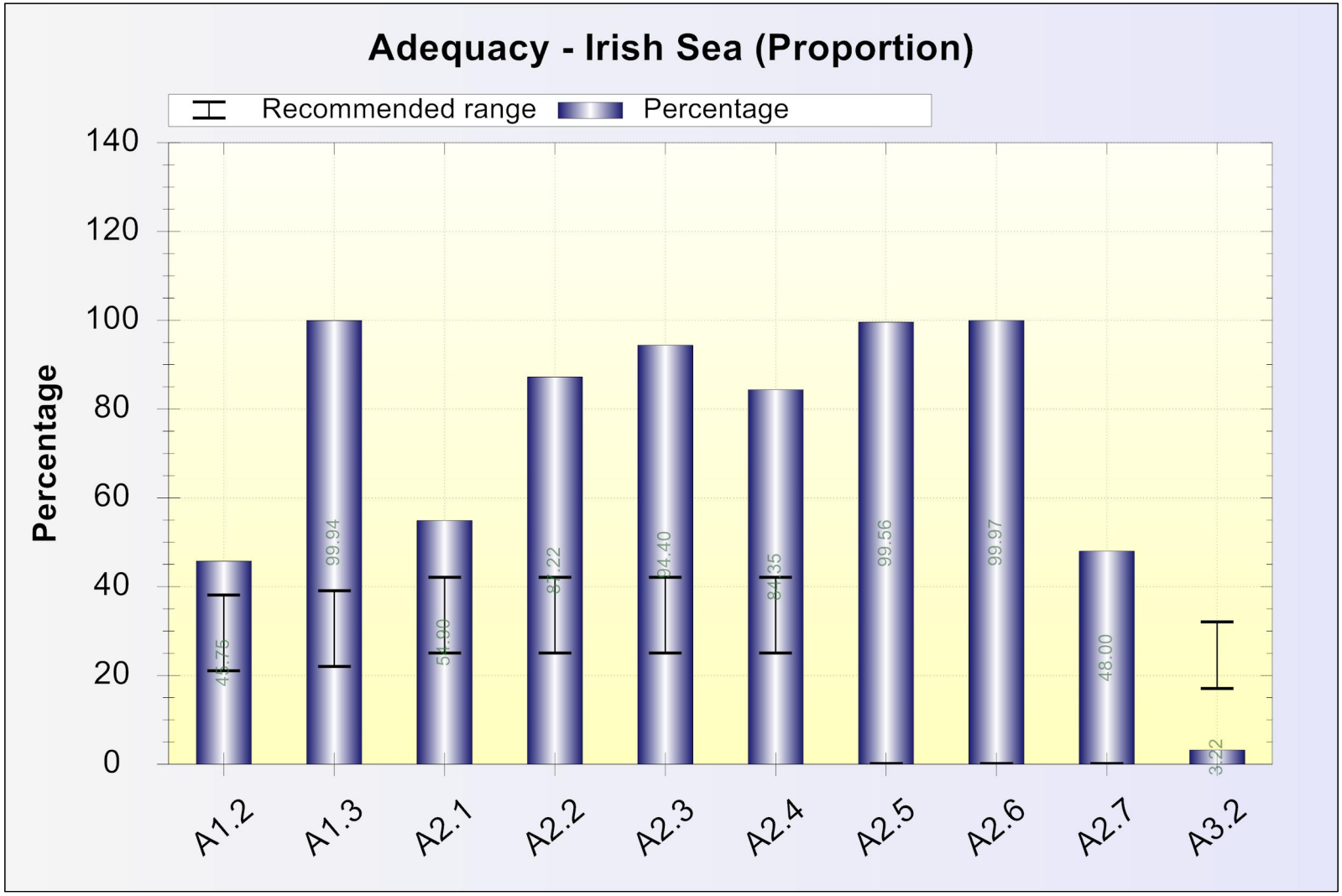
Adequacy - Irish Sea (Proportion)
Recommended range
Percentage
Percentage
140
120
100
80
60
40
20
0
99.94
99.56
99.97
48.00
A1.2
A1.3
A2.1
A2.2
A2.3
A2.4
A2.5
A2.6
A2.7
A3.2

Fig. 2/1

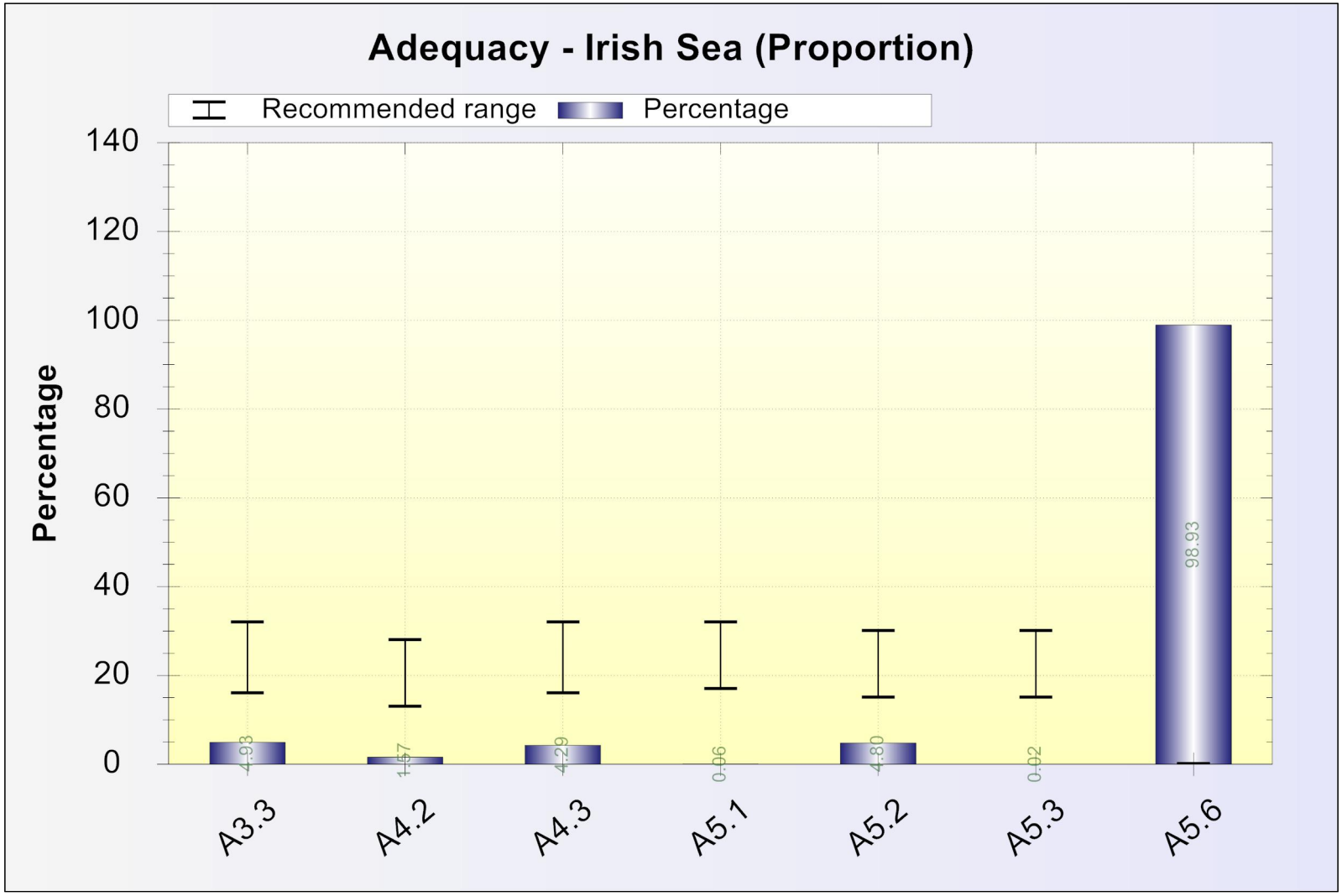
Adequacy - Irish Sea (Proportion)
Recommended range
Percentage
Percentage
140
120
100
80
60
40
20
0
4.93
1.57
4.29
0.06
4.80
0.02
98.93
A3.3
A4.2
A4.3
A5.1
A5.2
A5.3
A5.6

Fig. 2/2